

**FINAL  
SITE CHARACTERIZATION REPORT  
REGION 8 DRY CLEANERS – GROUP 2  
ASSOCIATED TEXTILE  
RENTAL SERVICES SITE  
SITE NO. 8-08-041**

**WORK ASSIGNMENT NO. D004434-5**

**Prepared for:**

**New York State Department of Environmental Conservation  
Albany, New York**

**Prepared by:**

**MACTEC Engineering and Consulting, PC  
Portland, Maine**

**MACTEC: 3612062059**

**JANUARY 2008**

**This document was prepared for the sole use of New York State Department of Environmental Conservation, the only intended beneficiary of our work. No other party shall rely on the information contained herein without prior written consent of MACTEC Engineering and Consulting, PC.**

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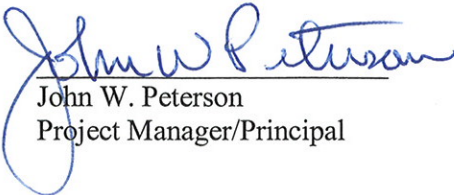
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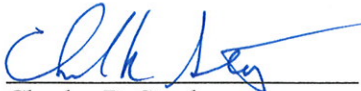
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## GLOSSARY OF ACRONYMS AND ABBREVIATIONS

1,1,1-TCA	1,1,1-trichloroethane
ASP	Analytical Services Protocol
ASTM	American Standards of Testing and Measurements
ATRS	Associated Textile Rental Services
bgs	below ground surface
Chemtech	Chemtech Consulting Group, Inc.
cis-1,2-DCE	cis-1,2-dichloroethene
DUSR	Data Usability Summary Report
EDR	Environmental Data Resources, Inc.
°F	degrees Fahrenheit
FDR	Field Data Record
GC	Gas Chromatograph
MACTEC	MACTEC Engineering and Consulting, P.C.
mg/kg	milligrams per kilogram
msl	mean sea level
NYCRR	New York Codes, Rules, and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	State of New York Department of Health
OBG	O'Brien and Gere Engineers, Inc.

## GLOSSARY OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

PCE	tetrachloroethene
PID	photoionization detector
PVC	polyvinyl chloride
QC	Quality Control
Report	Site Characterization Report
SC	Site Characterization
SCGs	standards, criteria, or guidance
SCO	soil cleanup objectives
Site	Associated Textile Rental Services Site
SOP	standard operating procedure
SVOCs	semi-volatile organic compounds
TCE	trichloroethene
TCL	Target Compound List
TICS	tentatively identified compounds
µg/L	micrograms per Liter
µg/m <sup>3</sup>	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 former Associated Textile Rental Services (ATRS) site (Site) in the City of Elmira, New York (Figure 1.1). This Report was prepared in response to Work Assignment (WA) No. D0003826-29 (NYSDEC, 2006), and in accordance with the requirements of the July 1997 Superfund Standby Contract No. D003826 between the NYSDEC and MACTEC. The field work and report was conducted under WA# D0004434-5 and the April 2005 Superfund Standby Contract No. D0004434 between the NYSDEC and MACTEC.

This is one of six site-specific SC Reports for the Region 8 Dry Cleaners – Group 2 multiple SCs WA. The other five SC Reports address the sites listed below:

- Ruddick's Dry Cleaners (Site No. 8-08-037)
- Universal Dry Cleaners (Site No. 8-08-040)
- Up to Date Cleaners (Site No. 8-26-019)
- HTS Coin Operated Laundry and Dry Cleaners (Site No. 8-08-038)]
- Rolling Plains (Site No. 8-28-138 – replaces Ace Cleaners)

The former ATRS site, Site No. 8-08-041, 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 sites presenting a significant threat to public health or the environment; as defined in 6 NYCRR 375 (NYS, 2006) .
Class 3	Hazardous waste sites at which contamination does not presently constitute a significant threat to public health or the environment.
Not Classified	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 (NYSDEC, 2006).
- Identification of contaminant source.

MACTEC collected reclassification documentation and is presenting it to the NYSDEC so it can recommend follow up action for the Site (i.e., reclassify, delist, or perform additional investigation).

The WA was divided into three tasks. Task 1-Work Plan Development, included a search of state and county site records, and performance of a site inspection to develop information necessary for reclassification or delisting. Task 1 activities did not develop adequate data on which to base a delist or reclassification recommendation. Therefore, Task 2, Subsurface Investigation, was conducted. Task 3-Reporting, is the preparation of this Report. Resources used to prepare this Report include: (1) information provided in the WA, (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 - Introduction to the report.

Section 2- Describes the Site background and physical setting, including a summary of previous investigations.

Section 3 - Presents the work conducted during the field investigations.

Section 4 - Presents results of the field investigation.

Section 5 - Presents an investigation summary.

## **2.0 SITE BACKGROUND AND PHYSICAL SETTING**

On May 3, 2006, MACTEC personnel reviewed available records from the NYSDEC office in Albany, New York, and visited the City of Elmira and Chemung County New York offices. Information was also collected from the Site owner by the NYSDEC. As part of this 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 Standards of Testing and Measurements (ASTM) recommended search radii. Complete lists of all recommended ASTM record searches for standard due diligence requirements are included in the EDR report which was provided under separate cover. This 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**

The former ATRS site is located at 714 Baldwin Street in an area zoned as IA, light industrial, in the City of Elmira, Chemung County, New York. Vacant property borders the Site to the north (717-721 Dickson Street Brownfield Site-former junkyard) and south. The former office and storage yard for Ridgeline Construction lies to the east of the Site across Dickson Street, and the Diamond Cleaners Site (a Class 2 hazardous waste site, Site No. 8-08-030) lies to the east of the former Ridgeline Construction, approximately 300 feet east of the Site. Industrial property lies to the west of the Site, across Clemens Parkway (former railroad right of way and round house, as well as reported historic location of Elmira Canal). The Site property consists of approximately 0.75 acres. The Site contains an approximately 6,000 square foot warehouse building and a small driveway. The remainder of the property is grass covered. The Sullivan Street Public Supply Wells are located approximately 5,000 feet north of the Site.

### **2.2 SITE HISTORY**

Based on a 1903 Sanborn Fire Insurance map, the Site property contained residential dwellings. The 1931 Sanborn map states that the property was occupied by Allen's Cash Paint Company. The

1931 Sanborn shows above ground gasoline tanks on the northern portion of the property, and a warehouse on the southwestern portion of the property (same location as current warehouse at Site). The warehouse was reportedly used to store alcohol and oils. The 1950 Sanborn shows the current storage shed on the property with a “built” date of 1950. The 1970 Manning City Directory lists the property as still Allen’s Cash Paint Company. The above ground gasoline tanks were removed on the 1988 Sanborn map, and the 1990 Johnsons City Directory lists the property as occupied by ATRS. The NYSDEC indicated that ATRS used the Site for fueling transportation trucks. The building is currently vacant and, based on visible signage, the property is reportedly for sale.

## **2.3 PREVIOUS INVESTIGATIONS**

Fuel related compounds and chlorinated solvents have been detected in Site groundwater. The fuel related compounds are being addressed under the NYSDEC Spills numbers 9210608 and 9803233. The source of chlorinated solvents detected in Site monitoring wells MW-8 (trichloroethene [TCE] at 225 micrograms per liter [ $\mu\text{g/L}$ ] and tetrachloroethene [PCE] at 1.77  $\mu\text{g/L}$ ) and MW-9 (TCE at 18.8  $\mu\text{g/L}$  and PCE at 32.2  $\mu\text{g/L}$ ) is unknown. No chlorinated solvents were detected in Site related monitoring wells reportedly up-gradient of these two wells (O’Brien and Gere [OBG], 2006). A report dated April of 2006 by OBG for the former Site owner indicates that numerous potential off-site sources of both the chlorinated solvent and fuel related solvents exist (see Appendix A).

The Site is also of concern based on the presence of chlorinated solvents in the City of Elmira’s Sullivan Street Supply Wells. Although other sources of chlorinated solvents exist in the greater Horseheads/Elmira valley, it is not known if this Site is contributing to the regional groundwater contamination. Chlorinated solvents (primarily TCE) were first detected in the Sullivan supply wells in the mid 1980’s. Samples collected between 1981 and 1992 indicated concentrations of TCE in the Sullivan Street Wells ranging from 5.0 to 10.3  $\mu\text{g/L}$ , in relation to a NYS groundwater standard of 5  $\mu\text{g/L}$  (NYSDOH, 1994). These wells are located approximately 1 mile north of the Site, on the west side Newtown Creek (Figure 1.1). Although these wells are located potentially up-gradient of the Site, it is not known how previous pumping of these wells affected area groundwater flow.



There are two supply wells in close proximity to each other. These wells can each produce approximately 3 million gallons per day. The 18-inch diameter wells have casing set to approximately 60 feet below ground surface (bgs), with shutter screen down to 98 feet bgs. Although an air stripper was installed in the late 1990's, the wells are currently not used (LaDouce, 2005). They are reportedly turned on twice per year and sampled.

## **2.4 PHYSICAL SETTING**

### **Topography**

The Site is located in the Newtown Creek Valley, which runs north-south, joining the Chemung River Valley to the south, which runs east-west. The Site is located approximately 0.6 miles northeast of the center of the City of Elmira, New York (Figure 1.1) at approximately 862 feet above mean sea level (msl) and is relatively flat. The valley slopes slightly down to the south and east. Newtown Creek is located at an elevation of approximately 860 feet above msl 3500 feet east of the Site. Newtown Creek runs south, joining the Chemung River in one mile. The Chemung River is located at an elevation of approximately 835 feet above msl at the confluence with Newtown Creek. The topography to the west of the Site is relatively flat for approximately 1.5 miles, and then rises to a ridge at 1400 feet above msl approximately 2.0 miles from the Site. The topography east of Newtown Creek rises sharply to a ridge at 1450 feet above msl approximately 1.6 miles from the Site.

### **Climate**

The climate of the area is characterized by moderately warm summers and cold winters. Mean monthly temperatures range from 24 degrees Fahrenheit (°F) in January to 70°F in July. Average annual precipitation is 35 inches. Average annual snowfall is 42 inches (National Climatic Data Center, 2004).

## **Surface Water Hydrology**

Surface drainage from the Site generally follows the topography, flowing toward low areas and then infiltrating into the ground. Heavy rains may induce surface water to flow from the Site to storm drains located on Dickson and Baldwin Streets.

## **Groundwater Hydrology**

The Newtown Creek and eventually the Chemung River are the regional groundwater discharge areas. Groundwater at the Site was present from approximately 13 to 14 feet bgs, and is interpreted to flow west to south-west.

## **Geology**

Overburden at the Site consists of lacustrine silts, sands and gravels. Surficial geology is mapped as oxidized, non calcareous, fine sand to gravel (Muller, 1986). 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 Beers Hill Shale, Grimes Siltstone, Dunn Hill, Millport, and Moreland Shales (Rickard and Fisher, 1970).

## **Site Walkover**

On May 3, 2006 the MACTEC Site Lead, Chuck Staples, and the NYSDEC Project Manager, Matthew Dunham, conducted a walkover of the Site area.

The Site walkover consisted of viewing the former ATRS property (from the outside), and the surrounding neighborhood to assess possible contamination sources and the logistical concerns for the field program. MACTEC personnel documented the walkover with photographs (Appendix B).

Visible sources of contamination (e.g., leaking drums) were not observed, 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, as well as the EDR Site report, to develop information to support a reclassification or delisting, and to help prepare the scope of work for future SC field investigations.

## **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 the United States Environmental Protection Agency's (USEPA) 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 Site wells, as well as the Sullivan Street Supply Wells indicated the presence of chlorinated solvents (primarily TCE and PCE) in groundwater. Spent chlorinated solvents not originating from household sources, including TCE and 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 from the Site and the Sullivan Street Wells, 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, soil and groundwater are the only media for which NYS has promulgated standards. Under NYS Water Quality Regulations (6 NYCRR Parts 701 to 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). In addition, soil standards have been promulgated under the revised 6 NYCRR Part 375 Regulations (NYS, 2006).

Analytical data has been collected from the Site and indicates that groundwater contains fuel-related compounds and chlorinated solvents; however, it is not known if the Site is the source of

the TCE and PCE contamination detected in the area and/or if the Site poses a significant threat. The purpose of the SC investigation is to:

- collect the data necessary to verify the likelihood of uncontrolled waste disposal,
- determine if potential contamination is present on the Site and is migrating off-site, 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 chlorinated compounds present in the Site groundwater and the Sullivan Street Wells originated from the Site or if potential contamination present in Site media are migrating off-site and 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 whether the volatile organic compounds (VOCs) detected in the city supply well originated from the Site, or whether potential on-site VOC contamination is migrating off-site. Task 3 is the preparation and distribution of this Report.

#### **TASK 2 - FIELD INVESTIGATIONS**

Field investigations included:

- 1) Existing Monitoring Well Sampling
- 2) Geoprobe® Soil, Soil Vapor and Groundwater Sampling – On-site Groundwater VOC Analysis
- 3) Microwell Installation
- 4) Well Development
- 5) Three rounds of Synoptic Groundwater Measurements
- 6) Sub-Slab Soil Vapor Sampling

The existing monitoring well sampling, subsurface soil, soil vapor and groundwater sample collection, groundwater microwell installation and well development activities were conducted from November 6 through November 10, 2006. Based on field results, seven additional borings were completed on November 17, 2006 and 18 additional borings were completed from August 27 to 29 2007. The sub-slab soil vapor sampling was conducted December 19, 2006. Sample locations are shown on Figures 3.1 and 3.2.

The synoptic groundwater measurement rounds were conducted on November 16, 2006, May 9, 2007, and August 29, 2007. A Site land survey was completed by Joseph Lu Engineers on February 6, 2007.

### **3.1 GENERAL FIELD ACTIVITIES**

The following subsections describe the activities conducted during the field investigation, including mobilization, health and safety, and decontamination.

#### **3.1.1 Mobilization**

Upon receiving the NYSDEC authorization to begin fieldwork, MACTEC and its subcontractors mobilized to the Site and began the field exploration program. Field investigations were conducted from November 6, 2006 through November 10, 2006. An additional day of field work was conducted on November 17, 2006, and three additional days of field work were conducted from August 27 to 29, 2007.

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 photoionization detector (PID) readings, no upgrades to personal protection were warranted.

#### **3.1.3 Decontamination**

Sampling methods and equipment for this field program were chosen to minimize investigation derived wastes 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 before and after the collection of each sample.

Non disposable sampling equipment was decontaminated by 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. Decontamination fluids did not exhibit visual or olfactory evidence of contamination and were released on-site to the ground surface in the area of decontamination, allowing the liquid to infiltrate into the soil and not run off-site.

### **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 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 EXISTING MONITORING WELL SAMPLING**

To assess groundwater conditions at and adjacent to the Site, fifteen existing monitoring wells and two existing microwells were sampled. These included ten monitoring wells installed on the Former ATRS property (MW-1R and MW-1 through MW-9) and five monitoring wells installed by MACTEC on the adjacent Diamond Cleaners property (DCMW-1 through DCMW-5). Two microwells were also sampled on the Diamond Cleaners property (DCGW-2 and DCGW-10). These existing monitoring wells 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 (FDR). All low flow sampling requirements were met while sampling these existing wells. Groundwater FDRs are available in Appendix C.

One sample was collected from each existing well and screened on-site for VOCs by USEPA standard operating procedure (SOP) # 2109, Revision 0.0 using an on-site Photovac Gas Chromatograph (GC). On-site screening analysis included Excel Spreadsheet as deliverables.

All samples were submitted to Chemtech Consulting Group, Inc. (Chemtech) and analyzed for target compound list (TCL) VOCs using USEPA OLM04.3 methods as described in the NYSDEC

Analytical Services Protocol (ASP) of June 2000. In addition, the ten monitoring wells sampled from the former ATRS site (MW-1R, and MW-1 through MW-9) were submitted to Chemtech for semi-volatile organic compounds (SVOCs) analyses using USEPA OLM04.3 Methods. Off-site laboratory analysis included Category B deliverables.

### **3.3 GEOPROBE® BORINGS AND SAMPLING**

Field investigation activities included the drilling of Geoprobe® borings, the collection and analysis of groundwater, soil, and soil vapor samples and the installation of microwells. Geoprobe® sampling was conducted over a five day period from November 6, 2006 to November 10, 2006. Additional days of Geoprobe® work were added to fill in data gaps on November 17, 2006, and from August 27 to 29, 2007. 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 for assisting the NYSDEC in evaluating significant threat to public health and the environment as defined by 6 NYCRR Part 375 (NYS, 2006). Soil sample analyses were used to assess whether hazardous waste constituents are present in Site soils, and, if possible, confirm a source of chlorinated solvents. Soil vapor sampling 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® 66 DT rubber mounted track rig sampling device to collect groundwater, soil, and soil vapor samples to identify potential chlorinated solvents. The Geoprobe® pushed and/or hammered rods and probe tips into the subsurface for sample collection. A total of 49 borings were completed during this investigation (GW-12, GW-16, and GW-17 were not advanced due to utility conflicts). Of these 49 borings, three were soil vapor borings and four were completed as microwells. A total of 54 groundwater samples, 13 soil samples and three soil vapor samples (plus associated quality control [QC]) were collected from the Site area. Boring locations are shown on Figure 3.1 and 3.2 (GS locations correspond to GW locations).

MACTEC worked closely with the NYSDEC, the Site property owner, neighboring property owners, and utility companies while obtaining access to these exploration locations. These locations were chosen to determine groundwater conditions upgradient and downgradient of, as well as adjacent to, the Site.



**Soil Sampling.** Discrete subsurface soil samples were collected using a 4-foot long 2 inch diameter core sampler with an acrylic liner. Soil samples were collected continuously from the ground surface to five feet below 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. Sample descriptions and classifications, VOC headspace readings, and boring observations were recorded on the FDR (Appendix C). Two unsaturated soil samples (GS-1 and GS-8) were collected on November 6, 2006, and eleven soil samples (GS-31 to GS-39, and GS-47 and GS-48) were collected on August 27 and 29, 2007 and submitted to Chemtech for TCL VOC analysis using USEPA OLM04.3 Methods as described in the NYSDEC ASP of June 2000, including the calculation of percent moisture. Off-site laboratory analysis included Category B deliverables.

**Groundwater Sampling.** Groundwater samples were collected using a one-inch diameter stainless steel wire wound screen which was exposed to the aquifer after being pushed to the desired depth interval. A peristaltic pump or check valve (depending on sample depth and water flow) was used for the collection of discrete groundwater samples. A minimum of one tubing volume of water was purged and one set of field parameters, including temperature, conductivity, pH, and turbidity, was collected prior to sampling. Groundwater parameters and sample observations were recorded on a FDR (Appendix C). VOC samples were collected at a purge rate of 100 milliliters per minute to minimize any potential volatilization.

To assess vertical extent of contamination, MACTEC attempted to collect groundwater samples from two depth intervals at many of the borings; at the water table and 10 feet into the water table (10 feet below the first sample). Each boring was completed to at least 10 feet into the water table, which was encountered from 5 to 14 feet bgs across the study area. The actual number of samples per boring and sample collection depths varied due to field conditions (e.g., dense/tight soils). Only one groundwater sample was collected from 25 borings (GW-2, GW-3, GW-4, GW-15, GW-18, GW-19, GW-21 through GW-30, GW-39 to GW-46, and GW-49). No groundwater samples were collected from 10 of the boring locations (GW-12, GW-16, GW-17, GW-31 to GW-34, and GW-36 to GW-38). Two groundwater samples were collected at varying depth intervals at the remaining boring locations (numbers do not include QC).

One sample collected from each of the first 20 completed locations (GW-1 to GW-23, with the exception of GW-12, GW-16, and GW-17) was screened on-site for VOCs by USEPA SOP# 2109, Revision 0.0 using an on-site Photovac GC. On-site screening analysis included an Excel Spreadsheet as the deliverable. Based on field screening VOC data, seven additional borings were advanced on November 17, 2006 (GW-24 through GW-30) to help assess the horizontal extent of contamination. One groundwater sample was collected from approximately four feet into the water table from each of the additional borings. Based on off-site laboratory results, 16 additional samples were collected from 12 borings advanced on August 28 and 29, 2007 (GW-35 and GW-39 to GW-49).

Groundwater samples were shipped to Chemtech for analyses of TCL VOCs using USEPA OLM04.3 Methods as described in the NYSDEC ASP of June 2000. Additionally, four groundwater samples (from borings GW-4, GW-9, GW-13 and GW-20) were analyzed for SVOCs using USEPA OLM04.3 Methods. Off-site laboratory analysis included Category B deliverables.

**Microwell Installation.** To assist the assessment of groundwater flow direction at the Site, four Geoprobe® borings were completed as microwells (GW-4, GW-13, GW-15, and GW-19). Microwell locations are shown on Figure 3.2. Groundwater was encountered from between 5 to 14 feet bgs. The one-inch diameter microwells were installed after groundwater samples were collected from each boring. The microwells were installed as piezometers, primarily for water level measurements. Microwells were constructed using one-inch inside diameter schedule 40 polyvinyl chloride (PVC), with 10 foot lengths of 0.01-inch machine slotted well screens. The wells were screened across the water table to determine water table elevations and create a potentiometric surface map. The wells were constructed with a #00N sand pack to two feet above the screen, a minimum of two feet of bentonite seal placed above the sand pack, native soil as backfill and sealed at the ground surface with either Portland Cement or blacktop patch. The wells were fit with a 1.5-inch PVC cap and a six-inch flush mount road box. All wells were developed for a minimum of twenty minutes using a peristaltic pump to clean the screen and ensure that the wells were conductive with groundwater. Well construction diagrams are included in Appendix C.

**Soil Vapor Sampling.** Based on proximity to nearby residences and/or businesses, and discussions with the NYSDEC, three soil vapor samples were collected (GV-1 to GV-3) and used to evaluate the potential vapor migration of contaminants from the groundwater (Figure 3.1). The

Geoprobe® rods were pushed to between 10 and 12 feet bgs, anticipated to be below the rain infiltration line, but above the water table fringe zone. Soil vapor was collected just above the water table to give an indication of the possible vapor migration from potentially contaminated groundwater.

Soil vapor samples were collected from the Geoprobe® points using the Geoprobe® PRT system. To sample with the Geoprobe® PRT system, a specialized point was attached to the end of the Geoprobe® rods. After pushing the rods to the desired depth, the PRT point was exposed to the soil by allowing a disposable point to drop off the bottom of the rods while pulling the rods up 0.5 feet. The PRT point allows ¼-inch tubing to be threaded directly to the bottom of the rods, for a small discrete sample point. The tubing was run to the surface and connected directly to the sample collection device. The outside of the rods were sealed at the ground surface with pre-hydrated bentonite. Approximately two liters of soil vapor, plus the volume of the tubing, was purged before collecting samples using a 580B OVM PID pump. During the soil vapor purge, vapors were screened using the PID. In addition, helium leak tests were conducted on a subset of the Region 8 Dry Cleaners Group 2 Sites soil vapor samples to ensure samples were representative of sub-surface conditions and not outdoor ambient air. Helium tests were conducted by encapsulating the sample point with a bucket sealed to the ground surface with bentonite. The encapsulated area was filled with helium. The soil vapor sample port was tested for helium breakthrough with a portable monitoring device both before and after collection of the soil vapor sample. No sample had greater than 10 percent of the tracer gas breakthrough. The soil vapor samples were collected with one-liter SUMMA®-type canisters with flow valves (set to approximately 20 minutes per sample). Flow into the canisters was less than 0.1 liters per minute. Samples were sent to Chemtech for VOC analysis by USEPA Method TO-15.

### **3.4 SUB-SLAB SOIL VAPOR SAMPLING**

On December 19, 2006 one sub-slab soil vapor sample (SV-001) was collected to investigate the potential for vapor migration of contaminants from the groundwater and soil beneath the Site into the former ATRS building (Figure 3.1).

The soil vapor sample was collected from below the building concrete slab. A one-inch diameter hole was drilled with a hammer drill two inches into the building floor and was continued with a 3/8-inch

drill bit to approximately 3-inches below the slab. 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, countersunk inside the one-inch hole. The stopper was then covered with beeswax, flush to the ground surface, providing a seal to prevent the migration of indoor air into the sub-slab. The tubing was then purged with a PID, screening the vapor as it purged. A 1.4-liter SUMMA<sup>®</sup>-type canister with a 20-minute flow valve was connected to the tubing.

Once the sub-slab vapor sample canisters were set up, the valve was opened. The time of sample collection, canister vacuum (in inches Hg), and weather conditions were recorded in the field log book.

Approximately 20 minutes after sample collection, the flow valve was stopped. The time and the remaining vacuum in the canister were noted in the field log book. The sample was shipped to Chemtech for analyses of VOCs by USEPA Method TO-15.

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

### **3.5 WATER LEVEL SURVEYS**

Three rounds of synoptic groundwater level measurements were conducted; one on November 6, 2006, one on May 9, 2007, and one on August 29, 2007. Wells selected for water level measurements consisted of the four new microwells wells (GW-4, GW-13, GW-15, and GW-19) and the ten existing monitoring wells on the former ATRS property (MW-1, MW-1R, and MW2 to MW-9), along with the four microwells (DCGW-2, DCGW-10, DCGW-13, and DCGW-14 ) and five monitoring wells at the Diamond Cleaners property (DCMW-1 TO DCMW-5). Due to access issues, water levels were not able to be collected from all of the selected wells for each round. Well caps were opened and the wells were allowed to equilibrate to atmospheric pressure. The depths to water were measured from the top of well risers using a conductivity probe. The groundwater measurements were shown to have fluctuated between 0.5 feet to 1 foot from the November 2006 round to the May 2007 round. Groundwater table elevations were calculated from the well riser elevations (subsection 3.6). Well information and groundwater measurements are presented in Table 3.1.

In addition to water level measurements, slug tests were conducted on two of the ATRS site wells (MW-3 and MW-9) and on three of the Diamond Cleaners wells (DCMW-3 to DCMW-5). Tests were conducted by measuring the speed of well water level recovery after displacing water with a solid mass of PVC (i.e., the slug). Two rising head tests were conducted on each well and measured with a Hermit 3000 data logger. Data was imported into Aqtesolv and used to calculate hydraulic conductivity and estimate groundwater flow velocity.

### **3.6 SITE SURVEY**

After completion of field sampling activities, Joseph Lu Engineering surveyed the Site and its surrounding area on February 6, 2007, including existing monitoring wells and microwell locations. A base map of the Site was created showing locations of monitoring wells and microwells. Horizontal locations were tied to the New York State Plane Coordinate System using North American Datum of 1983. The Site plan provided horizontal locations of all relevant Site features, which included surrounding homes and businesses at a scale of 1 inch to 50 feet. Relevant features included, but are not limited to all structures, buildings, roads, fences, new monitoring wells, marked underground utilities, fire plugs, and power poles.

Vertical elevations of the four new microwells and existing monitoring wells were tied to msl, North Atlantic Vertical Datum of 1988, and measured to an accuracy of 0.01 feet. Horizontal well measurements are accurate to 0.1 ft. In addition, monitoring and micro wells at the Diamond Cleaners property were previously surveyed by Joseph Lu Engineers. Vertical elevations of the ATRS and Diamond Cleaners wells are included on Table 3.1. The base map was used to accurately locate all Geoprobe<sup>®</sup> sample points, microwells, and all other media sampling locations. Temporary sample points were located by MACTEC using a Trimble global positioning system. Sample points are included on Figures 3.1 and 3.2, and the Joseph Lu Engineers survey map is included in Appendix D. Horizontal locations of sampling points are included on Table 3.2 (GS locations correspond to GW locations).

## **4.0 DATA ASSESSMENT**

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

### **4.1 ANALYTICAL RESULTS**

Soil and groundwater analytical results were compared to appropriate standards, criteria, or guidance (SCGs). There are no exterior soil vapor standards or guidance values, but if detected concentrations exceeded the New York State Department of Health (NYSDOH) sub-slab soil vapor guidance values recommended for mitigation, these concentrations were noted as potential concern. Reported concentrations of individual analytes indicating contravention of standards or guidelines are summarized in the following sections, and noted on Tables 4.1 to 4.5.

A Data Usability Summary Report (DUSR) was completed in accordance with the NYSDEC's Guidance for the Development of DUSRs (NYSDEC, 2002). This report and complete analytical results, including tentatively identified compounds (TICS), are presented in Appendix E. TICS were not evaluated as part of the DUSR.

Based on laboratory or data usability review, some of the data was qualified with a J, B, and/or D. 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 OLM04.3 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 OLM04.3 Method is included in Appendix E.

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

Analytical results were compared to the SCGs described below.

**Soil Samples.** Analytical results were compared to NYS Soil SCGs. Soil SCGs are based on the NYSDEC's Soil Cleanup Objectives (SCO) from 1) 6 NYCRR Subpart 375-6 - Remedial Program SCO for Unrestricted Use (NYS, 2006), and, if not listed in (1), then 2) "Technical and Administrative Guidance Memorandum 4046 (NYSDEC, 1994); Determination of Soil Cleanup Objectives and Cleanup Levels".

**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).

**Sub-Slab Vapor and Indoor Air Samples.** The sub-slab vapor sample was compared to Matrix 1 and Matrix 2 from the NYSDOH, Guidance for Evaluating Soil Vapor Intrusion in the State of New York, Final, October, 2006 (NYSDOH, 2006), and from values in the NYSDOH letter amendment (NYSDOH, 2007).

**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.

#### **4.1.1 Soil Sample Results**

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

TCE was detected in six of the 13 soil samples collected from the Geoprobe® boring locations and exceeded the NYSDEC SCO (0.47 milligrams per kilogram [mg/kg]) in four of the soil samples, with exceeding concentrations ranging from 0.54 J mg/kg (GS-35) to 32 D mg/kg (GS-1).

PCE was also detected in the samples from borings GS-1 (2.7 mg/kg) and from boring GS-36 (1.2 mg/kg) compared to a SCO for PCE of 1.3 mg/kg. The PCE and TCE detections reported in the sample from boring GS-1 were from a dilution run analyzed using a methanol extraction. These concentrations were approximately 50 times higher than the concentrations reported from the initial analyses using the low concentration water based purge and trap procedure. This difference is likely due to the silty make up of the soil matrix, which may result in contaminants more readily leaching into the methanol than into the water. The results from the methanol extraction likely give a better representation of the chlorinated contaminants present in the soil and based on professional judgment the results from the methanol extraction run were reported in the final dataset. Soil samples from borings GS-31 to GS-39, GS-48 and GS-49 were collected using a methanol preservation.

Cis-1,2-dichloroethene (cis-1,2-DCE) was detected in soil samples from borings GS-36 (0.4 J mg/kg) and GS-37 (0.5 J mg/kg), above the SCO for cis-1,2-DCE of 0.25 mg/kg. Cis-1,2-DCE was detected at a concentration below its associated SCO in boring GS-1. Toluene was detected at a concentration of 2.1 mg/kg in boring GS-37, above its associated SCO of 0.7 mg/kg. Toluene was also detected at a concentration below its associated SCO in borings GS-1 and GS-36. Methylene chloride, a common laboratory contaminant was detected in the soil sample from boring GS-47 at a concentration of 0.18 mg/kg, above its associated SCO of .05 mg/kg.

#### **4.1.2 Groundwater Sample Results**

A summary of target VOCs detected in groundwater samples collected is presented in Table 4.2 (November 2006) and 4.3 (August 2007) and maximum detections of PCE and TCE per boring are presented on Figure 4.1. A subset of samples was also analyzed for SVOCs. Detected SVOCs are presented on Tables 4.4. On-site VOC analytical results from November 2006 were used for locating potential additional sample locations, and not for final groundwater characterization (all



samples analyzed on-site were split samples of samples sent for off-site analyses). On-site results and complete off-site analytical results are included in Appendix E.

Fifty four groundwater samples were collected from the former ATRS site vicinity for VOC analysis from various depths within 39 Geoprobe® borings. Chlorinated and/or fuel related Target VOCs were detected in exceedance of SCGs at 30 of the 39 Geoprobe® groundwater boring locations. In addition to the Geoprobe® borings, chlorinated and/or fuel related Target VOCs were detected in exceedance of SCGs in 7 of the 10 existing ATRS site monitoring wells. Maximum detections of target VOCs in samples from the Geoprobe® borings and on-Site wells in exceedance of criteria are presented in the following table (concentrations in µg/L).

Parameter	GW Standard	Minimum Detection	Maximum Detection	Frequency of Exceedance
1,1-Dichloroethane	5	1.2	27	1/64
1,1-Dichloroethene	5	0.83	6.8	1/64
1,1,1-Trichloroethane	5	1.1	17	4/64
Benzene	1	1.3	2100	8/64
Cis-1,2-Dichloroethene	5	0.93	250	24/64
Ethyl benzene	5	3.7	1700	5/64
Isopropylbenzene	5	5.1	70	5/64
Methylene Chloride	5	0.87	54	2/64
Methyl Tertbutyl Ether	10	0.83	26	7/64
o-Xylene	5	2.6	1200	3/64
Tetrachloroethene	5	1.2	4300	18/64
Toluene	5	1.4	1100	4/64
trans-1,2-Dichloroethene	5	1	6.2	2/64
Trichloroethene	5	1.3	200	18/64
Vinyl chloride	2	0.88	9	11/64
Xylene, m/p	5	0.89	5800	5/64

Seven samples were collected from existing wells/microwells related to the nearby Diamond Cleaners property for VOC analysis; five monitoring wells (DCMW-1 through DCMW-5) and two microwells (DCGW-2 and DCGW-10) installed by MACTEC (MACTEC, 2007). Chlorinated and/or fuel related Target VOCs were detected in exceedance of SCGs in all seven of the sample locations. Maximum detections of Target VOCs in exceedance of criteria are presented in the following table (concentrations in µg/L).

Parameter	GW Standard	Minimum Detection	Maximum Detection	Frequency of Exceedance
Benzene	1	1.8	1.8	1/7
Cis-1,2-Dichloroethene	5	1.2	1500	6/7
Ethyl benzene	5	7.1	7.1	1/7
Isopropylbenzene	5	14	14	1/7
o-Xylene	5	80	80	1/7
Tetrachloroethene	5	9.9	890	7/7
Toluene	5	6.3	6.3	1/7
Trichloroethene	5	4.1	27	5/7
Xylene, m/p	5	31	31	1/7
Vinyl chloride	2	0.98	130	1/7

Additional target VOCs were detected, but at concentrations below their associated criteria (see Table 4.2).

SVOC results indicated that 2,4-Dimethylphenol (detection of 22 µg/L compared to Aesthetic Groundwater Standard of 1 µg/L), Naphthalene (detection of 240 µg/L compared to TOGs Guidance Values 10 µg/L) and phenol (detection of 17 µg/L compared to Class GA groundwater standard of 1 µg/L) exceeded groundwater criteria at MW-2. In addition, 4-Methylphenol, although not listed individually in the TOGs, is in the phenol family and thus exceeds the Aesthetic Groundwater Standard of 1 µg/L for total phenols (NYSDEC, 1998).

Several TICs were also detected in the VOC groundwater samples collected. TICs are reported in Appendix E.

#### 4.1.4 Soil Vapor Sample Results

A summary of target VOCs detected in soil vapor samples is presented in Table 4.5. Complete analytical results are included in Appendix E.

The only VOCs for which the NYSDOH has promulgated guidance values for soil vapor are TCE, PCE, 1,1,1-trichloroethane (1,1,1-TCA), cis-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, and carbon tetrachloride. These guidance values are only applicable when evaluating sub-slab soil vapor samples in relation to indoor air concentrations, and not exterior soil vapor samples.

**Sub-Slab Soil Vapor Sample Results.** PCE was detected in the sub-slab soil vapor sample (SV-001) at a concentration of 1310 D micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) and TCE was detected in the sub-slab sample at a concentration of 17,472 EDJ  $\mu\text{g}/\text{m}^3$ . These concentrations are both above the NYSDOH guidelines for sub-slab soil vapor concentrations of 1000  $\mu\text{g}/\text{m}^3$  and 250  $\mu\text{g}/\text{m}^3$ , respectively, recommended for mitigation without need to consider indoor air concentrations. Low concentrations of 1,1,1-TCA (less than 13.1  $\mu\text{g}/\text{m}^3$ ) was detected in the sub-slab sample, which is below the NYSDOH guidelines for sub-slab soil vapor recommending mitigation without need to consider indoor air concentrations.

**Geoprobe® Soil Vapor Sample Results.** Although no exterior soil vapor criteria have been promulgated, detected compounds in soil vapor samples were compared to the NYSDOH guideline for sub-slab soil vapor recommending mitigation without need to consider indoor air concentrations for the seven compounds with guidance values (250  $\mu\text{g}/\text{m}^3$  for TCE, carbon tetrachloride and vinyl chloride; 1000  $\mu\text{g}/\text{m}^3$  for PCE, 1,1,1-TCA, cis-1,2-dichloroethene, and 1,1-dichloroethene) (NYSDOH, 2007). TCE was detected in GV-2 and GV-3 at concentrations of 1737  $\mu\text{g}/\text{m}^3$  and 20.9  $\mu\text{g}/\text{m}^3$ , respectively. PCE was detected in all three soil vapor samples at concentrations less than 40  $\mu\text{g}/\text{m}^3$ . 1,1,1-TCA was detected in GV-2 at concentrations of 298  $\mu\text{g}/\text{m}^3$ . Low concentrations of carbon tetrachloride (7.6  $\mu\text{g}/\text{m}^3$ ) and vinyl chloride (3.1  $\mu\text{g}/\text{m}^3$ ) were detected in GV-1.

## 4.2 GROUNDWATER FLOW

The monitoring well and microwell survey and depth to water measurements were used to evaluate groundwater flow. Monitoring well and microwell survey and water elevation data are presented in Table 3.1. Depth to water across the survey area varied from approximately 5.9 feet bgs to 14.4 feet bgs in May 2007. Measured groundwater elevations varied from 841.49 feet above msl, to 843.99 feet above msl in May 2007. The groundwater table gradient appears to be relatively flat on the Site property, varying by 0.7 feet in elevation over 475 feet of distance (MW-7 to GW-15), or 0.001 feet/feet in May 2007. November 2006, May 2007, and August 2007 interpreted groundwater contours are presented on Figures 4.2, 4.3, and 4.4. Based on topography, groundwater flow is expected to be to the south towards the Chemung River, but local groundwater flow is interpreted to flow to the west, southwest based on water level data.

The presence of the historic Chemung Canal and Junction Canal in the vicinity of the Site may be influencing groundwater flow (a figure in Appendix A shows the approximate canal locations presented over a 2002 aerial photograph of the Site area). The Chemung Canal operated from 1833 to 1878 and water within the canal was reportedly four feet deep (Chemungcanal.netfirms.com, 2007). The Junction Canal reportedly operated from 1854 to 1871. The two canals were reportedly given/sold to various entities (City of Elmira, railroads, abutting property owners) and filled in the late 1800's.

Based on slug test data and an average hydraulic gradient of 0.0011 feet per foot, groundwater velocity in the vicinity of the site appears to be relatively slow, ranging from 4.2 to 45 feet per year in the five wells measured, with an average calculated velocity of 15 feet per year. Hydraulic conductivity calculations are presented on Table 4.6. Aqtesolv slug test plots are included in Appendix F.

## 5.0 INVESTIGATION FINDINGS

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

- 1) TCE and PCE were detected at concentrations up to 68 times and two times, respectively, their respective NYSDEC SCO's in the soil sample collected from seven to nine feet bgs at location GS-1 (located on the Site property adjacent to the east side of the Site building). Additional soil sampling on the eastern side of the Site property indicates that chlorinated solvent contamination appears to be limited to the soil near the Site building (GS-36 and GS-37). The trace concentrations of chlorinated solvents detected elsewhere were collected near the water table and may represent groundwater contamination, and not actual soil contamination.
- 2) PCE was detected at concentrations above NYS standards in groundwater samples from 24 of the 56 well/Geoprobe boring locations across the Site and vicinity. Detected concentration of PCE in groundwater ranged from 1.2 µg/L to 4300 µg/L. TCE was detected at concentrations above NYS standards in groundwater samples from 22 of the 56 well/Geoprobe boring locations across the Site and vicinity. Detected concentration of TCE in groundwater ranged from 1.3 µg/L to 200 µg/L. The two samples with the highest detections of PCE and TCE were collected from borings (GW-2 and GW-26) located adjacent to and south of the Site building.
- 3) Based on groundwater measurements collected, groundwater at the Site and vicinity is interpreted to flow to the west, southwest. Hydraulic gradients across the Site property are relatively flat (0.0011 feet/foot) and groundwater flow patterns are not entirely clear based on available data.
- 4) Concentrations of TCE (17,472 EDJ µg/m<sup>3</sup>) and PCE (1,310 J µg/m<sup>3</sup>) detected in sub-slab soil vapor are greater than those concentrations recommended for mitigation based on the NYSDOH guidance (250 µg/m<sup>3</sup> and 1,000 µg/m<sup>3</sup>, respectively). PCE was also detected in the three soil vapor samples collected from the north, east, and south side of the Site building, but at concentrations 30 times less than that detected in the sub-slab sample. TCE was also detected two of these three soil vapor samples collected from around the Site building, but with the highest detected concentration 10 times less than that detected in the sub-slab sample.

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

- 1) Although it is possible that the TCE concentration detected in sub-slab soil vapor (17,472 EDJ µg/m<sup>3</sup>) is a result of the soil contamination located on the east side of the Site building (32 D mg/kg) (see calculations included in Appendix F), no soil sampling was conducted below the Site building and it is not known if potential PCE contamination exists in soil below the Site building's concrete slab.
- 2) Based on groundwater concentrations detected, it is likely that a source of PCE contamination exists at the Site. More information is needed to define the PCE source area and to determine if the Diamond Cleaners Site is contributing to the PCE detected in the Site groundwater.

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## **TABLES**



**Table 3.1: Monitoring Well and Groundwater Elevation Data**

Site	Location	Casing Elevation	Riser Elevation	Installation Date	Screen Length	Depth (BTOR) (11/2/2006)	Depth to Water (11/2/06)	Water Elevation (11/2/06)	Depth to Water (11/16/06)	Water Elevation (11/16/06)	Depth to Water (5/9/07)	Water Elevation (5/9/07)	Depth to Water (8/30/07)	Water Elevation (8/30/07)
Associated	GW-4	854.69	854.46	11/8/2006	10	19.6	not installed	not installed	12.42	842.04	12.89	841.57	13.4	841.06
Associated	GW-13	855.03	854.87	11/7/2006	10	19.3	not installed	not installed	12.23	842.64	12.77	842.10	NM	NM
Associated	GW-15	854.40	854.20	11/8/2006	10	17.5	not installed	not installed	11.49	842.71	12.71	841.49	12.77	841.43
Associated	GW-19	848.36	848.12	11/9/2006	10	14.5	not installed	not installed	5.28	842.84	5.86	842.26	NM	NM
Associated	MW-1	856.98	856.72	Unknown	Unknown	18.7	NM	NM	NM	NM	14.68	842.04	15.22	841.50
Associated	MW-1R	856.85	856.41	Unknown	Unknown	19.8	NM	NM	13.92	842.49	14.31	842.10	14.86	841.55
Associated	MW-2	857.04	856.41	Unknown	Unknown	NM	14.05	842.36	13.94	842.47	14.31	842.10	NM	NM
Associated	MW-3	856.85	856.54	Unknown	Unknown	19.9	14.29	842.25	13.93	842.61	14.42	842.12	14.95	841.59
Associated	MW-4	856.96	856.58	Unknown	Unknown	17.8	14.31	842.27	13.98	842.60	14.43	842.15	14.97	841.61
Associated	MW-5	856.02	855.59	Unknown	Unknown	19.6	13.53	842.06	13.21	842.38	13.50	842.09	14.1	841.49
Associated	MW-6	856.34	855.84	Unknown	Unknown	19.1	13.42	842.42	13.33	842.51	13.71	842.13	14.44	841.40
Associated	MW-7	856.82	856.26	Unknown	Unknown	19.4	13.98	842.28	13.62	842.64	14.09	842.17	14.64	841.62
Associated	MW-8	856.41	856.10	Unknown	Unknown	19.2	NM	NM	13.42	842.68	13.95	842.15	14.48	841.62
Associated	MW-9	856.70	856.45	Unknown	Unknown	19.5	14.29	842.16	14.02	842.43	14.40	842.05	14.97	841.48
Diamond	GW-2	855.91	855.47	6/27/2005	10	19.3	NM	NM	NM	NM	NM	NM	13.17	842.30
Diamond	GW-10	854.58	854.17	6/23/2005	10	19.4	NM	NM	10.97	843.20	11.79	842.38	12.21	841.96
Diamond	GW-13	854.46	854.05	6/27/2005	10	25.8	NM	NM	9.78	844.27	11.19	842.86	11.42	842.63
Diamond	GW-14	854.20	853.79	6/27/2005	10	24	NM	NM	8.74	845.05	9.80	843.99	9.24	844.55
Diamond	MW-1	855.59	854.64	10/3/2005	10	24.5	11.77	842.87	11.22	843.42	11.96	842.68	12.39	842.25
Diamond	MW-2	855.02	854.57	10/4/2005	10	24.5	11.87	842.70	no access	no access	12.07	842.50	12.52	842.05
Diamond	MW-3	854.19	853.81	10/4/2005	10	24.5	10.91	842.90	10.33	843.48	11.28	842.53	11.52	842.29
Diamond	MW-4	854.18	853.90	10/5/2005	10	22	11.09	842.81	no access	no access	no access	no access	11.75	842.15
Diamond	MW-5	854.15	853.77	10/5/2005	10	24.5	10.90	842.87	10.32	843.45	11.16	842.61	11.59	842.18

Notes:

Wells surveyed by Joseph Lu Engineers. Horizontal locations are tied to the New York State Plane

Coordinate System using NAD of 1983. Vertical elevations were tied to msl, NAVD of 1988.

BTOR - Below top of riser

NM = Not Measured.

**Table 3.2: Sample Location Coordinates**

Location Identification	Location Description	X-Coordinate	Y-Coordinate
SV-001	Sub-Slab Soil Vapor	759592.4	764512.8
GV-1	Geoprobe Soil Vapor Point	759546.9	764585.1
GV-2	Geoprobe Soil Vapor Point	759683.1	764551.3
GV-3	Geoprobe Soil Vapor Point	759598.3	764451.0
GW-1	Geoprobe Groundwater/Soil	759599.9	764566.3
GW-2	Geoprobe Groundwater Point	759607.1	764480.7
GW-3	Geoprobe Groundwater Point	759532.1	764402.4
GW-4	Microwell and Geoprobe Groundwater Point	759735.4	764422.1
GW-5	Geoprobe Groundwater Point	759780.4	764399.1
GW-6	Geoprobe Groundwater Point	759750.2	764518.1
GW-7	Geoprobe Groundwater Point	759741.3	764576.0
GW-8	Geoprobe Groundwater/Soil	759680.4	764643.3
GW-9	Geoprobe Groundwater Point	759698.5	764745.7
GW-10	Geoprobe Groundwater Point	759648.7	764783.3
GW-11	Geoprobe Groundwater Point	759670.5	764860.7
GW-13	Microwell and Geoprobe Groundwater Point	759601.3	764898.1
GW-14	Geoprobe Groundwater Point	759596.3	765194.1
GW-15	Microwell and Geoprobe Groundwater Point	759885.1	764333.8
GW-18	Geoprobe Groundwater Point	760009.3	765691.9
GW-19	Microwell and Geoprobe Groundwater Point	759622.5	765561.1
GW-20	Geoprobe Groundwater Point	759042.5	765306.4
GW-21	Geoprobe Groundwater Point	759878.1	764776.8
GW-22	Geoprobe Groundwater Point	759930.1	764841.4
GW-23	Geoprobe Groundwater Point	759945.2	764717.6
GW-24	Geoprobe Groundwater Point	759479.5	764734.3
GW-25	Geoprobe Groundwater Point	759505.2	764647.3
GW-26	Geoprobe Groundwater Point	759572.9	764490.1
GW-27	Geoprobe Groundwater Point	759842.3	764515.7
GW-28	Geoprobe Groundwater Point	759662.8	764464.2
GW-29	Geoprobe Groundwater Point	759662.3	764519.9
GW-30	Geoprobe Groundwater Point	759616.8	764520.5
GW-31	Geoprobe Groundwater/Soil	759573.6	764581.3
GW-32	Geoprobe Groundwater/Soil	759589.3	764581.4
GW-33	Geoprobe Groundwater/Soil	759639.3	764582.7
GW-34	Geoprobe Groundwater/Soil	759640.3	764566.6
GW-35	Geoprobe Groundwater/Soil	759644.2	764556.4
GW-36	Geoprobe Groundwater/Soil	759608.8	764546.0
GW-37	Geoprobe Groundwater/Soil	759621.9	764566.9
GW-38	Geoprobe Groundwater/Soil	759617.8	764582.3
GW-39	Geoprobe Groundwater/Soil	759660.7	764559.7
GW-40	Geoprobe Groundwater Point	759667.7	764590.0
GW-41	Geoprobe Groundwater Point	759681.0	764567.1
GW-42	Geoprobe Groundwater Point	759699.1	764512.1
GW-43	Geoprobe Groundwater Point	759575.5	764490.8
GW-44	Geoprobe Groundwater Point	759585.3	764437.2
GW-45	Geoprobe Groundwater Point	759618.9	764469.0
GW-46	Geoprobe Groundwater Point	759567.7	764469.5
GW-47	Geoprobe Groundwater/Soil	759625.7	764713.5
GW-48	Geoprobe Groundwater/Soil	759613.6	764816.0
GW-49	Geoprobe Groundwater Point	759612.5	764639.2
MW-1	Existing Monitoring Well	759502.7	764548.9
MW-1R	Existing Monitoring Well	759507.1	764555.8
MW-2	Existing Monitoring Well	759493.8	764589.6

**Table 3.2: Sample Location Coordinates**

Location Identification	Location Description	X-Coordinate	Y-Coordinate
MW-3	Existing Monitoring Well	759541.7	764567.0
MW-4	Existing Monitoring Well	759569.4	764598.8
MW-5	Existing Monitoring Well	759417.9	764601.0
MW-6	Existing Monitoring Well	759423.1	764525.4
MW-7	Existing Monitoring Well	759544.5	764667.3
MW-8	Existing Monitoring Well	759655.0	764596.8
MW-9	Existing Monitoring Well	759530.2	764482.6
DCGW-2	Existing Microwell	760041.9	764781.6
DCGW-10	Existing Microwell	759964.9	764681.3
DCMW-1	Existing Monitoring Well	759991.9	764837.0
DCMW-2	Existing Monitoring Well	759865.5	764735.6
DCMW-3	Existing Monitoring Well	760027.6	764468.1
DCMW-4	Existing Monitoring Well	759920.1	764548.7
DCMW-5	Existing Monitoring Well	760045.8	764702.7

Notes:

- 1) Horizontal coordinates are in feet and based on the New York State Plane Coordinates System, Central Zone.  
They are based on the NAD 1983 coordinate datum.
- 2) Monitoring Well and Microwell Locations were surveyed by Joseph Lu Engineers, a licensed land surveyor with an accuracy of 0.1 feet.
- 3) Geoprobe Locations were surveyed using a Trimble global positioning system with an accuracy of 1-meter.
- 4) Location SV-001 was approximated based on aerial photography.
- 5) GS soil sample locations are associated with the GW location identifications.

**Table 4.1: Soil VOC Results**

Location		GS-1		GS-8		GS-031		GS-032		GS-032		GS-033	
Sample Date		11/6/2006		11/6/2006		8/27/2007		8/27/2007		8/27/2007		8/27/2007	
Sample ID		ATGS00100701XX		ATGS00800801XX		ATGS03101301XX		ATGS03200701DU		ATGS03200701XX		ATGS03301601XX	
Sample Depth (ft bgs)		7-9		8-10		11-15		5-7		5-7		14-16	
Qc Code		FS		FS		FS		FD		FS		FS	
Parameter	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Cis-1,2-Dichloroethene	0.25	<b>0.025</b>		0.011	U	1.5	U	0.57	U	0.76	U	1.2	U
Methylene chloride	0.05	<b>0.013</b>	U	0.011	U	1.5	U	0.57	U	0.76	U	1.2	U
Tetrachloroethene	1.3	<b>2.7</b>	<b>D</b>	0.011	U	1.5	U	0.57	U	0.76	U	1.2	U
Toluene	0.7	<b>0.0024</b>	<b>J</b>	0.011	U	1.5	U	0.57	U	0.76	U	1.2	U
Trichloroethene	0.47	<b>32</b>	<b>D</b>	<b>0.0042</b>	<b>J</b>	1.5	U	0.57	U	0.76	U	1.2	U
Percent Solids (%)	NA	<b>76</b>		<b>87</b>		<b>84</b>		<b>79</b>		<b>79</b>		<b>74</b>	

**Notes:**

Only Detected Compounds shown.

Samples analyzed for VOCs by USEPA Method OLM04.3.

Percent Solids analyzed by EPA Method 160.3

Results in milligram per kilogram (mg/kg)

ft bgs = feet below ground surface

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the RL

D = Result was reported from a diluted analytical run.

J = Estimated value

Criteria = Values from Subpart 375-

6.8(a) Unrestricted Use Soil Cleanup,

"Remedial Program Soil Clean-up

Objectives" (NYSDEC, 2006)

Highlighted results in **BOLD** exceed associated criteria

**Table 4.1: Soil VOC Results**

Location		GS-034		GS-035		GS-036		GS-037		GS-038		GS-039	
Sample Date		8/27/2007		8/27/2007		8/27/2007		8/27/2007		8/27/2007		8/27/2007	
Sample ID		ATGS03401501XX		ATGS03501501XX		ATGS03600401XX		ATGS03700701XX		ATGS03801401XX		ATGS03901501XX	
Sample Depth (ft bgs)		13-15		13-15		2-4		5-7		12-14		13-15	
Qc Code		FS		FS		FS		FS		FS		FS	
Parameter	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Cis-1,2-Dichloroethene	0.25	0.48	U	0.57	U	<b>0.4</b>	<b>J</b>	<b>0.5</b>	<b>J</b>	0.63	U	0.83	U
Methylene chloride	0.05	0.48	U	0.57	U	1	U	2	U	0.63	U	0.83	U
Tetrachloroethene	1.3	0.48	U	0.57	U	<b>1.2</b>		2	U	0.63	U	0.83	U
Toluene	0.7	0.48	U	0.57	U	<b>0.17</b>	<b>J</b>	<b>2.1</b>		0.63	U	0.83	U
Trichloroethene	0.47	<b>0.12</b>	<b>J</b>	<b>0.54</b>	<b>J</b>	<b>2.5</b>		<b>11</b>		0.63	U	0.83	U
Percent Solids (%)	NA	<b>84</b>		<b>87</b>		<b>77</b>		<b>59</b>		<b>79</b>		<b>73</b>	

**Notes:**

Only Detected Compounds shown.

Samples analyzed for VOCs by USEPA Method OLM04.

Percent Solids analyzed by EPA Method 160.3

Results in milligram per kilogram (mg/kg)

ft bgs = feet below ground surface

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the RL

D = Result was reported from a diluted analytical run.

J = Estimated value

Criteria = Values from Subpart 375-

6.8(a) Unrestricted Use Soil Cleanup,

"Remedial Program Soil Clean-up

Objectives" (NYSDEC, 2006)

Highlighted results in **BOLD** exceed associated criteria

**Table 4.1: Soil VOC Results**

		Location		GS-047		GS-048	
		Sample Date		8/29/2007		8/29/2007	
		Sample ID		ATGS04700501XX		ATGS04801201XX	
		Sample Depth (ft bgs)		3-5		10-12	
		Qc Code		FS		FS	
Parameter	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier
Cis-1,2-Dichloroethene	0.25	0.66	U	0.74	U		
Methylene chloride	0.05	<b>0.18</b>	<b>J</b>	0.74	U		
Tetrachloroethene	1.3	0.66	U	0.74	U		
Toluene	0.7	0.66	U	0.74	U		
Trichloroethene	0.47	0.66	U	0.74	U		
Percent Solids (%)	NA	<b>88</b>		<b>85</b>			

**Notes:**

Only Detected Compounds shown.

Samples analyzed for VOCs by USEPA Method OLM04.

Percent Solids analyzed by EPA Method 160.3

Results in milligram per kilogram (mg/kg)

ft bgs = feet below ground surface

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the RL

D = Result was reported from a diluted analytical run.

J = Estimated value

Criteria = Values from Subpart 375-

6.8(a) Unrestricted Use Soil Cleanup,

"Remedial Program Soil Clean-up

Objectives" (NYSDEC, 2006)

Highlighted results in **BOLD** exceed associated criteria

Table 4.2: Groundwater VOC Results - 2006

Parameter	Location Sample Date Sample ID Sample Depth (ft bgs) Qc Code Criteria	GW-1 11/6/2006 ATGW00102001XX 20 FS		GW-1 11/6/2006 ATGW00102001XD 20 FD		GW-1 11/6/2006 ATGW00102901XX 29 FS		GW-2 11/10/2006 ATGW00201801XX 18 FS		GW-3 11/10/2006 ATGW00301801XX 18 FS		GW-4 11/8/2006 ATGW00401701XX 17 FS		GW-5 11/7/2006 ATGW00501701XX 17 FS	
		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	2.1 J		2.3 J		8.2 J		250 U		10 U		17		2.6 J	
1,1-Dichloroethane	5	10 U		10 U		10 U		250 U		10 U		3 J		1.2 J	
1,1-Dichloroethene	5	10 UJ		10 UJ		10 UJ		250 U		10 U		1.2 J		10 UJ	
1,4-Dichlorobenzene	3	10 U		10 U		10 U		250 U		10 U		10 U		10 UJ	
2-Butanone	50*	50 U		50 U		50 U		1200 U		50 U		50 U		50 UJ	
Acetone	50*	50 U		50 U		50 U		1200 U		50 U		50 U		50 UJ	
Benzene	1	1.3 J		1.4 J		10 U		250 U		10 U		10 U		10 UJ	
Chloroform	7	10 U		10 U		10 U		250 U		10 U		10 U		10 UJ	
Cis-1,2-Dichloroethene	5	34		37 J		48		250 J		10 U		47		22 J	
Cyclohexane	NA	10 U		10 U		10 U		250 U		10 U		10 U		10 UJ	
Ethyl benzene	5	10 U		10 U		10 U		250 U		10 U		10 U		10 UJ	
Isopropylbenzene	5	10 U		10 U		10 U		250 U		10 U		10 U		10 UJ	
Methyl cyclohexane	NA	10 U		10 U		10 U		250 U		10 U		10 U		10 UJ	
Methyl Tertbutyl Ether	10*	2.9 J		3 J		15		250 U		10 U		3 J		1.3 J	
Methylene chloride	5	10 U		10 U		10 U		250 UJ		10 UJ		10 U		10 UJ	
o-Xylene	5	10 U		10 U		10 U		250 U		10 U		10 U		10 UJ	
Tetrachloroethene	5	2.5 J		2.5 J		12		2100		10 U		17		3 J	
Toluene	5	10 U		10 U		10 U		250 U		10 U		10 U		10 UJ	
trans-1,2-Dichloroethene	5	10 U		10 U		10 U		250 U		10 U		10 U		10 UJ	
Trichloroethene	5	20		20 J		13		190 J		10 U		15		1.5 J	
Vinyl chloride	2	3.9 J		4 J		10 U		250 U		10 U		2.9 J		1.7 J	
Xylene, m/p	5	10 U		10 U		10 U		250 U		10 U		10 U		10 UJ	

**Notes:**

Only Detected Compounds shown.

Samples analyzed for VOCs by USEPA Method OLM04.3.

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 RL

J = Estimated value

D = Result was reported from a diluted analytical run

B = Analyte was detected in the method blank

Criteria = Values from Technical and Operational

Guidance Series (TOGS) 1.1.1, Ambient Water

Quality Standards and Guidance Values and

Groundwater Effluent Limitations (NYSDEC,

2006).

\*Criteria are New York State Groundwater Guidance Standards.

Highlighted results in **BOLD** exceed associated criteria

Table 4.2: Groundwater VOC Results - 2006

Parameter	Location Sample Date Sample ID Sample Depth (ft bgs) Qc Code Criteria	GW-5 11/7/2006 ATGW00502801XX 28 FS		GW-6 11/7/2006 ATGW00601701XX 17 FS		GW-6 11/7/2006 ATGW00602801XX 28 FS		GW-6 11/7/2006 ATGW00602801XD 28 FD		GW-7 11/7/2006 ATGW00701701XX 17 FS		GW-7 11/7/2006 ATGW00702801XX 28 FS		GW-8 11/6/2006 ATGW00802701XX 27 FS	
		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	5.2 J		10 U		10 U		10 U		10 U		10 U		10 U	
1,1-Dichloroethane	5	2.8 J		10 U		10 U		10 U		10 U		10 U		10 U	
1,1-Dichloroethene	5	1.1 J		10 U		10 U		10 U		10 U		10 U		10 U	
1,4-Dichlorobenzene	3	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2-Butanone	50*	50 U		50 U		50 U		50 U		50 U		50 U		50 U	
Acetone	50*	50 U		50 U		50 U		50 U		50 U		50 U		50 U	
Benzene	1	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Chloroform	7	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Cis-1,2-Dichloroethene	5	43		10 U		10 U		10 U		0.93 J		10 U		2.8 J	
Cyclohexane	NA	10 U		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		10 U	
Isopropylbenzene	5	10 U		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		10 U	
Methyl Tertbutyl Ether	10*	3 J		10 U		10 U		10 U		10 U		10 U		10 U	
Methylene chloride	5	10 U		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		10 U	
Tetrachloroethene	5	6.9 J		9.2 J		10 U		10 U		1.6 J		2.2 J		2.7 J	
Toluene	5	10 U		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		10 U	
Trichloroethene	5	4.1 J		10 U		10 U		10 U		10 U		10 U		10 U	
Vinyl chloride	2	4.2 J		10 U		1.2 J		1 J		1.5 J		2.5 J		10 U	
Xylene, m/p	5	10 U		10 U		10 U		2.8 J		10 U		10 U		10 U	

**Notes:**

Only Detected Compounds shown.

Samples analyzed for VOCs by USEPA Method OLM04.3.

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 RL

J = Estimated value

D = Result was reported from a diluted analytical run

B = Analyte was detected in the method blank

Criteria = Values from Technical and Operational

Guidance Series (TOGS) 1.1.1, Ambient Water

Quality Standards and Guidance Values and

Groundwater Effluent Limitations (NYSDEC,

2006).

\*Criteria are New York State Groundwater Guidance Standards.

Highlighted results in **BOLD** exceed associated criteria



Table 4.2: Groundwater VOC Results - 2006

Parameter	Location Sample Date Sample ID Sample Depth (ft bgs) Qc Code Criteria	GW-8 11/6/2006 ATGW00802001XX 20 FS		GW-9 11/7/2006 ATGW00901701XX 17 FS		GW-9 11/7/2006 ATGW00902801XX 28 FS		GW-10 11/6/2006 ATGW01002201XX 22 FS		GW-10 11/6/2006 ATGW01002901XX 29 FS		GW-11 11/7/2006 ATGW01101701XX 17 FS		GW-11 11/7/2006 ATGW01102801XX 28 FS	
		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
		1,1,1-Trichloroethane	5	10 U		10 U		10 U		10 UJ		10 U		10 U	
		1,1-Dichloroethane	5	10 U		10 U		10 U		10 U		10 U		10 U	
1,1-Dichloroethene	5	10 UJ		10 U		10 U		10 UJ		10 UJ		10 U		10 U	
1,4-Dichlorobenzene	3	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2-Butanone	50*	50 U		50 U		50 U		50 UJ		50 U		50 U		50 U	
Acetone	50*	50 U		50 U		50 U		50 U		50 U		50 U		50 U	
Benzene	1	10 U		10 U		10 U		10 UJ		10 U		10 U		10 U	
Chloroform	7	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Cis-1,2-Dichloroethene	5	<b>5.1 J</b>		<b>140 J</b>		<b>19</b>		<b>69</b>		<b>42 J</b>		<b>34</b>		<b>140</b>	
Cyclohexane	NA	10 U		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		10 U	
Isopropylbenzene	5	10 U		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		10 U	
Methyl Tertbutyl Ether	10*	<b>4.9 J</b>		10 U		10 U		<b>2.2 J</b>		<b>2.9 J</b>		10 U		<b>3.7 J</b>	
Methylene chloride	5	10 U		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		10 U	
Tetrachloroethene	5	<b>2.6 J</b>		<b>5 J</b>		<b>1.2 J</b>		10 U		10 U		10 U		10 U	
Toluene	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
trans-1,2-Dichloroethene	5	10 U		<b>1.3 J</b>		10 U		<b>3.6 J</b>		<b>1 J</b>		<b>1 J</b>		<b>6.2 J</b>	
Trichloroethene	5	<b>1.3 J</b>		<b>7.9 J</b>		10 U		<b>1.5 J</b>		10 U		<b>10</b>		<b>3.7 J</b>	
Vinyl chloride	2	10 U		<b>1.4 J</b>		<b>9 J</b>		<b>2.8 J</b>		<b>4.5 J</b>		10 U		<b>4.7 J</b>	
Xylene, m/p	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U	

**Notes:**

Only Detected Compounds shown.

Samples analyzed for VOCs by USEPA Method OLM04.3.

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 RL

J = Estimated value

D = Result was reported from a diluted analytical run

B = Analyte was detected in the method blank

Criteria = Values from Technical and Operational

Guidance Series (TOGS) 1.1.1, Ambient Water

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2006).

\*Criteria are New York State Groundwater Guidance Standards.

Highlighted results in **BOLD** exceed associated criteria

Table 4.2: Groundwater VOC Results - 2006

Parameter	Location Sample Date Sample ID Sample Depth (ft bgs) Qc Code Criteria	GW-13 11/7/2006 ATGW01301701XX 17 FS		GW-13 11/7/2006 ATGW01302301XX 23 FS		GW-14 11/7/2006 ATGW01401601XX 16 FS		GW-14 11/7/2006 ATGW01402901XX 29 FS		GW-15 11/8/2006 ATGW01501601XX 16 FS		GW-18 11/9/2006 ATGW01801101XX 11 FS		GW-19 11/9/2006 ATGW01901301XX 13 FS	
		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
		1,1,1-Trichloroethane	5	10 U		10 U		10 U		10 U		10 U		10 U	
		1,1-Dichloroethane	5	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		10 U	
1,4-Dichlorobenzene	3	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2-Butanone	50*	50 U		50 U		50 U		50 U		50 U		50 U		50 U	
Acetone	50*	50 U		50 U		50 U		50 U		50 U		50 U		50 U	
Benzene	1	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Chloroform	7	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Cis-1,2-Dichloroethene	5	<b>23</b>		<b>44</b>		<b>1.7 J</b>		<b>9.7 J</b>		10 U		10 U		10 U	
Cyclohexane	NA	10 U		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		10 U	
Isopropylbenzene	5	10 U		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		10 U	
Methyl Tertbutyl Ether	10*	<b>3.1 J</b>		<b>1.8 J</b>		10 U		<b>0.83 J</b>		10 U		10 U		10 U	
Methylene chloride	5	10 U		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		10 U	
Tetrachloroethene	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Toluene	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
trans-1,2-Dichloroethene	5	<b>2.1 J</b>		<b>3.9 J</b>		10 U		<b>1.2 J</b>		10 U		10 U		10 U	
Trichloroethene	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Vinyl chloride	2	<b>1 J</b>		<b>1.2 J</b>		10 U		<b>0.88 J</b>		10 U		10 U		10 U	
Xylene, m/p	5	10 U		10 U		<b>0.89 J</b>		10 U		10 U		10 U		10 U	

**Notes:**

Only Detected Compounds shown.

Samples analyzed for VOCs by USEPA Method OLM04.3.

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 RL

J = Estimated value

D = Result was reported from a diluted analytical run

B = Analyte was detected in the method blank

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2006).

\*Criteria are New York State Groundwater Guidance Standards.

Highlighted results in **BOLD** exceed associated criteria

Table 4.2: Groundwater VOC Results - 2006

Parameter	Location Sample Date Sample ID Sample Depth (ft bgs) Qc Code Criteria	GW-20 11/9/2006 ATGW02002601XX 26 FS		GW-20 11/9/2006 ATGW02003401XX 34 FS		GW-21 11/9/2006 ATDCG2101801XX 18 FS		GW-22 11/10/2006 ATDCG2201801XX 18 FS		GW-23 11/10/2006 ATDCG2301801XX 18 FS		GW-24 11/17/2006 ATGW02401601XX 16 FS		GW-25 11/17/2006 ATGW02501601XX 16 FS	
		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
		1,1,1-Trichloroethane	5	10 U		10 U		10 U		10 U		10 U		10 U	
		1,1-Dichloroethane	5	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		10 U	
1,4-Dichlorobenzene	3	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2-Butanone	50*	50 U		50 U		50 U		50 U		3.5 J		50 U		50 U	
Acetone	50*	50 U		50 U		50 U		50 U		50 U		50 U		50 U	
Benzene	1	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Chloroform	7	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Cis-1,2-Dichloroethene	5	10 U		10 U		170 J		66		38		10 U		10 U	
Cyclohexane	NA	10 U		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		10 U	
Isopropylbenzene	5	10 U		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		10 U	
Methyl Tertbutyl Ether	10*	10 U		10 U		10 U		10 U		10 U		26 J		26 J	
Methylene chloride	5	10 UJ		10 UJ		10 UJ		10 U		10 U		10 UJ		10 UJ	
o-Xylene	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Tetrachloroethene	5	10 U		10 U		98		17		65		10 U		10 U	
Toluene	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
trans-1,2-Dichloroethene	5	10 U		10 U		1.8 J		10 U		10 U		10 U		10 U	
Trichloroethene	5	10 U		10 U		17		4.7 J		9.1 J		10 U		10 U	
Vinyl chloride	2	10 U		10 U		1.1 J		10 U		10 U		10 U		10 U	
Xylene, m/p	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U	

**Notes:**

Only Detected Compounds shown.

Samples analyzed for VOCs by USEPA Method OLM04.3.

Results in microgram per liter (µg/L)

ft bgs = feet below ground surface

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

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D = Result was reported from a diluted analytical run

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2006).

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Highlighted results in **BOLD** exceed associated criteria

Table 4.2: Groundwater VOC Results - 2006

Parameter	Location Sample Date Sample ID Sample Depth (ft bgs) Qc Code Criteria	GW-25 11/17/2006 ATGW02501601XD 16 FD		GW-26 11/17/2006 ATGW02601601XX 16 FS		GW-27 11/17/2006 ATGW02701501XX 15 FS		GW-28 11/17/2006 ATGW02801401XX 14 FS		GW-29 11/17/2006 ATGW02901601XX 16 FS		GW-30 11/17/2006 ATGW03001401XX 14 FS		GW-30 11/17/2006 ATGW03001401XD 14 FD	
		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
		10 U		10 U		10 U		10 U		10		10 U		10 U	
		10 U		10 U		10 U		10 U		4.8 J		10 U		10 U	
1,1,1-Trichloroethane	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
1,1-Dichloroethane	5	10 U		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		10 U	
1,4-Dichlorobenzene	3	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
2-Butanone	50*	50 U		50 U		50 U		50 U		50 U		50 U		50 U	
Acetone	50*	50 U		50 U		50 U		50 U		50 U		50 U		50 U	
Benzene	1	10 U		10 U		10 U		10 U		6 J		10 U		10 U	
Chloroform	7	10 U		10 U		3 J		10 U		10 U		10 U		10 U	
Cis-1,2-Dichloroethene	5	10 U		16		2.6 J		98		11		47		51	
Cyclohexane	NA	10 U		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		10 U	
Isopropylbenzene	5	10 U		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		10 U	
Methyl Tertbutyl Ether	10*	29 J		10 U		10 U		10 UJ		7.8 J		10 U		10 U	
Methylene chloride	5	10 UJ		10 U		10 U		10 UJ		10 U		10 U		10 U	
o-Xylene	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
Tetrachloroethene	5	10 U		4300 D		96 D		28		6.4 J		1.7 J		1.4 J	
Toluene	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U	
trans-1,2-Dichloroethene	5	10 U		10 U		10 U		5.1 J		10 U		10 U		10 U	
Trichloroethene	5	10 U		200		3.9 J		98		3.3 J		33		34	
Vinyl chloride	2	10 U		10 U		10 U		0.88 J		6.3 J		6.5 J		6 J	
Xylene, m/p	5	10 U		10 U		10 U		10 U		10 U		10 U		10 U	

**Notes:**

Only Detected Compounds shown.

Samples analyzed for VOCs by USEPA Method OLM04.3.

Results in microgram per liter (µg/L)

ft bgs = feet below ground surface

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2006).

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Table 4.2: Groundwater VOC Results - 2006

Location		MW-1		MW-1R		MW-2		MW-3		MW-4		MW-5		MW-6	
Sample Date		11/9/2006		11/7/2006		11/7/2006		11/6/2006		11/6/2006		11/8/2006		11/7/2006	
Sample ID		ATMW01R01701XX		ATMW00101701XX		ATMW00201601XX		ATMW00301601XX		ATMW00401601XX		ATMW00501601XX		ATMW00601601XX	
Sample Depth (ft bgs)		17		17		16		16		16		16		16	
Qc Code		FS		FS		FS		FS		FS		FS		FS	
Parameter	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	100 U		10 U		250 U		10 U		10 U		10 U		10 U	
1,1-Dichloroethane	5	100 U		10 U		250 U		10 U		10 U		10 U		10 U	
1,1-Dichloroethene	5	100 U		10 U		250 U		10 U		10 U		10 U		10 U	
1,4-Dichlorobenzene	3	100 U		10 U		250 U		10 U		10 U		10 U		0.88 J	
2-Butanone	50*	500 U		50 U		1200 U		50 U		50 U		50 U		50 U	
Acetone	50*	500 U		50 U		1200 U		50 U		50 U		50 U		50 U	
Benzene	1	70 J		1.5 J		2100 D		10 U		89 J		10 U		3.8 J	
Chloroform	7	100 U		10 U		250 U		10 U		10 U		10 U		10 U	
Cis-1,2-Dichloroethene	5	100 U		10 U		250 U		10 U		2.7 J		10 U		10 U	
Cyclohexane	NA	87 J		10		220 JD		10 U		63 J		10 U		160	
Ethyl benzene	5	210		3.7 J		1700 D		10 U		5.2 J		10 U		9.4 J	
Isopropylbenzene	5	19 J		10 U		70 JD		10 U		5.3 J		10 U		36	
Methyl cyclohexane	NA	67 J		6 J		110 JD		10 U		26 J		10 U		180	
Methyl Tertbutyl Ether	10*	19 J		6.4 J		250 U		10 U		10 U		10 U		10 U	
Methylene chloride	5	100 UJ		10 U		250 U		10 U		10 U		10 U		10 U	
o-Xylene	5	32 J		3.3 J		1200 D		10 U		2.6 J		10 U		10 U	
Tetrachloroethene	5	100 U		10 U		250 U		10 U		10 U		10 U		10 U	
Toluene	5	79 J		2.1 J		1100 D		10 U		6.1 J		10 U		1.4 J	
trans-1,2-Dichloroethene	5	100 U		10 U		250 U		10 U		10 U		10 U		1.2 J	
Trichloroethene	5	100 U		10 U		250 U		10 U		10 U		10 U		10 U	
Vinyl chloride	2	100 U		10 U		250 U		10 U		3.1 J		10 U		10 U	
Xylene, m/p	5	210		8.4 J		5800 D		10 U		6.8 J		10 U		2.8 J	

**Notes:**

Only Detected Compounds shown.

Samples analyzed for VOCs by USEPA Method OLM04.3.

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ft bgs = feet below ground surface

QC Code:

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Qualifiers:

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2006).

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Highlighted results in **BOLD** exceed associated criteria

Table 4.2: Groundwater VOC Results - 2006

Parameter	Location Sample Date Sample ID Sample Depth (ft bgs) Qc Code Criteria	MW-7 11/7/2006 ATMW00701601XX 16 FS		MW-8 11/8/2006 ATMW00801601XX 16 FS		MW-8 11/8/2006 ATMW00801601XD 16 FD		MW-9 11/9/2006 ATMW00901701XX 17 FS		DCGW-2 11/16/2006 ATDCGW201502XX 15 FS		DCGW-10 11/10/2006 ATDCW1001501XX 15 FS		DCMW-1 10/31/2006 ATDCMW101801XX 18 FS	
		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	10 U		<b>1.1 J</b>		10 UJ		10 U		10 U		0.5 U		10 U	
1,1-Dichloroethane	5	10 U		10 U		10 UJ		10 U		10 U		0.5 U		10 U	
1,1-Dichloroethene	5	10 U		10 U		10 UJ		10 U		10 U		0.5 U		10 U	
1,4-Dichlorobenzene	3	10 U		10 U		10 UJ		10 U		10 U		0.5 U		10 U	
2-Butanone	50*	50 U		50 U		50 UJ		50 U		50 U		0.5 U		10 U	
Acetone	50*	50 U		50 U		50 UJ		50 U		50 U		0.5 U		10 U	
Benzene	1	10 U		10 U		10 UJ		<b>10</b>		10 U		0.5 U		10 U	
Chloroform	7	10 U		10 U		10 UJ		10 U		10 U		0.5 U		10 U	
Cis-1,2-Dichloroethene	5	10 U		<b>3 J</b>		<b>2.7 J</b>		<b>32</b>		<b>31</b>		<b>1.2 J</b>		<b>10</b>	
Cyclohexane	NA	10 U		10 U		10 UJ		<b>18</b>		10 U		0.5 U		10 U	
Ethyl benzene	5	10 U		10 U		10 UJ		<b>31</b>		10 U		0.5 U		10 U	
Isopropylbenzene	5	10 U		10 U		10 UJ		<b>5.1 J</b>		10 U		0.5 U		10 U	
Methyl cyclohexane	NA	10 U		10 U		10 UJ		<b>5.7 J</b>		10 U		0.5 U		10 U	
Methyl Tertbutyl Ether	10*	<b>20 J</b>		<b>10 J</b>		<b>11 J</b>		<b>14</b>		10 U		0.5 U		10 U	
Methylene chloride	5	10 U		10 U		10 UJ		10 UJ		10 U		0.5 U		10 U	
o-Xylene	5	10 U		10 U		10 UJ		<b>21</b>		10 U		0.5 U		10 U	
Tetrachloroethene	5	10 U		10 U		10 UJ		<b>12</b>		<b>210 D</b>		<b>9.9 J</b>		<b>26</b>	
Toluene	5	10 U		10 U		10 UJ		<b>7.5 J</b>		10 U		0.5 U		10 U	
trans-1,2-Dichloroethene	5	10 U		10 U		10 UJ		10 U		10 U		0.5 U		10 U	
Trichloroethene	5	10 U		<b>5.3 J</b>		<b>5.8 J</b>		<b>12</b>		<b>27</b>		0.5 U		<b>7 J</b>	
Vinyl chloride	2	10 U		10 U		10 UJ		10 U		10 U		0.5 U		10 U	
Xylene, m/p	5	10 U		10 U		10 UJ		<b>54</b>		10 U		0.5 U		10 U	

**Notes:**

Only Detected Compounds shown.

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Results in microgram per liter (µg/L)

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2006).

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Highlighted results in **BOLD** exceed associated criteria

Table 4.2: Groundwater VOC Results - 2006

Parameter	Location Sample Date Sample ID Sample Depth (ft bgs) Qc Code Criteria	DCMW-2 11/10/2006 ATDCMW202101XX 21 FS		DCMW-3 11/10/2006 ATDCMW302101XX 21 FS		DCMW-4 11/9/2006 ATDCMW401801XX 18 FS		DCMW-5 11/10/2006 ATDCMW502001XX 20 FS	
		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	0.5 UJ		0.5 U		0.5 UJ		0.5 UJ	
1,1-Dichloroethane	5	0.5 UJ		0.5 U		0.5 UJ		0.5 UJ	
1,1-Dichloroethene	5	0.5 UJ		0.5 U		0.5 UJ		1.6 J	
1,4-Dichlorobenzene	3	0.5 UJ		0.5 U		0.5 UJ		0.5 UJ	
2-Butanone	50*	0.5 UJ		0.5 U		0.5 UJ		0.5 UJ	
Acetone	50*	0.5 UJ		0.5 U		0.5 UJ		4.8 JB	
Benzene	1	0.5 UJ		0.5 U		0.5 UJ		1.8 J	
Chloroform	7	0.5 UJ		2.3 J		0.5 UJ		0.5 UJ	
Cis-1,2-Dichloroethene	5	65 J		18		33 J		1500 D	
Cyclohexane	NA	0.5 UJ		0.5 U		0.5 UJ		0.5 UJ	
Ethyl benzene	5	0.5 UJ		0.5 U		0.5 UJ		7.1 J	
Isopropylbenzene	5	0.5 UJ		0.5 U		0.5 UJ		14 J	
Methyl cyclohexane	NA	0.5 UJ		0.5 U		0.5 UJ		0.5 UJ	
Methyl Tertbutyl Ether	10*	0.5 UJ		0.5 U		0.5 UJ		0.5 UJ	
Methylene chloride	5	0.5 UJ		0.5 U		0.87 J		0.5 UJ	
o-Xylene	5	0.5 UJ		0.5 U		0.5 UJ		80 J	
Tetrachloroethene	5	220 D		28		890 D		79 J	
Toluene	5	0.5 UJ		0.5 U		0.5 UJ		6.3 J	
trans-1,2-Dichloroethene	5	0.5 UJ		0.5 U		0.5 UJ		2.2 J	
Trichloroethene	5	15 J		4.1 J		10 J		11 J	
Vinyl chloride	2	0.5 UJ		0.5 U		0.5 UJ		130 J	
Xylene, m/p	5	0.5 UJ		0.5 U		0.5 UJ		31 J	

**Notes:**

Only Detected Compounds shown.

Samples analyzed for VOCs by USEPA Method OLM04.3.

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 RL

J = Estimated value

D = Result was reported from a diluted analytical run

B = Analyte was detected in the method blank

Criteria = Values from Technical and Operational

Guidance Series (TOGS) 1.1.1, Ambient Water

Quality Standards and Guidance Values and

Groundwater Effluent Limitations (NYSDEC,

2006).

\*Criteria are New York State Groundwater Guidance Standards.

Highlighted results in **BOLD** exceed associated criteria

Table 4.3: Groundwater VOC Results - 2007

Parameter	Location	GW-035		GW-035		GW-039		GW-039		GW-040		GW-041	
	Sample Date	8/28/2007		8/28/2007		8/28/2007		8/28/2007		8/28/2007		8/28/2007	
	Sample ID	ATGW03501701XX		ATGW03502701XX		ATGW03901801DU		ATGW03901801XX		ATGW04001701XX		ATGW04101701XX	
	Sample Depth (ft bgs)	17		27		18		18		17		17	
	Qc Code	FS		FS		FD		FS		FS		FS	
Criteria		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	10	U	78		3.7	J	3.3	J	1.6	J	10	U
1,1-Dichloroethane	5	4	J	27		10	U	10	UJ	10	U	10	U
1,1-Dichloroethene	5	10	UJ	6.8	J	10	UJ	10	UJ	10	UJ	10	UJ
Benzene	1	9.5	J	4.4	J	10	U	10	UJ	1.1	J	3.8	J
Cis-1,2-Dichloroethene	5	5.1	J	65		35		30	J	14		6.6	J
Cyclohexane	NA	10	U	10	U	10	U	10	UJ	10	U	10	U
Methyl Tertbutyl Ether	10*	10	U	6.5	J	10	U	10	UJ	10	U	10	U
Methylene chloride	5	10	U	10	U	10	U	10	UJ	10	U	10	U
Tetrachloroethene	5	10	U	10	U	10	U	10	UJ	10	U	10	U
Trichloroethene	5	10	U	15		10	U	10	UJ	1.6	J	10	U

**Notes:**

Only Detected Compounds shown.

Samples analyzed for VOCs by USEPA Method OLM04.3.

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 RL

J = Estimated value

D = Result was 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, 2006).

\*Criteria are New York State Groundwater Guidance Values.

Highlighted results in **BOLD** exceed associated criteria



Table 4.3: Groundwater VOC Results - 2007

Parameter	Location	GW-042		GW-043		GW-044		GW-045		GW-046		GW-046	
	Sample Date	8/28/2007		8/28/2007		8/28/2007		8/28/2007		8/29/2007		8/29/2007	
	Sample ID	ATGW04201701XX		ATGW04301701XX		ATGW04401901XX		ATGW04501901XX		ATGW04601901DU		ATGW04601901XX	
	Sample Depth (ft bgs)	17		17		19		19		19		19	
	Qc Code	FS		FS		FS		FS		FD		FS	
Criteria		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	9.3	J	10	UJ	50	UJ	10	UJ	10	U	10	U
1,1-Dichloroethane	5	10	U	10	UJ	50	UJ	10	UJ	10	U	10	U
1,1-Dichloroethene	5	10	UJ	10	UJ	50	UJ	10	UJ	10	UJ	10	UJ
Benzene	1	10	U	10	UJ	50	UJ	10	UJ	10	U	10	U
Cis-1,2-Dichloroethene	5	26		11	J	50	UJ	91	D	88	J	81	J
Cyclohexane	NA	10	U	10	UJ	50	UJ	10	UJ	5.1	J	5.5	J
Methyl Tertbutyl Ether	10*	3.3	J	10	UJ	50	UJ	10	UJ	5.7	J	5.5	J
Methylene chloride	5	10	U	10	UJ	50	UJ	10	UJ	10	U	10	U
Tetrachloroethene	5	19		850	DJ	50	UJ	900	D	490	DJ	470	DJ
Trichloroethene	5	30		76	J	50	UJ	100	D	86	J	82	J

Notes:

Only Detected Compounds shown.

Samples analyzed for VOCs by USEPA Method OLM04.3.

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 RL

J = Estimated value

D = Result was 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, 2006).

\*Criteria are New York State Groundwater Guidance Values

Highlighted results in **BOLD** exceed associated criteria

**Table 4.3: Groundwater VOC Results - 2007**

Parameter	Location	GW-047		GW-047		GW-048		GW-048		GW-049	
	Sample Date	8/29/2007		8/29/2007		8/29/2007		8/29/2007		8/29/2007	
	Sample ID	ATGW04701701XX		ATGW04702701XX		ATGW04801701XX		ATGW04802701XX		ATGW04901701XX	
	Sample Depth (ft bgs)	17		27		17		27		17	
	Qc Code	FS		FS		FS		FS		FS	
Criteria		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	5	10	U	10	U	10	U	50	U	2	J
1,1-Dichloroethane	5	10	U	10	U	10	U	50	U	10	U
1,1-Dichloroethene	5	10	UJ	10	UJ	10	UJ	50	UJ	10	UJ
Benzene	1	10	U	10	U	10	U	50	U	10	U
Cis-1,2-Dichloroethene	5	3.7	J	3.8	J	43		45	J	10	U
Cyclohexane	NA	10	U	10	U	10	U	50	U	10	U
Methyl Tertbutyl Ether	10*	2.8	J	3.7	J	10	U	50	U	10	U
Methylene chloride	5	3.5	J	12		10	U	54		1.6	J
Tetrachloroethene	5	10	U	10	U	10	U	50	U	10	U
Trichloroethene	5	10	U	10	U	10	U	50	U	3.2	J

**Notes:**

Only Detected Compounds shown.

Samples analyzed for VOCs by USEPA Method OLM04.3.

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 RL

J = Estimated value

D = Result was 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, 2006).

\*Criteria are New York State Groundwater Guidance Values

Highlighted results in **BOLD** exceed associated criteria

**Table 4.4: Groundwater SVOC Results**

Parameter	Location	GW-4		GW-9		GW-13		GW-20		MW-1	
	Sample Date	11/8/2006		11/7/2006		11/7/2006		11/9/2006		11/9/2006	
	Sample ID	ATGW00401701XX		ATGW00901701XX		ATGW01301701XX		ATGW02002601XX		ATMW01R01701XX	
	Sample Depth (ft bgs)	17		17		17		26		17	
	Qc Code	FS		FS		FS		FS		FS	
	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
2,4-Dimethylphenol	50*	10 U		10 U		10 U		10 U		10 U	
2-Methylnaphthalene	NA	10 U		10 U		10 U		10 U		10 U	
4-Methylphenol	NA	10 U		10 U		10 U		10 U		10 U	
Bis(2-Ethylhexyl)phthalate	5	10 U		10 U		10 U		<b>4.9 J</b>		10 U	
Di-n-butylphthalate	50*	10 U		10 U		<b>2.7 J</b>		10 U		10 U	
Naphthalene	10*	10 U		10 U		10 U		10 U		10 U	
Phenol	1**	10 U		10 U		10 U		10 U		10 U	

**Notes:**

Only Detected Compounds shown.

Samples analyzed for SVOCs by USEPA Method OLM04.3.

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 RL

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, 2006).

\*Criteria are New York State Groundwater Guidance Standards.

\*\*Standard for total phenol based on aesthetics is 1 µg/L

Highlighted results in **BOLD** exceed associated criteria

**Table 4.4: Groundwater SVOC Results**

Parameter	Location	MW-1R		MW-2		MW-3		MW-4		MW-5	
	Sample Date	11/7/2006		11/7/2006		11/6/2006		11/6/2006		11/8/2006	
	Sample ID	ATMW00101701XX		ATMW00201601XX		ATMW00301601XX		ATMW00401601XX		ATMW00501601XX	
	Sample Depth (ft bgs)	17		16		16		16		16	
Criteria	Qc Code	FS		FS		FS		FS		FS	
	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
2,4-Dimethylphenol	50*	10	U	<b>22</b>		10	U	10	U	10	U
2-Methylnaphthalene	NA	10	U	<b>53</b>		10	U	10	U	10	U
4-Methylphenol	NA	10	U	<b>9.9 J</b>		10	U	10	U	10	U
Bis(2-Ethylhexyl)phthalate	5	10	U	10	U	10	U	10	U	10	U
Di-n-butylphthalate	50*	10	U	10	U	10	U	10	U	10	U
Naphthalene	10*	10	U	<b>240 D</b>		10	U	10	U	10	U
Phenol	1**	10	U	<b>17</b>		10	U	10	U	10	U

**Notes:**

Only Detected Compounds shown.

Samples analyzed for SVOCs by USEPA Method OLM04.3.

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 RL

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, 2006).

\*Criteria are New York State Groundwater Guidance Standard

\*\*Standard for total phenol based on aesthetics is 1 µg/L

Highlighted results in **BOLD** exceed associated criteria

**Table 4.4: Groundwater SVOC Results**

Parameter	Location	MW-6		MW-7		MW-8		MW-8		MW-9	
	Sample Date	11/7/2006		11/7/2006		11/8/2006		11/8/2006		11/9/2006	
	Sample ID	ATMW00601601XX		ATMW00701601XX		ATMW00801601XX		ATMW00801601XD		ATMW00901701XX	
	Sample Depth (ft bgs)	16		16		16		16		17	
Criteria	Qc Code	FS		FS		FS		FD		FS	
	Criteria	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
2,4-Dimethylphenol	50*	10	U	10	U	10	U	10	U	10	U
2-Methylnaphthalene	NA	10	U	10	U	10	U	10	U	10	U
4-Methylphenol	NA	10	U	10	U	10	U	10	U	10	U
Bis(2-Ethylhexyl)phthalate	5	10	U	10	U	10	U	10	U	10	U
Di-n-butylphthalate	50*	10	U	10	U	10	U	10	U	10	U
Naphthalene	10*	10	U	10	U	10	U	10	U	10	U
Phenol	1**	10	U	10	U	10	U	10	U	10	U

**Notes:**

Only Detected Compounds shown.

Samples analyzed for SVOCs by USEPA Method OLM04.3.

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 RL

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, 2006).

\*Criteria are New York State Groundwater Guidance Standard

\*\*Standard for total phenol based on aesthetics is 1 µg/L

Highlighted results in **BOLD** exceed associated criteria

Table 4.5: Soil Vapor Results

Parameter	Location Sample Date Sample ID Sample Depth QC Code	GV-01 11/8/2006 ATGV00101201XX 12 feet bgs FS		GV-02 11/8/2006 ATGV00201001XX 10 feet bgs FS		GV-03 11/9/2006 ATGV00301201XX 12 feet bgs FS		SV-1 12/19/2006 ATSV00100101XX 1 foot bgs FS	
		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane		5.44	U	298		5.44	U	13.1	
1,1,2,2-Tetrachloroethane		9.62		6.87	U	6.87	U	13.74	UJ
1,1,2-Trichloro-1,2,2-Trifluoroethane		10.7		7.65	U	7.65	U	15.3	U
1,1-Dichloroethane		4.05	U	11.7		4.05	U	8.1	U
1,2,4-Trichlorobenzene		14.8	J	7.4	U	7.4	U	14.81	UJ
1,2,4-Trimethylbenzene		26		4.91	U	4.91	U	9.82	UJ
1,2-Dichlorobenzene		7.21		6.01	U	6.01	U	12.02	UJ
1,3,5-Trimethylbenzene		11.8		4.91	U	4.91	U	9.82	UJ
1,3-Dichlorobenzene		6.61		6.01	U	6.01	U	12.02	UJ
1,4-Dichlorobenzene		7.21		6.01	U	6.01	U	12.02	UJ
2-Butanone		5.89	U	16.5		5.89	U	11.78	UJ
4-Ethyltoluene		13.7	J	4.91	UJ	4.91	U	9.82	UJ
Acetone		4.74	U	4.74	U	4.74	U	50.8	
Benzene		12.8		20.1		10.8		6.38	UJ
Bromoform		12.4		10.35	U	10.35	U	20.7	UJ
Bromomethane		5.44		3.89	U	3.89	U	7.77	U
Carbon tetrachloride		7.56		6.3	U	6.3	U	12.6	UJ
Chlorobenzene		6.01		4.62	U	4.62	U	9.24	UJ
Chlorodibromomethane		11.9		8.51	U	8.51	U	17.01	UJ
Chloroethane		3.72		2.66	U	2.66	U	5.32	U
Chloroform		17		37		27.7		23.4	
Cis-1,2-Dichloroethene		6.35		20.2		3.97	U	129	
Cyclohexane		3.35	UJ	32.5	J	3.35	U	6.71	U
Dichlorodifluoromethane		6.93		4.95	U	4.95	U	9.9	U
Ethyl benzene		12.6		4.34	U	4.34	U	8.67	UJ
Heptane		16.8		55.6		20.9		8.18	U
Hexane		7.03	U	178		84.8		14.07	U
Isooctane		1,166	J	5	U	5	U	41	J
Methylene chloride		10.1		6.95	U	6.95	U	16	
o-Xylene		9.97		4.34	U	4.34	U	8.67	UJ
Propylene		1,944	D	523	D	602	D	17	U
Tetrachloroethene		17		38.7		31.9		1310	J
Toluene		19.6		46.3		9.78		7.53	UJ
trans-1,2-Dichloroethene		6.35		5.95		3.97	U	14.3	
Trichloroethene		5.36	U	1737	D	20.9		17472	EDJ
Trichlorofluoromethane		6.72		5.6	U	5.6	U	11.21	U
Vinyl chloride		3.07		2.56	U	2.56	U	5.11	U
Xylene, m/p		52.9		11.3		8.67	U	17.34	UJ

Notes:

Location - GV = Exterior geoprobe soil vapor sample; SV = sub-slab soil vapor sample

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

ft bgs = feet below ground surface

Results in microgram per cubic meter (µg/m3)

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

E = Result exceeded the calibration curve of the instrument

Highlighted tetrachloroethene and trichloroethene results exceed the sub-slab guidance criteria of 1000 µg/m3 and 250 µg/m3, respectively, recommended for mitigation, without consideration of indoor air concentrations, as established in Guidance for Evaluating Soil Vapor Intrusion in the State of New York (New York State Department of Health, 2005).

**Table 4.6 Hydraulic Conductivity Calculations**

**Associated Textile/Diamond Cleaners, Village of Elmira, NY**

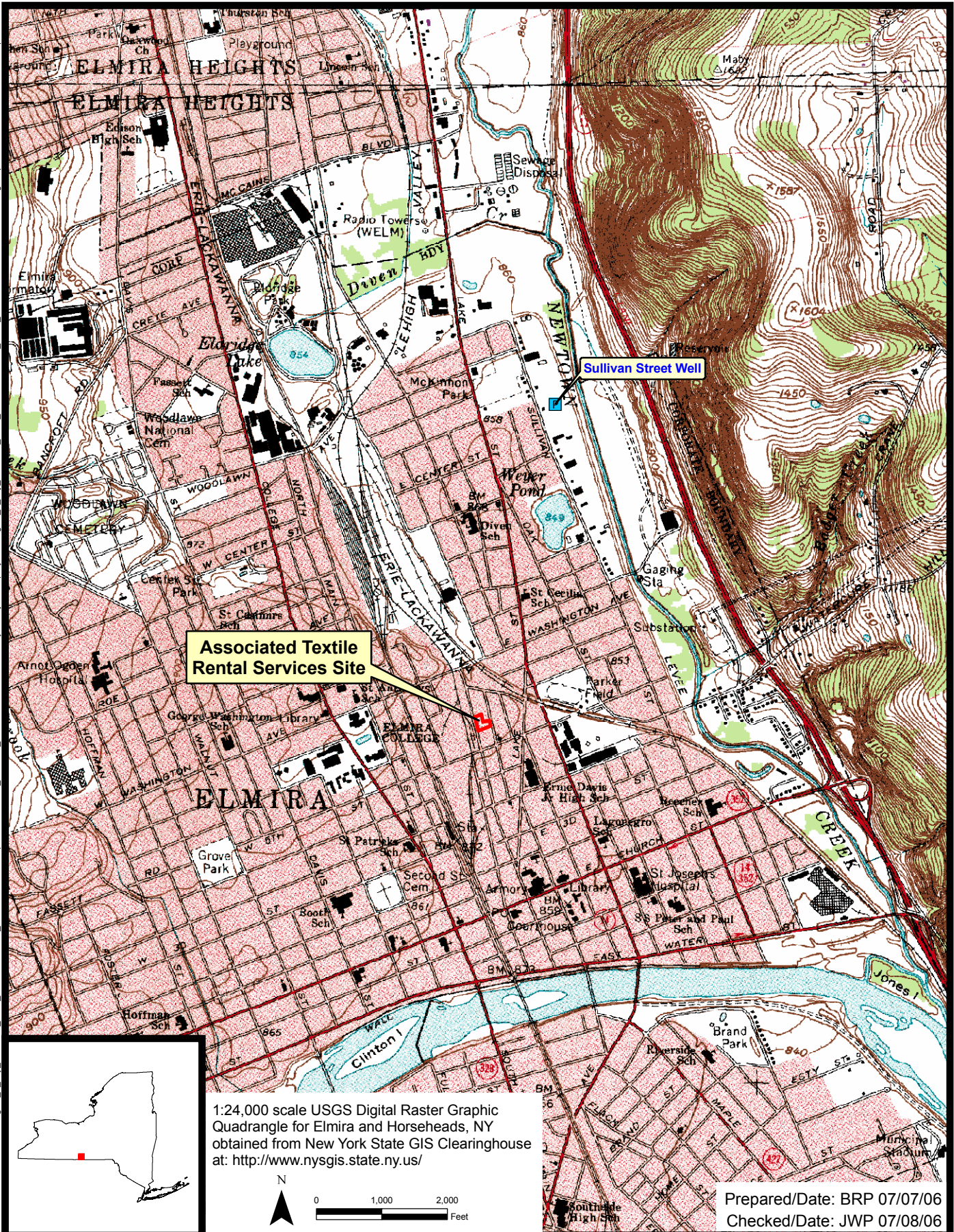
Well	Test #	Method	K values (ft/min)	Geometric mean	K values (ft/day)	V = Ki/n (ft/day)	V (ft/year)
MW-3	RHT-1	Bouwer-Rice	0.001349	0.001551	2.2	0.01	4.5
MW-3	RHT-1	Hvorslev	0.002498				
MW-3	RHT-2	Bouwer-Rice	0.001007				
MW-3	RHT-2	Hvorslev	0.001707				
MW-9	RHT-1	Bouwer-Rice	0.003071	0.004455	6.4	0.04	12.9
MW-9	RHT-1	Hvorslev	0.005495				
MW-9	RHT-2	Bouwer-Rice	0.003611				
MW-9	RHT-2	Hvorslev	0.006462				
DCMW-3	RHT-1	Bouwer-Rice	0.008756	0.013236	19.1	0.10	38.3
DCMW-3	RHT-1	Hvorslev	0.01268				
DCMW-3	RHT-2	Bouwer-Rice	0.01458				
DCMW-3	RHT-2	Hvorslev	0.01896				
DCMW-4	RHT-1	Bouwer-Rice	0.0007326	0.003157	4.5	0.03	9.1
DCMW-4	RHT-1	Hvorslev	0.001483				
DCMW-4	RHT-2	Bouwer-Rice	0.0009719				
DCMW-4	RHT-2	Hvorslev	0.001934				
DCMW-5	RHT-1	Bouwer-Rice	0.007072	0.014538	20.9	0.12	42.0
DCMW-5	RHT-1	Hvorslev	0.01056				
DCMW-5	RHT-2	Bouwer-Rice	0.02051				
DCMW-5	RHT-2	Hvorslev	0.02916				

Average Velocity = 15 (ft/year)

FHT = Falling Head Slug Test  
 RHT = Rising Head Slug Test  
 ft/min = feet per minute  
 ft/day = feet per day  
 K = Hydraulic Conductivity  
 V = Velocity  
 i = Hydraulic gradient (average hydraulic gradient = 0.0011 feet per foot)  
 n = porosity (used 0.2)

## **FIGURES**



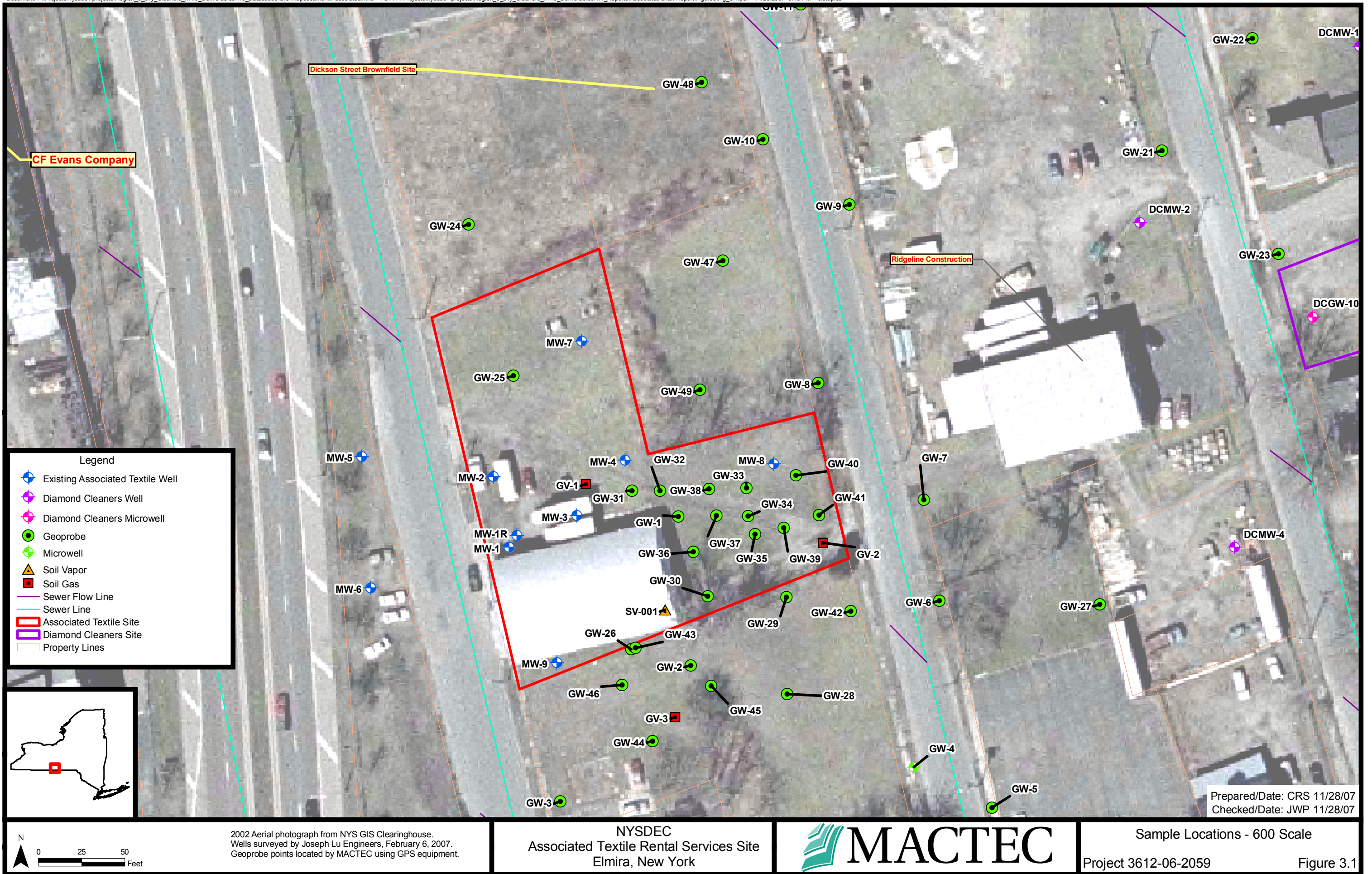


NYSDEC  
Associated Textile Rental Services  
Elmira, New York



Site Location  
Project 3612-06-2046  
Figure 1.1

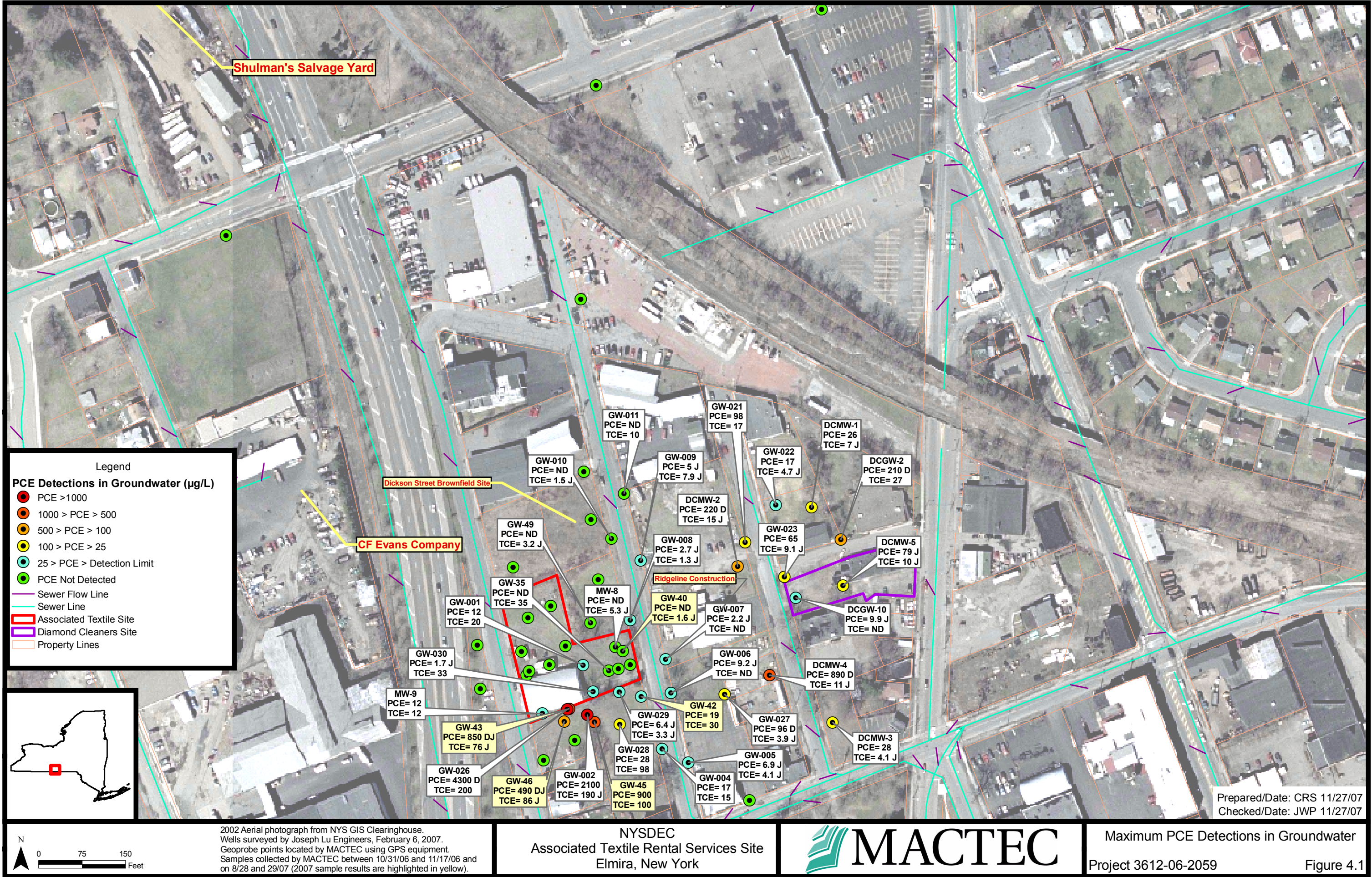




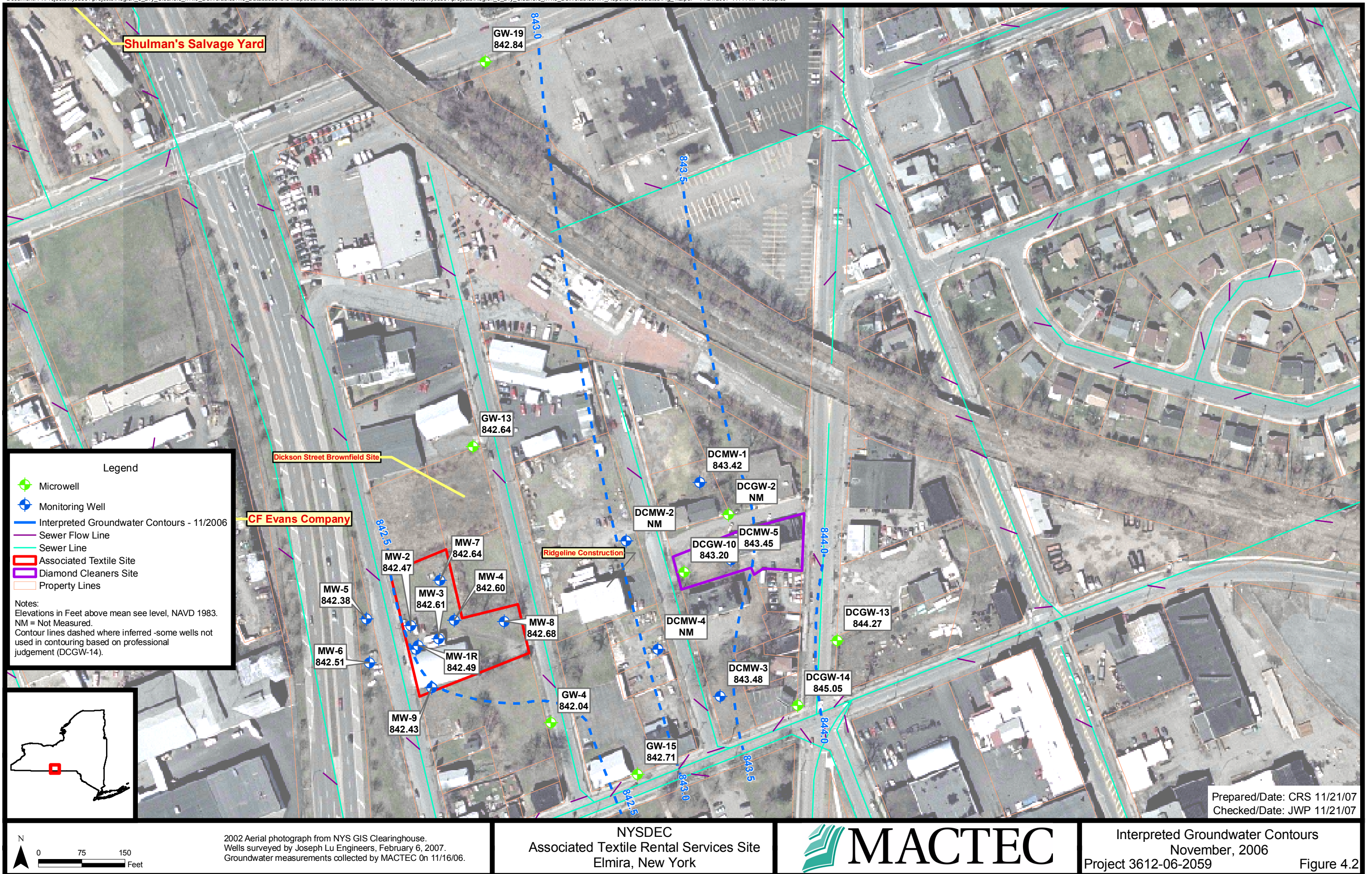




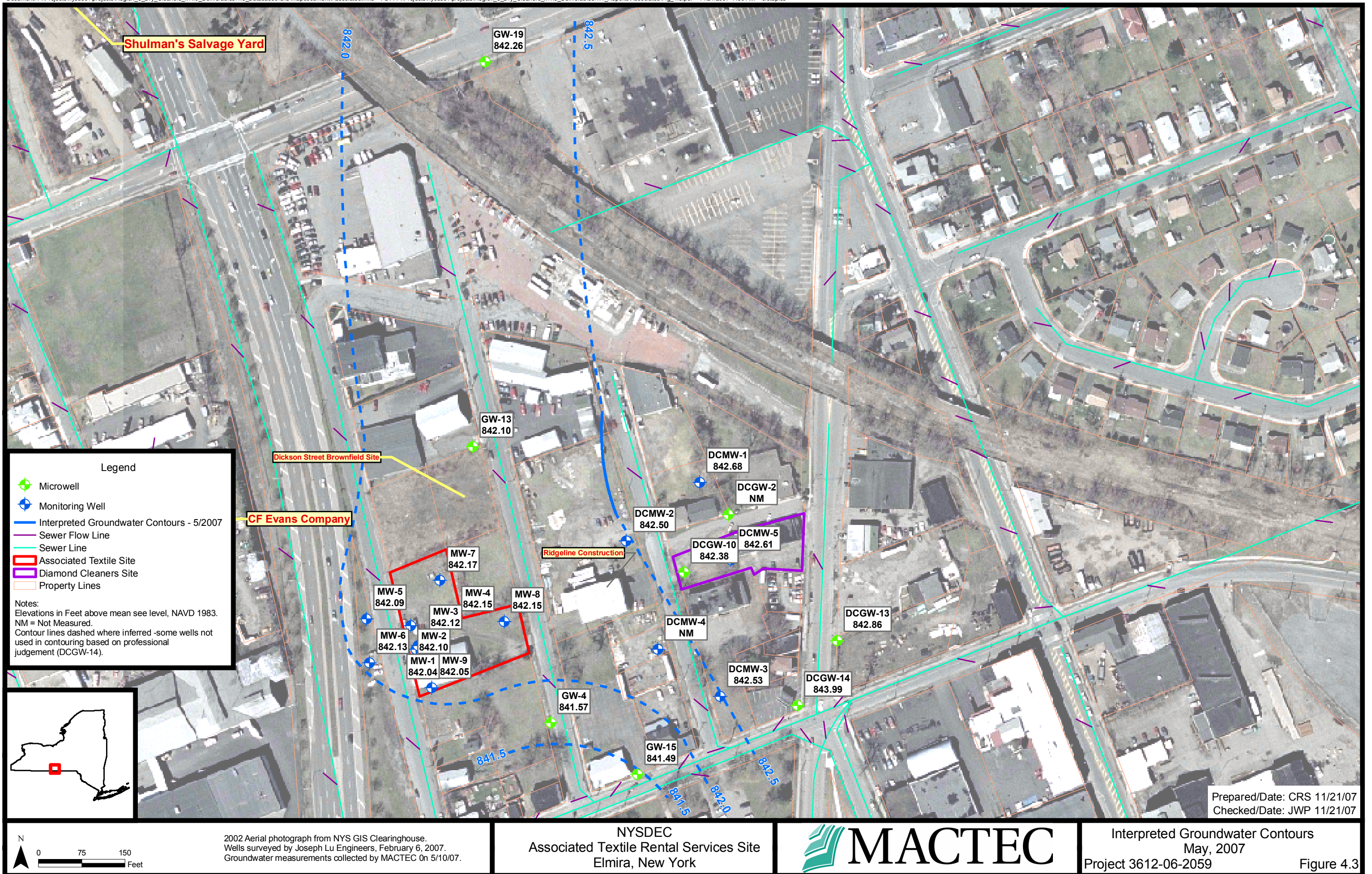












2002 Aerial photograph from NYS GIS Clearinghouse.  
Wells surveyed by Joseph Lu Engineers, February 6, 2007.  
Groundwater measurements collected by MACTEC On 5/10/07.

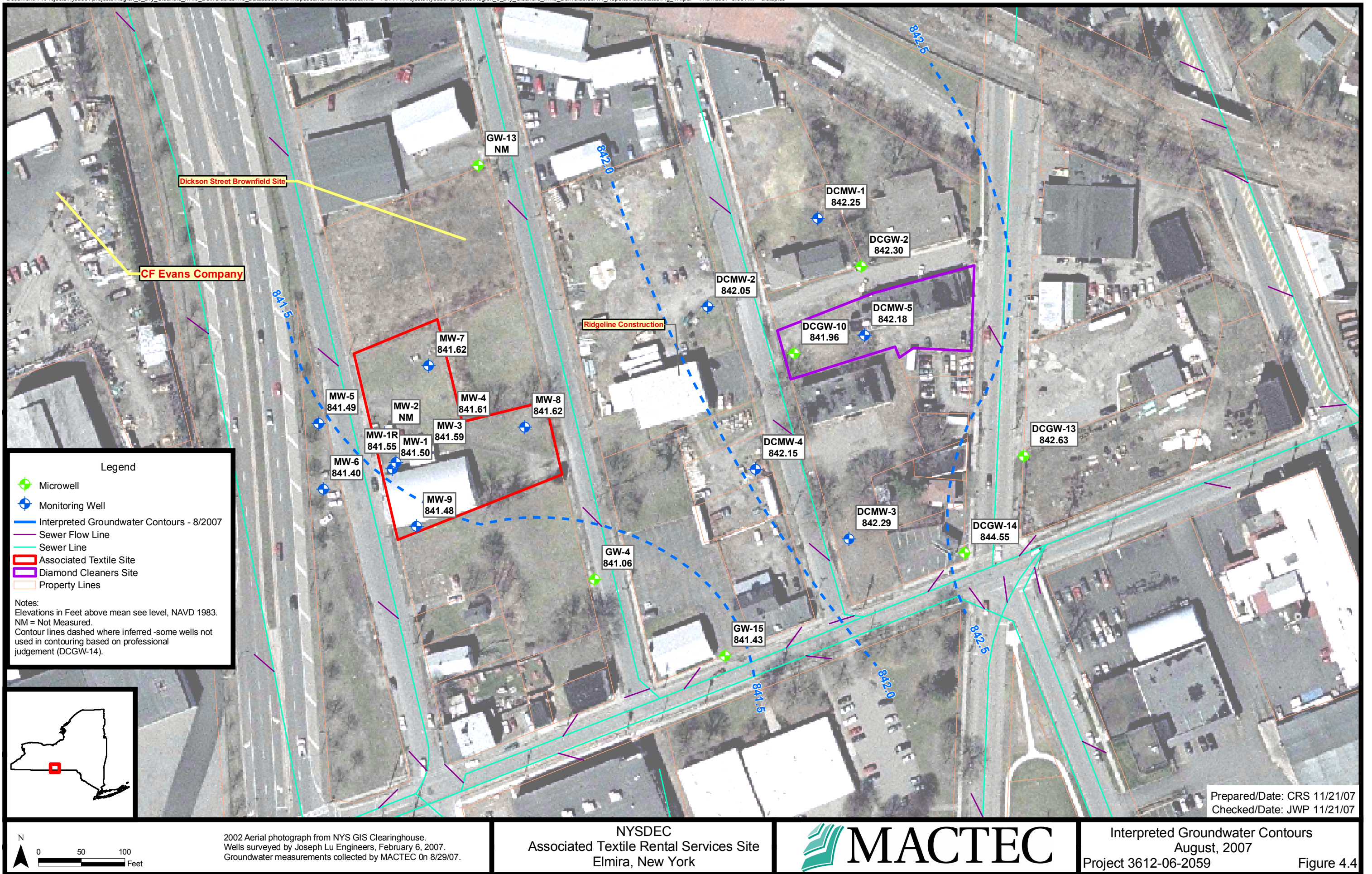
NYSDEC  
Associated Textile Rental Services Site  
Elmira, New York

**MACTEC**

Interpreted Groundwater Contours  
May, 2007  
Project 3612-06-2059

Figure 4.3





## **APPENDIX A**

### **SITE RECORDS**




**O'BRIEN & GERE**

April 10, 2006

Mr. Chad M. Kehoe  
 NYSDEC - Region 8  
 Division of Environmental Remediation  
 276 Sing Sing Road  
 Horseheads, NY 14845

Re: Spill #9210608

File: 4735/36922

Dear Mr. Kehoe:

Enclosed are the analytical results from the February 28, 2006 sampling of the ground water monitoring wells located 714 Baldwin Street, Elmira, New York (subject property). I have also attached copies of a summary table of the results (Attachment 1), and a ground water flow map based on the re-survey we had performed of the monitoring wells (Attachment 2). The analytical reports are included in Attachment 3. A review of this data indicates the following:

1. In general, volatile organic compounds (VOCs) typically associated with gasoline were found in most of the wells, but with no well-defined pattern. Chlorinated solvents were also detected in scattered wells.
2. Methyl tert-butyl ether (MTBE) was detected in four of the nine wells, but in scattered locations. The presence of MTBE indicates that there is a source of gasoline contamination in the area other than the historical uses of the property, since historical uses of gasoline well-predicate the use of MTBE.
3. The ground water flow pattern in the area is relatively flat, but appears to flow towards the southeast. This pattern is consistent with previous findings. It should be noted that underground utilities in the area may influence local ground water flow patterns. Based on the ground water flow map included in Attachment 2, ground water appears to be slightly mounded near the area of MW-2 (see discussion below).
4. The highest concentrations of VOCs were found in MW-2. The sampling log for this well indicates that leaves, grass clippings, and other debris were also present in the well when it was sampled. The presence of these materials in the well indicates that MW-2 may have been impacted by surface run-off. The ground water mounding near MW-2 (see #3 above) also indicates that surface run-off may have entered the well. Since the subject property is located in an urban setting, surface run-off may have contributed to the elevated concentrations of VOCs in MW-2.
5. A search of historical Sanborn fire insurance maps show that the area has been under industrial use since at least the late 1800s and may have impacted regional ground water in the general area. The 1898 map shows the ATRS site as being occupied by houses and a Feed & Cider Mill. The property now occupied by Clements Parkway was occupied by numerous railroad tracks and a Locomotive House with an associated turntable. Locomotive houses were often used for

Mr. Chad M. Kehoe  
April 10, 2006  
Page 2

maintenance and repair work. The area across the railroad tracks from ATRS was occupied by Elmira Iron and Steel Works. More recent land uses have included the following:

C. F. Evans Company. The C.F. Evans site is located across Clements Parkway from ATRS and appears, based on the EPS ground water flow maps, to be upgradient from ATRS. The Evans site was formerly an Elmira DPW garage. In December 1994, C.F. Evans removed two underground storage tanks (USTs). The diesel UST was reported to be in good condition, but the gasoline UST had two large holes and underlying soils were heavily contaminated down to ground water. This spill incident was reported and assigned NYSDEC Spill #9412530. A vapor extraction system was installed and operated until 1996, and this spill is reportedly being closed. However, it is not clear how long releases occurred from this site, or whether it may have impacted ground water quality at the subject property. As a result, this may be a potential source of MTBE and other VOCs to the subject property.

Shulman Site. The Shulman property is located northwest (and upgradient) of the subject property. Since the late 1960s or early 1970s, the property has been operated as a metal salvaging business, including the salvaging of auto parts and the crushing of vehicles. In the 1980s, an initial site investigation was conducted and a work plan for a Remedial Investigation/Feasibility Study (RI/FS) was prepared. However, Shulman challenged the RI/FS work plan, and it was not implemented. NYSDEC files state that the property needs to be re-assessed as part of a Preliminary Site Assessment. Historical data indicate the presence of PCBs and low concentrations of VOCs, although investigative activities do not appear to have been extensive.

NYSDEC files also note that several Spill Reports have been filed for the property, with five of the incidents being classified as closed. The NYSDEC Spill Report Form for Spill #0485472 is included in Attachment 4 and indicates that on January 23, 2005 a caller observed "dumping of waste oil, gasoline, hydraulic oil and antifreeze onto the ground" and that "liquids are not drained and collected." The Spill Incidents Database Search report for this spill on the NYSDEC web site lists the spilled material as being gasoline. NYSDEC personnel visited the site several times since the report of the incident. On July 14, 2005, a Shulman representative told NYSDEC that samples had been collected. At the time of O'Brien & Gere's file review, (August 19, 2005), the last action on the spill report indicated that on August 2, 2005, NYSDEC called the site and results had not been received from the laboratory. It is not clear whether potential impacts to ground water have been assessed from this site. The Shulman site is approximately 1,000 feet from the ATRS property in an upgradient location. As a result, this may be a potential source of MBTE and other VOCs to the subject property.

717-727 Dickinson Street Brownfield Site. The City of Elmira currently owns this site, and has applied to NYSDEC under the Environmental Restoration Program (Brownfield) to address on-site contamination. The basis for the request is that the site was operated as an automotive junkyard for approximately 50 years. However, there appears to be a discrepancy in the site description with regards to site history. The brownfield site is broken into two parcels. Both parcels are noted as having been operated as an automotive junkyard from 1931-1988. However, Sanborn Fire Insurance maps indicate that 727 Dickinson Street was part of a larger parcel extending to Baldwin Street, including the property immediately north of ATRS, and that this combined parcel was operated as a junk yard during the previously stated period. The 717 Dickinson parcel is noted as residential homes until 1950. On the 1988 map, the area of 717

Mr. Chad M. Kehoe

April 10, 2006

Page 3

parcel appears to have been vacant but still noted as four smaller lots. The 717 Dickinson Street parcel is located adjacent to the ATRS site to the east.

This historic information appears to be confirmed by test pits and soil samples from the site. Test pits on the 727 parcel showed evidence of black stained soil, car parts, ash, and a green/white crystalline material. Soil samples that were collected in these areas contained low concentrations of PCBs and semivolatile organic compounds (SVOCs). Only one soil sample was analyzed for volatile organic compounds (VOCs), with no detectable concentrations being found. The five test pits from the 717 parcel showed ash, brick and wood. Ground water samples were not collected at either parcel.

In summary, although the City of Elmira's 717-727 Dickinson Street Brownfield Site does not include the parcel located immediately north and upgradient of the subject property, this parcel was also historically used as a junkyard and is therefore likely contaminated. However, apparently no data has been generated regarding this parcel. Ownership of this parcel has not been determined by O'Brien & Gere.


#### Summary and Conclusions

VOCs were detected at various concentrations across the site, with no apparent pattern indicating an on-site contaminant source. The highest concentrations of VOCs were detected in MW-2; however, this well also contained leaves and grass clippings, indicating that it has been impacted from surface run-off. This potential impact is also supported by the ground water contour map that indicates a slight mounding of ground water in the area around MW-2. Based on the current and previous assessments of ground water flow direction, MW-2 is located on the upgradient side of the property. Ground water monitoring wells located downgradient from MW-2 indicate much lower concentrations of VOCs. A search of historical fire insurance maps and NYSDEC files also indicate that areas upgradient of the subject property have been under various industrial uses for over 100 years, and that releases of VOCs have been documented at several locations in the area.

It is clear that the diversity of historical land uses in the area of the subject property may have impacted the regional ground water quality. Due to the complexity of the issues concerning ground water in the area, ATRS would like to meet with NYSDEC to discuss these factors and their impact on how to proceed. Please contact me after you've had a chance to review this information so we can discuss how to proceed on this matter.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.



David K. Meixell, P.E.

Senior Project Engineer

cc: Mr. Robert Evans - Associated Textile Rental Services, Inc.  
Louis Ablove, Esq.  
Judy Drabicki, Esq.

## ATTACHMENT 1

### SUMMARY TABLE

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Summary of February 28, 2006 Ground Water Sampling  
Associated Textile Rental Services, Inc.  
714 Baldwin Street  
Elmira, New York  
(µg/L)

Parameter	MW-1R	MW-2	MW-2 (dup)	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	NYSDEC Class GA
1,1,1-Trichloroethane	<2.5	<25	<25	<0.5	<2.5	<0.5	<2.5	<0.5	71.0	<0.5	*
1,1-Dichloroethane	<2.5	<25	<25	<0.5	<2.5	<0.5	<2.5	<0.5	2.76	<0.5	*
1,1-Dichloroethene	<2.5	<25	<25	<0.5	<2.5	<0.5	<2.5	<0.5	0.77	<0.5	*
1,2,4-Trimethylbenzene	46.9	1,230	1,330	<0.5	4.35	<0.5	<2.5	<0.5	<0.5	46.8	*
1,3,5-Trimethylbenzene	8.5	296	324	<0.5	<2.5	<0.5	<2.5	<0.5	<0.5	7.56	*
Benzene	17.2	1,620	1,740	<0.5	100	<0.5	20.9	<0.5	<0.5	<0.5	1
Chloroform	<2.5	<25	<25	0.60	<2.5	2.31	<2.5	<0.5	<0.5	<0.5	7
cis-1,2-Dichloroethene	<2.5	<25	<25	<0.5	<2.5	<0.5	<2.5	<0.5	23.2	68.1	*
Ethylbenzene	58.1	795	854	<0.5	10.6	<0.5	3.8	<0.5	<0.5	26.4	*
Isopropylbenzene	<2.5	42.5	46.5	<0.5	8.35	<0.5	26.5	<0.5	<0.5	4.36	*
Methyl tert-butyl ether	16.2	<25	<25	<0.5	<2.5	<0.5	13.8	8.96	3.13	<0.5	NL
n-Propylbenzene	3.50	76.0	83.0	<0.5	4.55	<0.5	29.6	<0.5	<0.5	5.54	*
Naphthalene	6.05	140	158	<1.0	<5.0	<1.0	<5.0	<1.0	<1.0	5.36	NL
Tetrachloroethene	<2.5	<25	<25	<0.5	<2.5	<0.5	<2.5	<0.5	1.77	32.2	*
Toluene	28.5	215	235	<0.5	9.35	<0.5	<2.5	<0.5	<0.5	6.72	*
Trichloroethene	<2.5	<25	<25	<0.5	<2.5	<0.5	<2.5	<0.5	225	18.8	*
Vinyl chloride	<5.0	<50	<50	<1.0	6.7	<1.0	<5.0	<1.0	<1.0	1.10	2
Xylenes	208	2,620	2,830	<1.0	19.5	<1.0	5.0	<1.0	<1.0	92.5	*

NL: Not Listed

**BOLD** indicates exceedances of Class GA standards

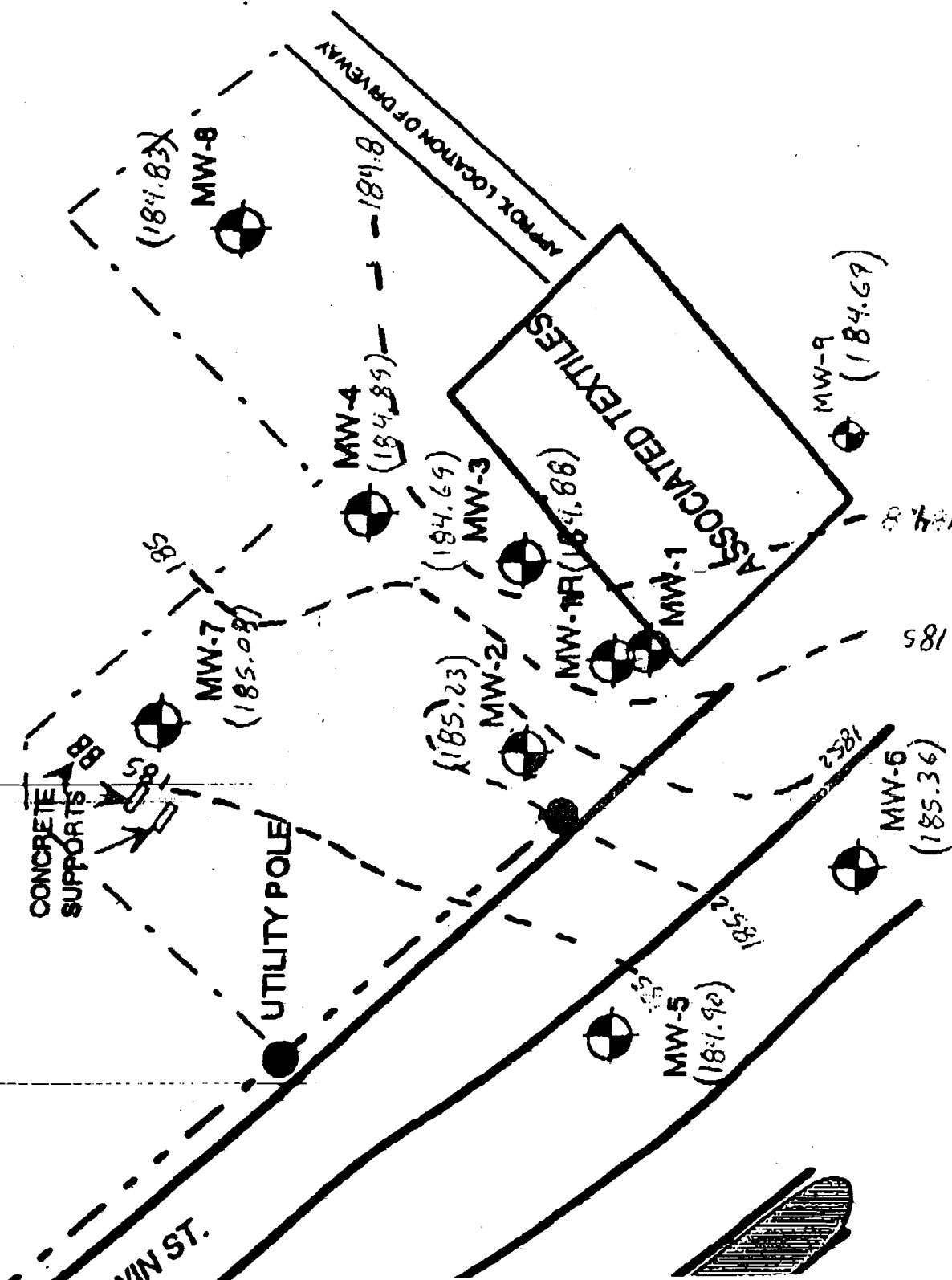
\* The principle organic contaminant for ground water of 5 µg/L applies to these constituents.

## **ATTACHMENT 2**

### **GROUND WATER FLOW MAP**

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## ANALYTICAL DATA





# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

ColumnID: Rtx-VMS

%Moisture:

Revision: 03/06/06 11:34:19 A

TestCode 8260W

Lab ID: 0603003-001A

Client Sample ID: MW1R 022806

Collection Date: 02/28/06 14:15

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4697

FileID: 1-SAMP-T2750.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
1,1,1,2-Tetrachloroethane	ND	2.50		µg/L	5	03/03/06 11:26
1,1,1-Trichloroethane	ND	2.50		µg/L	5	03/03/06 11:26
1,1,2,2-Tetrachloroethane	ND	2.50		µg/L	5	03/03/06 11:26
1,1,2-Trichloroethane	ND	2.50		µg/L	5	03/03/06 11:26
1,1-Dichloroethane	ND	2.50		µg/L	5	03/03/06 11:26
1,1-Dichloroethene	ND	2.50		µg/L	5	03/03/06 11:26
1,1-Dichloropropene	ND	2.50		µg/L	5	03/03/06 11:26
1,2,3-Trichlorobenzene	ND	5.00		µg/L	5	03/03/06 11:26
1,2,3-Trichloropropane	ND	2.50		µg/L	5	03/03/06 11:26
1,2,4-Trichlorobenzene	ND	5.00		µg/L	5	03/03/06 11:26
1,2,4-Trimethylbenzene	46.9	2.50		µg/L	5	03/03/06 11:26
1,2-Dibromo-3-chloropropane	ND	5.00		µg/L	5	03/03/06 11:26
1,2-Dibromoethane	ND	2.50		µg/L	5	03/03/06 11:26
1,2-Dichlorobenzene	ND	2.50		µg/L	5	03/03/06 11:26
1,2-Dichloroethane	ND	2.50		µg/L	5	03/03/06 11:26
1,2-Dichloropropane	ND	2.50		µg/L	5	03/03/06 11:26
1,3,5-Trimethylbenzene	8.50	2.50		µg/L	5	03/03/06 11:26
1,3-Dichlorobenzene	ND	2.50		µg/L	5	03/03/06 11:26
1,3-Dichloropropane	ND	2.50		µg/L	5	03/03/06 11:26
1,4-Dichlorobenzene	ND	2.50		µg/L	5	03/03/06 11:26
2,2-Dichloropropane	ND	2.50		µg/L	5	03/03/06 11:26
2-Chlorotoluene	ND	2.50		µg/L	5	03/03/06 11:26
4-Chlorotoluene	ND	2.50		µg/L	5	03/03/06 11:26
Benzene	17.2	2.50		µg/L	5	03/03/06 11:26
Bromobenzene	ND	2.50		µg/L	5	03/03/06 11:26
Bromochloromethane	ND	2.50		µg/L	5	03/03/06 11:26
Bromodichloromethane	ND	2.50		µg/L	5	03/03/06 11:26
Bromoform	ND	2.50		µg/L	5	03/03/06 11:26
Bromomethane	ND	5.00		µg/L	5	03/03/06 11:26
Carbon tetrachloride	ND	2.50		µg/L	5	03/03/06 11:26
Chlorobenzene	ND	2.50		µg/L	5	03/03/06 11:26
Chloroethane	ND	5.00		µg/L	5	03/03/06 11:26
Chloroform	ND	2.50		µg/L	5	03/03/06 11:26
Chloromethane	ND	5.00		µg/L	5	03/03/06 11:26
cis-1,2-Dichloroethene	ND	2.50		µg/L	5	03/03/06 11:26

**Qualifiers:**  
 B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Practical Quantitation Limit (PQL)  
 S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
 J Analyte detected below the PQL  
 P Prim./Conf. column %D or RPD exceeds limit



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

Column ID: Rtx-VMS

%Moisture:

Revision: 03/06/06 11:34:19 A

TestCode 8260W

Lab ID: 0603003-001A

Client Sample ID: MWIR 022806

Collection Date: 02/28/06 14:15

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4697

FileID: 1-SAMP-T2750.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
cis-1,3-Dichloropropene	ND	2.50		µg/L	5	03/03/06 11:26
Dibromochloromethane	ND	2.50		µg/L	5	03/03/06 11:26
Dibromomethane	ND	2.50		µg/L	5	03/03/06 11:26
Dichlorodifluoromethane	ND	5.00		µg/L	5	03/03/06 11:26
Ethylbenzene	58.1	2.50		µg/L	5	03/03/06 11:26
Hexachlorobutadiene	ND	5.00		µg/L	5	03/03/06 11:26
Isopropylbenzene	ND	2.50		µg/L	5	03/03/06 11:26
Methyl tert-butyl ether	16.2	2.50		µg/L	5	03/03/06 11:26
Methylene chloride	ND	10.0		µg/L	5	03/03/06 11:26
n-Butylbenzene	ND	2.50		µg/L	5	03/03/06 11:26
n-Propylbenzene	3.50	2.50		µg/L	5	03/03/06 11:26
Naphthalene	6.05	5.00		µg/L	5	03/03/06 11:26
p-Isopropyltoluene	ND	2.50		µg/L	5	03/03/06 11:26
sec-Butylbenzene	ND	2.50		µg/L	5	03/03/06 11:26
Styrene	ND	2.50		µg/L	5	03/03/06 11:26
tert-Butylbenzene	ND	2.50		µg/L	5	03/03/06 11:26
Tetrachloroethene	ND	2.50		µg/L	5	03/03/06 11:26
Toluene	28.5	2.50		µg/L	5	03/03/06 11:26
trans-1,2-Dichloroethene	ND	2.50		µg/L	5	03/03/06 11:26
trans-1,3-Dichloropropene	ND	2.50		µg/L	5	03/03/06 11:26
Trichloroethene	ND	2.50		µg/L	5	03/03/06 11:26
Trichlorofluoromethane	ND	5.00		µg/L	5	03/03/06 11:26
Vinyl chloride	ND	5.00		µg/L	5	03/03/06 11:26
Xylenes (total)	208	5.00		µg/L	5	03/03/06 11:26
Surr. 1,2-Dichloroethane-d4	103	75-134		%REC	5	03/03/06 11:26
Surr. 4-Bromofluorobenzene	108	75-125		%REC	5	03/03/06 11:26
Surr. Dibromofluoromethane	101	75-127		%REC	5	03/03/06 11:26
Surr. Toluene-d8	109	75-125		%REC	5	03/03/06 11:26

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Practical Quantitation Limit (PQL)  
 S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
 J Analyte detected below the PQL  
 P Prim./Conf. column %D or RPD exceeds limit



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

Column ID: Rlx-VMS

%Moisture:

Revision: 03/06/06 7:28:28 A

TestCode 8260W

Lab ID: 0603003-002A

Client Sample ID: MW2 022806

Collection Date: 02/28/06 13:30

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4688

FileID: 1-SAMP-T2732.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
1,1,1,2-Tetrachloroethane	ND	25.0		µg/L	50	03/02/06 15:09
1,1,1-Trichloroethane	ND	25.0		µg/L	50	03/02/06 15:09
1,1,2,2-Tetrachloroethane	ND	25.0		µg/L	50	03/02/06 15:09
1,1,2-Trichloroethane	ND	25.0		µg/L	50	03/02/06 15:09
1,1-Dichloroethane	ND	25.0		µg/L	50	03/02/06 15:09
1,1-Dichloroethene	ND	25.0		µg/L	50	03/02/06 15:09
1,1-Dichloropropene	ND	25.0		µg/L	50	03/02/06 15:09
1,2,3-Trichlorobenzene	ND	50.0		µg/L	50	03/02/06 15:09
1,2,3-Trichloropropane	ND	25.0		µg/L	50	03/02/06 15:09
1,2,4-Trichlorobenzene	ND	50.0		µg/L	50	03/02/06 15:09
1,2,4-Trimethylbenzene	1230	25.0		µg/L	50	03/02/06 15:09
1,2-Dibromo-3-chloropropane	ND	50.0		µg/L	50	03/02/06 15:09
1,2-Dibromoethane	ND	25.0		µg/L	50	03/02/06 15:09
1,2-Dichlorobenzene	ND	25.0		µg/L	50	03/02/06 15:09
1,2-Dichloroethane	ND	25.0		µg/L	50	03/02/06 15:09
1,2-Dichloropropane	ND	25.0		µg/L	50	03/02/06 15:09
1,3,5-Trimethylbenzene	298	25.0		µg/L	50	03/02/06 15:09
1,3-Dichlorobenzene	ND	25.0		µg/L	50	03/02/06 15:09
1,3-Dichloropropane	ND	25.0		µg/L	50	03/02/06 15:09
1,4-Dichlorobenzene	ND	25.0		µg/L	50	03/02/06 15:09
2,2-Dichloropropane	ND	25.0		µg/L	50	03/02/06 15:09
2-Chlorotoluene	ND	25.0		µg/L	50	03/02/06 15:09
4-Chlorotoluene	ND	25.0		µg/L	50	03/02/06 15:09
Benzene	1620	25.0		µg/L	50	03/02/06 15:09
Bromobenzene	ND	25.0		µg/L	50	03/02/06 15:09
Bromochloromethane	ND	25.0		µg/L	50	03/02/06 15:09
Bromodichloromethane	ND	25.0		µg/L	50	03/02/06 15:09
Bromoform	ND	25.0		µg/L	50	03/02/06 15:09
Bromomethane	ND	50.0		µg/L	50	03/02/06 15:09
Carbon tetrachloride	ND	25.0		µg/L	50	03/02/06 15:09
Chlorobenzene	ND	25.0		µg/L	50	03/02/06 15:09
Chloroethane	ND	50.0		µg/L	50	03/02/06 15:09
Chloroform	ND	25.0		µg/L	50	03/02/06 15:09
Chloromethane	ND	50.0		µg/L	50	03/02/06 15:09
cis-1,2-Dichloroethene	ND	25.0		µg/L	50	03/02/06 15:09

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Practical Quantitation Limit (PQL)  
S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
J Analyte detected below the PQL  
P Prim./Conf. column %D or RPD exceeds limit

Print Date: 03/06/06 11:35

Project Supervisor: Thomas A. Alexander

Page 3 of 26



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

ColumnID: Rtx-VMS

%Moisture:

Revision: 03/06/06 7:28:28 A

TestCode 8260W

Lab ID: 0603003-002A

Client Sample ID: MW2 022806

Collection Date: 02/28/06 13:30

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4688

FileID: 1-SAMP-T2732.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
cis-1,3-Dichloropropene	ND	25.0		µg/L	50	03/02/06 15:09
Dibromochloromethane	ND	25.0		µg/L	50	03/02/06 15:09
Dibromomethane	ND	25.0		µg/L	50	03/02/06 15:09
Dichlorodifluoromethane	ND	50.0		µg/L	50	03/02/06 15:09
Ethylbenzene	795	25.0		µg/L	50	03/02/06 15:09
Hexachlorobutadiene	ND	50.0		µg/L	50	03/02/06 15:09
Isopropylbenzene	42.5	25.0		µg/L	50	03/02/06 15:09
Methyl tert-butyl ether	ND	25.0		µg/L	50	03/02/06 15:09
Methylene chloride	ND	100		µg/L	50	03/02/06 15:09
n-Butylbenzene	ND	25.0		µg/L	50	03/02/06 15:09
n-Propylbenzene	76.0	25.0		µg/L	50	03/02/06 15:09
Naphthalene	140	50.0		µg/L	50	03/02/06 15:09
p-Isopropyltoluene	ND	25.0		µg/L	50	03/02/06 15:09
sec-Butylbenzene	ND	25.0		µg/L	50	03/02/06 15:09
Styrene	ND	25.0		µg/L	50	03/02/06 15:09
tert-Butylbenzene	ND	25.0		µg/L	50	03/02/06 15:09
Tetrachloroethene	ND	25.0		µg/L	50	03/02/06 15:09
Toluene	215	25.0		µg/L	50	03/02/06 15:09
trans-1,2-Dichloroethene	ND	25.0		µg/L	50	03/02/06 15:09
trans-1,3-Dichloropropene	ND	25.0		µg/L	50	03/02/06 15:09
Trichloroethene	ND	25.0		µg/L	50	03/02/06 15:09
Trichlorofluoromethane	ND	50.0		µg/L	50	03/02/06 15:09
Vinyl chloride	ND	50.0		µg/L	50	03/02/06 15:09
Xylenes (total)	2620	50.0		µg/L	50	03/02/06 15:09
Sum: 1,2-Dichloroethane-d4	102	75-134		%REC	50	03/02/06 15:09
Sum: 4-Bromofluorobenzene	108	75-125		%REC	50	03/02/06 15:09
Sum: Dibromofluoromethane	99.2	75-127		%REC	50	03/02/06 15:09
Sum: Toluene-d8	107	75-125		%REC	50	03/02/06 15:09

### Qualifiers:

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Practical Quantitation Limit (PQL)  
 S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
 J Analyte detected below the PQL  
 P Prim./Conf. column %D or RPD exceeds limit

Print Date: 03/06/06 11:35

Project Supervisor: Thomas A. Alexander

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# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

ColumnID: Rtx-VMS

Revision: 03/06/06 7:28:28 A

Sample Size: 10 mL

%Moisture:

TestCode 8260W

Lab ID: 0603003-003A

Client Sample ID: MW3 022806

Collection Date: 02/28/06 14:40

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4688

FileID: 1-SAMP-T2733.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>				<b>SW8260B</b>		
1,1,1,2-Tetrachloroethane	ND	0.50		µg/L	1	03/02/06 15:41
1,1,1-Trichloroethane	ND	0.50		µg/L	1	03/02/06 15:41
1,1,2,2-Tetrachloroethane	ND	0.50		µg/L	1	03/02/06 15:41
1,1,2-Trichloroethane	ND	0.50		µg/L	1	03/02/06 15:41
1,1-Dichloroethane	ND	0.50		µg/L	1	03/02/06 15:41
1,1-Dichloroethene	ND	0.50		µg/L	1	03/02/06 15:41
1,1-Dichloropropene	ND	0.50		µg/L	1	03/02/06 15:41
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	03/02/06 15:41
1,2,3-Trichloropropane	ND	0.50		µg/L	1	03/02/06 15:41
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	03/02/06 15:41
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	03/02/06 15:41
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	03/02/06 15:41
1,2-Dibromoethane	ND	0.50		µg/L	1	03/02/06 15:41
1,2-Dichlorobenzene	ND	0.50		µg/L	1	03/02/06 15:41
1,2-Dichloroethane	ND	0.50		µg/L	1	03/02/06 15:41
1,2-Dichloropropane	ND	0.50		µg/L	1	03/02/06 15:41
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	03/02/06 15:41
1,3-Dichlorobenzene	ND	0.50		µg/L	1	03/02/06 15:41
1,3-Dichloropropane	ND	0.50		µg/L	1	03/02/06 15:41
1,4-Dichlorobenzene	ND	0.50		µg/L	1	03/02/06 15:41
2,2-Dichloropropane	ND	0.50		µg/L	1	03/02/06 15:41
2-Chlorotoluene	ND	0.50		µg/L	1	03/02/06 15:41
4-Chlorotoluene	ND	0.50		µg/L	1	03/02/06 15:41
Benzene	ND	0.50		µg/L	1	03/02/06 15:41
Bromobenzene	ND	0.50		µg/L	1	03/02/06 15:41
Bromochloromethane	ND	0.50		µg/L	1	03/02/06 15:41
Bromodichloromethane	ND	0.50		µg/L	1	03/02/06 15:41
Bromoform	ND	0.50		µg/L	1	03/02/06 15:41
Bromomethane	ND	1.00		µg/L	1	03/02/06 15:41
Carbon tetrachloride	ND	0.50		µg/L	1	03/02/06 15:41
Chlorobenzene	ND	0.50		µg/L	1	03/02/06 15:41
Chloroethane	ND	1.00		µg/L	1	03/02/06 15:41
Chloroform	0.60	0.50		µg/L	1	03/02/06 15:41
Chloromethane	ND	1.00		µg/L	1	03/02/06 15:41
1,1,2,2-Tetrachloroethene	ND	0.50		µg/L	1	03/02/06 15:41

**Qualifiers:**

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

Print Date: 03/06/06 11:35

Project Supervisor: Thomas A. Alexander

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# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

ColumnID: Rbx-VMS

%Moisture:

Revision: 03/06/06 7:28:28 A

TestCode 8260W

Lab ID: 0603003-003A

Client Sample ID: MW3 022806

Collection Date: 02/28/06 14:40

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4688

FileID: 1-SAMP-T2733.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
cis-1,3-Dichloropropene	ND	0.50		µg/L	1	03/02/06 15:41
Dibromochloromethane	ND	0.50		µg/L	1	03/02/06 15:41
Dibromomethane	ND	0.50		µg/L	1	03/02/06 15:41
Dichlorodifluoromethane	ND	1.00		µg/L	1	03/02/06 15:41
Ethylbenzene	ND	0.50		µg/L	1	03/02/06 15:41
Hexachlorobutadiene	ND	1.00		µg/L	1	03/02/06 15:41
Isopropylbenzene	ND	0.50		µg/L	1	03/02/06 15:41
Methyl tert-butyl ether	ND	0.50		µg/L	1	03/02/06 15:41
Methylene chloride	ND	2.00		µg/L	1	03/02/06 15:41
n-Butylbenzene	ND	0.50		µg/L	1	03/02/06 15:41
n-Propylbenzene	ND	0.50		µg/L	1	03/02/06 15:41
Naphthalene	ND	1.00		µg/L	1	03/02/06 15:41
p-Isopropyltoluene	ND	0.50		µg/L	1	03/02/06 15:41
sec-Butylbenzene	ND	0.50		µg/L	1	03/02/06 15:41
Styrene	ND	0.50		µg/L	1	03/02/06 15:41
tert-Butylbenzene	ND	0.50		µg/L	1	03/02/06 15:41
Tetrachloroethane	ND	0.50		µg/L	1	03/02/06 15:41
Toluene	ND	0.50		µg/L	1	03/02/06 15:41
trans-1,2-Dichloroethane	ND	0.50		µg/L	1	03/02/06 15:41
trans-1,3-Dichloropropene	ND	0.50		µg/L	1	03/02/06 15:41
Trichloroethane	ND	0.50		µg/L	1	03/02/06 15:41
Trichlorofluoromethane	ND	1.00		µg/L	1	03/02/06 15:41
Vinyl chloride	ND	1.00		µg/L	1	03/02/06 15:41
Xylenes (total)	ND	1.00		µg/L	1	03/02/06 15:41
Surr: 1,2-Dichloroethane-d4	107	75-134		%REC	1	03/02/06 15:41
Surr: 4-Bromofluorobenzene	103	75-125		%REC	1	03/02/06 15:41
Surr: Dibromofluoromethane	104	75-127		%REC	1	03/02/06 15:41
Surr: Toluene-d8	108	75-125		%REC	1	03/02/06 15:41

### Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range

I Analyte detected below the PQL

P Prim /Conf. column %D or RPD exceeds limit.

Print Date: 03/06/06 11:35

Project Supervisor: Thomas A. Alexander

Page 6 of 26



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

ColumnID: Rtx-VMS

%Moisture:

Revision: 03/06/06 11:34:19 A

TestCode 8260W

Lab ID: 0603003-004A

Client Sample ID: MW4 022806

Collection Date: 02/28/06 15:10

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4697

FileID: 1-SAMP-T2751.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>				<b>SW8260B</b>		
1,1,1,2-Tetrachloroethane	ND		2.50	µg/L	5	03/03/06 11:58
1,1,1-Trichloroethane	ND		2.50	µg/L	5	03/03/06 11:58
1,1,2,2-Tetrachloroethane	ND		2.50	µg/L	5	03/03/06 11:58
1,1,2-Trichloroethane	ND		2.50	µg/L	5	03/03/06 11:58
1,1-Dichloroethane	ND		2.50	µg/L	5	03/03/06 11:58
1,1-Dichloroethene	ND		2.50	µg/L	5	03/03/06 11:58
1,1-Dichloropropene	ND		2.50	µg/L	5	03/03/06 11:58
1,2,3-Trichlorobenzene	ND		5.00	µg/L	5	03/03/06 11:58
1,2,3-Trichloropropane	ND		2.50	µg/L	5	03/03/06 11:58
1,2,4-Trichlorobenzene	ND		5.00	µg/L	5	03/03/06 11:58
1,2,4-Trimethylbenzene	4.35		2.50	µg/L	5	03/03/06 11:58
1,2-Dibromo-3-chloropropane	ND		5.00	µg/L	5	03/03/06 11:58
1,2-Dibromoethane	ND		2.50	µg/L	5	03/03/06 11:58
1,2-Dichlorobenzene	ND		2.50	µg/L	5	03/03/06 11:58
1,2-Dichloroethane	ND		2.50	µg/L	5	03/03/06 11:58
1,2-Dichloropropane	ND		2.50	µg/L	5	03/03/06 11:58
1,3,5-Trimethylbenzene	ND		2.50	µg/L	5	03/03/06 11:58
1,3-Dichlorobenzene	ND		2.50	µg/L	5	03/03/06 11:58
1,3-Dichloropropane	ND		2.50	µg/L	5	03/03/06 11:58
1,4-Dichlorobenzene	ND		2.50	µg/L	5	03/03/06 11:58
2,2-Dichloropropane	ND		2.50	µg/L	5	03/03/06 11:58
2-Chlorotoluene	ND		2.50	µg/L	5	03/03/06 11:58
4-Chlorotoluene	ND		2.50	µg/L	5	03/03/06 11:58
Benzene	100		2.50	µg/L	5	03/03/06 11:58
Bromobenzene	ND		2.50	µg/L	5	03/03/06 11:58
Bromochloromethane	ND		2.50	µg/L	5	03/03/06 11:58
Bromodichloromethane	ND		2.50	µg/L	5	03/03/06 11:58
Bromofom	ND		2.50	µg/L	5	03/03/06 11:58
Bromomethane	ND		5.00	µg/L	5	03/03/06 11:58
Carbon tetrachloride	ND		2.50	µg/L	5	03/03/06 11:58
Chlorobenzene	ND		2.50	µg/L	5	03/03/06 11:58
Chloroethane	ND		5.00	µg/L	5	03/03/06 11:58
Chloroform	ND		2.50	µg/L	5	03/03/06 11:58
Chloromethane	ND		5.00	µg/L	5	03/03/06 11:58
cis-1,2-Dichloroethane	ND		2.50	µg/L	5	03/03/06 11:58

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Practical Quantitation Limit (PQL)  
S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
J Analyte detected below the PQL  
P Prim./Conf. column %D or RPD exceeds limit



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

**CLIENT:** O'Brien & Gere Engineers, Inc.**Project:** Associated Textiles**W Order:** 0603003**Matrix:** WATER**Inst. ID:** MS01 11**Sample Size:** 10 mL**ColumnID:** Rtx-VMS**%Moisture:****Revision:** 03/06/06 11:34:19 A**TestCode** 8260W**Lab ID:** 0603003-004A**Client Sample ID:** MW4 022806**Collection Date:** 02/28/06 15:10**Date Received:** 02/28/06 20:15**PrepDate:****BatchNo:** R4697**FileID:** 1-SAMP-T2751.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>				<b>SW8260B</b>		
cis-1,3-Dichloropropene	ND	2.50		µg/L	5	03/03/06 11:58
Dibromochloromethane	ND	2.50		µg/L	5	03/03/06 11:58
Dibromomethane	ND	2.50		µg/L	5	03/03/06 11:58
Dichlorodifluoromethane	ND	5.00		µg/L	5	03/03/06 11:58
Ethylbenzene	10.6	2.50		µg/L	5	03/03/06 11:58
Hexachlorobutadiene	ND	5.00		µg/L	5	03/03/06 11:58
Isopropylbenzene	8.35	2.50		µg/L	5	03/03/06 11:58
Methyl tert-butyl ether	ND	2.50		µg/L	5	03/03/06 11:58
Methylene chloride	ND	10.0		µg/L	5	03/03/06 11:58
n-Butylbenzene	ND	2.50		µg/L	5	03/03/06 11:58
n-Propylbenzene	4.55	2.50		µg/L	5	03/03/06 11:58
Naphthalene	ND	5.00		µg/L	5	03/03/06 11:58
p-Isopropyltoluene	ND	2.50		µg/L	5	03/03/06 11:58
sec-Butylbenzene	ND	2.50		µg/L	5	03/03/06 11:58
Styrene	ND	2.50		µg/L	5	03/03/06 11:58
tert-Butylbenzene	ND	2.50		µg/L	5	03/03/06 11:58
Tetrachloroethene	ND	2.50		µg/L	5	03/03/06 11:58
Toluene	9.35	2.50		µg/L	5	03/03/06 11:58
trans-1,2-Dichloroethene	ND	2.50		µg/L	5	03/03/06 11:58
trans-1,3-Dichloropropene	ND	2.50		µg/L	5	03/03/06 11:58
Trichloroethene	ND	2.50		µg/L	5	03/03/06 11:58
Trichlorofluoromethane	ND	5.00		µg/L	5	03/03/06 11:58
Vinyl chloride	6.70	5.00		µg/L	5	03/03/06 11:58
Xylenes (total)	19.5	5.00		µg/L	5	03/03/06 11:58
Surr: 1,2-Dichloroethane-d4	98.2	75-134		%REC	5	03/03/06 11:58
Surr: 4-Bromofluorobenzene	107	75-125		%REC	5	03/03/06 11:58
Surr: Dibromofluoromethane	93.6	75-127		%REC	5	03/03/06 11:58
Surr: Toluene-d8	106	75-125		%REC	5	03/03/06 11:58

**Qualifiers:**

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

Print Date: 03/06/06 11:35

Project Supervisor: Thomas A. Alexander

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# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst ID: MS01 11

Sample Size: 10 mL

ColumnID: Rtx-VMS

%Moisture:

Revision: 03/06/06 7:28:28 A

TestCode 8260W

Lab ID: 0603003-005A

Client Sample ID: MWS 022806

Collection Date: 02/28/06 17:05

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4688

FileID: 1-SAMP-T2735.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>				<b>SW8260B</b>		
1,1,1,2-Tetrachloroethane	ND	0.50		µg/L	1	03/02/06 16:44
1,1,1-Trichloroethane	ND	0.50		µg/L	1	03/02/06 16:44
1,1,2,2-Tetrachloroethane	ND	0.50		µg/L	1	03/02/06 16:44
1,1,2-Trichloroethane	ND	0.50		µg/L	1	03/02/06 16:44
1,1-Dichloroethane	ND	0.50		µg/L	1	03/02/06 16:44
1,1-Dichloroethene	ND	0.50		µg/L	1	03/02/06 16:44
1,1-Dichloropropene	ND	0.50		µg/L	1	03/02/06 16:44
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	03/02/06 16:44
1,2,3-Trichloropropane	ND	0.50		µg/L	1	03/02/06 16:44
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	03/02/06 16:44
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	03/02/06 16:44
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	03/02/06 16:44
1,2-Dibromoethane	ND	0.50		µg/L	1	03/02/06 16:44
1,2-Dichlorobenzene	ND	0.50		µg/L	1	03/02/06 16:44
1,2-Dichloroethane	ND	0.50		µg/L	1	03/02/06 16:44
1,2-Dichloropropane	ND	0.50		µg/L	1	03/02/06 16:44
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	03/02/06 16:44
1,3-Dichlorobenzene	ND	0.50		µg/L	1	03/02/06 16:44
1,3-Dichloropropane	ND	0.50		µg/L	1	03/02/06 16:44
1,4-Dichlorobenzene	ND	0.50		µg/L	1	03/02/06 16:44
2,2-Dichloropropane	ND	0.50		µg/L	1	03/02/06 16:44
2-Chlorotoluene	ND	0.50		µg/L	1	03/02/06 16:44
4-Chlorotoluene	ND	0.50		µg/L	1	03/02/06 16:44
Benzene	ND	0.50		µg/L	1	03/02/06 16:44
Bromobenzene	ND	0.50		µg/L	1	03/02/06 16:44
Bromochloromethane	ND	0.50		µg/L	1	03/02/06 16:44
Bromodichloromethane	ND	0.50		µg/L	1	03/02/06 16:44
Bromoform	ND	0.50		µg/L	1	03/02/06 16:44
Bromomethane	ND	1.00		µg/L	1	03/02/06 16:44
Carbon tetrachloride	ND	0.50		µg/L	1	03/02/06 16:44
Chlorobenzene	ND	0.50		µg/L	1	03/02/06 16:44
Chloroethane	ND	1.00		µg/L	1	03/02/06 16:44
Chloroform	2.31	0.50		µg/L	1	03/02/06 16:44
Chloromethane	ND	1.00		µg/L	1	03/02/06 16:44
cis-1,2-Dichloroethene	ND	0.50		µg/L	1	03/02/06 16:44

**Qualifiers:**  
 B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Practical Quantitation Limit (PQL)  
 S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
 J Analyte detected below the PQL  
 P Prim./Conf. column %D or RPD exceeds limit



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

ColumnID: Rtx-VMS

%Moisture:

Revision: 03/06/06 7:28:28 A

TestCode 8260W

Lab ID: 0603003-005A

Client Sample ID: MW5 022806

Collection Date: 02/28/06 17:05

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4688

FileID: 1-SAMP-T2735.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>				<b>SW8260B</b>		
cis-1,3-Dichloropropene	ND	0.50		µg/L	1	03/02/06 16:44
Dibromochloromethane	ND	0.50		µg/L	1	03/02/06 16:44
Dibromomethane	ND	0.50		µg/L	1	03/02/06 16:44
Dichlorodifluoromethane	ND	1.00		µg/L	1	03/02/06 16:44
Ethylbenzene	ND	0.50		µg/L	1	03/02/06 16:44
Hexachlorobutadiene	ND	1.00		µg/L	1	03/02/06 16:44
Isopropylbenzene	ND	0.50		µg/L	1	03/02/06 16:44
Methyl tert-butyl ether	ND	0.50		µg/L	1	03/02/06 16:44
Methylene chloride	ND	2.00		µg/L	1	03/02/06 16:44
n-Butylbenzene	ND	0.50		µg/L	1	03/02/06 16:44
n-Propylbenzene	ND	0.50		µg/L	1	03/02/06 16:44
Naphthalene	ND	1.00		µg/L	1	03/02/06 16:44
p-Isopropyltoluene	ND	0.50		µg/L	1	03/02/06 16:44
sec-Butylbenzene	ND	0.50		µg/L	1	03/02/06 16:44
Styrene	ND	0.50		µg/L	1	03/02/06 16:44
tert-Butylbenzene	ND	0.50		µg/L	1	03/02/06 16:44
Tetrachloroethene	ND	0.50		µg/L	1	03/02/06 16:44
Toluene	ND	0.50		µg/L	1	03/02/06 16:44
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	03/02/06 16:44
trans-1,3-Dichloropropene	ND	0.50		µg/L	1	03/02/06 16:44
Trichloroethene	ND	0.50		µg/L	1	03/02/06 16:44
Trichlorofluoromethane	ND	1.00		µg/L	1	03/02/06 16:44
Vinyl chloride	ND	1.00		µg/L	1	03/02/06 16:44
Xylenes (total)	ND	1.00		µg/L	1	03/02/06 16:44
Surr: 1,2-Dichloroethane-d4	107	75-134		%REC	1	03/02/06 16:44
Surr: 4-Bromofluorobenzene	101	75-125		%REC	1	03/02/06 16:44
Surr: Dibromofluoromethane	107	75-127		%REC	1	03/02/06 16:44
Surr: Toluene-d8	109	75-125		%REC	1	03/02/06 16:44

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Practical Quantitation Limit (PQL)  
S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
J Analyte detected below the PQL  
P Prim./Conf. column %D or RPD exceeds limit

Print Date: 03/06/06 11:35

Project Supervisor: Thomas A. Alexander

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# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

ColumnID: Rtx-VMS

%Moisture:

Revision: 03/06/06 11:34:19 A

TestCode 8260W

Lab ID: 0603003-006A

Client Sample ID: MW6 022806

Collection Date: 02/28/06 12:40

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4697

FileID: 1-SAMP-T2752.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
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### VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

1,1,1,2-Tetrachloroethane	ND	2.50	µg/L	5	03/03/06 12:29
1,1,1-Trichloroethane	ND	2.50	µg/L	5	03/03/06 12:29
1,1,2,2-Tetrachloroethane	ND	2.50	µg/L	5	03/03/06 12:29
1,1,2-Trichloroethane	ND	2.50	µg/L	5	03/03/06 12:29
1,1-Dichloroethane	ND	2.50	µg/L	5	03/03/06 12:29
1,1-Dichloroethene	ND	2.50	µg/L	5	03/03/06 12:29
1,1-Dichloropropene	ND	2.50	µg/L	5	03/03/06 12:29
1,2,3-Trichlorobenzene	ND	5.00	µg/L	5	03/03/06 12:29
1,2,3-Trichloropropane	ND	2.50	µg/L	5	03/03/06 12:29
1,2,4-Trichlorobenzene	ND	5.00	µg/L	5	03/03/06 12:29
1,2,4-Trimethylbenzene	ND	2.50	µg/L	5	03/03/06 12:29
1,2-Dibromo-3-chloropropane	ND	5.00	µg/L	5	03/03/06 12:29
1,2-Dibromoethane	ND	2.50	µg/L	5	03/03/06 12:29
1,2-Dichlorobenzene	ND	2.50	µg/L	5	03/03/06 12:29
1,2-Dichloroethane	ND	2.50	µg/L	5	03/03/06 12:29
1,2-Dichloropropane	ND	2.50	µg/L	5	03/03/06 12:29
1,3,5-Trimethylbenzene	ND	2.50	µg/L	5	03/03/06 12:29
1,3-Dichlorobenzene	ND	2.50	µg/L	5	03/03/06 12:29
1,3-Dichloropropane	ND	2.50	µg/L	5	03/03/06 12:29
1,4-Dichlorobenzene	ND	2.50	µg/L	5	03/03/06 12:29
2,2-Dichloropropane	ND	2.50	µg/L	5	03/03/06 12:29
2-Chlorotoluene	ND	2.50	µg/L	5	03/03/06 12:29
4-Chlorotoluene	ND	2.50	µg/L	5	03/03/06 12:29
Benzene	20.8	2.50	µg/L	5	03/03/06 12:29
Bromobenzene	ND	2.50	µg/L	5	03/03/06 12:29
Bromochloromethane	ND	2.50	µg/L	5	03/03/06 12:29
Bromodichloromethane	ND	2.50	µg/L	5	03/03/06 12:29
Bromoform	ND	2.50	µg/L	5	03/03/06 12:29
Bromomethane	ND	5.00	µg/L	5	03/03/06 12:29
Carbon tetrachloride	ND	2.50	µg/L	5	03/03/06 12:29
Chlorobenzene	ND	2.50	µg/L	5	03/03/06 12:29
Chloroethane	ND	5.00	µg/L	5	03/03/06 12:29
Chloroform	ND	2.50	µg/L	5	03/03/06 12:29
Chloromethane	ND	5.00	µg/L	5	03/03/06 12:29
cis-1,2-Dichloroethene	ND	2.50	µg/L	5	03/03/06 12:29

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Practical Quantitation Limit (PQL)  
S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
J Analyte detected below the PQL  
P Prim./Conf. column %D or RPD exceeds limit

Print Date: 03/06/06 11:35

Project Supervisor: Thomas A. Alexander

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# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

ColumnID: Rtx-VMS

Revision: 03/06/06 11:34:19 A

Sample Size: 10 mL

%Moisture:

TestCode 8260W

Lab ID: 0603003-006A

Client Sample ID: MW6 022806

Collection Date: 02/28/06 12:40

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4697

FileID: 1-SAMP-T2752.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
cis-1,3-Dichloropropene	ND	2.50		µg/L	5	03/03/06 12:29
Dibromochloromethane	ND	2.50		µg/L	5	03/03/06 12:29
Dibromomethane	ND	2.50		µg/L	5	03/03/06 12:29
Dichlorodifluoromethane	ND	5.00		µg/L	5	03/03/06 12:29
Ethylbenzene	3.80	2.50		µg/L	5	03/03/06 12:29
Hexachlorobutadiene	ND	5.00		µg/L	5	03/03/06 12:29
Isopropylbenzene	26.5	2.50		µg/L	5	03/03/06 12:29
Methyl tert-butyl ether	13.8	2.50		µg/L	5	03/03/06 12:29
Methylene chloride	ND	10.0		µg/L	5	03/03/06 12:29
n-Butylbenzene	ND	2.50		µg/L	5	03/03/06 12:29
n-Propylbenzene	29.6	2.50		µg/L	5	03/03/06 12:29
Naphthalene	ND	5.00		µg/L	5	03/03/06 12:29
p-Isopropyltoluene	ND	2.50		µg/L	5	03/03/06 12:29
sec-Butylbenzene	ND	2.50		µg/L	5	03/03/06 12:29
Styrene	ND	2.50		µg/L	5	03/03/06 12:29
tert-Butylbenzene	ND	2.50		µg/L	5	03/03/06 12:29
Tetrachloroethene	ND	2.50		µg/L	5	03/03/06 12:29
Toluene	ND	2.50		µg/L	5	03/03/06 12:29
trans-1,2-Dichloroethene	ND	2.50		µg/L	5	03/03/06 12:29
trans-1,3-Dichloropropene	ND	2.50		µg/L	5	03/03/06 12:29
Trichloroethene	ND	2.50		µg/L	5	03/03/06 12:29
Trichlorofluoromethane	ND	5.00		µg/L	5	03/03/06 12:29
Vinyl chloride	ND	5.00		µg/L	5	03/03/06 12:29
Xylenes (total)	5.00	5.00		µg/L	5	03/03/06 12:29
Surr: 1,2-Dichloroethane-d4	100	75-134		%REC	5	03/03/06 12:29
Surr: 4-Bromofluorobenzene	108	75-125		%REC	5	03/03/06 12:29
Surr: Dibromofluoromethane	97.4	75-127		%REC	5	03/03/06 12:29
Surr: Toluene-d8	109	75-125		%REC	5	03/03/06 12:29

### Qualifiers:

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Practical Quantitation Limit (PQL)  
S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
J Analyte detected below the PQL  
P Prim./Conf. column %D or RPD exceeds limit

Print Date: 03/06/06 11:35

Project Supervisor: Thomas A. Alexander

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# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

ColumnID: Rcx-VMS

%Moisture:

Revision: 03/06/06 7:28:28 A

TestCode: 8260W

Lab ID: 0603003-007A

Client Sample ID: MW7 022806

Collection Date: 02/28/06 15:50

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4688

FileID: I-SAMP-T2737.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
1,1,1,2-Tetrachloroethane	ND	0.50		µg/L	1	03/02/06 17:48
1,1,1-Trichloroethane	ND	0.50		µg/L	1	03/02/06 17:48
1,1,2,2-Tetrachloroethane	ND	0.50		µg/L	1	03/02/06 17:48
1,1,2-Trichloroethane	ND	0.50		µg/L	1	03/02/06 17:48
1,1-Dichloroethane	ND	0.50		µg/L	1	03/02/06 17:48
1,1-Dichloroethene	ND	0.50		µg/L	1	03/02/06 17:48
1,1-Dichloropropene	ND	0.50		µg/L	1	03/02/06 17:48
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	03/02/06 17:48
1,2,3-Trichloropropane	ND	0.50		µg/L	1	03/02/06 17:48
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	03/02/06 17:48
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	03/02/06 17:48
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	03/02/06 17:48
1,2-Dibromoethane	ND	0.50		µg/L	1	03/02/06 17:48
1,2-Dichlorobenzene	ND	0.50		µg/L	1	03/02/06 17:48
1,2-Dichloroethane	ND	0.50		µg/L	1	03/02/06 17:48
1,2-Dichloropropane	ND	0.50		µg/L	1	03/02/06 17:48
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	03/02/06 17:48
1,3-Dichlorobenzene	ND	0.50		µg/L	1	03/02/06 17:48
1,3-Dichloropropane	ND	0.50		µg/L	1	03/02/06 17:48
1,4-Dichlorobenzene	ND	0.50		µg/L	1	03/02/06 17:48
2,2-Dichloropropane	ND	0.50		µg/L	1	03/02/06 17:48
2-Chlorotoluene	ND	0.50		µg/L	1	03/02/06 17:48
4-Chlorotoluene	ND	0.50		µg/L	1	03/02/06 17:48
Benzene	ND	0.50		µg/L	1	03/02/06 17:48
Bromobenzene	ND	0.50		µg/L	1	03/02/06 17:48
Bromochloromethane	ND	0.50		µg/L	1	03/02/06 17:48
Bromodichloromethane	ND	0.50		µg/L	1	03/02/06 17:48
Bromoform	ND	0.50		µg/L	1	03/02/06 17:48
Bromomethane	ND	1.00		µg/L	1	03/02/06 17:48
Carbon tetrachloride	ND	0.50		µg/L	1	03/02/06 17:48
Chlorobenzene	ND	0.50		µg/L	1	03/02/06 17:48
Chloroethane	ND	1.00		µg/L	1	03/02/06 17:48
Chloroform	ND	0.50		µg/L	1	03/02/06 17:48
Chloromethane	ND	1.00		µg/L	1	03/02/06 17:48
cis-1,2-Dichloroethene	ND	0.50		µg/L	1	03/02/06 17:48

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Practical Quantitation Limit (PQL)  
S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
J Analyte detected below the PQL  
P Prim./Conf. column %D or RPD exceeds limit

Print Date: 03/06/06 11:35

Project Supervisor: Thomas A. Alexander

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# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

Column ID: Rtx-VMS

%Moisture:

Revision: 03/06/06 7:28:28 A

TestCode 8260W

Lab ID: 0603003-007A

Client Sample ID: MW7 022806

Collection Date: 02/28/06 15:50

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4688

FileID: 1-SAMP-T2737.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>				<b>SW8260B</b>		
cis-1,3-Dichloropropene	ND	0.50		µg/L	1	03/02/06 17:48
Dibromochloromethane	ND	0.50		µg/L	1	03/02/06 17:48
Dibromomethane	ND	0.50		µg/L	1	03/02/06 17:48
Dichlorodifluoromethane	ND	1.00		µg/L	1	03/02/06 17:48
Ethylbenzene	ND	0.50		µg/L	1	03/02/06 17:48
Hexachlorobutadiene	ND	1.00		µg/L	1	03/02/06 17:48
Isopropylbenzene	ND	0.50		µg/L	1	03/02/06 17:48
Methyl tert-butyl ether	8.96	0.50		µg/L	1	03/02/06 17:48
Methylene chloride	ND	2.00		µg/L	1	03/02/06 17:48
n-Butylbenzene	ND	0.50		µg/L	1	03/02/06 17:48
n-Propylbenzene	ND	0.50		µg/L	1	03/02/06 17:48
Naphthalene	ND	1.00		µg/L	1	03/02/06 17:48
p-Isopropyltoluene	ND	0.50		µg/L	1	03/02/06 17:48
sec-Butylbenzene	ND	0.50		µg/L	1	03/02/06 17:48
Styrene	ND	0.50		µg/L	1	03/02/06 17:48
tert-Butylbenzene	ND	0.50		µg/L	1	03/02/06 17:48
Tetrachloroethene	ND	0.50		µg/L	1	03/02/06 17:48
Toluene	ND	0.50		µg/L	1	03/02/06 17:48
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	03/02/06 17:48
trans-1,3-Dichloropropene	ND	0.50		µg/L	1	03/02/06 17:48
Trichloroethene	ND	0.50		µg/L	1	03/02/06 17:48
Trichlorofluoromethane	ND	1.00		µg/L	1	03/02/06 17:48
Vinyl chloride	ND	1.00		µg/L	1	03/02/06 17:48
Xylenes (total)	ND	1.00		µg/L	1	03/02/06 17:48
Surr. 1,2-Dichloroethane-d4	105	75-134		%REC	1	03/02/06 17:48
Surr. 4-Bromofluorobenzene	105	75-125		%REC	1	03/02/06 17:48
Surr. Dibromofluoromethane	106	75-127		%REC	1	03/02/06 17:48
Surr. Toluene-d8	108	75-125		%REC	1	03/02/06 17:48

**Qualifiers:**

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Practical Quantitation Limit (PQL)  
 S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
 J Analyte detected below the PQL  
 P Prim./Conf. column %D or RPD exceeds limit



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

ColumnID: Rtx-VMS

%Moisture:

Revision: 03/06/06 7:28:28 A

TestCode 8260W

Lab ID: 0603003-008A

Client Sample ID: MW8 022806

Collection Date: 02/28/06 16:11

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4688

FileID: 1-SAMP-T2738.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>				<b>SW8260B</b>		
1,1,1,2-Tetrachloroethane	ND		0.50	µg/L	1	03/02/06 18:20
1,1,1-Trichloroethane	71.7	E	0.50	µg/L	1	03/02/06 18:20
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	03/02/06 18:20
1,1,2-Trichloroethane	ND		0.50	µg/L	1	03/02/06 18:20
1,1-Dichloroethane	2.76		0.50	µg/L	1	03/02/06 18:20
1,1-Dichloroethane	0.77		0.50	µg/L	1	03/02/06 18:20
1,1-Dichloropropene	ND		0.50	µg/L	1	03/02/06 18:20
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	03/02/06 18:20
1,2,3-Trichloropropane	ND		0.50	µg/L	1	03/02/06 18:20
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	03/02/06 18:20
1,2,4-Trimethylbenzene	ND		0.50	µg/L	1	03/02/06 18:20
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	03/02/06 18:20
1,2-Dibromoethane	ND		0.50	µg/L	1	03/02/06 18:20
1,2-Dichlorobenzene	ND		0.50	µg/L	1	03/02/06 18:20
1,2-Dichloroethane	ND		0.50	µg/L	1	03/02/06 18:20
1,2-Dichloropropane	ND		0.50	µg/L	1	03/02/06 18:20
1,3,5-Trimethylbenzene	ND		0.50	µg/L	1	03/02/06 18:20
1,3-Dichlorobenzene	ND		0.50	µg/L	1	03/02/06 18:20
1,3-Dichloropropane	ND		0.50	µg/L	1	03/02/06 18:20
1,4-Dichlorobenzene	ND		0.50	µg/L	1	03/02/06 18:20
2,2-Dichloropropane	ND		0.50	µg/L	1	03/02/06 18:20
2-Chlorotoluene	ND		0.50	µg/L	1	03/02/06 18:20
4-Chlorotoluene	ND		0.50	µg/L	1	03/02/06 18:20
Benzene	ND		0.50	µg/L	1	03/02/06 18:20
Bromobenzene	ND		0.50	µg/L	1	03/02/06 18:20
Bromochloromethane	ND		0.50	µg/L	1	03/02/06 18:20
Bromodichloromethane	ND		0.50	µg/L	1	03/02/06 18:20
Bromoform	ND		0.50	µg/L	1	03/02/06 18:20
Bromomethane	ND		1.00	µg/L	1	03/02/06 18:20
Carbon tetrachloride	ND		0.50	µg/L	1	03/02/06 18:20
Chlorobenzene	ND		0.50	µg/L	1	03/02/06 18:20
Chloroethane	ND		1.00	µg/L	1	03/02/06 18:20
Chloroform	ND		0.50	µg/L	1	03/02/06 18:20
Chloromethane	ND		1.00	µg/L	1	03/02/06 18:20
cis-1,2-Dichloroethane	23.2		0.50	µg/L	1	03/02/06 18:20

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Practical Quantitation Limit (PQL)  
S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
J Analyte detected below the PQL  
P Prim./Conf. column %D or RPD exceeds limit



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien & Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst ID: MS01 11

ColumnID: Rdx-VMS

Revision: 03/06/06 7:28:28 A

Sample Size: 10 mL

%Moisture:

TestCode: 8260W

Lab ID: 0603003-008A

Client Sample ID: MW8 022806

Collection Date: 02/28/06 16:11

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4688

FileID: 1-SAMP-T2738.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
cis-1,3-Dichloropropene	ND		0.50	µg/L	1	03/02/06 18:20
Dibromochloromethane	ND		0.50	µg/L	1	03/02/06 18:20
Dibromomethane	ND		0.50	µg/L	1	03/02/06 18:20
Dichlorodifluoromethane	ND		1.00	µg/L	1	03/02/06 18:20
Ethylbenzene	ND		0.50	µg/L	1	03/02/06 18:20
Hexachlorobutadiene	ND		1.00	µg/L	1	03/02/06 18:20
Isopropylbenzene	ND		0.50	µg/L	1	03/02/06 18:20
Methyl tert-butyl ether	3.13		0.50	µg/L	1	03/02/06 18:20
Methylene chloride	ND		2.00	µg/L	1	03/02/06 18:20
n-Butylbenzene	ND		0.50	µg/L	1	03/02/06 18:20
n-Propylbenzene	ND		0.50	µg/L	1	03/02/06 18:20
Naphthalene	ND		1.00	µg/L	1	03/02/06 18:20
p-Isopropyltoluene	ND		0.50	µg/L	1	03/02/06 18:20
sec-Butylbenzene	ND		0.50	µg/L	1	03/02/06 18:20
Styrene	ND		0.50	µg/L	1	03/02/06 18:20
tert-Butylbenzene	ND		0.50	µg/L	1	03/02/06 18:20
Tetrachloroethene	1.77		0.50	µg/L	1	03/02/06 18:20
Toluene	ND		0.50	µg/L	1	03/02/06 18:20
trans-1,2-Dichloroethene	ND		0.50	µg/L	1	03/02/06 18:20
trans-1,3-Dichloropropene	ND		0.50	µg/L	1	03/02/06 18:20
Trichloroethene	201	E	0.50	µg/L	1	03/02/06 18:20
Trichlorofluoromethane	ND		1.00	µg/L	1	03/02/06 18:20
Vinyl chloride	ND		1.00	µg/L	1	03/02/06 18:20
Xylenes (total)	ND		1.00	µg/L	1	03/02/06 18:20
Surr: 1,2-Dichloroethane-d4	107		75-134	%REC	1	03/02/06 18:20
Surr: 4-Bromofluorobenzene	102		75-125	%REC	1	03/02/06 18:20
Surr: Dibromofluoromethane	104		75-127	%REC	1	03/02/06 18:20
Surr: Toluene-d8	108		75-125	%REC	1	03/02/06 18:20

### Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

Print Date: 03/06/06 11:35

Project Supervisor: Thomas A. Alexander

Page 16 of 26





# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01.11

Sample Size: 10 mL

ColumnID: Rtx-VMS

%Moisture:

Revision: 03/06/06 11:34:19 A

TestCode 8260W

Lab ID: 0603003-008A

Client Sample ID: MW8 022806

Collection Date: 02/28/06 16:11

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4697

FileID: 1-DL-T2753.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
1,1,1,2-Tetrachloroethane	ND	5.00		µg/L	10	03/03/06 13:01
1,1,1-Trichloroethane	71.0	5.00		µg/L	10	03/03/06 13:01
1,1,2,2-Tetrachloroethane	ND	5.00		µg/L	10	03/03/06 13:01
1,1,2-Trichloroethane	ND	5.00		µg/L	10	03/03/06 13:01
1,1-Dichloroethane	ND	5.00		µg/L	10	03/03/06 13:01
1,1-Dichloroethene	ND	5.00		µg/L	10	03/03/06 13:01
1,1-Dichloropropene	ND	5.00		µg/L	10	03/03/06 13:01
1,2,3-Trichlorobenzene	ND	10.0		µg/L	10	03/03/06 13:01
1,2,3-Trichloropropane	ND	5.00		µg/L	10	03/03/06 13:01
1,2,4-Trichlorobenzene	ND	10.0		µg/L	10	03/03/06 13:01
1,2,4-Trimethylbenzene	ND	5.00		µg/L	10	03/03/06 13:01
1,2-Dibromo-3-chloropropane	ND	10.0		µg/L	10	03/03/06 13:01
1,2-Dibromoethane	ND	5.00		µg/L	10	03/03/06 13:01
1,2-Dichlorobenzene	ND	5.00		µg/L	10	03/03/06 13:01
1,2-Dichloroethane	ND	5.00		µg/L	10	03/03/06 13:01
1,2-Dichloropropane	ND	5.00		µg/L	10	03/03/06 13:01
1,3,5-Trimethylbenzene	ND	5.00		µg/L	10	03/03/06 13:01
1,3-Dichlorobenzene	ND	5.00		µg/L	10	03/03/06 13:01
1,3-Dichloropropane	ND	5.00		µg/L	10	03/03/06 13:01
1,4-Dichlorobenzene	ND	5.00		µg/L	10	03/03/06 13:01
2,2-Dichloropropane	ND	5.00		µg/L	10	03/03/06 13:01
2-Chlorotoluene	ND	5.00		µg/L	10	03/03/06 13:01
4-Chlorotoluene	ND	5.00		µg/L	10	03/03/06 13:01
Benzene	ND	5.00		µg/L	10	03/03/06 13:01
Bromobenzene	ND	5.00		µg/L	10	03/03/06 13:01
Bromochloromethane	ND	5.00		µg/L	10	03/03/06 13:01
Bromodichloromethane	ND	5.00		µg/L	10	03/03/06 13:01
Bromoforn	ND	5.00		µg/L	10	03/03/06 13:01
Bromomethane	ND	10.0		µg/L	10	03/03/06 13:01
Carbon tetrachloride	ND	5.00		µg/L	10	03/03/06 13:01
Chlorobenzene	ND	5.00		µg/L	10	03/03/06 13:01
Chloroethane	ND	10.0		µg/L	10	03/03/06 13:01
Chloroform	ND	5.00		µg/L	10	03/03/06 13:01
Chloromethane	ND	10.0		µg/L	10	03/03/06 13:01
cis-1,2-Dichloroethene	21.1	5.00		µg/L	10	03/03/06 13:01

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Practical Quantitation Limit (PQL)  
S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
J Analyte detected below the PQL  
P Prim./Conf. column %D or RPD exceeds limit



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W-Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

ColumnID: Rtx-VMS

%Moisture:

Revision: 03/06/06 11:34:19 A

TestCode 8260W

Lab ID: 0603003-008A

Client Sample ID: MW8 022806

Collection Date: 02/28/06 16:11

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4697

FileID: 1-DL-T2753.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
cis-1,3-Dichloropropene	ND	5.00		µg/L	10	03/03/06 13:01
Dibromochloromethane	ND	5.00		µg/L	10	03/03/06 13:01
Dibromomethane	ND	5.00		µg/L	10	03/03/06 13:01
Dichlorodifluoromethane	ND	10.0		µg/L	10	03/03/06 13:01
Ethylbenzene	ND	5.00		µg/L	10	03/03/06 13:01
Hexachlorobutadiene	ND	10.0		µg/L	10	03/03/06 13:01
Isopropylbenzene	ND	5.00		µg/L	10	03/03/06 13:01
Methyl tert-butyl ether	ND	5.00		µg/L	10	03/03/06 13:01
Methylene chloride	ND	20.0		µg/L	10	03/03/06 13:01
n-Butylbenzene	ND	5.00		µg/L	10	03/03/06 13:01
n-Propylbenzene	ND	5.00		µg/L	10	03/03/06 13:01
Naphthalene	ND	10.0		µg/L	10	03/03/06 13:01
p-Isopropyltoluene	ND	5.00		µg/L	10	03/03/06 13:01
sec-Butylbenzene	ND	5.00		µg/L	10	03/03/06 13:01
Styrene	ND	5.00		µg/L	10	03/03/06 13:01
tert-Butylbenzene	ND	5.00		µg/L	10	03/03/06 13:01
Tetrachloroethene	ND	5.00		µg/L	10	03/03/06 13:01
Toluene	ND	5.00		µg/L	10	03/03/06 13:01
trans-1,2-Dichloroethene	ND	5.00		µg/L	10	03/03/06 13:01
trans-1,3-Dichloropropene	ND	5.00		µg/L	10	03/03/06 13:01
Trichloroethene	225	5.00		µg/L	10	03/03/06 13:01
Trichlorofluoromethane	ND	10.0		µg/L	10	03/03/06 13:01
Vinyl chloride	ND	10.0		µg/L	10	03/03/06 13:01
Xylenes (total)	ND	10.0		µg/L	10	03/03/06 13:01
Surr: 1,2-Dichloroethane-d4	103	75-134		%REC	10	03/03/06 13:01
Surr: 4-Bromofluorobenzene	103	75-125		%REC	10	03/03/06 13:01
Surr: Dibromofluoromethane	102	75-127		%REC	10	03/03/06 13:01
Surr: Toluene-d8	108	75-125		%REC	10	03/03/06 13:01

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Practical Quantitation Limit (PQL)  
S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
J Analyte detected below the PQL  
P Prim./Conf. column %D or RPD exceeds limit



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

Column ID: Rtx-VMS

%Moisture:

Revision: 03/06/06 7:28:28 A

TestCode 8260W

Lab ID: 0603003-009A

Client Sample ID: MW9 022806

Collection Date: 02/28/06 16:36

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4688

FileID: I-SAMP-T2739.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
1,1,1,2-Tetrachloroethane	ND		0.50	µg/L	1	03/02/06 18:52
1,1,1-Trichloroethane	ND		0.50	µg/L	1	03/02/06 18:52
1,1,2,2-Tetrachloroethane	ND		0.50	µg/L	1	03/02/06 18:52
1,1,2-Trichloroethane	ND		0.50	µg/L	1	03/02/06 18:52
1,1-Dichloroethane	ND		0.50	µg/L	1	03/02/06 18:52
1,1-Dichloroethane	ND		0.50	µg/L	1	03/02/06 18:52
1,1-Dichloropropane	ND		0.50	µg/L	1	03/02/06 18:52
1,2,3-Trichlorobenzene	ND		1.00	µg/L	1	03/02/06 18:52
1,2,3-Trichloropropane	ND		0.50	µg/L	1	03/02/06 18:52
1,2,4-Trichlorobenzene	ND		1.00	µg/L	1	03/02/06 18:52
1,2,4-Trimethylbenzene	45.8	E	0.50	µg/L	1	03/02/06 18:52
1,2-Dibromo-3-chloropropane	ND		1.00	µg/L	1	03/02/06 18:52
1,2-Dibromoethane	ND		0.50	µg/L	1	03/02/06 18:52
1,2-Dichlorobenzene	ND		0.50	µg/L	1	03/02/06 18:52
1,2-Dichloroethane	ND		0.50	µg/L	1	03/02/06 18:52
1,2-Dichloropropane	ND		0.50	µg/L	1	03/02/06 18:52
1,3,5-Trimethylbenzene	7.56		0.50	µg/L	1	03/02/06 18:52
1,3-Dichlorobenzene	ND		0.50	µg/L	1	03/02/06 18:52
1,3-Dichloropropane	ND		0.50	µg/L	1	03/02/06 18:52
1,4-Dichlorobenzene	ND		0.50	µg/L	1	03/02/06 18:52
2,2-Dichloropropane	ND		0.50	µg/L	1	03/02/06 18:52
2-Chlorotoluene	ND		0.50	µg/L	1	03/02/06 18:52
4-Chlorotoluene	ND		0.50	µg/L	1	03/02/06 18:52
Benzene	ND		0.50	µg/L	1	03/02/06 18:52
Bromobenzene	ND		0.50	µg/L	1	03/02/06 18:52
Bromochloromethane	ND		0.50	µg/L	1	03/02/06 18:52
Bromodichloromethane	ND		0.50	µg/L	1	03/02/06 18:52
Bromoform	ND		0.50	µg/L	1	03/02/06 18:52
Bromomethane	ND		1.00	µg/L	1	03/02/06 18:52
Carbon tetrachloride	ND		0.50	µg/L	1	03/02/06 18:52
Chlorobenzene	ND		0.50	µg/L	1	03/02/06 18:52
Chloroethane	ND		1.00	µg/L	1	03/02/06 18:52
Chloroform	ND		0.50	µg/L	1	03/02/06 18:52
Chloromethane	ND		1.00	µg/L	1	03/02/06 18:52
cis-1,2-Dichloroethene	72.7	E	0.50	µg/L	1	03/02/06 18:52

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Practical Quantitation Limit (PQL)  
S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
J Analyte detected below the PQL  
P Prim /Conf. column %D or RPD exceeds limit



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

State Cert No: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

Column ID: Rtx-VMS

%Moisture:

Revision: 03/06/06 7:28:28 A

Test Code 8260W

Lab ID: 0603003-009A

Client Sample ID: MW9 022806

Collection Date: 02/28/06 16:36

Date Received: 02/28/06 20:15

Prep Date:

Batch No: R4688

File ID: 1-SAMP-T2739.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>				<b>SW8260B</b>		
cis-1,3-Dichloropropene	ND	0.50		µg/L	1	03/02/06 18:52
Dibromochloromethane	ND	0.50		µg/L	1	03/02/06 18:52
Dibromomethane	ND	0.50		µg/L	1	03/02/06 18:52
Dichlorodifluoromethane	ND	1.00		µg/L	1	03/02/06 18:52
Ethylbenzene	26.4	0.50		µg/L	1	03/02/06 18:52
Hexachlorobutadiene	ND	1.00		µg/L	1	03/02/06 18:52
Isopropylbenzene	4.36	0.50		µg/L	1	03/02/06 18:52
Methyl tert-butyl ether	ND	0.50		µg/L	1	03/02/06 18:52
Methylene chloride	ND	2.00		µg/L	1	03/02/06 18:52
n-Butylbenzene	ND	0.50		µg/L	1	03/02/06 18:52
n-Propylbenzene	5.54	0.50		µg/L	1	03/02/06 18:52
Naphthalene	5.36	1.00		µg/L	1	03/02/06 18:52
p-Isopropyltoluene	ND	0.50		µg/L	1	03/02/06 18:52
sec-Butylbenzene	ND	0.50		µg/L	1	03/02/06 18:52
Styrene	ND	0.50		µg/L	1	03/02/06 18:52
tert-Butylbenzene	ND	0.50		µg/L	1	03/02/06 18:52
Tetrachloroethene	32.2	0.50		µg/L	1	03/02/06 18:52
Toluene	6.72	0.50		µg/L	1	03/02/06 18:52
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	03/02/06 18:52
trans-1,3-Dichloropropene	ND	0.50		µg/L	1	03/02/06 18:52
Trichloroethene	18.8	0.50		µg/L	1	03/02/06 18:52
Trichlorofluoromethane	ND	1.00		µg/L	1	03/02/06 18:52
Vinyl chloride	1.10	1.00		µg/L	1	03/02/06 18:52
Xylenes (total)	92.5	1.00		µg/L	1	03/02/06 18:52
Surr: 1,2-Dichloroethane-d4	98.2	75-134		%REC	1	03/02/06 18:52
Surr: 4-Bromofluorobenzene	109	75-125		%REC	1	03/02/06 18:52
Surr: Dibromofluoromethane	98.6	75-127		%REC	1	03/02/06 18:52
Surr: Toluene-d8	105	75-125		%REC	1	03/02/06 18:52

**Qualifiers:** B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Practical Quantitation Limit (PQL)  
 S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
 J Analyte detected below the PQL  
 P Prim./Conf. column %D or RPD exceeds limit



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

ColumnID: Rtx-VMS

%Moisture:

Revision: 03/06/06 11:34:19 A

TestCode 8260W

Lab ID: 0603003-009A

Client Sample ID: MW9 022806

Collection Date: 02/28/06 16:36

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4697

FileID: 1-DL-T2754.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
1,1,1,2-Tetrachloroethane	ND	1.25		µg/L	2.5	03/03/06 13:33
1,1,1-Trichloroethane	ND	1.25		µg/L	2.5	03/03/06 13:33
1,1,2,2-Tetrachloroethane	ND	1.25		µg/L	2.5	03/03/06 13:33
1,1,2-Trichloroethane	ND	1.25		µg/L	2.5	03/03/06 13:33
1,1-Dichloroethane	ND	1.25		µg/L	2.5	03/03/06 13:33
1,1-Dichloroethene	ND	1.25		µg/L	2.5	03/03/06 13:33
1,1-Dichloropropene	ND	1.25		µg/L	2.5	03/03/06 13:33
1,2,3-Trichlorobenzene	ND	2.50		µg/L	2.5	03/03/06 13:33
1,2,3-Trichloropropane	ND	1.25		µg/L	2.5	03/03/06 13:33
1,2,4-Trichlorobenzene	ND	2.50		µg/L	2.5	03/03/06 13:33
1,2,4-Trimethylbenzene	46.8	1.25		µg/L	2.5	03/03/06 13:33
1,2-Dibromo-3-chloropropane	ND	2.50		µg/L	2.5	03/03/06 13:33
1,2-Dibromoethane	ND	1.25		µg/L	2.5	03/03/06 13:33
1,2-Dichlorobenzene	ND	1.25		µg/L	2.5	03/03/06 13:33
1,2-Dichloroethane	ND	1.25		µg/L	2.5	03/03/06 13:33
1,2-Dichloropropane	ND	1.25		µg/L	2.5	03/03/06 13:33
1,3,5-Trimethylbenzene	7.35	1.25		µg/L	2.5	03/03/06 13:33
1,3-Dichlorobenzene	ND	1.25		µg/L	2.5	03/03/06 13:33
1,3-Dichloropropane	ND	1.25		µg/L	2.5	03/03/06 13:33
1,4-Dichlorobenzene	ND	1.25		µg/L	2.5	03/03/06 13:33
2,2-Dichloropropane	ND	1.25		µg/L	2.5	03/03/06 13:33
2-Chlorotoluene	ND	1.25		µg/L	2.5	03/03/06 13:33
4-Chlorotoluene	ND	1.25		µg/L	2.5	03/03/06 13:33
Benzene	ND	1.25		µg/L	2.5	03/03/06 13:33
Bromobenzene	ND	1.25		µg/L	2.5	03/03/06 13:33
Bromochloromethane	ND	1.25		µg/L	2.5	03/03/06 13:33
Bromodichloromethane	ND	1.25		µg/L	2.5	03/03/06 13:33
Bromoform	ND	1.25		µg/L	2.5	03/03/06 13:33
Bromomethane	ND	2.50		µg/L	2.5	03/03/06 13:33
Carbon tetrachloride	ND	1.25		µg/L	2.5	03/03/06 13:33
Chlorobenzene	ND	1.25		µg/L	2.5	03/03/06 13:33
Chloroethane	ND	2.50		µg/L	2.5	03/03/06 13:33
Chloroform	ND	1.25		µg/L	2.5	03/03/06 13:33
Chloromethane	ND	2.50		µg/L	2.5	03/03/06 13:33
cis-1,2-Dichloroethene	68.1	1.25		µg/L	2.5	03/03/06 13:33

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Practical Quantitation Limit (PQL)  
S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
J Analyte detected below the PQL  
P Prim./Conf. column %D or RPD exceeds limit

Print Date: 03/06/06 11:35

Project Supervisor: Thomas A. Alexander

Page 21 of 26



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 H

Sample Size: 10 mL

ColumnID: Rtx-VMS

%Moisture:

Revision: 03/06/06 11:34:19 A

TestCode 8260W

Lab ID: 0603003-009A

Client Sample ID: MW9 022806

Collection Date: 02/28/06 16:36

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4697

FileID: 1-DL-T2754.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
cis-1,3-Dichloropropene	ND	1.25		µg/L	2.5	03/03/06 13:33
Dibromochloromethane	ND	1.25		µg/L	2.5	03/03/06 13:33
Dibromomethane	ND	1.25		µg/L	2.5	03/03/06 13:33
Dichlorodifluoromethane	ND	2.50		µg/L	2.5	03/03/06 13:33
Ethylbenzene	27.5	1.25		µg/L	2.5	03/03/06 13:33
Hexachlorobutadiene	ND	2.50		µg/L	2.5	03/03/06 13:33
Isopropylbenzene	3.92	1.25		µg/L	2.5	03/03/06 13:33
Methyl tert-butyl ether	ND	1.25		µg/L	2.5	03/03/06 13:33
Methylene chloride	ND	5.00		µg/L	2.5	03/03/06 13:33
n-Butylbenzene	ND	1.25		µg/L	2.5	03/03/06 13:33
n-Propylbenzene	4.40	1.25		µg/L	2.5	03/03/06 13:33
Naphthalene	5.22	2.50		µg/L	2.5	03/03/06 13:33
p-Isopropyltoluene	ND	1.25		µg/L	2.5	03/03/06 13:33
sec-Butylbenzene	ND	1.25		µg/L	2.5	03/03/06 13:33
Styrene	ND	1.25		µg/L	2.5	03/03/06 13:33
tert-Butylbenzene	ND	1.25		µg/L	2.5	03/03/06 13:33
Tetrachloroethene	30.0	1.25		µg/L	2.5	03/03/06 13:33
Toluene	7.33	1.25		µg/L	2.5	03/03/06 13:33
trans-1,2-Dichloroethene	ND	1.25		µg/L	2.5	03/03/06 13:33
trans-1,3-Dichloropropene	ND	1.25		µg/L	2.5	03/03/06 13:33
Trichloroethene	18.0	1.25		µg/L	2.5	03/03/06 13:33
Trichlorofluoromethane	ND	2.50		µg/L	2.5	03/03/06 13:33
Vinyl chloride	ND	2.50		µg/L	2.5	03/03/06 13:33
Xylenes (total)	94.1	2.50		µg/L	2.5	03/03/06 13:33
Sum: 1,2-Dichloroethane-d4	102	75-134		%REC	2.5	03/03/06 13:33
Sum: 4-Bromofluorobenzene	107	75-125		%REC	2.5	03/03/06 13:33
Sum: Dibromofluoromethane	100	75-127		%REC	2.5	03/03/06 13:33
Sum: Toluene-d8	105	75-125		%REC	2.5	03/03/06 13:33

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Practical Quantitation Limit (PQL)  
S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
J Analyte detected below the PQL  
P Prim./Conf. column %D or RPD exceeds limit



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

State Cert No: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 II

Column ID: Rtx-VMS

Revision: 03/06/06 7:28:28 A

Sample Size: 10 mL

%Moisture:

Test Code 8260W

Lab ID: 0603003-010A

Client Sample ID: DUPE1 022806

Collection Date: 02/28/06 0:00

Date Received: 02/28/06 20:15

Prep Date:

Batch No: R4688

File ID: 1-SAMP-T2740.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>				<b>SW8260B</b>		
1,1,1,2-Tetrachloroethane	ND	25.0		µg/L	50	03/02/06 19:23
1,1,1-Trichloroethane	ND	25.0		µg/L	50	03/02/06 19:23
1,1,2,2-Tetrachloroethane	ND	25.0		µg/L	50	03/02/06 19:23
1,1,2-Trichloroethane	ND	25.0		µg/L	50	03/02/06 19:23
1,1-Dichloroethane	ND	25.0		µg/L	50	03/02/06 19:23
1,1-Dichloroethene	ND	25.0		µg/L	50	03/02/06 19:23
1,1-Dichloropropene	ND	25.0		µg/L	50	03/02/06 19:23
1,2,3-Trichlorobenzene	ND	50.0		µg/L	50	03/02/06 19:23
1,2,3-Trichloropropane	ND	25.0		µg/L	50	03/02/06 19:23
1,2,4-Trichlorobenzene	ND	50.0		µg/L	50	03/02/06 19:23
1,2,4-Trimethylbenzene	1330	25.0		µg/L	50	03/02/06 19:23
1,2-Dibromo-3-chloropropane	ND	50.0		µg/L	50	03/02/06 19:23
1,2-Dibromoethane	ND	25.0		µg/L	50	03/02/06 19:23
1,2-Dichlorobenzene	ND	25.0		µg/L	50	03/02/06 19:23
1,2-Dichloroethane	ND	25.0		µg/L	50	03/02/06 19:23
1,2-Dichloropropane	ND	25.0		µg/L	50	03/02/06 19:23
1,3,5-Trimethylbenzene	324	25.0		µg/L	50	03/02/06 19:23
1,3-Dichlorobenzene	ND	25.0		µg/L	50	03/02/06 19:23
1,3-Dichloropropane	ND	25.0		µg/L	50	03/02/06 19:23
1,4-Dichlorobenzene	ND	25.0		µg/L	50	03/02/06 19:23
2,2-Dichloropropane	ND	25.0		µg/L	50	03/02/06 19:23
2-Chlorotoluene	ND	25.0		µg/L	50	03/02/06 19:23
4-Chlorotoluene	ND	25.0		µg/L	50	03/02/06 19:23
Benzene	1740	25.0		µg/L	50	03/02/06 19:23
Bromobenzene	ND	25.0		µg/L	50	03/02/06 19:23
Bromochloromethane	ND	25.0		µg/L	50	03/02/06 19:23
Bromodichloromethane	ND	25.0		µg/L	50	03/02/06 19:23
Bromoform	ND	25.0		µg/L	50	03/02/06 19:23
Bromomethane	ND	50.0		µg/L	50	03/02/06 19:23
Carbon tetrachloride	ND	25.0		µg/L	50	03/02/06 19:23
Chlorobenzene	ND	25.0		µg/L	50	03/02/06 19:23
Chloroethane	ND	50.0		µg/L	50	03/02/06 19:23
Chloroform	ND	25.0		µg/L	50	03/02/06 19:23
Chloromethane	ND	50.0		µg/L	50	03/02/06 19:23
cis-1,2-Dichloroethene	ND	25.0		µg/L	50	03/02/06 19:23

**Qualifiers:**  
 B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Practical Quantitation Limit (PQL)  
 S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
 J Analyte detected below the PQL  
 P Prim./Conf. column %D or RPD exceeds limit



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

ColumnID: Rtx-VMS

Revision: 03/06/06 7:28:28 A

Sample Size: 10 mL

%Moisture:

TestCode 8260W

Lab ID: 0603003-010A

Client Sample ID: DUPE1 022806

Collection Date: 02/28/06 0:00

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4688

FileID: 1-SAMP-T2740.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
---------	--------	------	-----	-------	----	---------------

### VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

cis-1,3-Dichloropropene	ND	25.0	µg/L	50	03/02/06 19:23
Dibromochloromethane	ND	25.0	µg/L	50	03/02/06 19:23
Dibromomethane	ND	25.0	µg/L	50	03/02/06 19:23
Dichlorodifluoromethane	ND	50.0	µg/L	50	03/02/06 19:23
Ethylbenzene	854	25.0	µg/L	50	03/02/06 19:23
Hexachlorobutadiene	ND	50.0	µg/L	50	03/02/06 19:23
Isopropylbenzene	46.5	25.0	µg/L	50	03/02/06 19:23
Methyl tert-butyl ether	ND	25.0	µg/L	50	03/02/06 19:23
Methylene chloride	ND	100	µg/L	50	03/02/06 19:23
n-Butylbenzene	ND	25.0	µg/L	50	03/02/06 19:23
n-Propylbenzene	83.0	25.0	µg/L	50	03/02/06 19:23
Naphthalene	158	50.0	µg/L	50	03/02/06 19:23
p-Isopropyltoluene	ND	25.0	µg/L	50	03/02/06 19:23
sec-Butylbenzene	ND	25.0	µg/L	50	03/02/06 19:23
Styrene	ND	25.0	µg/L	50	03/02/06 19:23
tert-Butylbenzene	ND	25.0	µg/L	50	03/02/06 19:23
Tetrachloroethene	ND	25.0	µg/L	50	03/02/06 19:23
Toluene	235	25.0	µg/L	50	03/02/06 19:23
trans-1,2-Dichloroethene	ND	25.0	µg/L	50	03/02/06 19:23
trans-1,3-Dichloropropene	ND	25.0	µg/L	50	03/02/06 19:23
Trichloroethane	ND	25.0	µg/L	50	03/02/06 19:23
Trichlorofluoromethane	ND	50.0	µg/L	50	03/02/06 19:23
Vinyl chloride	ND	50.0	µg/L	50	03/02/06 19:23
Xylenes (total)	2830	50.0	µg/L	50	03/02/06 19:23
Surr: 1,2-Dichloroethane-d4	103	75-134	%REC	50	03/02/06 19:23
Surr: 4-Bromofluorobenzene	106	75-125	%REC	50	03/02/06 19:23
Surr: Dibromofluoromethane	98.8	75-127	%REC	50	03/02/06 19:23
Surr: Toluene-d8	106	75-125	%REC	50	03/02/06 19:23

#### Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

Print Date: 03/06/06 11:35

Project Supervisor: Thomas A. Alexander

Page 24 of 26





# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

ColumnID: Rtx-VMS

Revision: 03/06/06 11:34:19 A

Sample Size: 10 mL

%Moisture:

TestCode 8260W

Lab ID: 0603003-011A

Client Sample ID: TRIP BLANK

Collection Date: 02/28/06 0:00

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4697

FileID: 1-SAMP-T2755.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
1,1,1,2-Tetrachloroethane	ND	0.50		µg/L	1	03/03/06 14:05
1,1,1-Trichloroethane	ND	0.50		µg/L	1	03/03/06 14:05
1,1,2,2-Tetrachloroethane	ND	0.50		µg/L	1	03/03/06 14:05
1,1,2-Trichloroethane	ND	0.50		µg/L	1	03/03/06 14:05
1,1-Dichloroethane	ND	0.50		µg/L	1	03/03/06 14:05
1,1-Dichloroethene	ND	0.50		µg/L	1	03/03/06 14:05
1,1-Dichloropropene	ND	0.50		µg/L	1	03/03/06 14:05
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	03/03/06 14:05
1,2,3-Trichloropropane	ND	0.50		µg/L	1	03/03/06 14:05
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	03/03/06 14:05
1,2,4-Trimethylbenzene	ND	0.50		µg/L	1	03/03/06 14:05
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	03/03/06 14:05
1,2-Dibromoethane	ND	0.50		µg/L	1	03/03/06 14:05
1,2-Dichlorobenzene	ND	0.50		µg/L	1	03/03/06 14:05
1,2-Dichloroethane	ND	0.50		µg/L	1	03/03/06 14:05
1,2-Dichloropropane	ND	0.50		µg/L	1	03/03/06 14:05
1,3,5-Trimethylbenzene	ND	0.50		µg/L	1	03/03/06 14:05
1,3-Dichlorobenzene	ND	0.50		µg/L	1	03/03/06 14:05
1,3-Dichloropropane	ND	0.50		µg/L	1	03/03/06 14:05
1,4-Dichlorobenzene	ND	0.50		µg/L	1	03/03/06 14:05
2,2-Dichloropropane	ND	0.50		µg/L	1	03/03/06 14:05
2-Chlorotoluene	ND	0.50		µg/L	1	03/03/06 14:05
4-Chlorotoluene	ND	0.50		µg/L	1	03/03/06 14:05
Benzene	ND	0.50		µg/L	1	03/03/06 14:05
Bromobenzene	ND	0.50		µg/L	1	03/03/06 14:05
Bromochloromethane	ND	0.50		µg/L	1	03/03/06 14:05
Bromodichloromethane	ND	0.50		µg/L	1	03/03/06 14:05
Bromoform	ND	0.50		µg/L	1	03/03/06 14:05
Bromomethane	ND	1.00		µg/L	1	03/03/06 14:05
Carbon tetrachloride	ND	0.50		µg/L	1	03/03/06 14:05
Chlorobenzene	ND	0.50		µg/L	1	03/03/06 14:05
Chloroethane	ND	1.00		µg/L	1	03/03/06 14:05
Chloroform	ND	0.50		µg/L	1	03/03/06 14:05
Chloromethane	ND	1.00		µg/L	1	03/03/06 14:05
cis-1,2-Dichloroethene	ND	0.50		µg/L	1	03/03/06 14:05

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value exceeds the instrument calibration range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below the PQL
	ND	Not Detected at the Practical Quantitation Limit (PQL)	P	Prim./Conf. column %D or RPD exceeds limit
	S	Spike Recovery outside accepted recovery limits		



# Life Science Laboratories, Inc.

5000 Brittonfield Parkway, Suite 200

East Syracuse, NY 13057

(315) 437-0200

## Analytical Results

StateCertNo: 10155

CLIENT: O'Brien &amp; Gere Engineers, Inc.

Project: Associated Textiles

W Order: 0603003

Matrix: WATER

Inst. ID: MS01 11

Sample Size: 10 mL

ColumnID: Rtx-VMS

%Moisture:

Revision: 03/06/06 11:34:19 A

TestCode 8260W

Lab ID: 0603003-011A

Client Sample ID: TRIP BLANK

Collection Date: 02/28/06 0:00

Date Received: 02/28/06 20:15

PrepDate:

BatchNo: R4697

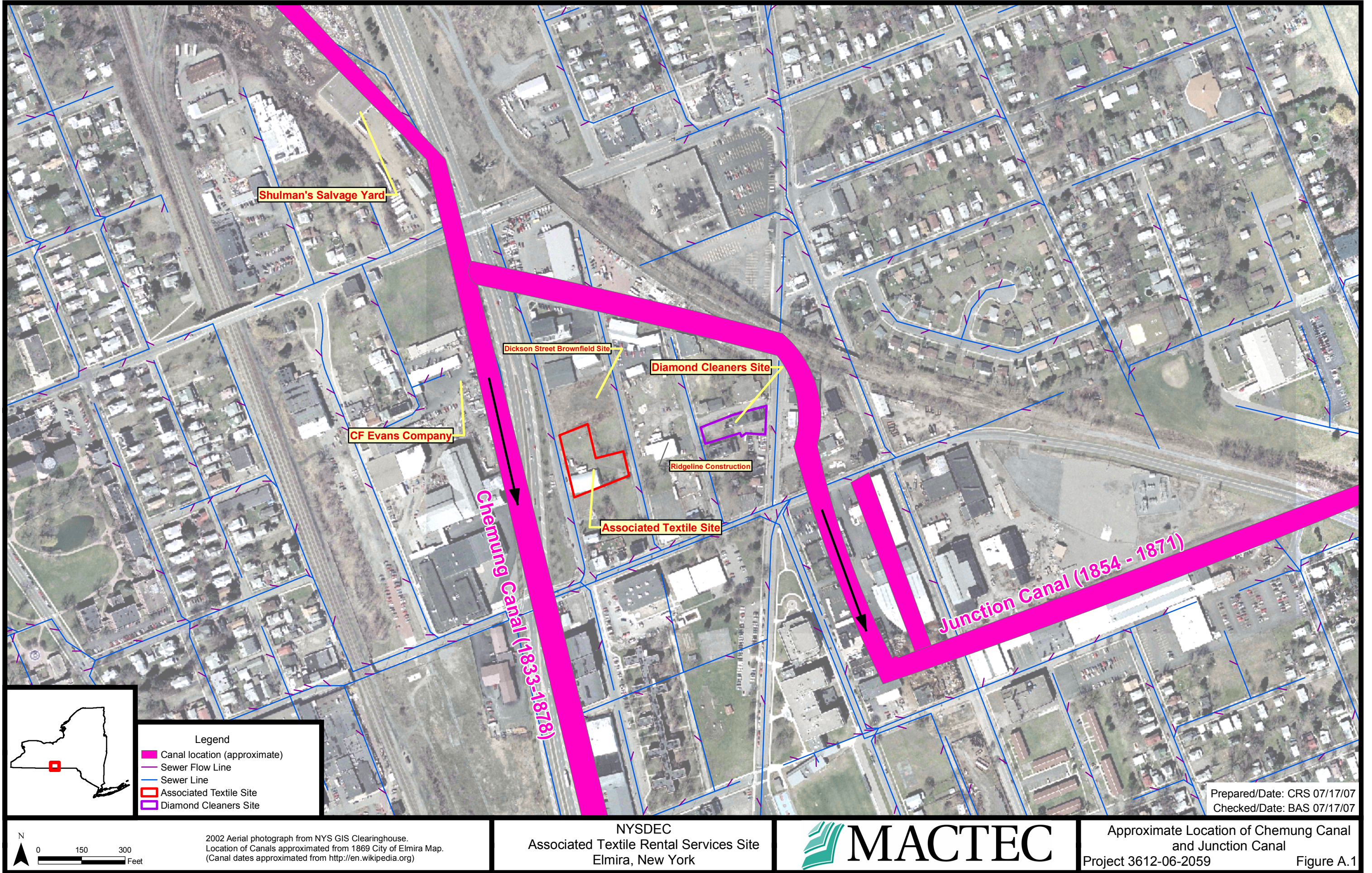
FileID: I-SAMP-T2755 D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260B		
cis-1,3-Dichloropropene	ND	0.50		µg/L	1	03/03/06 14:05
Dibromochloromethane	ND	0.50		µg/L	1	03/03/06 14:05
Dibromomethane	ND	0.50		µg/L	1	03/03/06 14:05
Dichlorodifluoromethane	ND	1.00		µg/L	1	03/03/06 14:05
Ethylbenzene	ND	0.50		µg/L	1	03/03/06 14:05
Hexachlorobutadiene	ND	1.00		µg/L	1	03/03/06 14:05
Isopropylbenzene	ND	0.50		µg/L	1	03/03/06 14:05
Methyl tert-butyl ether	ND	0.50		µg/L	1	03/03/06 14:05
Methylene chloride	ND	2.00		µg/L	1	03/03/06 14:05
n-Butylbenzene	ND	0.50		µg/L	1	03/03/06 14:05
n-Propylbenzene	ND	0.50		µg/L	1	03/03/06 14:05
Naphthalene	ND	1.00		µg/L	1	03/03/06 14:05
p-Isopropyltoluene	ND	0.50		µg/L	1	03/03/06 14:05
sec-Butylbenzene	ND	0.50		µg/L	1	03/03/06 14:05
Styrene	ND	0.50		µg/L	1	03/03/06 14:05
tert-Butylbenzene	ND	0.50		µg/L	1	03/03/06 14:05
Tetrachloroethene	ND	0.50		µg/L	1	03/03/06 14:05
Toluene	ND	0.50		µg/L	1	03/03/06 14:05
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	03/03/06 14:05
trans-1,3-Dichloropropane	ND	0.50		µg/L	1	03/03/06 14:05
Trichloroethene	ND	0.50		µg/L	1	03/03/06 14:05
Trichlorofluoromethane	ND	1.00		µg/L	1	03/03/06 14:05
Vinyl chloride	ND	1.00		µg/L	1	03/03/06 14:05
Xylenes (total)	ND	1.00		µg/L	1	03/03/06 14:05
Surr: 1,2-Dichloroethane-d4	104	75-134		%REC	1	03/03/06 14:05
Surr: 4-Bromofluorobenzene	104	75-125		%REC	1	03/03/06 14:05
Surr: Dibromofluoromethane	103	75-127		%REC	1	03/03/06 14:05
Surr: Toluene-d8	106	75-125		%REC	1	03/03/06 14:05

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Practical Quantitation Limit (PQL)  
S Spike Recovery outside accepted recovery limits

E Value exceeds the instrument calibration range  
J Analyte detected below the PQL  
P Prim./Conf. column %D or RPD exceeds limit







## **APPENDIX B**

### **SITE PHOTOGRAPHS**

## ASSOCIATED TEXTILES SITE PHOTOGRAPHS



Former Site Building - Looking South.



Back (east) of Site Building – Looking West.



## ASSOCIATED TEXTILES SITE PHOTOGRAPHS



Former Tank Storage Area – Looking East.



Back Door of Former Site Building – Looking Southeast.

## ASSOCIATED TEXTILES SITE PHOTOGRAPHS



Sub-Slab Soil Vapor Sampling at SV-1.

## **APPENDIX C**

### **FIELD DATA RECORDS**



# Microwell Completion Diagram

Well No:

GW-4

Project No.: 3612062059/07.2

Project: Region 8 Group 2 - Associated

Checked By: LONGLEY

Client Name: NYSDEC

Logged By: SHAW

Protection Level: D

Ground Elevation:

Drilling Contractor: GEOLOGIC

Drilling Method: DIRECT PUSH

Driller's Name:

JOE MENDEL

Bit Type/Size:  
GEOPROBE ROD - 1 1/2"

Soil Drilled: 20

Rig Type:  
66 DT Track Rig

Start Date:  
11/8/2006

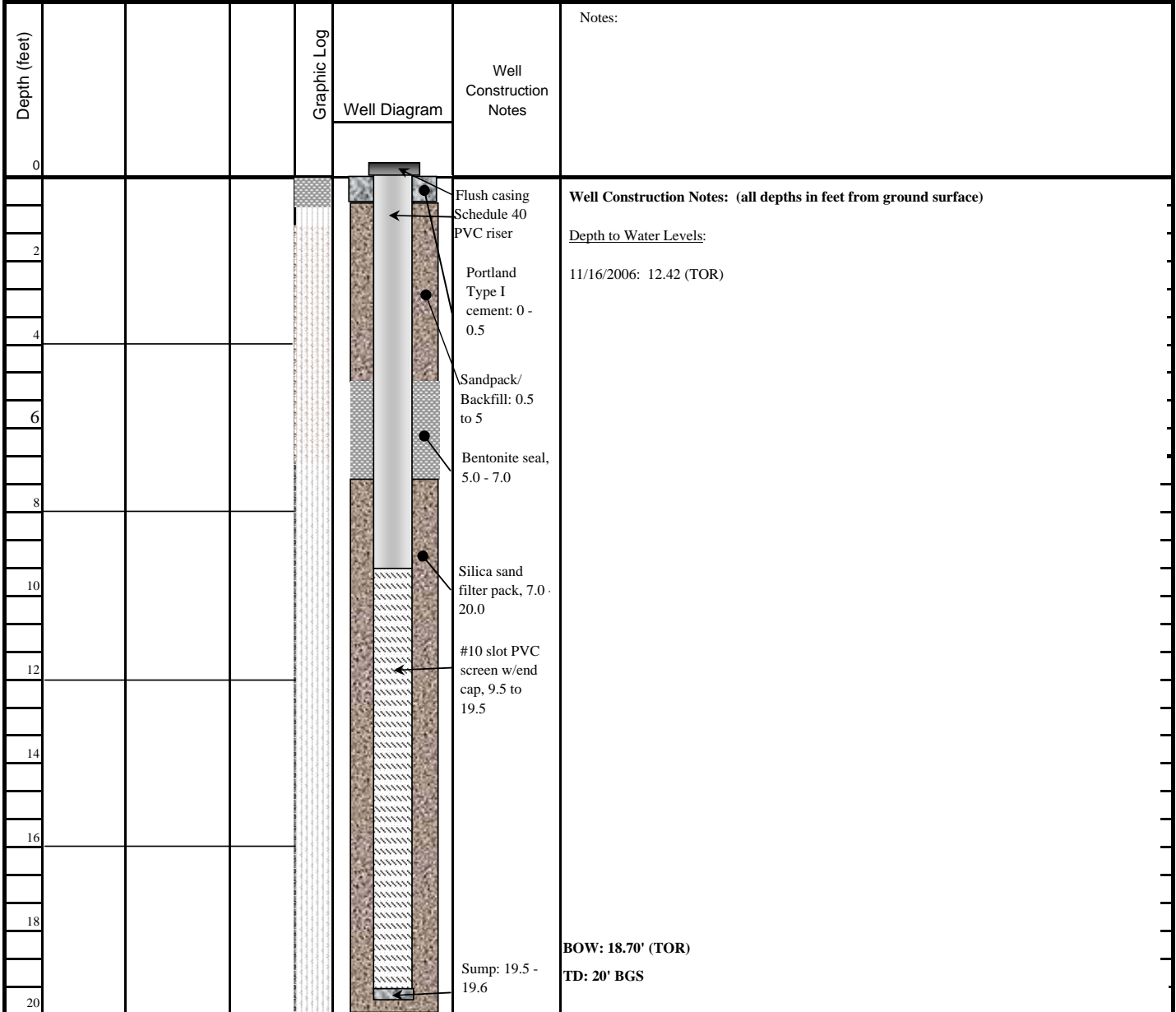
Finish Date:  
11/8/2006

Well Material: 1" I.D. Sch 40 PVC

P.I.D. (eV): NA

Casing Size N/A

Auger Size: 2"



# Microwell Completion Diagram

Well No:

GW-13

Project No.: 3612062059/07.2	Project: Region 8 Group 2 - Associated	Checked By: LONGLEY	
Client Name: NYSDEC	Logged By: SHAW	Protection Level: D	Ground Elevation:
Drilling Contractor: GEOLOGIC	Drilling Method: DIRECT PUSH	Driller's Name: JOE MENDEL	
Bit Type/Size: GEOPROBE ROD - 1 1/2"	Soil Drilled: 20'	Rig Type: 66DT Track Rig	Start Date: 11/7/2006
			Finish Date: 11/7/2006
Well Material: 1" I.D. Sch 40 PVC	P.I.D. (eV): NA	Casing Size: N/A	Auger Size: 2"

Depth (feet)	Graphic Log	Well Diagram	Well Construction Notes	Notes:
0				
2				
4				
6				
8				
10				
12				
14				
16				
18				
20				

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

Depth to Water Levels:

11/16/2006: 12.23' (TOR)

During drilling, water observed at around 15.4'

BOW = 18.49' (TOR)  
TD = 20' BGS

Microwell Completion Diagram

Well No:

<b>Project No.:</b> 3612062059/07.2	<b>Project:</b> Region 8 Group 2 - Associated	<b>Checked By:</b> LONGLEY	<b>GW-15</b>
-------------------------------------	---	----------------------------	--------------

<b>Client Name:</b>	NYSDEC	<b>Logged By:</b>	SHAW	<b>Protection Level:</b>	D	<b>Ground Elevation:</b>	
---------------------	--------	-------------------	------	--------------------------	---	--------------------------	--

<b>Drilling Contractor:</b>	GEOLOGIC	<b>Drilling Method:</b>	DIRECT PUSH	<b>Driller's Name:</b>	JOE MENSEL
-----------------------------	----------	-------------------------	-------------	------------------------	------------

<b>Bit Type/Size:</b> GEOPROBE ROD - 1 1/2"	<b>Soil Drilled:</b> 18'	<b>Rig Type:</b> 66DT Track Rig	<b>Start Date:</b> 11/8/2006	<b>Finish Date:</b> 11/8/2006
--	-----------------------------	------------------------------------	---------------------------------	----------------------------------

<b>Well Material:</b>	1" I.D. Sch 40 PVC	<b>P.I.D. (eV):</b> NA	<b>Casing Size</b> N/A	<b>Auger Size:</b> 2"
-----------------------	--------------------	------------------------	------------------------	-----------------------


MACTEC
1 of 1  
GW-15

## Well No:

GW-19

Project No.: 3612062059/07.2

**Project:** Region 8 Group 2 - Associated

**Checked By:** LONGLEY

<b>Client Name:</b>
---------------------

Logged By:
------------

Protection Level:	D
-------------------	---

<b>Ground Elevation:</b>
--------------------------

Drilling Contractor:	GEOLOGIC
----------------------	----------

<b>Drilling Method:</b>	DIRECT PUSH
-------------------------	-------------

**Driller's Name:**  
JOE MENSEL

**Bit Type/Size:**  
GEOPROBE ROD - 1 1/2"

<b>Soil Drilled:</b>	14.5
----------------------	------

<b>Rig Type:</b> 66DT Track Rig
------------------------------------

<b>Start Date:</b>	11/9/2006
--------------------	-----------

<b>Finish Date:</b>	11/9/2006
---------------------	-----------

<b>Well Material:</b>	1" I.D. Sch 40 PVC
-----------------------	--------------------

P.I.D. (eV):	NA
--------------	----

<b>Casing Size</b>	N/A
--------------------	-----

<b>Auger Size:</b>	2"
--------------------	----

Depth (feet)				Graphic Log	Well Diagram	Well Construction Notes	Notes:
0							
2							
4							
6							
8							
10							
12							
14							
16							
18							
20							



**1 of 1**  
**GW-19**



# FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Region 8 Dry Cleaners Group 2 Area JOB NUMBER: 3612062059/072  
 LOCATION ID: MW-1 → D to MW-1R FIELD SAMPLE ID: ATMW00101701XX EVENT NO: 1  
 ACTIVITY: START 0810 END 0950 SAMPLE TIME: 0935 DATE: 11/7/06

## WATER LEVEL / PUMP SETTINGS

INITIAL DEPTH TO WATER: 14.12 feet

FINAL DEPTH TO WATER: 14.18 feet

SCREEN LENGTH: n/a feet

TOTAL VOL. PURGED: 2.91 gallons

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

## MEASUREMENT POINT

☒ TOP OF WELL RISER  
☐ TOP OF PROTECTIVE CASING

HISTORICAL WELL DEPTH (TOR): n/a feet

PRESSURE TO PUMP: n/a psi

REFILL SETTING: n/a

PROTECTIVE CASING STICKUP (FROM GROUND): flush feet

PID AMBIENT AIR: n/a ppmv

PID WELL MOUTH: n/a ppmv

DISCHARGE SETTING: n/a

CASING / WELL DIFFERENCE: -95 feet

WELL DIAMETER: 4 inches

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
0839	14.12	—	—	—	—	—	—	—	16.60	initiate pump
0850	14.18	200	14	0.90	7.0	14	*	-50	16.60	
0900	14.18	200	14	2.2	7.1	14	*	-66	16.60	
0905	14.18	200	14	3.2	7.1	13	*	-72	16.60	
0910	14.18	200	14	3.1	7.1	13	*	-75	16.60	
0913	14.18	200	14	3.2	7.1	12	*	-80	16.60	
0916	14.18	200	14	2.9	7.1	12	*	-90	16.60	
0920	14.18	200	14	2.8	7.1	12	*	-95	16.60	
0925	14.18	200	14	2.2	7.2	11	*	-95	16.60	
0930	14.18	200	14	2.2	7.2	11	*	-103	16.60	
0933	14.18	200	14	2.1	7.2	11	*	-104	16.60	collect sample

## EQUIPMENT DOCUMENTATION

### TYPE OF PUMP

☐ DEDICATED MARSCHALK BLADDER  
☐ NON-DEDICATED MARSCHALK BLADDER

☒ OTHER peristaltic

### TYPE OF TUBING

☒ HIGH DENSITY POLYETHYLENE  
☐ OTHER

## ANALYTICAL PARAMETERS

### CONTROL NUMBER

☐ VOCs - 25 ml Purge (low conc.)  
☒ VOCs - 5 ml Purge  
☒ SVOCs  
☐ PESTICIDES  
☐ METALS  
☐ MANGANESE / IRON -  
☐ SULFATE / CHLORIDE / ALKALINITY  
☐ NO2 - NO3  
☐ TOC  
☐ METHANE / ETHANE / ETHYLENE  
☐ OTHER

### METHOD NUMBER

OLCO2.1  
 OLMO4.2  
 OLMO4.2  
 OLMO4.2  
 ILM04.2  
 SW846 6010  
 USEPA 375.4 / 325.3 / 310.1  
 USEPA 353.2 / 354.1  
 USEPA 415.1  
 EPA Region 1

### PRESERVATION METHOD

HCL / 4 DEG. C  
 HCL / 4 DEG. C  
 4 DEG. C  
 4 DEG. C  
 HNO3 to pH <2  
 HNO3 to pH <2  
 4 DEG. C  
 H2SO4 to pH <2  
 H2SO4 to pH <2  
 HCL / 4 DEG. C

### VOLUME REQUIRED

3 X 40 ML  
 3 X 40 ML  
 2 X 1 L AG  
 2 X 1 L AG  
 1 X 500 ML P  
 1 X 500 ML P  
 1 X 1 L P  
 1 X 500 ML P  
 1 X 250 ML AG  
 3 X 40 ML

### SAMPLE COLLECTED

☐  
☒  
☒  
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☐  
☐  
☐  
☐

### SAMPLE BOTTLE ID LETTERS

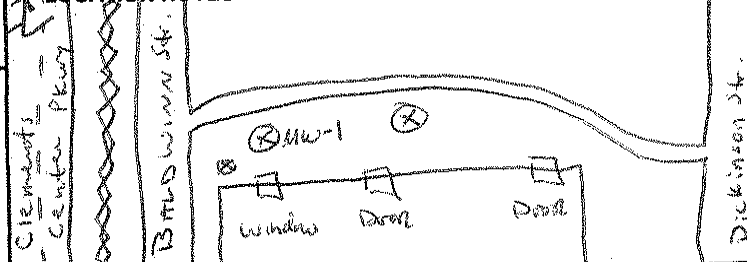
\_\_\_\_\_  
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 \_\_\_\_\_

## PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED YES ☒ NO ☐ fuel oil odor, 6 spill  
pigs inside well.

NOTES: \* turbidity meter not working  
 pigs removed prior to purging sampling and replaced upon completion  
 SIGNATURE: [Signature] 11/7/06  
 CHECKED BY: \_\_\_\_\_

## LOCATION NOTES



# FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Region 3 Dry Cleaners Group 2 Area JOB NUMBER: 3612062059/07.2  
 LOCATION ID: MW-2 FIELD SAMPLE ID: ATMW002001601XX EVENT NO.: 1  
 ACTIVITY: START 0952 END 1058 SAMPLE TIME: 1045 DATE: 11/7/06

## WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT:  
☐ TOP OF WELL RISER  
☐ TOP OF PROTECTIVE CASING  
 INITIAL DEPTH TO WATER: 14.03 feet  
 FINAL DEPTH TO WATER: 14.30 feet  
 PROTECTIVE CASING STICKUP (FROM GROUND): flush feet  
 CASING / WELL DIFFERENCE: 0.50 feet  
 WELL DIAMETER: 2 inches  
 HISTORICAL WELL DEPTH (TOR): n/a feet  
 PID AMBIENT AIR: n/a ppmv  
 PID WELL MOUTH: n/a ppmv  
 WELL INTERGRITY: YES ☒ NO ☐ N/A ☐  
 CAP: ☒ LOCKED: ☒ COLLAR: ☒  
 SCREEN LENGTH: n/a feet  
 PRESSURE TO PUMP: n/a psi  
 DISCHARGE SETTING: n/a  
 TOTAL VOL. PURGED: 1.40 gallons  
 REFILL SETTING: n/a  
 (purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

## 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
1000	14.03	—	—	—	—	—	—	—	15.70	initiate pump
1007	14.32	125	14	1.11	6.6	11	*	-117	15.70	
1012	14.32	125	14	3.07	6.7	12	*	-120	15.70	
1016	14.30	125	14	3.41	6.7	11	*	-121	15.70	
1021	14.30	125	14	3.70	6.7	11	*	-122	15.70	
1026	14.30	125	14	4.08	6.7	10	*	-124	15.70	
1030	14.30	125	14	3.33	6.7	9.9	*	-124	15.70	
1033	14.30	125	14	2.96	6.7	16	*	-124	15.70	
1036	14.30	125	14	3.04	6.7	10	*	-124	15.70	
1040	14.30	125	14	2.98	6.7	10	*	-126	15.70	
1043	14.30	125	14	3.13	6.7	11	*	-126	15.70	collect sample

## EQUIPMENT DOCUMENTATION

TYPE OF PUMP:  
☐ DEDICATED MARSCHALK BLADDER  
☐ NON-DEDICATED MARSCHALK BLADDER  
☒ OTHER peristaltic  
 TYPE OF TUBING:  
☒ HIGH DENSITY POLYETHYLENE  
☐ OTHER

## ANALYTICAL PARAMETERS

CONTROL NUMBER	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID LETTERS
<input type="checkbox"/> VOCs - 25 ml Purge (low conc.)	OLCO2.1	HCL / 4 DEG. C	3 X 40 ML	<input type="checkbox"/>	___/___/___
<input checked="" type="checkbox"/> VOCs - 5 ml Purge	OLMO4.2	HCL / 4 DEG. C	3 X 40 ML	<input checked="" type="checkbox"/>	___/___/___
<input checked="" type="checkbox"/> SVOCs	OLMO4.2	4 DEG. C	2 X 1 L AG	<input checked="" type="checkbox"/>	___/___/___
<input type="checkbox"/> PESTICIDES	OLMO4.2	4 DEG. C	2 X 1 L AG	<input type="checkbox"/>	___/___/___
<input type="checkbox"/> METALS	ILMO4.2	HNO3 to pH <2	1 X 500 ML P	<input type="checkbox"/>	___/___/___
<input type="checkbox"/> MANGANESE / IRON -	SW846 6010	HNO3 to pH <2	1 X 500 ML P	<input type="checkbox"/>	___/___/___
<input type="checkbox"/> SULFATE / CHLORIDE / ALKALINITY	USEPA 375.4 / 325.3 / 310.1	4 DEG. C	1 x 1 L P	<input type="checkbox"/>	___/___/___
<input type="checkbox"/> NO2 - NO3	USEPA 353.2 / 354.1	H2SO4 to pH <2	1 X 500 ML P	<input type="checkbox"/>	___/___/___
<input type="checkbox"/> TOC	USEPA 415.1	H2SO4 to pH <2	1 X 250 ML AG	<input type="checkbox"/>	___/___/___
<input type="checkbox"/> METHANE / ETHANE / ETHYLENE	EPA Region 1	HCL / 4 DEG. C	3 X 40 ML	<input type="checkbox"/>	___/___/___
<input type="checkbox"/> OTHER				<input type="checkbox"/>	___/___/___

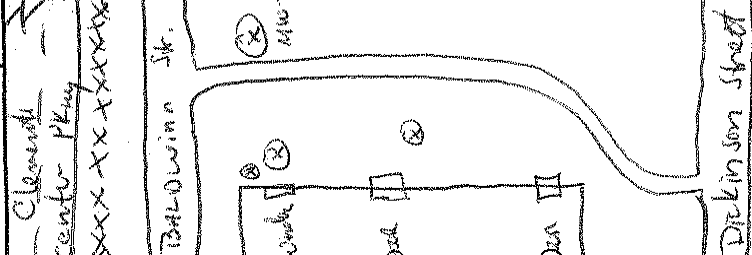
## PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED YES ☐ NO ☒  
old gasoline odor present

NOTES: \* turb probe not working

SIGNATURE: [Signature] 11/7/06  
 CHECKED BY: [Signature]

## LOCATION NOTES



## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Region 8 Day Cleanup Group 2 Associated		JOB NUMBER	3612062059/07.2	
LOCATION ID	MW-3		FIELD SAMPLE ID	ATMW003 01601XX	
ACTIVITY	START 1615	END 1745	SAMPLE TIME	1711	
			EVENT NO.	1	
			DATE	11/6/06	

WATER LEVEL / PUMP SETTINGS		MEASUREMENT POINT		PROTECTIVE CASING STICKUP (FROM GROUND)		CASING / WELL DIFFERENCE	
INITIAL DEPTH TO WATER	14.39 feet	<input checked="" type="checkbox"/> TOP OF WELL RISER		flush	feet	-0.5	feet
FINAL DEPTH TO WATER	14.45 feet	<input type="checkbox"/> TOP OF PROTECTIVE CASING					
SCREEN LENGTH	n/a feet	HISTORICAL WELL DEPTH (TOR)	— feet	PID AMBIENT AIR	n/a ppmv	WELL DIAMETER	2 inches
TOTAL VOL. PURGED	2.54 gallons	PRESSURE TO PUMP	n/a psi	PID WELL MOUTH	n/a ppmv	WELL INTERGRITY:	
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)		REFILL SETTING	n/a	DISCHARGE SETTING	n/a	INTEGRITY: YES NO N/A	
						CAP	✓ — —
						CASING	— — —
						LOCKED	— — —
						COLLAR	— — —

[illegible]

EQUIPMENT DOCUMENTATION		TYPE OF TUBING	
TYPE OF PUMP <input type="checkbox"/> DEDICATED MARSCHALK BLADDER <input type="checkbox"/> NON-DEDICATED MARSCHALK BLADDER		<input checked="" type="checkbox"/> OTHER <u>PERISTALTIC PUMP</u>	
		<input checked="" type="checkbox"/> HIGH DENSITY POLYETHYLENE <input type="checkbox"/> OTHER _____	

ANALYTICAL PARAMETERS						
CONTROL NUMBER	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID LETTERS	
<input type="checkbox"/> VOCs - 25 ml Purge (low conc.)	OLCO2.1	HCL / 4 DEG. C	3 X 40 ML	<input type="checkbox"/>	____/____/____	
<input checked="" type="checkbox"/> VOCs - 5 ml Purge	OLMO4.2	HCL / 4 DEG. C	3 X 40 ML	<input checked="" type="checkbox"/>	____/____/____	
<input checked="" type="checkbox"/> SVOCs	OLMO4.2	4 DEG. C	2 X 1 L AG	<input checked="" type="checkbox"/>	____/____	
<input type="checkbox"/> PESTICIDES	OLMO4.2	4 DEG. C	2 X 1 L AG	<input type="checkbox"/>	____/____	
<input type="checkbox"/> METALS	ILMO4.2	HNO3 to pH <2	1 X 500 ML P	<input type="checkbox"/>	____	
<input type="checkbox"/> MANGANESE / IRON -	SW846 6010	HNO3 to pH <2	1 X 500 ML P	<input type="checkbox"/>	____	
<input type="checkbox"/> SULFATE / CHLORIDE / ALKALINITY	USEPA 375.4 / 325.3 / 310.1	4 DEG. C	1 x 1 L P	<input type="checkbox"/>	____	
<input type="checkbox"/> NO2 - NO3	USEPA 353.2 / 354.1	H2SO4 to pH <2	1 X 500 ML P	<input type="checkbox"/>	____	
<input type="checkbox"/> TOC	USEPA 415.1	H2SO4 to pH <2	1 X 250 ML AG	<input type="checkbox"/>	____	
<input type="checkbox"/> METHANE / ETHANE / ETHYLENE	EPA Region 1	HCL / 4 DEG. C	3 X 40 ML	<input type="checkbox"/>	____/____/____	
<input type="checkbox"/> OTHER				<input type="checkbox"/>	____/____/____	

<b>PURGE OBSERVATIONS</b> PURGE WATER CONTAINERIZED      YES      NO <input checked="" type="checkbox"/> <b>NOTES:</b> A Dux meter flashing 0.0 error on probe SIGNATURE: <u>[Signature]</u> 4/4/06 CHECKED BY: <u>[Signature]</u>	<b>LOCATION NOTES</b> 
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# FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT Associated Textile JOB NUMBER 3612062059  
 LOCATION ID MW-4 FIELD SAMPLE ID 41MW0401601X EVENT NO.       
 ACTIVITY START 1200 END 1315 SAMPLE TIME 1300 DATE 11/6/06

**WATER LEVEL / PUMP SETTINGS** MEASUREMENT POINT  
☒ TOP OF WELL RISER  
☐ TOP OF PROTECTIVE CASING  
 PROTECTIVE CASING STICKUP (FROM GROUND)      feet  
 CASING / WELL DIFFERENCE 0.38 feet  
 INITIAL DEPTH TO WATER 14.43 feet  
 HISTORICAL WELL DEPTH (TOR)      feet  
 FINAL DEPTH TO WATER 14.44 feet  
 PID AMBIENT AIR      ppmv  
 SCREEN LENGTH unknown feet  
 PRESSURE TO PUMP      psi  
 PID WELL MOUTH 20.1 ppmv  
 TOTAL VOL. PURGED      gallons  
 REFILL SETTING       
 DISCHARGE SETTING       
 WELL INTERGRITY: YES NO N/A  
 CAP ☒ ☐ ☐  
 CASING LOCKED ☒ ☐ ☐  
 COLLAR ☒ ☐ ☐  
 (purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

PURGE DATA			SPECIFIC				PUMP			COMMENTS
TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (+/- deg. C)	CONDUCTANCE (mS/cm)	pH (units)	DISS. O2 (mg/L)	TURBIDITY (NTU)	REDOX (+/- mV)	INTAKE DEPTH (ft)	
1210	Pump on						N/A			Pump on
1212	14.38	300	13.5	5.65	6.4	9.4		-110	~16'	
1217	14.38	300	13.3	1.90	6.8	9.9		-120		
1222	14.40	300	13.2	1.57	6.8	9.5		-120		
1227	14.42	300	13.1	1.37	6.9	9.2		-120		
1232	14.43	300	13.2	1.29	6.9	8.9		-120		
1237	14.44	300	13.2	1.20	6.9	8.6		-120		
1242	14.44	300	13.3	1.18	6.9	8.4		-120		
1247	14.44	300	13.3	1.19	6.9	8.2		-130		
1252	14.44	300	13.3	1.17	6.9	8.0		-140		
1257	14.44	300	13.2	1.16	6.9	7.9		-140		
1300	SAMPLE TIME									
1309	Pump off									
										Drop off

**EQUIPMENT DOCUMENTATION**  
 TYPE OF PUMP  
☐ DEDICATED MARSHALK BLADDER  
☐ NON-DEDICATED MARSHALK BLADDER  
☒ OTHER Geopump  
 TYPE OF TUBING  
☒ HIGH DENSITY POLYETHYLENE  
☐ OTHER     

ANALYTICAL PARAMETERS		METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID LETTERS
CONTROL NUMBER						
<input checked="" type="checkbox"/> VOCs - 25 ml Purge (low conc.)		OLCO2.1	HCL / 4 DEG. C	3 X 40 ML	<input checked="" type="checkbox"/>	/    /
<input type="checkbox"/> VOCs - 5 ml Purge		OLMO4.2	HCL / 4 DEG. C	3 X 40 ML	<input checked="" type="checkbox"/>	/    /
<input checked="" type="checkbox"/> SVOCs		OLMO4.2	4 DEG. C	2 X 1 L AG	<input checked="" type="checkbox"/>	/    /
<input type="checkbox"/> PESTICIDES		OLMO4.2	4 DEG. C	2 X 1 L AG	<input type="checkbox"/>	/    /
<input type="checkbox"/> METALS		ILMO4.2	HNO3 to pH <2	1 X 500 ML P	<input type="checkbox"/>	/    /
<input type="checkbox"/> MANGANESE / IRON -		SW846 6010	HNO3 to pH <2	1 X 500 ML P	<input type="checkbox"/>	/    /
<input type="checkbox"/> SULFATE / CHLORIDE / ALKALINITY		USEPA 375.4 / 325.3 / 310.1	4 DEG. C	1 x 1 L P	<input type="checkbox"/>	/    /
<input type="checkbox"/> NO2 - NO3		USEPA 353.2 / 354.1	H2SO4 to pH <2	1 X 500 ML P	<input type="checkbox"/>	/    /
<input type="checkbox"/> TOC		USEPA 415.1	H2SO4 to pH <2	1 X 250 ML AG	<input type="checkbox"/>	/    /
<input type="checkbox"/> METHANE / ETHANE / ETHYLENE		EPA Region 1	HCL / 4 DEG. C	3 X 40 ML	<input checked="" type="checkbox"/>	/    /
<input checked="" type="checkbox"/> OTHER <u>Onsite VOA</u>		<u>Field</u>	<u>N/A</u>	<u>2 L AG</u>	<input checked="" type="checkbox"/>	/    /

**PURGE OBSERVATIONS**  
 PURGE WATER CONTAINERIZED YES ☐ NO ☒  
**NOTES:** Strong odor on purge water  
**LOCATION NOTES:**  
      
      
      
 SIGNATURE       
 CHECKED BY:

# FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: Region 8 Dry Cleaners Group 2 Area JOB NUMBER: 3612062059/07.2  
 LOCATION ID: MW-85 FIELD SAMPLE ID: ATMW00501601XX EVENT NO.: 1  
 ACTIVITY: START 0905 END 1030 SAMPLE TIME: 1006 DATE: 11/8/06

## WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: ☒ TOP OF WELL RISER ☐ TOP OF PROTECTIVE CASING  
 INITIAL DEPTH TO WATER: 13.45 feet  
 FINAL DEPTH TO WATER: 14.13 feet  
 PROTECTIVE CASING STICKUP (FROM GROUND): flush feet  
 CASING / WELL DIFFERENCE: 0.5 feet  
 HISTORICAL WELL DEPTH (TOR): n/a feet  
 PID AMBIENT AIR: n/a ppmv  
 WELL DIAMETER: 4 inches  
 SCREEN LENGTH: n/a feet  
 PRESSURE TO PUMP: n/a psi  
 PID WELL MOUTH: n/a ppmv  
 WELL INTERGRITY: YES ☒ NO ☐ N/A ☐  
 CAP: ☒ LOCKED: ☒ COLLAR: ☒  
 TOTAL VOL. PURGED: 0.92 gallons  
 REFILL SETTING: n/a  
 DISCHARGE SETTING: n/a  
 (purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

## 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
0919	13.45								16.43	Initiate pump
0927	13.72	80	15	1.74	7.0	15	*	137	16.43	
0935	13.88	80	15	1.67	7.0	16	*	116	16.43	
0940	14.03	80	15	4.86	7.1	*	*	93	16.43	
0947	14.09	80	15	1.55	7.0	*	*	67	16.43	
0955	14.10	80	15	1.59	7.0	*	*	61	16.43	
0958	14.12	80	15	1.61	7.0	*	*	60	16.43	
1003	14.13	80	15	1.57	7.0	*	*	60	16.43	Collected sample

## EQUIPMENT DOCUMENTATION

### TYPE OF PUMP

☐ DEDICATED MARSCHALK BLADDER  
☐ NON-DEDICATED MARSCHALK BLADDER

☒ OTHER peristaltic

### TYPE OF TUBING

☒ HIGH DENSITY POLYETHYLENE  
☐ OTHER

## ANALYTICAL PARAMETERS

### CONTROL NUMBER

☐ VOCs - 25 ml Purge (low conc.)  
☒ VOCs - 5 ml Purge  
☒ SVOCs  
☐ PESTICIDES  
☐ METALS  
☐ MANGANESE / IRON -  
☐ SULFATE / CHLORIDE / ALKALINITY  
☐ NO2 - NO3  
☐ TOC  
☐ METHANE / ETHANE / ETHYLENE  
☐ OTHER

### METHOD NUMBER

OLCO2.1  
 OLMO4.2  
 OLMO4.2  
 OLMO4.2  
 ILM04.2  
 SW846 6010  
 USEPA 375.4 / 325.3 / 310.1  
 USEPA 353.2 / 354.1  
 USEPA 415.1  
 EPA Region 1

### PRESERVATION METHOD

HCL / 4 DEG. C  
 HCL / 4 DEG. C  
 4 DEG. C  
 4 DEG. C  
 HNO3 to pH <2  
 HNO3 to pH <2  
 4 DEG. C  
 H2SO4 to pH <2  
 H2SO4 to pH <2  
 HCL / 4 DEG. C

### VOLUME REQUIRED

3 X 40 ML  
 3 X 40 ML  
 2 X 1 L AG  
 2 X 1 L AG  
 1 X 500 ML P  
 1 X 500 ML P  
 1 X 1 L P  
 1 X 500 ML P  
 1 X 250 ML AG  
 3 X 40 ML

### SAMPLE COLLECTED

☐  
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☐  
☐  
☐  
☐  
☐  
☐

### SAMPLE BOTTLE ID LETTERS

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

## PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED YES ☒ NO ☐

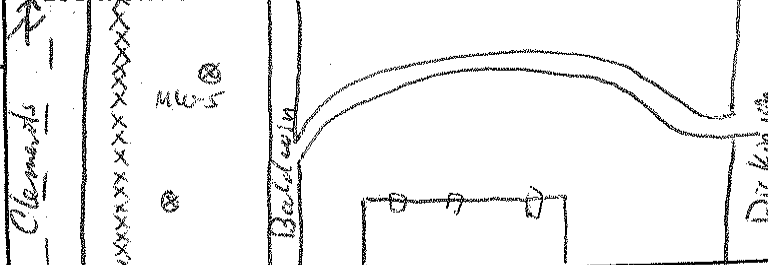
## NOTES:

\* probe not operational

SIGNATURE: [Signature]

CHECKED BY: [Signature]

## LOCATION NOTES



9/22/2006

9/22/2006

PROJECT	Region 8 Dry Cleaners Group 2 Area		ATM W00801601XD	JOB NUMBER	301601601XD	
LOCATION ID	MW-8		FIELD SAMPLE ID	ATM W00801601XX	EVENT NO.	
ACTIVITY	START	0730	END	0835	DATE	11/8/2002

[illegible]

TYPE OF PUMP  
☐ DEDICATED MARSCHALK BLADDER  
☐ NON-DEDICATED MARSCHALK BLADDER

☒ OTHER peristaltic

TYPE OF TUBING  
☒ HIGH DENSITY POLYETHYLENE  
☐ OTHER \_\_\_\_\_

CONTROL NUMBER	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID LETTERS
<input type="checkbox"/> VOCs - 25 ml Purge (low conc.)	OLCO2.1	HCL / 4 DEG. C	3 X 40 ML	<input type="checkbox"/>	___/___/___
<input checked="" type="checkbox"/> VOCs - 5 ml Purge	OLMO4.2	HCL / 4 DEG. C	3 X 40 ML	<input checked="" type="checkbox"/> x2	___/___/___
<input checked="" type="checkbox"/> SVOCs	OLMO4.2	4 DEG. C	12 X 1 L AG	<input checked="" type="checkbox"/> x2	___/___/___
<input type="checkbox"/> PESTICIDES	OLMO4.2	4 DEG. C	2 X 1 L AG	<input type="checkbox"/>	___/___/___
<input type="checkbox"/> METALS	ILM04.2	HNO3 to pH <2	1 X 500 ML P	<input type="checkbox"/>	___/___/___
<input type="checkbox"/> MANGANESE / IRON -	SW846 6010	HNO3 to pH <2	1 X 500 ML P	<input type="checkbox"/>	___/___/___
<input type="checkbox"/> SULFATE / CHLORIDE / ALKALINITY	USEPA 375.4 / 325.3 / 310.1	4 DEG. C	1 x 1 L P	<input type="checkbox"/>	___/___/___
<input type="checkbox"/> NO2 - NO3	USEPA 353.2 / 354.1	H2SO4 to pH <2	1 X 500 ML P	<input type="checkbox"/>	___/___/___
<input type="checkbox"/> TOC	USEPA 415.1	H2SO4 to pH <2	1 X 250 ML AG	<input type="checkbox"/>	___/___/___
<input type="checkbox"/> METHANE / ETHANE / ETHYLENE	EPA Region 1	HCL / 4 DEG. C	3 X 40 ML	<input type="checkbox"/>	___/___/___
<input type="checkbox"/> OTHER				<input type="checkbox"/>	___/___/___

9/22/2006

## FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT	Dyckmans Group 2 Associated		
LOCATION ID	MW-9		
ACTIVITY	START	1300	END 1415

JOB NUMBER 3612062057107.2  
EVENT NO. 1  
DATE 11/9/04


## WATER LEVEL / PUMP SETTINGS

INITIAL DEPTH TO WATER 14.39 feet

FINAL DEPTH TO WATER 14.40 feet

SCREEN LENGTH 2 1/2 feet

TOTAL VOL. PURGED	1.9 gallons
----------------------	-------------

MEASUREMENT POINT  
 TOP OF WELL RISER  
 TOP OF PROTECTIVE CASING

HISTORICAL  
WELL DEPTH  
(TOR)

29 feet

PRESSURE TO PUMP n/a psi

REFILL  
SETTING

PROTECTIVE  
CASING STICKUP  
(FROM GROUND) *Phyl* feet

PID	n/a	ppmv
AMBIENT AIR		

PID WELL  
MOUTH

DISCHARGE SETTING ☒

CASING / WELL  
DIFFERENCE

0.30	feet
------	------

WELL DIAMETER 2 inches

WELL INTERGRITY:			
INTEGRITY:	YES	NO	N/A
CAP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASING	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LOCKED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COLLAR	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## PURGE DATA

[illegible]

## EQUIPMENT DOCUMENTATION

TYPE OF PUMP

☐ DEDICATED MARSCHALK BLADDER  
☐ NON-DEDICATED MARSCHALK BLADDER

TYPE OF TUBING

☒ HIGH DENSITY POLYETHYLENE  
☐ OTHER \_\_\_\_\_

## ANALYTICAL PARAMETERS

CONTROL NUMBER

☐ VOCs - 25 ml Purge (low conc.)  
☒ VOCs - 5 ml Purge  
☒ SVOCs  
☐ PESTICIDES  
☐ METALS  
☐ MANGANESE / IRON -  
☐ SULFATE / CHLORIDE / ALKALINITY  
☐ NO2 - NO3  
☐ TOC  
☐ METHANE / ETHANE / ETHYLENE  
☐ OTHER

METHOD  
NUMBER

OLCO2.1  
OLMO4.2  
OLMO4.2  
OLMO4.2  
ILMO4.2  
SW846 6010  
SEPA 375.4 / 325.3 / 310.1  
USEPA 353.2 / 354.1  
USEPA 415.1  
EPA Region 1

PRESERVATION  
METHOD

HCL / 4 DEG. C	3 X 40 ML
HCL / 4 DEG. C	3 X 40 ML
4 DEG. C	2 X 1 L AG
4 DEG. C	2 X 1 L AG
HNO3 to pH <2	1 X 500 ML P
HNO3 to pH <2	1 X 500 ML P
4 DEG. C	1 x 1 L P
H2SO4 to pH <2	1 X 500 ML P
H2SO4 to pH <2	1 X 250 ML AG
HCL / 4 DEG. C	3 X 40 ML

VOLUME  
REQUIRED

3 X 40 ML  
3 X 40 ML  
~~2 X 1 L AG~~  
2 X 1 L AG  
1 X 500 ML P  
1 X 500 ML P  
1 x 1 L P  
1 X 500 ML P  
1 X 250 ML AG  
3 X 40 ML

SAMPLE  
COLLECTED

	<input type="checkbox"/>
	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>

SAMPLE BOTTLE ID LETTERS

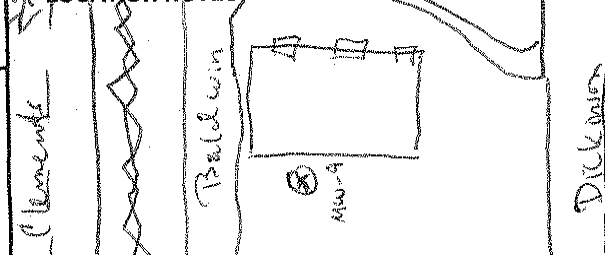
[illegible]**PURGE OBSERVATIONS**

PURGE WATER CONTAINERIZED YES ☒ NO

**NOTES:**

SIGNATURE: *[Signature]* 4/9/03  
CHECKED BY: *[Signature]*

### LOCATION NOTES





9/22/2006





# FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT Dry Cleaners Group 2 Assoc Ltd JOB NUMBER 3612062059 07.2  
 LOCATION ID DCMW-4 FIELD SAMPLE ID ATOCMW4008 01XX EVENT NO. 1  
 ACTIVITY START 1525 END 1628 SAMPLE TIME 1617 DATE 11/9/02

## WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT  
☒ TOP OF WELL RISER  
☐ TOP OF PROTECTIVE CASING  
 PROTECTIVE CASING STICKUP (FROM GROUND) flush feet  
 CASING / WELL DIFFERENCE 0.3 feet  
 INITIAL DEPTH TO WATER 11.22 feet  
 HISTORICAL WELL DEPTH (TOR) n/a feet  
 WELL DIAMETER 2 inches  
 FINAL DEPTH TO WATER 11.55 feet  
 PRESSURE TO PUMP n/a psi  
 PID AMBIENT AIR n/a ppmv  
 PID WELL MOUTH n/a ppmv  
 SCREEN LENGTH n/a feet  
 TOTAL VOL. PURGED 1.7 gallons  
 REFILL SETTING n/a  
 DISCHARGE SETTING n/a  
 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
1537	11.22								18.02	initiate pump
1542	11.55	175	16	0.571	7.2	2	140	164	18.02	
1548	11.55	175	16	0.590	7.2	1.40	147	162	18.02	
1555	11.55	175	16	0.590	7.2	6.63	151	158	18.02	
1600	11.55	175	16	0.597	7.2	7.54	158	157	18.02	
1605	11.55	175	16	0.660	7.2	8.04	155	155	18.02	
1608	11.55	175	16	0.661	7.2	8.08	160	153	18.02	
1611	11.55	175	16	0.667	7.2	8.06	162	153	18.02	
1615	11.55	175	16	0.679	7.2	8.41	159	152	18.02	collect sample

## EQUIPMENT DOCUMENTATION

TYPE OF PUMP  
☐ DEDICATED MARSCHALK BLADDER  
☐ NON-DEDICATED MARSCHALK BLADDER  
☒ OTHER peristaltic  
 TYPE OF TUBING  
☒ HIGH DENSITY POLYETHYLENE  
☐ OTHER

## ANALYTICAL PARAMETERS

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

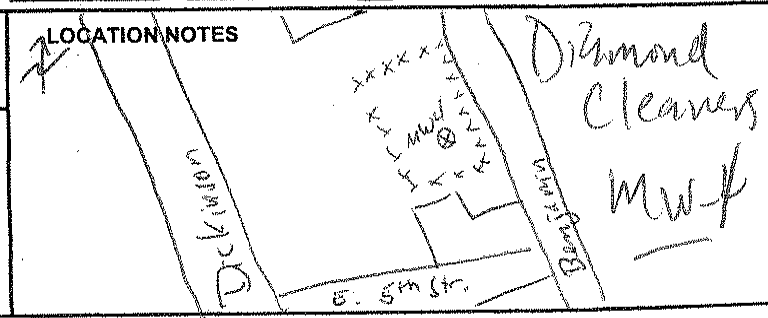
## PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED YES ☐ NO ☒ no odors

## NOTES:

SIGNATURE: [Signature] 11/9/02  
 CHECKED BY: [Signature]

## LOCATION NOTES



# FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

PROJECT: NYSDOT (Cleaner Corps) Activity JOB NUMBER: 36126257/07.2

LOCATION ID: DCMW-5 FIELD SAMPLE ID: ATDCMW502001X EVENT NO.: 1

ACTIVITY: START 0937 END 1105 SAMPLE TIME: 1045 DATE: 11/10/00

## WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT:  
☒ TOP OF WELL RISER  
☐ TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER: 11.18 feet  
 FINAL DEPTH TO WATER: 11.32 feet  
 SCREEN LENGTH: n/a feet  
 TOTAL VOL. PURGED: 4.1 gallons  
 (purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

HISTORICAL WELL DEPTH (TOR): n/a feet  
 PRESSURE TO PUMP: n/a psi  
 REFILL SETTING: n/a

PROTECTIVE CASING STICKUP (FROM GROUND): plus 4 feet  
 PID AMBIENT AIR: n/a ppmv  
 PID WELL MOUTH: n/a ppmv  
 DISCHARGE SETTING: n/a

CASING / WELL DIFFERENCE: 0.42 feet  
 WELL DIAMETER: 2 inches  
 WELL INTERGRITY:  
 INTEGRITY: YES X NO — N/A —  
 CAP X  
 LOCKED X  
 COLLAR X

## 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
0957	11.18								20.42	initiate pump
1002	11.32	350	13	0.603	7.7	<	6.2	-133	20.42	
1017	11.32	350	13	0.618	7.7	<	2.5	-130	20.42	
1022	11.32	350	13	0.637	7.7	<	11	-127	20.42	
1027	11.32	350	13	0.651	7.6	<	6.3	-124	20.42	
1030	11.32	350	13	0.659	7.5	<	5.4	-122	20.42	
1033	11.32	350	13	0.661	7.5	<	4.7	-122	20.42	
1036	11.32	350	13	0.663	7.4	<	3.3	-118	20.42	
1039	11.32	350	13	0.670	7.4	<	3.2	-117	20.42	
1042	11.32	350	13	0.670	7.4	<	3.3	-117	20.42	Collect sample

## EQUIPMENT DOCUMENTATION

TYPE OF PUMP:  
☐ DEDICATED MARSCHALK BLADDER  
☐ NON-DEDICATED MARSCHALK BLADDER  
☒ OTHER peristaltic

TYPE OF TUBING:  
☒ HIGH DENSITY POLYETHYLENE  
☐ OTHER \_\_\_\_\_

## ANALYTICAL PARAMETERS

CONTROL NUMBER	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID LETTERS
<input type="checkbox"/> VOCs - 25 ml Purge (low conc.)	OLCO2.1	HCL / 4 DEG. C	3 X 40 ML	<input type="checkbox"/>	____/____/____
<input checked="" type="checkbox"/> VOCs - 5 ml Purge	OLMO4.2	HCL / 4 DEG. C	3 X 40 ML	<input checked="" type="checkbox"/>	____/____/____
<input type="checkbox"/> SVOCs	OLMO4.2	4 DEG. C	2 X 1 L AG	<input type="checkbox"/>	____/____/____
<input type="checkbox"/> PESTICIDES	OLMO4.2	4 DEG. C	2 X 1 L AG	<input type="checkbox"/>	____/____/____
<input type="checkbox"/> METALS	ILMO4.2	HNO3 to pH <2	1 X 500 ML P	<input type="checkbox"/>	____/____/____
<input type="checkbox"/> MANGANESE / IRON -	SW846 6010	HNO3 to pH <2	1 X 500 ML P	<input type="checkbox"/>	____/____/____
<input type="checkbox"/> SULFATE / CHLORIDE / ALKALINITY	USEPA 375.4 / 325.3 / 310.1	4 DEG. C	1 x 1 L P	<input type="checkbox"/>	____/____/____
<input type="checkbox"/> NO2 - NO3	USEPA 353.2 / 354.1	H2SO4 to pH <2	1 X 500 ML P	<input type="checkbox"/>	____/____/____
<input type="checkbox"/> TOC	USEPA 415.1	H2SO4 to pH <2	1 X 250 ML AG	<input type="checkbox"/>	____/____/____
<input type="checkbox"/> METHANE / ETHANE / ETHYLENE	EPA Region 1	HCL / 4 DEG. C	3 X 40 ML	<input type="checkbox"/>	____/____/____
<input type="checkbox"/> OTHER _____				<input type="checkbox"/>	____/____/____

## PURGE OBSERVATIONS

PURGE WATER CONTAINERIZED YES (NO) gasoline color

## NOTES:

SIGNATURE: [Signature] 11/10/02  
 CHECKED BY: \_\_\_\_\_

## LOCATION NOTES

Diamond Cleaners  
mw-5

# FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT Region 8 D.C. Group II - Associated SAMPLE NUMBER ATDCW1001501K STUDY AREA / AOC NYSDEC  
 SITE ID MD-TPGW-10 SITE TYPE Drilled Casing DATE 11/10/06  
 ACTIVITY START 0725 END 0830 JOB NUMBER 36120620591074 FILE TYPE ---  
 Sample time: 0815 WEATHER 42°F, cloudy

## WATER LEVEL / WELL DATA

MEASURED WELL DEPTH ~17' FT (TOR) HISTORICAL WELL DEPTH --- FT (TOR) PROTECTIVE CASING STICKUP (FROM GROUND) --- FT PROTECTIVE CASING / WELL DIFFERENCE --- FT  
 DEPTH TO WATER 11.82 FT (TOR) SCREEN LENGTH 10' FT WELL DIAMETER 1 IN WELL MATERIAL Sch 40 PVC  
 HEIGHT OF WATER COLUMN --- FT x --- GAL/FT (1 INCH WELL) = --- GAL/VOL WELL INTEGRITY: CAP ☒ YES ☐ NO ☐ N/A  
 PID AMBIENT AIR 40.1 PPM PID WELL MOUTH 40.1 PPM TOTAL VOLUME PURGED 1.8 GAL CASING COLLAR LOCKED ☒ YES ☐ NO ☐ N/A

PURGE DATA 0739 - Pump on TIME: 0750 0755 0800 0805 0810 0815

PURGE VOLUME (gallons)	<u>~0.40</u>	<u>0.55</u>	<u>0.61</u>	<u>0.77</u>	<u>0.93</u>	<u>1.8</u>
PURGE RATE (gpm) (ml/min)	<u>125</u>	<u>125</u>	<u>125</u>	<u>125</u>	<u>125</u>	<u>125</u>
TEMPERATURE (degrees C)	<u>12.1</u>	<u>12.2</u>	<u>12.4</u>	<u>12.6</u>	<u>12.7</u>	<u>---</u>
pH (units)	<u>7.3</u>	<u>7.1</u>	<u>7.0</u>	<u>7.1</u>	<u>7.1</u>	<u>---</u>
TURBIDITY (ntu) <u>0.347</u> (mg/L)	<u>10.7</u>	<u>12.2</u>	<u>12.4</u>	<u>12.6</u>	<u>12.7</u>	<u>Sample 10</u>
SPEC. COND. (umhos/cm)	<u>0.347</u>	<u>0.347</u>	<u>0.347</u>	<u>0.347</u>	<u>0.346</u>	<u>---</u>
TURBIDITY (ntu) <u>---</u>	<u>370</u>	<u>~1000</u>	<u>71000</u>	<u>71000</u>	<u>71000</u>	<u>Sample 10</u>
REDOX POTENTIAL (+/- mv)	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>---</u>

## SAMPLE OBSERVATIONS:

☒ CLEAR  
☐ COLORED ---  
☒ CLOUDY ---  
☐ TURBID ---  
☐ ODOR ---  
☒ OTHER (see notes) 0820 - Pump on

## EQUIPMENT DOCUMENTATION

PURGING ☒ SAMPLING ☒ DECON FLUIDS USED ☒ WATER LEVEL EQUIPMENT USED ☒  
 PERISTALTIC PUMP ALKINOX ELECTRIC COND. PROBE  
 SUBMERSIBLE PUMP LIQUINOX FLOAT ACTIVATED  
 BLADDER PUMP POTABLE WATER KECK INTERFACE PROBE  
 PVC/SILICON TUBING DEIONIZED WATER  
 TEFLON/SILICON TUBING STEAM CLEANING  
 BAILER NITRIC ACID  
 IN LINE FILTER  
 NUMBER OF FILTERS USED 0

## ANALYTICAL PARAMETERS

METHOD NUMBER	FRACTION CODE	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> VOC	OLM04.2	HCL / 4 DEG. C	32 X 40 ML	<input checked="" type="checkbox"/>	<u>---</u>
<input checked="" type="checkbox"/> VOC	ON SITE VOC	HCL / 4 DEG. C	28 X 40 ML	<input checked="" type="checkbox"/>	<u>---</u>
<input type="checkbox"/> SVOC		4 DEG. C	2 X 1 L AG	<input type="checkbox"/>	<u>---</u>
<input type="checkbox"/> PEST / PCBs		4 DEG. C	2 X 1 L AG	<input type="checkbox"/>	<u>---</u>
<input type="checkbox"/> HERBICIDES		4 DEG. C	2 X 1 L AG	<input type="checkbox"/>	<u>---</u>
<input type="checkbox"/> PAL INORGANICS		HNO3 to pH <2	1 X 1 L P	<input type="checkbox"/>	<u>---</u>
<input type="checkbox"/> SULFATE NITRATE/NITRITE	USEPA 300	4 DEG. C	1 X 50 ML P	<input type="checkbox"/>	<u>---</u>
<input type="checkbox"/> SULFIDE	USEPA 376.1	NAOH to pH >9	1 X 500 ML P	<input type="checkbox"/>	<u>---</u>
<input type="checkbox"/> IRON ONLY		HNO3 to pH <2	1 X 1 L P-Cube	<input type="checkbox"/>	<u>---</u>
<input type="checkbox"/> FERROUS IRON	FIELD METHOD			<input type="checkbox"/>	<u>---</u>
<input type="checkbox"/> TOTAL PHOSPHORUS	USEPA-365.4	H2SO4 to pH <2	1 X 50 ML P	<input type="checkbox"/>	<u>---</u>
<input type="checkbox"/> MANGANESE ONLY		HNO3 to pH <2	1 X 1 L P	<input type="checkbox"/>	<u>---</u>
<input type="checkbox"/> AMMONIA NIROGEN	USEPA-350.1	H2SO4 to pH <2	1 X 400 ML P	<input type="checkbox"/>	<u>---</u>
<input type="checkbox"/> TOC	USEPA-415.1			<input type="checkbox"/>	<u>---</u>
<input type="checkbox"/> TSS ONLY	USEPA-160.2	4 DEG. C	1 X 1 L P	<input type="checkbox"/>	<u>---</u>
<input type="checkbox"/> OTHER				<input type="checkbox"/>	<u>---</u>

NOTES Turbidity readings on u-10; not reliable.

SIGNATURE: Benjamin SX

RECEIVED BY: GW-10

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 Dry CLEANERS - Group II

Site: Associated - 8thmond.

Project Number: 3612062059/0.72

Date: 11/16/06

Time: Start: 1630 End: 1705

Sample Location ID: AT DGGW2015102 KX

Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective Casing \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ 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.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ Well Integrity: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_ Other \_\_\_\_\_

Equipment Documentation

## Purging/Sampling Equipment Used:

## Decontamination Fluids Used:

(✓ If Used For)

Purging \_\_\_\_\_ Sampling \_\_\_\_\_

Peristaltic Pump \_\_\_\_\_  
Submersible Pump \_\_\_\_\_  
Bailer \_\_\_\_\_  
PVC/Silicon Tubing \_\_\_\_\_  
Teflon/Silicon Tubing \_\_\_\_\_  
Airlift \_\_\_\_\_  
Hand Pump \_\_\_\_\_  
In-line Filter \_\_\_\_\_  
Press/Vac Filter \_\_\_\_\_

Equipment ID \_\_\_\_\_

(✓ All That Apply at Location)

\_\_\_\_\_ Methanol (100%)  
\_\_\_\_\_ 25% Methanol/75% ASTM Type II water  
\_\_\_\_\_ Deionized Water  
\_\_\_\_\_ Liquinox Solution  
\_\_\_\_\_ Hexane  
\_\_\_\_\_ HNO<sub>3</sub>/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 \_\_\_\_\_  
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	3/ 2x40 ml	
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: Screen: PVC well, 1"

Purge water cloudy.

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 Site: ABSENZED TEXTILE  
 Project Number: 3612062059/07.2 Date: 11/16/06  
 Sample Location ID: 4916W0010200121X Time: Start: 1400 End: 1400  
 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 \_\_\_\_\_  
GW-1 @ 20 ft bgs  
 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 \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_ Equipment ID \_\_\_\_\_  
 Submersible Pump \_\_\_\_\_  
 Bailor \_\_\_\_\_  
 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<sub>3</sub>/D.I. Water Solution  
 \_\_\_\_\_ Potable Water  
 \_\_\_\_\_ None

## Field Analysis Data

PID: Ambient Air 4.1 ppm Well Mouth 4.1 ppm Purge Data Collected \_\_\_\_\_ In-line \_\_\_\_\_ In Container \_\_\_\_\_ Sample Observations: \_\_\_\_\_ Turbid \_\_\_\_\_ Clear \_\_\_\_\_ Cloudy \_\_\_\_\_ Colored \_\_\_\_\_ Odor \_\_\_\_\_  
 Purge Data @ ~1.0 Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal.  
 Temperature, Deg. C 14.0  
 pH, units 6.9  
 Specific Conductivity (µmhos/cm) 5.636  
 Turbidity (NTU) 0.100  
 Oxidation - Reduction, +/- mv \_\_\_\_\_  
 Dissolved Oxygen, ppm 1.1

## Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	32x40 ml	
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500ml P	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pes/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Notes: <u>SP-15</u>	✓	4°C	2.140	

Notes: SP-15

Purge water. Olive green / 15.1 H/L / 100

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 Site: Aquartzed Textile  
 Project Number: 3612002059107.2 Date: 11/26/06  
 Sample Location ID: ATT6W001102901X Time: Start: 1345 End: 145  
 Signature of Sampler: [Signature]

## Water Level/Well Data

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

## Equipment Documentation

**Purging/Sampling Equipment Used:** **Decontamination Fluids Used:**  
 (✓ If Used For)        Equipment ID (✓ All That Apply at Location)  
 Purging        Sampling        Peristaltic Pump        Methanol (100%)  
       Submersible Pump        25% Methanol/75% ASTM Type II water  
       Bailor        Deionized Water  
       PVC/Silicon Tubing        Liquinox Solution  
       Teflon/Silicon Tubing        Hexane  
       Airlift        HNO<sub>3</sub>/D.I. Water Solution  
       Hand Pump        Potable Water  
       In-line Filter        None  
       Press/Vap Filter              

## Field Analysis Data

PID: Ambient Air 20.1 ppm Well Mouth 6.1 ppm Purge Data Collected        In-line        Sample Observations:        Turbid        Clear        Cloudy  
       In Container        Colored        Odor  
 Purge Data @ 20.0 Gal. @        Gal. @        Gal. @        Gal. @        Gal.  
 Temperature, Deg. C 15.1  
 pH, units 7.0  
 Specific Conductivity (µmhos/cm) 0.685  
 Turbidity (NTUS)         
 Oxidation - Reduction, +/- mv 619.0  
 Dissolved Oxygen, ppm       

## Sample Collection Requirements

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<sub>3</sub>, 4°C 1x1 liter P  
 Cyanide        NaOH, 4°C 1x500mLP  
 Nitrate/Sulfate        H<sub>2</sub>SO<sub>4</sub>, 4°C 1x1 liter P  
 Nitrate/Phosphate        H<sub>2</sub>SO<sub>4</sub>, 4°C 1x1 liter P  
 Pes/PCB        4°C 3x1 liter AG  
 TPH        H<sub>2</sub>SO<sub>4</sub>, 4°C 2x1 liter AG  
 TOC        H<sub>2</sub>SO<sub>4</sub>, 4°C 1x1 liter P  
 Notes: Field DOA 28 to 30 4°C 2 x 40 ml  
Purge water grey oily

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

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 DW CLEANERS - GROUP II

Site: Assigned to Files

Project Number: 3612062059/07.2

Date: 11/10/06

Time: Start: 0900 End: 0945

Sample Location ID: ATT6W002018011X

Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective Casing \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ 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.) \_\_\_\_\_ Gal/Vol. \_\_\_\_\_ Well Integrity: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_ .15 Gal/Ft. (6 in.) \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_ \_\_\_\_\_ Gal/Ft. (\_\_\_\_\_ in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ Other \_\_\_\_\_

Equipment Documentation

Purging/Sampling Equipment Used:

Decontamination Fluids Used:

(✓ If Used For)

Purging Sampling

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

Peristaltic Pump  
Submersible Pump  
Bailer  
PVC/Silicon Tubing  
Teflon/Silicon Tubing  
Airlift  
Hand Pump  
In-line Filter  
Press/Vac Filter

Equipment ID

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(✓ All That Apply at Location)

\_\_\_\_\_ Methanol (100%)  
\_\_\_\_\_ 25% Methanol/75% ASTM Type II water  
\_\_\_\_\_ Deionized Water  
\_\_\_\_\_ Liquinox Solution  
\_\_\_\_\_ Hexane  
\_\_\_\_\_ HNO<sub>3</sub>/D.I. Water Solution  
\_\_\_\_\_ Potable Water  
\_\_\_\_\_ None

Field Analysis Data

PID: Ambient Air \_\_\_\_\_ ppm Well Mouth \_\_\_\_\_ ppm

Purge Data Collected \_\_\_\_\_ In-line \_\_\_\_\_

Sample Observations:

\_\_\_\_\_ Turbid \_\_\_\_\_ Clear \_\_\_\_\_ Cloudy  
\_\_\_\_\_ Colored \_\_\_\_\_ Odor

Purge Data @ ~2 Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal.

Temperature, Deg. C 11.8

pH, units 7.46

Specific Conductivity (µmhos/cm) 276

Turbidity (NTUS) 1.100

Oxidation - Reduction, +/- mv \_\_\_\_\_

Dissolved Oxygen, ppm 4.0

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter

✓ If Sample Collected

Preservation Method

Volume Required

Sample Bottle Lot Nos.

✓ VOCs

SVOCs

Metals

Cyanide

Nitrate/Sulfate

Nitrate/Phosphate

Pest/PCB

TPH

TOC

onsite wa

Notes: Screen 16 to 20

Purge water: Brown, silt

4°C

4°C

HNO<sub>3</sub>, 4°C

NaOH, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

4°C

3x40 ml

2x1 liter AG

1x1 liter P

1x500mLP

1x1 liter P

3x1 liter AG

2x1 liter AG

1x1 liter P

2 x 40ml

20940

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

ABB Environmental Services



# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 DW CLEANUP - GROUP II

Site: Associated Textiles

Project Number: 3612062059/07.2

Date: 11/10/06

Sample Location ID: ATGW010310118011K12

Time: Start: 10:15 End: 11:05

Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective Casing \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ Well Locked? \_\_\_\_\_ 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.) \_\_\_\_\_ Gal/Vol. \_\_\_\_\_ Well Integrity: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_ 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Other \_\_\_\_\_ Gal/Ft. (in.) \_\_\_\_\_

Equipment Documentation

Purging/Sampling Equipment Used:

Decontamination Fluids Used:

(✓ If Used For)

Purging Sampling

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

Peristaltic Pump

Submersible Pump

Bailer

PVC/Silicon Tubing

Teflon/Silicon Tubing

Airlift

Hand Pump

In-line Filter

Press/Vac Filter

Equipment ID

(✓ All That Apply at Location)

\_\_\_\_\_ Methanol (100%)

\_\_\_\_\_ 25% Methanol/75% ASTM Type II water

✓ \_\_\_\_\_ Deionized Water

✓ \_\_\_\_\_ Liquinox Solution

\_\_\_\_\_ Hexane

\_\_\_\_\_ HNO<sub>3</sub>/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 @ 13 Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal.

Temperature, Deg. C 13.7

pH, units 8.0

Specific Conductivity (µmhos/cm) 0.629

Turbidity (NTUS) 2.00

Oxidation - Reduction, +/- mv \_\_\_\_\_

Dissolved Oxygen, ppm 12.6

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter

✓ If Sample Collected

Preservation Method

Volume Required

Sample Bottle ILot Nos.

✓ VOCs

\_\_\_\_\_ SVOCs

\_\_\_\_\_ Metals

\_\_\_\_\_ Cyanide

\_\_\_\_\_ Nitrate/Sulfate

\_\_\_\_\_ Nitrate/Phosphate

\_\_\_\_\_ Pest/PCB

\_\_\_\_\_ TPH

\_\_\_\_\_ TOC

\_\_\_\_\_ Onsite VC

Notes: Green 16 to 20

Purge water Brownish

4°C

4°C

HNO<sub>3</sub>, 4°C

NaOH, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

4°C

3x40 ml

2x1 liter AG

1x1 liter P

1x500mLP

1x1 liter P

1x1 liter P

3x1 liter AG

2x1 liter AG

1x1 liter P

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

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

Site: Associated Textile

Project Number: 3612062059/07.2

Date: 11/08/06

Sample Location ID: ATGW0104017101XX

Time: Start: 0850 End: 1050

Signature of Sampler: [Signature]

## Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective Casing \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ 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.) \_\_\_\_\_ Gal/Vol. \_\_\_\_\_ Well integrity: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_ 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Other \_\_\_\_\_ \_\_\_\_\_ Gal/Vol. (in.) \_\_\_\_\_

GW-4 @ 17' bgs

Geoprobe

## Equipment Documentation

### Purging/Sampling Equipment Used:

(✓ If Used For)

Purging: \_\_\_\_\_ Sampling: \_\_\_\_\_

Peristaltic Pump \_\_\_\_\_  
Submersible Pump \_\_\_\_\_  
Bailer \_\_\_\_\_  
PVC/Silicon Tubing \_\_\_\_\_  
Teflon/Silicon Tubing \_\_\_\_\_  
Airlift \_\_\_\_\_  
Hand Pump \_\_\_\_\_  
In-line Filter \_\_\_\_\_  
Press/Vac Filter \_\_\_\_\_

Equipment ID \_\_\_\_\_

### Decontamination Fluids Used:

(✓ All That Apply at Location)

\_\_\_\_\_ Methanol (100%)  
\_\_\_\_\_ 25% Methanol/75% ASTM Type II water  
\_\_\_\_\_ Deionized Water  
\_\_\_\_\_ Liquinox Solution  
\_\_\_\_\_ Hexane  
\_\_\_\_\_ HNO<sub>3</sub>/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  
pH, units 5.9  
Specific Conductivity (µmhos/cm) 0.619  
Turbidity (NTU) 71000  
Oxidation-Reduction, +/- mv \_\_\_\_\_  
Dissolved Oxygen, ppm 8.8

## Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle Lot Nos.
✓ VOCs	✓	4°C	32x40 ml	
✓ SVOCs	✓	4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
✓ onsite WA	✓		2x40ml	

Notes: Screen 15' to 19' 4"

Purge water. 4' Bore  
& collect from a PVC screen

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

Site: Associated Teknic

Project Number: 3612062059/072

Date: 11/07/2006

Sample Location ID: ATGW0050111011X

Time: Start: 1610 End: 1635

Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Brier Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_ Casing \_\_\_\_\_

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ Well Locked? \_\_\_\_\_ Well Dia. \_\_\_\_\_ 2 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch \_\_\_\_\_ Water Level Equip. Used: \_\_\_\_\_ Elect. Cond. Probe \_\_\_\_\_ Float Activated \_\_\_\_\_ Press. Transducer \_\_\_\_\_

Height of Water Column \_\_\_\_\_ Ft. \_\_\_\_\_ 16 Gal/Ft. (2 in.) \_\_\_\_\_ Gal/Vol. \_\_\_\_\_ Well Integrity: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ 65 Gal/Ft. (4 in.) \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_ 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_ Gal/Ft. (in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ Other \_\_\_\_\_

GW-5 @ 17' bgs

Geoprobe

Equipment Documentation

Purging/Sampling Equipment Used:

Decontamination Fluids Used:

(✓ If Used For)

Purging \_\_\_\_\_ Sampling \_\_\_\_\_

Peristaltic Pump \_\_\_\_\_  
Submersible Pump \_\_\_\_\_  
Bailer \_\_\_\_\_  
PVC/Silicon Tubing \_\_\_\_\_  
Teflon/Silicon Tubing \_\_\_\_\_  
Airlift \_\_\_\_\_  
Hand Pump \_\_\_\_\_  
In-line Filter \_\_\_\_\_  
Press/Vac Filter \_\_\_\_\_

Equipment ID

(✓ All That Apply at Location)

\_\_\_\_\_ Methanol (100%)  
\_\_\_\_\_ 25% Methanol/75% ASTM Type II water  
\_\_\_\_\_ Deionized Water  
\_\_\_\_\_ Liquinox Solution  
\_\_\_\_\_ Hexane  
\_\_\_\_\_ HNO<sub>3</sub>/D.I. Water Solution  
\_\_\_\_\_ Potable Water  
\_\_\_\_\_ None

PID: Ambient Air \_\_\_\_\_ ppm Well Mouth \_\_\_\_\_ ppm

Purge Data Collected \_\_\_\_\_ In-line \_\_\_\_\_

Sample Observations:

\_\_\_\_\_ Turbid \_\_\_\_\_ Clear \_\_\_\_\_ Cloudy  
\_\_\_\_\_ Colored \_\_\_\_\_ Odor

Field Analysis Data

Purge Data @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal.

Temperature, Deg. C \_\_\_\_\_  
pH, units \_\_\_\_\_  
Specific Conductivity (µmhos/cm) \_\_\_\_\_  
Turbidity (NTUS) \_\_\_\_\_  
Oxidation - Reduction, +/- mv \_\_\_\_\_  
Dissolved Oxygen, ppm \_\_\_\_\_

8.15  
0.531  
71050  
9.5

Sample Collection Requirements  
(✓ If Required at this Location)

Analytical Parameter

✓ If Sample Collected

Preservation Method

Volume Required

Sample Bottle Lot Nos.

✓ VOCs \_\_\_\_\_ 4°C \_\_\_\_\_ 32x40 ml  
\_\_\_\_\_ SVOCs \_\_\_\_\_ 4°C \_\_\_\_\_ 2x1 liter AG  
\_\_\_\_\_ Metals \_\_\_\_\_ HNO<sub>3</sub>, 4°C \_\_\_\_\_ 1x1 liter P  
\_\_\_\_\_ Cyanide \_\_\_\_\_ NaOH, 4°C \_\_\_\_\_ 1x500mLP  
\_\_\_\_\_ Nitrate/Sulfate \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_ 1x1 liter P  
\_\_\_\_\_ Nitrate/Phosphate \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_ 1x1 liter P  
\_\_\_\_\_ Pest/PCB \_\_\_\_\_ 4°C \_\_\_\_\_ 3x1 liter AG  
\_\_\_\_\_ TPH \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_ 2x1 liter AG  
\_\_\_\_\_ TOC \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_ 1x1 liter P  
\_\_\_\_\_ \_\_\_\_\_ 4°C \_\_\_\_\_ 2x40ml

Notes: GREEN 15 to 19

Purge water. 1st tank only

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

Site: Associated Textile

Project Number: 3612062059/0.7.2

Date: 11/10/2006

Sample Location ID: ATGWA051024101 XIV

Time: Start: 1555 End: 1620

Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective Casing \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ Well Locked? \_\_\_\_\_ Well Dia. \_\_\_\_\_ 2 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch \_\_\_\_\_ Water Level Equip. Used: \_\_\_\_\_ Elect. Cond. Probe \_\_\_\_\_ Float Activated \_\_\_\_\_ Press. Transducer \_\_\_\_\_

Height of Water Column X \_\_\_\_\_ 1.5 Gal/Ft. (2 in.) \_\_\_\_\_ Gal/Vol. \_\_\_\_\_ Well Integrity: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ 0.65 Gal/Ft. (4 in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_ Other \_\_\_\_\_

GW-5 @ 20 ft bgs

Geoprobe

Equipment Documentation

Purging/Sampling Equipment Used:

Decontamination Fluids 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-K

(✓ All That Apply at Location)

- \_\_\_\_\_ Methanol (100%)
- \_\_\_\_\_ 25% Methanol/75% ASTM Type II water
- ✓ Deionized Water
- ✓ Liquinox Solution
- \_\_\_\_\_ Hexane
- \_\_\_\_\_ HNO<sub>3</sub>/D.I. Water Solution
- \_\_\_\_\_ Potable Water
- \_\_\_\_\_ None

Field Analysis Data

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

Purge Data	@ ~ 2 Gal. @	@ _____ Gal. @	@ _____ Gal. @	@ _____ Gal. @	@ _____ Gal. @
Temperature, Deg. C	14				
pH, units	8.0				
Specific Conductivity (µmhos/cm)	2654				
Turbidity (NTUS)	7.000				
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm	9.8				

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 <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
✓ volatile	✓	4°C	2x40 ml	

Notes: Screen 27' to 29'

Purge water: DK grey / DK olive

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

Site: Associated textile

Project Number: 3612062059/0.7.2

Date: 11/07/2006

Sample Location ID: ATGWO06017011KX

Time: Start: 1505 End: 1522

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 \_\_\_\_\_ 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:

## Decontamination Fluids 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 \_\_\_\_\_

(✓ All That Apply at Location)

\_\_\_\_\_ Methanol (100%)  
\_\_\_\_\_ 25% Methanol/75% ASTM Type II water  
\_\_\_\_\_ Deionized Water  
\_\_\_\_\_ Liquinox Solution  
\_\_\_\_\_ Hexane  
\_\_\_\_\_ HNO<sub>3</sub>/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 \_\_\_\_\_  
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	1520
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mL P	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Notes: <u>SCREEN 15 to 19' 4°C</u>			2 140ml	

Notes: SCREEN 15 to 19' 4°C  
Purge water. 1st collection

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 Site: Associated Textiles  
 Project Number: 3612062059/0.7.2 Date: 11/07/2006  
 Sample Location ID: ATTICW006028/0.7.2 Time: Start: 1445 End: 1505  
 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 \_\_\_\_\_  
 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. \_\_\_\_\_ .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: \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_ Equipment ID \_\_\_\_\_  
 Submersible Pump \_\_\_\_\_  
 Bailor \_\_\_\_\_  
 PVC/Silicon Tubing \_\_\_\_\_  
 Teflon/Silicon Tubing \_\_\_\_\_  
 Airlift \_\_\_\_\_  
 Hand Pump \_\_\_\_\_  
 In-line Filter \_\_\_\_\_  
 Press/Vac Filter \_\_\_\_\_  
SPK

### Decontamination Fluids Used:

(✓ All That Apply at Location)  
 \_\_\_\_\_ Methanol (100%)  
 \_\_\_\_\_ 25% Methanol/75% ASTM Type II water  
 \_\_\_\_\_ Deionized Water  
 \_\_\_\_\_ Liquinox Solution  
 \_\_\_\_\_ Hexane  
 \_\_\_\_\_ HNO<sub>3</sub>/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 @ 13 Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal.  
 Temperature, Deg. C 12  
 pH, units 7.9  
 Specific Conductivity (µmhos/cm) 0.637  
 Turbidity (NTUS) 2.100  
 Oxidation - Reduction, +/- mv 2  
 Dissolved Oxygen, ppm 11.7

## Sample Collection Requirements

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3x40 ml	<u>1445</u>
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Notes: <u>GREEN 27 to 29</u>			<u>2x40ml</u>	
<u>Purge water LFTM</u>				

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

Site: Asphalted Textiles

Project Number: 3612062059/07.2

Date: 11/07/2006

Sample Location ID: ATCWN06710117011X

Time: Start: 1345 End: 1400

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 \_\_\_\_\_

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 \_\_\_\_\_

GW-7@ 17 ft bgs

Geoprobe

Equipment Documentation

Purging/Sampling Equipment Used:

Decontamination Fluids Used:

(✓ If Used For)

Purging \_\_\_\_\_ Sampling \_\_\_\_\_

Peristaltic Pump \_\_\_\_\_  
Submersible Pump \_\_\_\_\_  
Bailer \_\_\_\_\_  
PVC/Silicon Tubing \_\_\_\_\_  
Teflon/Silicon Tubing \_\_\_\_\_  
Airlift \_\_\_\_\_  
Hand Pump \_\_\_\_\_  
In-line Filter \_\_\_\_\_  
Press/Vac Filter \_\_\_\_\_

Equipment ID \_\_\_\_\_

(✓ All That Apply at Location)

\_\_\_\_\_ Methanol (100%)  
\_\_\_\_\_ 25% Methanol/75% ASTM Type II water  
\_\_\_\_\_ Deionized Water  
\_\_\_\_\_ Liquinox Solution  
\_\_\_\_\_ Hexane  
\_\_\_\_\_ HNO<sub>3</sub>/D.I. Water Solution  
\_\_\_\_\_ Potable Water  
\_\_\_\_\_ None

PID: Ambient Air \_\_\_\_\_ ppm

Well Mouth \_\_\_\_\_ ppm

Purge Data Collected \_\_\_\_\_ In-line \_\_\_\_\_ In Container \_\_\_\_\_

Sample Observations:

\_\_\_\_\_ Turbid \_\_\_\_\_ Clear \_\_\_\_\_ Cloudy  
\_\_\_\_\_ Colored \_\_\_\_\_ Odor

Field Analysis Data

Purge Data @ \_\_\_\_\_ 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

SVOCs

Metals

Cyanide

Nitrate/Sulfate

Nitrate/Phosphate

Pest/PCB

TPH

TOC

Notes: Sample via

Screen 15 to 19

Purge water: DK Olive

4°C

4°C

HNO<sub>3</sub>, 4°C

NaOH, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

4°C

3x40 ml

2x1 liter AG

1x1 liter P

1x500mLP

1x1 liter P

1x1 liter P

3x1 liter AG

2x1 liter AG

1x1 liter P

2 x 40ml

1755

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

ABB Environmental Services

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 DW CLEANUP - GROUP II

Site: Associated Textile

Project Number: 3612062059/0.72

Date: 11/07/2006

Time: Start: 1330 End: 1345

Sample Location ID: ATGW007/02801KK

Signature of Sampler: \_\_\_\_\_

Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective Casing \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ 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. \_\_\_\_\_ 16 Gal/Ft. (2 in.) \_\_\_\_\_ Gal/Vol. \_\_\_\_\_ Well Integrity: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ 65 Gal/Ft. (4 in.) \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_ 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_ Gal/Ft. (in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ Other \_\_\_\_\_

Equipment Documentation

Purging/Sampling Equipment Used:

Decontamination Fluids 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 \_\_\_\_\_

(✓ All That Apply at Location)  
Methanol (100%) \_\_\_\_\_  
25% Methanol/75% ASTM Type II water \_\_\_\_\_  
Deionized Water \_\_\_\_\_  
Liquinox Solution \_\_\_\_\_  
Hexane \_\_\_\_\_  
HNO<sub>3</sub>/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. @ \_\_\_\_\_ 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	1340
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Notes: <u>GREEN 28 to 30</u>		4°C	2x40ml	

Notes: GREEN 28 to 30

Purge water OK on 11/7 cleaning

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

Site: Associated Title?

Project Number: 3612062059/0.72

Date: 11/06/06

Sample Location ID: 416W001802D01XX

Time: Start: 1530 End: 1550

Signature of Sampler: [Signature]

Water Level/Well Data

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

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ 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. \_\_\_\_\_ .16 Gal/Ft. (2 in.) \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Gal/Ft. (\_\_\_\_ in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_

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

GW-8@20 ft. bgs

Geoprobe

Equipment Documentation

## Purging/Sampling Equipment Used:

## Decontamination Fluids 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

(✓ All That Apply at Location)

- \_\_\_\_\_ Methanol (100%)
- \_\_\_\_\_ 25% Methanol/75% ASTM Type II water
- ✓ Deionized Water
- ✓ Liquinox Solution
- \_\_\_\_\_ Hexane
- \_\_\_\_\_ HNO<sub>3</sub>/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	<u>14.0</u>				
pH, units	<u>6.9</u>				
Specific Conductivity (µmhos/cm)	<u>0.73</u>				
Turbidity (NTUS)	<u>2.10</u>				
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm	<u>17.7</u>				

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 <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
✓ onsite	✓	4°C	2x100 ml	

Notes: Screen 18' to 22'

Purge water: olive, silty

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

ABB Environmental Services

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 DW CLEANUP - GROUP II

Site: Associated Textiles

Project Number: 3612062059/07.2

Date: 11/06/06

Time: Start: 1515 End: 1530

Sample Location ID: ATGW008027011XX

Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective Casing \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ 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.) \_\_\_\_\_ Gal/Vol. \_\_\_\_\_ Well Integrity: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_ .15 Gal/Ft. (6 in.) \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_ \_\_\_\_\_ Gal/Ft. (in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ Other \_\_\_\_\_

GW-8@27 ft. bgs

Geoprobe

Equipment Documentation

Purging/Sampling Equipment Used:

Decontamination Fluids 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 \_\_\_\_\_

(✓ All That Apply at Location)

\_\_\_\_\_ Methanol (100%)  
\_\_\_\_\_ 25% Methanol/75% ASTM Type II water  
\_\_\_\_\_ Deionized Water  
\_\_\_\_\_ Liquinox Solution  
\_\_\_\_\_ Hexane  
\_\_\_\_\_ HNO<sub>3</sub>/D.I. Water Solution  
\_\_\_\_\_ Potable Water  
\_\_\_\_\_ None

Field Analysis Data

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

Purge Data @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal.  
Temperature, Deg. C \_\_\_\_\_ 13.7  
pH, units \_\_\_\_\_ 7.0  
Specific Conductivity (umhos/cm) \_\_\_\_\_ 665  
Turbidity (NTUS) \_\_\_\_\_ 2100  
Oxidation - Reduction, +/- mv \_\_\_\_\_  
Dissolved Oxygen, ppm \_\_\_\_\_ 17.0

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 <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Notes: <u>one GC</u>	✓	4°C	2x40	

Notes: Spoon 281226

Purge water grey slty

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

Site: Associated Textile

Project Number: 3612062059/07.2

Date: 11/07/2006

Sample Location ID: ATGW00190117011XX

Time: Start: 1235 End: 1250

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 \_\_\_\_\_

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. \_\_\_\_\_ .16 Gal/Ft. (2 in.) \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ \_\_\_\_\_ Gal/Vol. \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ Well Integrity: \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_ Other \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_

GW-9 @ 17ft bgs

Geoprobe

## Equipment Documentation

### Purging/Sampling Equipment Used:

(✓ If Used For)

Purging: \_\_\_\_\_ Sampling: \_\_\_\_\_

Peristaltic Pump \_\_\_\_\_  
Submersible Pump \_\_\_\_\_  
Bailer \_\_\_\_\_  
PVC/Silicon Tubing \_\_\_\_\_  
Teflon/Silicon Tubing \_\_\_\_\_  
Airlift \_\_\_\_\_  
Hand Pump \_\_\_\_\_  
In-line Filter \_\_\_\_\_  
Press/Vac Filter \_\_\_\_\_

Equipment ID \_\_\_\_\_

### Decontamination Fluids Used:

(✓ All That Apply at Location)

\_\_\_\_\_ Methanol (100%)  
\_\_\_\_\_ 25% Methanol/75% ASTM Type II water  
\_\_\_\_\_ Deionized Water  
\_\_\_\_\_ Liquinox Solution  
\_\_\_\_\_ Hexane  
\_\_\_\_\_ HNO<sub>3</sub>/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  
pH, units 7.7  
Specific Conductivity (µmhos/cm) 0.550  
Turbidity (NTUS) 21000  
Oxidation - Reduction, +/- mv \_\_\_\_\_  
Dissolved Oxygen, ppm 12.3

## Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	32x40 ml	<u>1245</u>
✓ SVOCs	✓	4°C	1x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
✓ onsite WA	✓	4°C	2x40 ml	

Notes: SPRINK 15/19

Purge water 4 Brown, fine sand

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 Site: Associated Textiles  
 Project Number: 3612062059/07.2 Date: 11/07/2006  
 Sample Location ID: ATIGW0090218011XX Time: Start: 1220 End: 1235  
 Signature of Sampler: [Signature]

## Water Level/Well Data

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

## Equipment Documentation

### Purging/Sampling Equipment Used:

(✓ If Used For)  
 Purging Sampling  
 ✓ ✓ Peristaltic Pump \_\_\_\_\_ Equipment ID \_\_\_\_\_  
 ✓ ✓ Submersible Pump \_\_\_\_\_  
 ✓ ✓ Bailor \_\_\_\_\_  
 ✓ ✓ 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<sub>3</sub>/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 @ ~10 Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal.  
 Temperature, Deg. C 14  
 pH, units 7.3  
 Specific Conductivity (µmhos/cm) 9634  
 Turbidity (NTUS) 2.00  
 Oxidation - Reduction, +/- mv \_\_\_\_\_  
 Dissolved Oxygen, ppm 12.0

## Sample Collection Requirements

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle / Lot Nos.
✓ VOCs	✓	4°C	3x40 ml	<u>1230</u>
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
✓ Volatile OA	✓	4°C	2x400ml	

Notes: SP-15 29 to 27

Purging water: DK Olive

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

ABB Environmental Services

# Test Boring Log

Project <b>REGION 8 D.C. - GROUP II</b>		Boring/Well No. <b>SB/GW-010</b>	Project No. <b>3612062159/0-2</b>
Client <b>NYSDEC</b>	Site <b>Associated Textiles</b>	Sheet No. <b>1</b> of <b>1</b>	
Logged By <b>B. Shaw</b>	Ground Elevation	Start Date <b>11/06/2006</b>	Finish Date <b>11/06/2006</b>
Drilling Contractor <b>Geologic, Inc.</b>	Driller's Name <b>Joe Mensel</b>	Rig Type <b>66 DT.</b>	
Drilling Method <b>Direct Push</b>	Protection Level <b>D</b>	P.I.D. (eV)	Casing Size <b>1 1/2</b> Auger Size <b>2 1/4</b>
Soil Drilled <b>16</b>	Rock Drilled	Total Depth <b>30'</b>	Depth to Groundwater/Date Piez <input type="checkbox"/> Well <input type="checkbox"/> Boring <input checked="" type="checkbox"/>

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			Lab Tests
									(ppm)			
									PI Meter Field Scan	PI Meter Head Space		
1						0-0.5 Brn silty/organic loam roots						
2	1.2 4.0					0.5-2.5 olive to Black silty Sand; gravel, damp, loose	Fill					
3						2.5-3.5 Black Ash, coal Silt - Fill	↓					
4						3.5-4 reddish/orange Brn Sandy silt; gravel, wet/mud MP, WE	SMGM					
5	0.6 4.0					reddish/orange brn Sandy clay; gravel, wet/mud WE, mstiff, MP/HP	SCGC					
6												
7												
8												
9						8 - cobbles	ML					
10	1.3 4.0					8.2 to 10 olive Sand clay fines to coarse Sand, HP, mstiff MP	CLSC					
11						10-12 Strathred black to orange clay w/ some fine sand, wet/damped HP, mstiff, HP						
12						12-13 Same as 10-12, but soft & saturated/wet						
13						13-15.5 Same as 12-13 but orange brown to brownish orange in color	CL					
14	0.7 4.0					15.5 to 16 olive v. soft clay w/ some sand						
15												
16												

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

FIGURE 4-6

TYPICAL TEST BORING LOG

NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 DRY CLEANERS - GROUP II

Site: Associated Textiles

Project Number: 3612062059/07.2

Date: 11/06/06

Sample Location ID: ATG W 0110022101X1

Time: Start: 1658 End: 1705

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 \_\_\_\_\_

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:

Decontamination Fluids Used:

(✓ If Used For)  
Purging \_\_\_\_\_ Sampling \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_

Peristaltic Pump  
Submersible Pump  
Bailer  
PVC/Silicon Tubing  
Teflon/Silicon Tubing  
Airlift  
Hand Pump  
In-line Filter  
Press/Vac Filter  
SP-15

Equipment ID  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(✓ All That Apply at Location)  
\_\_\_\_\_ Methanol (100%)  
\_\_\_\_\_ 25% Methanol/75% ASTM Type II water  
\_\_\_\_\_ Deionized Water  
\_\_\_\_\_ Liquinox Solution  
\_\_\_\_\_ Hexane  
\_\_\_\_\_ HNO<sub>3</sub>/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 \_\_\_\_\_  
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	C 1700
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
✓ onsite test	✓		2 x 40	

Notes: SP-15 20 to 24" L  
Purge water: olive

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

Site: Associated Textile

Project Number: 3612062059/07.2

Date: 11/06/06

Time: Start: 1630 End: 1650

Sample Location ID: ATGW011002901XX

Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective Casing \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ 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. \_\_\_\_\_ .16 Gal/Ft. (2 in.) \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Gal/Ft. (\_\_\_\_ in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_

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

GW-10 @ 29 ft. bgs

Geoprobe

Equipment Documentation

Purging/Sampling Equipment Used:

Decontamination Fluids Used:

(✓ If Used For)  
Purging \_\_\_\_\_ Sampling \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_  
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\_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_  
\_\_\_\_\_ \_\_\_\_\_

Peristaltic Pump  
Submersible Pump  
Bailer  
PVC/Silicon Tubing  
Teflon/Silicon Tubing  
Airlift  
Hand Pump  
In-line Filter  
Press/Vac Filter  
CP-15

Equipment ID  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(✓ All That Apply at Location)  
\_\_\_\_\_ Methanol (100%)  
\_\_\_\_\_ 25% Methanol/75% ASTM Type II water  
\_\_\_\_\_ Deionized Water  
\_\_\_\_\_ Liquinox Solution  
\_\_\_\_\_ Hexane  
\_\_\_\_\_ HNO<sub>3</sub>/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 @ ~1.0 Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal.

Temperature, Deg. C 64.3  
pH, units 6.9  
Specific Conductivity (µmhos/cm) 2.619  
Turbidity (NTUS) 7.000  
Oxidation - Reduction, +/- mv \_\_\_\_\_  
Dissolved Oxygen, ppm 15.0

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
✓ VOCs	✓	4°C	3x40 ml	<u>1645</u>
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Notes: <u>Groundwater</u>	✓	4°C	2x40.	

Notes: Groundwater

Purge water. Lt Brown

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

Site: Associated Textiles

Project Number: 3612062059/0.7.2

Date: 11/07/2006

Sample Location ID: ATGW011017811X

Time: Start: 1130 End: 1145

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 \_\_\_\_\_ 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:

Decontamination Fluids Used:

(✓ If Used For)

Purging: \_\_\_\_\_ Sampling: \_\_\_\_\_

Peristaltic Pump \_\_\_\_\_  
Submersible Pump \_\_\_\_\_  
Bailer \_\_\_\_\_  
PVC/Silicon Tubing \_\_\_\_\_  
Teflon/Silicon Tubing \_\_\_\_\_  
Airlift \_\_\_\_\_  
Hand Pump \_\_\_\_\_  
In-line Filter \_\_\_\_\_  
Press/Vac Filter \_\_\_\_\_

Equipment ID

(✓ All That Apply at Location)

Methanol (100%) \_\_\_\_\_  
25% Methanol/75% ASTM Type II water \_\_\_\_\_  
Deionized Water \_\_\_\_\_  
Liquinox Solution \_\_\_\_\_  
Hexane \_\_\_\_\_  
HNO<sub>3</sub>/D.I. Water Solution \_\_\_\_\_  
Potable Water \_\_\_\_\_  
None \_\_\_\_\_

Field Analysis Data

PID: Ambient Air \_\_\_\_\_ ppm

Well Mouth \_\_\_\_\_ ppm

Purge Data Collected \_\_\_\_\_

Sample Observations:

In-line \_\_\_\_\_

Turbid \_\_\_\_\_

Clear \_\_\_\_\_

Cloudy \_\_\_\_\_

In Container \_\_\_\_\_

Colored \_\_\_\_\_

Odor \_\_\_\_\_

Purge Data @ \_\_\_\_\_ 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 \_\_\_\_\_  
SVOCs \_\_\_\_\_  
Metals \_\_\_\_\_  
Cyanide \_\_\_\_\_  
Nitrate/Sulfate \_\_\_\_\_  
Nitrate/Phosphate \_\_\_\_\_  
Pest/PCB \_\_\_\_\_  
TPH \_\_\_\_\_  
TOC \_\_\_\_\_  
\_\_\_\_\_

4°C \_\_\_\_\_  
4°C \_\_\_\_\_  
HNO<sub>3</sub>, 4°C \_\_\_\_\_  
NaOH, 4°C \_\_\_\_\_  
H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_  
H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_  
4°C \_\_\_\_\_  
H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_  
H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_  
4°C \_\_\_\_\_

3x40 ml \_\_\_\_\_  
2x1 liter AG \_\_\_\_\_  
1x1 liter P \_\_\_\_\_  
1x500mLP \_\_\_\_\_  
1x1 liter P \_\_\_\_\_  
1x1 liter P \_\_\_\_\_  
3x1 liter AG \_\_\_\_\_  
2x1 liter AG \_\_\_\_\_  
1x1 liter P \_\_\_\_\_  
2x40 ml \_\_\_\_\_

Notes: GREEN 15 to 19

Purge meter: DKOTIVE

1140

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

Site: Associated Textiles

Project Number: 3612062059/0.72

Date: 11/6/1986

Sample Location ID: AT16W0111028011XX

Time: Start: 1115 End: 1130

Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_ Casing

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ Well Locked? \_\_\_\_\_ Well Dia. \_\_\_\_\_ 2 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch Water Level Equip. Used: \_\_\_\_\_ Elect. Cond. Probe \_\_\_\_\_ Float Activated \_\_\_\_\_ Press. Transducer \_\_\_\_\_

Height of Water Column \_\_\_\_\_ Ft. \_\_\_\_\_ .16 Gal/Ft. (2 in.) \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Gal/Ft. (\_\_\_\_ in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_

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

GW-11@ 28 Feb 95

Geoprobe

Equipment Documentation

Purging/Sampling Equipment Used:

Decontamination Fluids Used:

(✓ If Used For)

Purging Sampling

✓  
✓  
✓  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
✓

Peristaltic Pump  
Submersible Pump  
Bailer  
PVC/Silicon Tubing  
Teflon/Silicon Tubing  
Airlift  
Hand Pump  
In-line Filter  
Press/Vac Filter

Equipment ID

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

(✓ All That Apply at Location)

\_\_\_\_\_  
Methanol (100%)  
\_\_\_\_\_  
25% Methanol/75% ASTM Type II water  
\_\_\_\_\_  
Deionized Water  
\_\_\_\_\_  
Liquinox Solution  
\_\_\_\_\_  
Hexane  
\_\_\_\_\_  
HNO<sub>3</sub>/D.I. Water Solution  
\_\_\_\_\_  
Potable Water  
\_\_\_\_\_  
None

SP-15

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 \_\_\_\_\_  
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 I/Lot Nos.

✓ VOCs \_\_\_\_\_ 4°C \_\_\_\_\_ 3x40 ml  
SVOCs \_\_\_\_\_ 4°C \_\_\_\_\_ 2x1 liter AG  
Metals \_\_\_\_\_ HNO<sub>3</sub>, 4°C \_\_\_\_\_ 1x1 liter P  
Cyanide \_\_\_\_\_ NaOH, 4°C \_\_\_\_\_ 1x500mLP  
Nitrate/Sulfate \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_ 1x1 liter P  
Nitrate/Phosphate \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_ 1x1 liter P  
Pest/PCB \_\_\_\_\_ 4°C \_\_\_\_\_ 3x1 liter AG  
TPH \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_ 2x1 liter AG  
TOC \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_ 1x1 liter P

Notes:

SP-15  
Purge water. DK drive  
sheen in 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: 3612062059/07.2

Site: Assessment Textbook

Date: 11/27/06

Time: Start: 0815 End: 0835

Sample Location ID: ATT6W011310117011X1X

Signature of Sampler: [Signature]

Water Level/Well Data

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

GW-13 @ 17 ft. bgs

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ Well Locked? \_\_\_\_\_ 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.) \_\_\_\_\_

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

Equipment Documentation

Purging/Sampling Equipment Used:

Decontamination Fluids Used:

(✓ If Used For)

Purging \_\_\_\_\_ Sampling \_\_\_\_\_

Peristaltic Pump \_\_\_\_\_  
Submersible Pump \_\_\_\_\_  
Bailer \_\_\_\_\_  
PVC/Silicon Tubing \_\_\_\_\_  
Teflon/Silicon Tubing \_\_\_\_\_  
Airlift \_\_\_\_\_  
Hand Pump \_\_\_\_\_  
In-line Filter \_\_\_\_\_  
Press/Vac Filter \_\_\_\_\_

Equipment ID

(✓ All That Apply at Location)

\_\_\_\_\_ Methanol (100%)  
\_\_\_\_\_ 25% Methanol/75% ASTM Type II water  
\_\_\_\_\_ Deionized Water  
\_\_\_\_\_ Liquinox Solution  
\_\_\_\_\_ Hexane  
\_\_\_\_\_ HNO<sub>3</sub>/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 \_\_\_\_\_  
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<sub>3</sub>, 4°C \_\_\_\_\_ 1x1 liter P  
\_\_\_\_\_ Cyanide \_\_\_\_\_ NaOH, 4°C \_\_\_\_\_ 1x500mLP  
\_\_\_\_\_ Nitrate/Sulfate \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_ 1x1 liter P  
\_\_\_\_\_ Nitrate/Phosphate \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_ 1x1 liter P  
\_\_\_\_\_ Pest/PCB \_\_\_\_\_ 4°C \_\_\_\_\_ 3x1 liter AG  
\_\_\_\_\_ TPH \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_ 2x1 liter AG  
\_\_\_\_\_ TOC \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub>, 4°C \_\_\_\_\_ 1x1 liter P

Notes: SPRINKLER 15' to 19'

Purge water: DK Brown

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 Site: Associated Textile  
 Project Number: 3612062059/07.2 Date: 11/07/06  
 Sample Location ID: ATGWN013023011XK Time: Start: 0755 End: 0805  
 Signature of Sampler: [Signature]

## Water Level/Well Data

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

## Equipment Documentation

**Purging/Sampling Equipment Used:** (✓ If Used For)  
 Purging: \_\_\_\_\_ Sampling: \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_ Equipment ID \_\_\_\_\_  
 Submersible Pump \_\_\_\_\_  
 Bailor \_\_\_\_\_  
 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<sub>3</sub>/D.I. Water Solution \_\_\_\_\_  
 Potable Water \_\_\_\_\_  
 None \_\_\_\_\_

## Field Analysis Data

PID: Ambient Air \_\_\_\_\_ ppm Well Mouth \_\_\_\_\_ ppm Purge Data Collected \_\_\_\_\_ In-line \_\_\_\_\_ Sample Observations: \_\_\_\_\_  
 \_\_\_\_\_ In Container \_\_\_\_\_ Turbid \_\_\_\_\_ Clear \_\_\_\_\_ Cloudy  
 \_\_\_\_\_ Colored \_\_\_\_\_ Odor \_\_\_\_\_  
 Purge Data @ 22 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

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle Lot Nos.
✓ VOCs	✓	4°C	3x40 ml	<u>0810</u>
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Notes: <u>Green 22 to 24</u>		4°C	2x40ml	

Notes: Green 22 to 24  
Purge water cloudy  
Slight chemical odor

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

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 DW. CLEANERS - GROUP II

Site: Associated Textiles

Project Number: 3612062059/0.72

Date: 11/07/2006

Time: Start: 1030 End: 1045

Sample Location ID: ATGW0140116011K12

Signature of Sampler: [Signature]

Water Level/Well Data

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

GW-14@ 16 ft. bgs

Geoprobe

Equipment Documentation

## Purging/Sampling Equipment Used:

## Decontamination Fluids Used:

(✓ If Used For)

Purging Sampling

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

✓ ✓

Peristaltic Pump

Submersible Pump

Bailer

PVC/Silicon Tubing

Teflon/Silicon Tubing

Airlift

Hand Pump

In-line Filter

Press/Vac Filter

SP-15

Equipment ID

(✓ All That Apply at Location)

\_\_\_\_\_ Methanol (100%)

\_\_\_\_\_ 25% Methanol/75% ASTM Type II water

✓ \_\_\_\_\_ Deionized Water

✓ \_\_\_\_\_ Liquinox Solution

\_\_\_\_\_ Hexane

\_\_\_\_\_ HNO<sub>3</sub>/D.I. Water Solution

\_\_\_\_\_ Potable Water

\_\_\_\_\_ None

Field Analysis Data

PID: Ambient Air \_\_\_\_\_ ppm Well Mouth \_\_\_\_\_ ppm

Purge Data Collected \_\_\_\_\_ In-line \_\_\_\_\_

Sample Observations:

✓ Turbid \_\_\_\_\_ Clear \_\_\_\_\_ Cloudy \_\_\_\_\_

\_\_\_\_\_ Colored \_\_\_\_\_ Odor \_\_\_\_\_

Purge Data	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	14				
pH, units	7.3				
Specific Conductivity (µmhos/cm)	0.75				
Turbidity (NTUS)	71000				
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm	12.3				

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter

✓ If Sample Collected

Preservation Method

Volume Required

Sample Bottle Lot Nos.

✓ VOCs

SVOCs

Metals

Cyanide

Nitrate/Sulfate

Nitrate/Phosphate

Pes/PCB

TPH

TOC

Notes: Screen 14 to 18

Purge water v. 5th, 6th, 7th

1045

4°C

4°C

HNO<sub>3</sub>, 4°C

NaOH, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

4°C

3x40 ml

2x1 liter AG

1x1 liter P

1x500mLP

1x1 liter P

3x1 liter AG

2x1 liter AG

1x1 liter P

2x40-w

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

Site: Associated Textile

Project Number: 3612062059/0.72

Date: 11/07/2016

Sample Location ID: A1161011410291011X1X

Time: Start: 1015 End: 1030

Signature of Sampler: [Signature]

Water Level/Well Data

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

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ Well Locked? \_\_\_\_\_ 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.) \_\_\_\_\_ Gal/Vol. \_\_\_\_\_ Well Integrity: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_ Other \_\_\_\_\_

GW-14 @ 29 ft. bgs

Geoprobe

Equipment Documentation

## Purging/Sampling Equipment Used:

## Decontamination Fluids Used:

(✓ If Used For)

Purging Sampling

✓  
✓  
✓  
✓  
✓  
✓  
✓  
✓

Peristaltic Pump  
Submersible Pump  
Bailer  
PVC/Silicon Tubing  
Teflon/Silicon Tubing  
Airlift  
Hand Pump  
In-line Filter  
Press/Vac Filter

Equipment ID

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

(✓ All That Apply at Location)

\_\_\_\_ Methanol (100%)  
\_\_\_\_ 25% Methanol/75% ASTM Type II water  
\_\_\_\_ Deionized Water  
\_\_\_\_ Liquinox Solution  
\_\_\_\_ Hexane  
\_\_\_\_ HNO<sub>3</sub>/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

pH, units 7.4

Specific Conductivity (µmhos/cm) 71000

Turbidity (NTUS) \_\_\_\_\_

Oxidation - Reduction, +/- mv \_\_\_\_\_

Dissolved Oxygen, ppm 10.3

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter

✓ If Sample Collected

Preservation Method

Volume Required

Sample Bottle Lot Nos.

✓ VOCs  
\_\_\_\_ SVOCs  
\_\_\_\_ Metals  
\_\_\_\_ Cyanide  
\_\_\_\_ Nitrate/Sulfate  
\_\_\_\_ Nitrate/Phosphate  
\_\_\_\_ Pest/PCB  
\_\_\_\_ TPH  
\_\_\_\_ TOC

Notes:

30% 28

Purge water. DK of ne/DL grad

4°C  
4°C  
HNO<sub>3</sub>, 4°C  
NaOH, 4°C  
H<sub>2</sub>SO<sub>4</sub>, 4°C  
H<sub>2</sub>SO<sub>4</sub>, 4°C  
4°C  
H<sub>2</sub>SO<sub>4</sub>, 4°C  
H<sub>2</sub>SO<sub>4</sub>, 4°C

32x40 ml  
2x1 liter AG  
1x1 liter P  
1x500mLP  
1x1 liter P  
3x1 liter AG  
2x1 liter AG  
1x1 liter P  
2x40ml

1025

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

Site: ABSENCE of TEXTILES

Project Number: 3612062059/07.2

Date: 11/08/06

Sample Location ID: ATT6W0115011601XX

Time: Start: 1515 End: 1620

Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective Casing \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ 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. \_\_\_\_\_ .16 Gal/Ft. (2 in.) \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Gal/Ft. (\_\_\_\_ in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_

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

Equipment Documentation

Purging/Sampling Equipment Used:

Decontamination Fluids 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
✓	✓	PVC Screen

(✓ All That Apply at Location)

- \_\_\_\_\_ Methanol (100%)
- \_\_\_\_\_ 25% Methanol/75% ASTM Type II water
- \_\_\_\_\_ Deionized Water
- ✓ \_\_\_\_\_ Liquinox Solution
- \_\_\_\_\_ Hexane
- \_\_\_\_\_ HNO<sub>3</sub>/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	_____
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	<u>1615</u>
SVOCs	_____	4°C	2x1 liter AG	
Metals	_____	HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide	_____	NaOH, 4°C	1x500mLP	
Nitrate/Sulfate	_____	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate	_____	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB	_____	4°C	3x1 liter AG	
TPH	_____	H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC	_____	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Notes: <u>SPRINK 17.67</u>	_____	4°C	2x40ml	

Notes: SPRINK 17.67

Purge water: 1.1 Brown

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

Site: Associated Textile

Project Number: 3612062059/07.2

Date: 11/18/06

Time: Start: 1055

End: 1245

Sample Location ID: ATGW01P01101XX

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

GW-18@ 11 ft. bgs

Depth to Water \_\_\_\_\_ Ft. \_\_\_\_\_

Well Material: \_\_\_\_\_

Well Locked? \_\_\_\_\_

Well Dia. \_\_\_\_\_ 2 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch \_\_\_\_\_

Water Level Equip. Used: \_\_\_\_\_

\_\_\_\_\_ Elect. Cond. Probe

\_\_\_\_\_ Float Activated

\_\_\_\_\_ Press. Transducer

Height of Water Column \_\_\_\_\_ Ft. \_\_\_\_\_  
\_\_\_\_\_ .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:

Decontamination Fluids Used:

(✓ If Used For)  
Purging: \_\_\_\_\_ Sampling: \_\_\_\_\_

Peristaltic Pump \_\_\_\_\_

Submersible Pump \_\_\_\_\_

Bailer \_\_\_\_\_

PVC/Silicon Tubing \_\_\_\_\_

Teflon/Silicon Tubing \_\_\_\_\_

Airlift \_\_\_\_\_

Hand Pump \_\_\_\_\_

In-line Filter \_\_\_\_\_

Press/Vac Filter \_\_\_\_\_

SP-15

Equipment ID \_\_\_\_\_

(✓ All That Apply at Location)

\_\_\_\_\_ Methanol (100%)

\_\_\_\_\_ 25% Methanol/75% ASTM Type II water

\_\_\_\_\_ Deionized Water

\_\_\_\_\_ Liquinox Solution

\_\_\_\_\_ Hexane

\_\_\_\_\_ HNO<sub>3</sub>/D.I. Water Solution

\_\_\_\_\_ Potable Water

\_\_\_\_\_ None

Field Analysis Data

PID: Ambient Air 41 ppm Well Mouth 1 ppm

Purge Data Collected \_\_\_\_\_ In-line \_\_\_\_\_

\_\_\_\_\_ In Container \_\_\_\_\_

Sample Observations:

\_\_\_\_\_ Turbid \_\_\_\_\_ Clear \_\_\_\_\_ Cloudy

\_\_\_\_\_ Colored \_\_\_\_\_ Odor

Purge Data

@ 1

Gal. @ \_\_\_\_\_

Gal. @ \_\_\_\_\_

Gal. @ \_\_\_\_\_

Gal. @ \_\_\_\_\_

Gal. @ \_\_\_\_\_

Temperature, Deg. C \_\_\_\_\_

pH, units 7.8

Specific Conductivity (umhos/cm) 187

Turbidity (NTUS) 2100

Oxidation - Reduction, +/- mv \_\_\_\_\_

Dissolved Oxygen, ppm 7.2

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter

✓ If Sample Collected

Preservation Method

Volume Required

Sample Bottle Lot Nos.

✓ VOCs

SVOCs

Metals

Cyanide

Nitrate/Sulfate

Nitrate/Phosphate

Pest/PCB

TPH

TOC

Notes: Green

10.3 - 12.3

Purge water: Silty Lt Brn

4°C

4°C

HNO<sub>3</sub>, 4°C

NaOH, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

H<sub>2</sub>SO<sub>4</sub>, 4°C

4°C

2x1 liter AG

1x1 liter P

1x500mLP

1x1 liter P

1x1 liter P

3x1 liter AG

2x1 liter AG

1x1 liter P

Q 1230

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

Site: ASSOCIATED TEXTILE

Project Number: 3612062059/07.2

Date: 11/19/06

Time: Start: 0950 End: 1050

Sample Location ID: ATGW01901301XX

Signature of Sampler: \_\_\_\_\_

Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. Measured \_\_\_\_\_ Historical \_\_\_\_\_ Top of Well \_\_\_\_\_ Top of Protective Casing \_\_\_\_\_ Well Rise Stick-up \_\_\_\_\_ Ft. (from ground) Protective \_\_\_\_\_ Ft. Casing/Well Difference \_\_\_\_\_

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 \_\_\_\_\_ 1.6 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:

Decontamination Fluids 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 \_\_\_\_\_

(✓ All That Apply at Location)

\_\_\_\_\_ Methanol (100%)  
\_\_\_\_\_ 25% Methanol/75% ASTM Type II water  
\_\_\_\_\_ Deionized Water  
\_\_\_\_\_ Liquinox Solution  
\_\_\_\_\_ Hexane  
\_\_\_\_\_ HNO<sub>3</sub>/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 @ 5 Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal.

Temperature, Deg. C \_\_\_\_\_  
pH, units \_\_\_\_\_  
Specific Conductivity (µmhos/cm) 16  
Turbidity (NTUS) 6.2  
Oxidation - Reduction, +/- mv 0.065  
Dissolved Oxygen, ppm n/a

Sample Collection Requirements  
(✓ If Required at this Location)

Analytical Parameter

✓ If Sample Collected

Preservation Method

Volume Required

Sample Bottle I/Lot Nos.

✓ VOCs  
\_\_\_\_\_ SVOCs  
\_\_\_\_\_ Metals  
\_\_\_\_\_ Cyanide  
\_\_\_\_\_ Nitrate/Sulfate  
\_\_\_\_\_ Nitrate/Phosphate  
\_\_\_\_\_ Pest/PCB  
\_\_\_\_\_ TPH  
\_\_\_\_\_ TOC

4°C  
4°C  
HNO<sub>3</sub>, 4°C  
NaOH, 4°C  
H<sub>2</sub>SO<sub>4</sub>, 4°C  
H<sub>2</sub>SO<sub>4</sub>, 4°C  
4°C  
H<sub>2</sub>SO<sub>4</sub>, 4°C  
H<sub>2</sub>SO<sub>4</sub>, 4°C

3x40 ml  
2x1 liter AG  
1x1 liter P  
1x500mLP  
1x1 liter P  
1x1 liter P  
3x1 liter AG  
2x1 liter AG  
1x1 liter P

\_\_\_\_\_

Notes: Screen 4-14

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

Site: Associated Textiles

Project Number: 3612062059/07.2

Date: 11/09/2006

Time: Start: 1330 End: 1430

Sample Location ID: ATTGWA2003401XIX

Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_ Casing \_\_\_\_\_

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ Well Locked?: \_\_\_\_\_ Well Dia. \_\_\_\_\_ 2 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch \_\_\_\_\_ Water Level Equip. Used: \_\_\_\_\_ Elect. Cond. Probe \_\_\_\_\_ Float Activated \_\_\_\_\_ Press. Transducer \_\_\_\_\_

Height of Water Column \_\_\_\_\_ Ft. \_\_\_\_\_ .16 Gal/Ft. (2 in.) \_\_\_\_\_ Gal/Vol. \_\_\_\_\_ Well Integrity: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_ 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ Other \_\_\_\_\_ Gal/Ft. (\_\_\_\_ in.) \_\_\_\_\_

Equipment Documentation

## Purging/Sampling Equipment Used:

## Decontamination Fluids 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 \_\_\_\_\_

(✓ All That Apply at Location)

Methanol (100%) \_\_\_\_\_

25% Methanol/75% ASTM Type II water \_\_\_\_\_

Deionized Water \_\_\_\_\_

Liquinox Solution \_\_\_\_\_

Hexane \_\_\_\_\_

HNO<sub>3</sub>/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 \_\_\_\_\_

pH, units \_\_\_\_\_

Specific Conductivity (umhos/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 I/Lot Nos.
✓ VOCs	✓	4°C	32x40 ml	1415
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500ml LP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Notes: <u>on-site w/2</u>	✓			

Notes: GREEN 33' to 34' 4°C

Purge water. Lt grey, same city

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

Site: Associated Techs

Project Number: 3612062059/07.2

Date: 11/06/2006

Sample Location ID: ATGW02002601 XIX

Time: Start: 1415 End: 1435

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 \_\_\_\_\_

GW-20 @ 26 ft. bgs

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. \_\_\_\_\_ .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:

## Decontamination Fluids Used:

(✓ If Used For)

Purging \_\_\_\_\_ Sampling \_\_\_\_\_

Peristaltic Pump \_\_\_\_\_  
Submersible Pump \_\_\_\_\_  
Bailer \_\_\_\_\_  
PVC/Silicon Tubing \_\_\_\_\_  
Teflon/Silicon Tubing \_\_\_\_\_  
Airlift \_\_\_\_\_  
Hand Pump \_\_\_\_\_  
In-line Filter \_\_\_\_\_  
Press/Vac Filter \_\_\_\_\_

Equipment ID \_\_\_\_\_

(✓ All That Apply at Location)

\_\_\_\_\_ Methanol (100%)  
\_\_\_\_\_ 25% Methanol/75% ASTM Type II water  
\_\_\_\_\_ Deionized Water  
\_\_\_\_\_ Liquinox Solution  
\_\_\_\_\_ Hexane  
\_\_\_\_\_ HNO<sub>3</sub>/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 \_\_\_\_\_  
pH, units \_\_\_\_\_  
Specific Conductivity (µmhos/cm) \_\_\_\_\_  
Turbidity (NTUS) \_\_\_\_\_  
Oxidation - Reduction, +/- mv \_\_\_\_\_  
Dissolved Oxygen, ppm \_\_\_\_\_  
Salinity = 0.15%

Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle I/Lot Nos.
✓ VOCs	✓	4°C	3x40 ml	1430
✓ SVOCs	✓	4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Notes: <u>one site vol</u>	✓	4°C	2x40	

Notes: GREEN 24 to 28

Purge water at prep. org

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

Site: Associated Textiles

Project Number: 3612062059/07.2

Date: 11/09/06

Sample Location ID: ATTDCN21/0270/11X

Time: Start: 1520 End: 1615

Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_ Casing

GW-21 @ 18 ft. bgs

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ Well Locked?: \_\_\_\_\_ Well Dia. \_\_\_\_\_ 2 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch Water Level Equip. Used: \_\_\_\_\_ Elect. Cond. Probe \_\_\_\_\_ Float Activated \_\_\_\_\_ Press. Transducer \_\_\_\_\_ SS \_\_\_\_\_ PVC \_\_\_\_\_ Yes \_\_\_\_\_

Height of Water Column \_\_\_\_\_ Ft. \_\_\_\_\_ .16 Gal/Ft. (2 in.) \_\_\_\_\_ Gal/Vol. \_\_\_\_\_ Well Integrity: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_ \_\_\_\_\_ 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_ \_\_\_\_\_ Gal/Ft. (in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ Other \_\_\_\_\_

Equipment Documentation

Purging/Sampling Equipment Used:

Decontamination Fluids Used:

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

(✓ All That Apply at Location)  
Methanol (100%) \_\_\_\_\_  
25% Methanol/75% ASTM Type II water \_\_\_\_\_  
Deionized Water \_\_\_\_\_  
Liquinox Solution \_\_\_\_\_  
Hexane \_\_\_\_\_  
HNO<sub>3</sub>/D.I. Water Solution \_\_\_\_\_  
Potable Water \_\_\_\_\_  
None \_\_\_\_\_

Field Analysis Data

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

Purge Data @ ~2 Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal. @ \_\_\_\_\_ Gal.  
Temperature, Deg. C \_\_\_\_\_  
pH, units \_\_\_\_\_  
Specific Conductivity (umhos/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	<u>[Signature]</u> 1605
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pes/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
✓ on-site VOC	✓	4°C	2x40ml	

Notes: SP-15 26 to 28' 16' to 20'

Purge water. 511

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

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 DW CLEANUP - GROUP II

Site: Associated Textiles - DC

Project Number: 3612062059/07.2

Date: 11/10/2006

Time: Start: 1200 End: 1225

Sample Location ID: ATC MW 1220118011A1

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 \_\_\_\_\_

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 \_\_\_\_\_

GW-22@ 18 ft. bgs

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
		<u>SP-15</u>

### Decontamination Fluids Used:

(✓ All That Apply at Location)

- \_\_\_\_\_ Methanol (100%)
- \_\_\_\_\_ 25% Methanol/75% ASTM Type II water
- ✓ Deionized Water
- ✓ Liquinox Solution
- \_\_\_\_\_ Hexane
- \_\_\_\_\_ HNO<sub>3</sub>/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 \_\_\_\_\_ pH, units \_\_\_\_\_ Specific Conductivity (µmhos/cm) \_\_\_\_\_ Turbidity (NTUS) \_\_\_\_\_ Oxidation - Reduction, +/- mv \_\_\_\_\_ Dissolved Oxygen, ppm \_\_\_\_\_

15.1  
7.0  
2.87  
71000  
12.0

## Sample Collection Requirements

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 <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
✓ <u>on-site VOC</u>	✓	4°C	1 - 40ml	

Notes: SP-15 16-20

Purge water: Lt Brown

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

Site: Associated Textiles

Project Number: 3612062059/07.2

Date: 11/17/06

Sample Location ID: ATTGW0240116011KK

Time: Start: 0720 End: 0750

Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective Casing \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ 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. \_\_\_\_\_ .16 Gal/Ft. (2 in.) \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Gal/Ft. (\_\_\_\_\_ in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_

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

Equipment Documentation

## Purging/Sampling Equipment Used:

## Decontamination Fluids 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

(✓ All That Apply at Location)

- \_\_\_\_\_ Methanol (100%)
- \_\_\_\_\_ 25% Methanol/75% ASTM Type II water
- ✓ Deionized Water
- ✓ Liquinox Solution
- \_\_\_\_\_ Hexane
- \_\_\_\_\_ HNO<sub>3</sub>/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	<u>14</u>				
pH, units	<u>6.8</u>				
Specific Conductivity (µmhos/cm)	<u>0.881</u>				
Turbidity (NTUS)	<u>7.000</u>				
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm	<u>8.5</u>				

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 <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: Screen 14 to 18

Purging water at 18 in.

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

ABB Environmental Services

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 DW CLEANUP - GROUP II

Site: Associated Textiles

Project Number: 3612062059/0.7.2

Date: 11/17/06

Sample Location ID: ATIGW025011601KK

Time: Start: 0735 End: 0820

Signature of Sampler: [Signature]

## Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_ Casing \_\_\_\_\_

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ Well Locked?: \_\_\_\_\_ Well Dia. \_\_\_\_\_ 2 inch \_\_\_\_\_ 4 inch \_\_\_\_\_ 6 inch \_\_\_\_\_

Height of Water Column \_\_\_\_\_ Ft. X \_\_\_\_\_ .16 Gal/Ft. (2 in.) \_\_\_\_\_ Gal/Vol. \_\_\_\_\_ Well Integrity: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_ 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_ Gal/Ft. ( \_\_\_\_\_ in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ Other \_\_\_\_\_

Water Level Equip. Used: \_\_\_\_\_ Elect. Cond. Probe \_\_\_\_\_ Float Activated \_\_\_\_\_ Press. Transducer \_\_\_\_\_

## 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<sub>3</sub>/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	<u>13</u>				
pH, units	<u>7.3</u>				
Specific Conductivity (µmhos/cm)	<u>2100</u>				
Turbidity (NTUS)	<u>2.00</u>				
Oxidation - Reduction, +/- mv	<u>8.7</u>				
Dissolved Oxygen, ppm	<u>8.7</u>				

## Sample Collection Requirements (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle I/Lot Nos.
✓ VOCs	✓	4°C	3x40 ml	
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: GREEN: 14 to 18

Purge water: Strong odor - petrol

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		Site: Associated Textiles					
Project Number: 3612062059/07.2		Date: 11/1/06					
Sample Location ID: ATTGW-026016d11X1		Time: Start: 0830 End: 0850					
		Signature of Sampler: [Signature]					
Water Level/Well Data	Well Depth _____ Ft.	<input type="checkbox"/> Measured <input type="checkbox"/> Historical	Top of Well _____ Top of Protective Casing _____	Well Riser Stick-up _____ Ft. (from ground)	Protective _____ Ft. Casing/Well Difference		
	GW-26 @ 16 ft bgs						
	Depth to Water _____ Ft.	Well Material: <input type="checkbox"/> PVC <input type="checkbox"/> SS	Well Locked?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Well Dia. _____ 2 inch 4 inch 6 inch	Water Level Equip. Used: <input type="checkbox"/> Elect. Cond. Probe <input type="checkbox"/> Float Activated <input type="checkbox"/> Press. Transducer		
	Height of Water Column _____ X _____ Ft.	.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:		<input type="checkbox"/> Prot. Casing Secure		<input type="checkbox"/> Concrete Collar Intact	
				<input type="checkbox"/> Other _____		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Equipment Documentation	Purging/Sampling Equipment Used:				Decontamination Fluids Used:		
	(✓ If Used For)	Purging	Sampling	Equipment ID	(✓ All That Apply at Location)		
	✓	✓	Peristaltic Pump	_____	Methanol (100%)		
	✓	✓	Submersible Pump	_____	25% Methanol/75% ASTM Type II water		
		Bailer	_____	Deionized Water			
		PVC/Silicon Tubing	_____	Liquinox Solution			
		Teflon/Silicon Tubing	_____	Hexane			
		Airlift	_____	HNO <sub>3</sub> /D.I. Water Solution			
		Hand Pump	_____	Potable Water			
		In-line Filter	_____	None			
	✓	Press/Vac Filter	SP-15				
Field Analysis Data	PID: Ambient Air _____ ppm		Well Mouth _____ ppm		Purge Data Collected _____ In-line In Container		Sample Observations: <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Colored <input type="checkbox"/> Odor
	Purge Data @ _____ Gal.		@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
	Temperature, Deg. C	12.5					
	pH, units	7.8					
	Specific Conductivity (µmhos/cm)	2260					
	Turbidity (NTUS)	2.000					
	Oxidation-Reduction, +/- mv						
	Dissolved Oxygen, ppm	10.6					
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 <sub>3</sub> , 4°C	1x1 liter P			
	Cyanide		NaOH, 4°C	1x500mLP			
	Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P			
	Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P			
	Pest/PCB		4°C	3x1 liter AG			
	TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG			
	TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P			
Notes: Screen 14 rods							
Purge water DK grey							

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

9404014D L22

ABB Environmental Services

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 DRY CLEANERS - GROUP II  
 Project Number: 3612062059/07.2

Site: Associated Textiles  
 Date: 11/17/06  
 Time: Start: 1000 End: 1020

Sample Location ID: ATIGW0270115011XK

Signature of Sampler: [Signature]

## Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. \_\_\_\_\_ Protective \_\_\_\_\_ Ft. \_\_\_\_\_ Historical \_\_\_\_\_ Top of Protective \_\_\_\_\_ Casing/Well Difference \_\_\_\_\_ Casing \_\_\_\_\_

Depth to Water \_\_\_\_\_ Ft. Well Material: \_\_\_\_\_ Well Locked?: \_\_\_\_\_ 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.) \_\_\_\_\_ Gal/Vol. \_\_\_\_\_ Well Integrity: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ .65 Gal/Ft. (4 in.) \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_ 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ 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<sub>3</sub>/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	<u>13</u>				
pH, units	<u>5.1</u>				
Specific Conductivity (µmhos/cm)	<u>2489</u>				
Turbidity (NTUS)	<u>21000</u>				
Oxidation - Reduction, +- mv	<u>10.4</u>				
Dissolved Oxygen, ppm	<u>10.4</u>				

## Sample Collection Requirements

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle I/Lot Nos.
✓ VOCs	✓	4°C	3x40 ml	<u>1015</u>
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: SPRINK 14 to 17

Purge water: Shown, grey, slight odor

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: 3612062059/0.7.2  
 Sample Location ID: ATTG W 028101411X

Site: Associated Textiles  
 Date: 11/17/06  
 Time: Start: 0853 End: 0915  
 Signature of Sampler: [Signature]

## Water Level/Well Data

Well Depth \_\_\_\_\_ Ft. \_\_\_\_\_ Measured \_\_\_\_\_ Historical \_\_\_\_\_ Top of Well \_\_\_\_\_ Top of Protective Casing \_\_\_\_\_ Well Riser Stick-up (from ground) \_\_\_\_\_ Ft. Protective \_\_\_\_\_ Ft. Casing/Well Difference \_\_\_\_\_  
 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.) \_\_\_\_\_ 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 \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_ Equipment ID \_\_\_\_\_  
 Submersible Pump \_\_\_\_\_  
 Bailor \_\_\_\_\_  
 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<sub>3</sub>/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 \_\_\_\_\_  
 pH, units \_\_\_\_\_  
 Specific Conductivity (µmhos/cm) \_\_\_\_\_  
 Turbidity (NTUS) \_\_\_\_\_  
 Oxidation - Reduction, +/- mv \_\_\_\_\_  
 Dissolved Oxygen, ppm \_\_\_\_\_

## Sample Collection Requirements

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle (Lot Nos.)
✓ VOCs	✓	4°C	3x40 ml	<u>0910</u>
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: SPRINT 12 to 16  
Purge water: DK grey

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

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 DW. CLEANUP - GROUP II  
 Project Number: 3612062059/0.7.2  
 Sample Location ID: ATTG W 029016 d 1111

Site: Associated Textiles  
 Date: 11/17/06  
 Time: Start: 0930 End: 0955  
 Signature of Sampler: [Signature]

## Water Level/Well Data

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

## Equipment Documentation

Purging/Sampling Equipment Used: Decontamination Fluids Used:

(✓ If Used For) (✓ All That Apply at Location)

Purging	Sampling	Equipment ID	Decontamination Fluids Used:
✓	✓	Peristaltic Pump	_____ Methanol (100%)
_____	_____	Submersible Pump	_____ 25% Methanol/75% ASTM Type II water
_____	_____	Bailer	✓ _____ Deionized Water
✓	✓	PVC/Silicon Tubing	✓ _____ Liquinox Solution
_____	_____	Teflon/Silicon Tubing	_____ Hexane
_____	_____	Airlift	_____ HNO <sub>3</sub> /D.I. Water Solution
_____	_____	Hand Pump	_____ Potable Water
_____	_____	In-line Filter	_____ None
✓	✓	Press/Vac Filter	_____
_____	_____	SP-15	_____

## Field Analysis Data

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

Purge Data	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	12				
pH, units	6.7				
Specific Conductivity (µmhos/cm)	0.630				
Turbidity (NTUS)	2.1				
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm	10.6				

## Sample Collection Requirements

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle Lot Nos.
✓ VOCs	✓	4°C	3x40 ml	0945
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: Screen 14 to 18'  
Purge water: Screen, grey

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

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: REGION 8 DW. CLEANERS - GROUP II  
 Project Number: 3612062059/07.2

Site: Associated Textiles  
 Date: 11/17/06  
 Time: Start: 1030 End: 1100  
 Signature of Sampler: [Signature]

Sample Location ID: ATTG W03 00114 D11XK

Water Level/Well Data

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

Equipment Documentation

## Purging/Sampling Equipment Used:

(✓ If Used For)  
 Purging \_\_\_\_\_ Sampling \_\_\_\_\_  
 \_\_\_\_\_ Peristaltic Pump \_\_\_\_\_ Equipment ID \_\_\_\_\_  
 \_\_\_\_\_ 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<sub>3</sub>/D.I. Water Solution  
 \_\_\_\_\_ Potable Water  
 \_\_\_\_\_ None

Field Analysis Data

PID: Ambient Air \_\_\_\_\_ ppm Well Mouth \_\_\_\_\_ ppm Purge Data Collected \_\_\_\_\_ In-line \_\_\_\_\_ Sample Observations: \_\_\_\_\_  
 \_\_\_\_\_ In Container \_\_\_\_\_ Turbid \_\_\_\_\_ Clear \_\_\_\_\_ Cloudy  
 \_\_\_\_\_ Colored \_\_\_\_\_ Odor \_\_\_\_\_  
 Purge Data @ \_\_\_\_\_ 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 I/Lot Nos.
✓ VOCs	✓	4°C	3x40 ml	1045
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500ml P	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pes/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: GREEN 12 to 16

Purge water. 4. Brown

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

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: 4-TR5 Site: Location 35 GW-35  
 Project Number: 360-062059 Date: 8/26/07  
 Time: Start: 09:00 End: 9:15  
 Sample Location ID: ATGW03501701XX Signature of Sampler: [Signature]

## Water Level/Well Data

Well Depth 17 Ft. ☐ Measured ☐ Top of Well Well Riser Stick-up ☐ Ft. Protective ☐ Ft.  
☐ Historical ☐ Top of Protective Casing (from ground) Casing/Well Difference  
 Depth to Water 22 Ft. Well Material: 2 1/2 inch Well Dia. 2 inch Water Level Equip. Used:  
☐ PVC ☐ Yes ☐ 4 inch ☒ Elect. Cond. Probe  
☐ SS ☐ No ☐ 6 inch ☐ Float Activated  
 Height of Water Column X .16 Gal/Ft. (2 in.) Well Integrity: Yes No  
.65 Gal/Ft. (4 in.) Prot. Casing Secure ☐  
1.5 Gal/Ft. (6 in.) Concrete Collar Intact ☐  
Gal/Ft. (in.) Total Gal Purged Other ☐

## Equipment Documentation

Purging/Sampling Equipment Used: 1 hand  
6 slots  
2 ft 1764 Decontamination Fluids Used:  
☒ If Used For Purging Sampling Equipment ID ☒ All That Apply at Location  
☐ Peristaltic Pump ☐ Methanol (100%)  
☐ Submersible Pump ☐ 25% Methanol/75% ASTM Type II water  
☐ Bailor ☐ Deionized Water  
☐ PVC/Silicon Tubing ☐ Liquinox Solution  
☐ Teflon/Silicon Tubing ☐ Hexane  
☐ Airlift ☐ HNO<sub>3</sub>/D.I. Water Solution  
☐ Hand Pump ☒ Potable Water  
☐ In-line Filter ☐ None  
☐ Press/Vac Filter

## Field Analysis Data

PID: Ambient Air ☐ ppm Well Mouth ☐ ppm Purge Data Collected ☐ In-line ☒ Turbid ☒ Clear ☐ Cloudy  
☐ In Container ☐ Colored ☐ Odor  

Purge Data	@ <u>13.8</u> Gal.	@ <u>13.6</u> Gal.	@ <u>13.6</u> Gal.	@ <u>13.6</u> Gal.	@ <u>13.6</u> Gal.
Temperature, Deg. C	<u>13.8</u>	<u>13.6</u>			
pH, units	<u>6.57</u>	<u>6.91</u>			
Specific Conductivity (µmhos/cm)	<u>0.613</u>	<u>0.601</u>			
Turbidity (NTUS)	<u>9.55</u>	<u>2.51</u>			
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm	<u>19.99</u>	<u>19.99</u>			

## Sample Collection Requirements

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle Lot Nos.
✓ VOCs	✓	4°C	2x40 ml	
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pes/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: Gasprobe sample  
Collect sample @ 9:15

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

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: ATRS

Site: Location 35 GW-35

Project Number: 3612062059

Date: 8/2/07

Sample Location ID: ATG-W0350270187

Time: Start: 10:10 End: 10:20

Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth 27 Ft. ☐ Measured ☐ Top of Well Well Riser Stick-up ☐ Ft. Protective ☐ Ft.  
☐ Historical ☐ Top of Protective Casing (from ground) Casing/Well Difference  
 Depth to Water 12 Ft. Well Material: ☐ PVC ☐ Yes Well Dia. ☐ 2 inch Water Level Equip. Used:  
☐ SS ☐ No ☐ 4 inch ☐ Elect. Cond. Probe  
☐ ☐ 6 inch ☐ Float Activated  
☐ ☐ Press. Transducer  
 Height of Water Column ☐ .16 Gal/Ft. (2 in.) ☐ Gal/Vol. Well Integrity: Yes No  
☐ Ft. X ☐ .65 Gal/Ft. (4 in.) = ☐ Total Gal Purged Prot. Casing Secure ☐  
☐ ☐ 1.5 Gal/Ft. (6 in.) ☐ Concrete Collar Intact ☐  
☐ ☐ Gal/Ft. ( in.) ☐ Other ☐

Equipment Documentation

## Purging/Sampling Equipment Used:

## Decontamination Fluids Used:

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

(✓ All That Apply at Location)  
☐ Methanol (100%)  
☐ 25% Methanol/75% ASTM Type II water  
☒ Deionized Water  
☐ Liquinox Solution  
☐ Hexane  
☐ HNO<sub>3</sub>/D.I. Water Solution  
☐ Potable Water  
☐ None

Field Analysis Data

PID: Ambient Air ☐ ppm Well Mouth ☐ ppm Purge Data Collected ☐ In-line ☒ Turbid ☐ Clear ☐ Cloudy  
☐ In Container ☐ Colored ☐ Odor

Purge Data @ ☐ Gal. @ ☐ Gal. @ ☐ Gal. @ ☐ Gal. @ ☐ Gal.  
 Temperature, Deg. C No Readings  
 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	2x40 ml	
SVOCs		4°C	2x1 liter AG	
Metals		HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide		NaOH, 4°C	1x500mLP	
Nitrate/Sulfate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB		4°C	3x1 liter AG	
TPH		H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC		H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: No Readings  
Geoprobe Sample  
Collect sample @ 10:10

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

ABB Environmental Services

# GROUNDWATER SAMPLE FIELD DATA RECORD

 Project: ATRS

 Site: Location 139 GW-39

 Project Number: 3612062057

 Date: 8/28/07

 Sample Location ID: ATGW039018018X

 Time: Start: 10:00 End: 11:00

 Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth 18 Ft. ☒ Measured ☐ Top of Well ☐ Well Riser Stick-up ☐ Ft. ☐ Protective ☐ Ft.

Geoprobe ☐ Historical ☐ Top of Protective Casing ☐ (from ground) ☐ Casing/Well Difference

Depth to Water 13 Ft. Well Material: ☐ PVC ☐ Well Locked?: ☐ Yes ☐ Well Dia. ☐ 2 inch ☐ Water Level Equip. Used:

☐ SS ☐ No ☐ 4 inch ☐ Elect. Cond. Probe

Height of Water Column ☐ .16 Gal/Ft. (2 in.) ☐ Gal/Vol. Well Integrity: ☐ Yes ☐ No

☐ Ft. ☐ .65 Gal/Ft. (4 in.) ☐ Total Gal Purged Prot. Casing Secure ☐

☐ Gal/Ft. (in.) ☐ Concrete Collar Intact ☐

☐ Other ☐

Equipment Documentation

Purging/Sampling Equipment Used: Decontamination Fluids Used:

(☒ If Used For) Purging ☒ Sampling

Peristaltic Pump ☐ Equipment ID ☐ (☒ All That Apply at Location)

Submersible Pump ☐ ☐ Methanol (100%)

Bailer ☐ ☐ 25% Methanol/75% ASTM Type II water

PVC/Silicon Tubing ☐ ☐ Deionized Water

Teflon/Silicon Tubing ☐ ☒ Liquinox Solution

Airlift ☐ ☐ Hexane

Hand Pump ☐ ☐ HNO<sub>3</sub>/D.I. Water Solution

In-line Filter ☐ ☐ Potable Water

Press/Vac Filter ☐ ☐ None

Field Analysis Data

PID: Ambient Air ☐ ppm Well Mouth ☐ ppm Purge Data Collected ☐ In-line ☐ Sample Observations: ☒ Turbid ☐ Clear ☐ Cloudy

☐ In Container ☐ Colored ☐ Odor

Purge Data	@ <input type="checkbox"/> Gal.	@ <input type="checkbox"/> Gal.	@ <input type="checkbox"/> Gal.	@ <input type="checkbox"/> Gal.	@ <input type="checkbox"/> Gal.
Temperature, Deg. C	<u>17.0</u>	<u>15.3</u>			
pH, units	<u>7.28</u>	<u>7.07</u>			
Specific Conductivity (µmhos/cm)	<u>0.91</u>	<u>0.91</u>			
Turbidity (NTUS)	<u>393</u>	<u>392</u>			
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm					

 Sample Collection Requirements (☒ if Required at this Location)

Analytical Parameter	<input checked="" type="checkbox"/> If Sample Collected	Preservation Method	Volume Required	Sample Bottle ILot Nos.
<input checked="" type="checkbox"/> VOCs	<input checked="" type="checkbox"/>	4°C	2x40 ml	
<input type="checkbox"/> SVOCs	<input type="checkbox"/>	4°C	2x1 liter AG	
<input type="checkbox"/> Metals	<input type="checkbox"/>	HNO <sub>3</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Cyanide	<input type="checkbox"/>	NaOH, 4°C	1x500mLP	
<input type="checkbox"/> Nitrate/Sulfate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Nitrate/Phosphate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Pest/PCB	<input type="checkbox"/>	4°C	3x1 liter AG	
<input type="checkbox"/> TPH	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
<input type="checkbox"/> TOC	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

 Notes: Collect sample @ 11:00

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

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: A TR 5  
 Project Number: 3612062059  
 Sample Location ID: ATG-W04001701

Site: Location 40  
 Date: 8/10/04  
 Time: Start: 11:15 End: 12:00  
 Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth 17 Ft. ☒ Measured ☐ Top of Well Well Riser Stick-up \_\_\_\_\_ Ft. Protective \_\_\_\_\_ Ft.  
☐ Historical ☐ Top of Protective Casing (from ground) Casing/Well Difference  
Geoprobe screen  
 Depth to Water 2 Ft. Well Material: ☐ PVC Well Locked?: ☐ Yes Well Dia. 2 inch Water Level Equip. Used:  
☐ SS ☐ No ☐ 4 inch ☐ Elect. Cond. Probe  
☐ \_\_\_\_\_ ☐ 6 inch ☐ Float Activated  
☐ \_\_\_\_\_ ☐ Press. Transducer  
 Height of Water Column \_\_\_\_\_ Ft. X .16 Gal/Ft. (2 in.) \_\_\_\_\_ Gal/Vol. Well Integrity: ☐ Yes ☐ No  
 \_\_\_\_\_ Ft. X .65 Gal/Ft. (4 in.) \_\_\_\_\_ Total Gal Purged Prot. Casing Secure ☐ \_\_\_\_\_  
 \_\_\_\_\_ Ft. X 1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Concrete Collar Intact ☐ \_\_\_\_\_  
 \_\_\_\_\_ Ft. X \_\_\_\_\_ Gal/Ft. (\_\_\_\_\_ in.) \_\_\_\_\_ Other \_\_\_\_\_ ☐ \_\_\_\_\_

Equipment Documentation

## Purging/Sampling Equipment Used:

## Decontamination Fluids Used:

(✓ If Used For)

Purging Sampling

☒ ☒  
☐ ☐  
☐ ☐  
☐ ☐  
☐ ☐  
☐ ☐  
☐ ☐  
☐ ☐  
☐ ☐  
☐ ☐

Peristaltic Pump  
 Submersible Pump  
 Bailer  
 PVC/Silicon Tubing  
 Teflon/Silicon Tubing  
 Airlift  
 Hand Pump  
 In-line Filter  
 Press/Vac Filter

Equipment ID

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

(✓ All That Apply at Location)

☐ Methanol (100%)  
☐ 25% Methanol/75% ASTM Type II water  
☐ Deionized Water  
☐ Liquinox Solution  
☐ Hexane  
☐ HNO<sub>3</sub>/D.I. Water Solution  
☐ Potable Water  
☐ None  
 \_\_\_\_\_  
 \_\_\_\_\_

Field Analysis Data

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

Purge Data	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	<u>16.1</u>	<u>15.3</u>			
pH, units	<u>7.16</u>	<u>7.12</u>			
Specific Conductivity (µmhos/cm)	<u>0.879</u>	<u>0.856</u>			
Turbidity (NTUS)	<u>9.29</u>	<u>3.35</u>			
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm	<u>18.63</u>	<u>19.87</u>			

Sample Collection Requirements  
 (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle Lot Nos.
<input checked="" type="checkbox"/> VOCs	<input checked="" type="checkbox"/>	4°C	2x40 ml	
<input type="checkbox"/> SVOCs	<input type="checkbox"/>	4°C	2x1 liter AG	
<input type="checkbox"/> Metals	<input type="checkbox"/>	HNO <sub>3</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Cyanide	<input type="checkbox"/>	NaOH, 4°C	1x500mL P	
<input type="checkbox"/> Nitrate/Sulfate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Nitrate/Phosphate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Pest/PCB	<input type="checkbox"/>	4°C	3x1 liter AG	
<input type="checkbox"/> TPH	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
<input type="checkbox"/> TOC	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: with MS

ATG-W04001701 MS

Collect Sample @ 11:45

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

ABB Environmental Services





# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: ATRS Site: Location 42 GW-42  
 Project Number: 3612062059 Date: 8/20/07  
 Time: Start: 13:35 End: 13:55  
 Sample Location ID: ATG W04101701XY Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth 17 Ft. ☐ Measured ☐ Top of Well Well Riser Stick-up      Ft. Protective      Ft.  
☐ Historical ☐ Top of Protective Casing (from ground) Casing/Well Difference  
Geoprobe Screen  
 Depth to Water 14 Ft. Well Material: ☐ PVC Well Locked?: ☐ Yes Well Dia. 1 1/2 inch Water Level Equip. Used:  
☐ SS ☐ No ☐ 4 inch ☐ 6 inch ☐ Elect. Cond. Probe  
 Height of Water Column X      .16 Gal/Ft. (2 in.) ☐ Gal/Vol. Well Integrity: Yes No  
     Ft.      .65 Gal/Ft. (4 in.) ☐ Total Gal Purged Prot. Casing Secure ☐  
     Gal/Ft. (6 in.) ☐ Concrete Collar Intact ☐  
     Gal/Ft. (in.) ☐ Other ☐

Equipment Documentation

Purging/Sampling Equipment Used: Decontamination Fluids Used:

(✓ If Used For) Purging Sampling Equipment ID (✓ All That Apply at Location)

☒ ☐ Peristaltic Pump      ☐ Methanol (100%)  
☐ ☐ Submersible Pump      ☐ 25% Methanol/75% ASTM Type II water  
☐ ☐ Bailer      ☐ Deionized Water  
☐ ☐ PVC/Silicon Tubing      ☐ Liquinox Solution  
☐ ☐ Teflon/Silicon Tubing      ☐ Hexane  
☐ ☐ Airlift      ☐ HNO<sub>3</sub>/D.I. Water Solution  
☐ ☐ Hand Pump      ☐ Potable Water  
☐ ☐ In-line Filter      ☐ None  
☐ ☐ Press/Vac Filter          

Field Analysis Data

PID: Ambient Air      ppm Well Mouth      ppm Purge Data Collected ☒ In-line ☐ Turbid ☐ Clear ☐ Cloudy  
☒ In Container ☒ Colored ☐ Odor

Purge Data	@ <u>    </u> Gal.	@ <u>    </u> Gal.	@ <u>    </u> Gal.	@ <u>    </u> Gal.	@ <u>    </u> Gal.
Temperature, Deg. C	<u>17.7</u>				
pH, units	<u>7.08</u>				
Specific Conductivity (µmhos/cm)	<u>0.96</u>				
Turbidity (NTUS)	<u>0.99</u>				
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm	<u>12.52</u>				

Sample Collection Requirements

(✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle Lot Nos.
<u>LVOCs</u>	<input checked="" type="checkbox"/>	4°C	<u>2x40 ml</u>	
SVOCs	<input type="checkbox"/>	4°C	2x1 liter AG	
Metals	<input type="checkbox"/>	HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide	<input type="checkbox"/>	NaOH, 4°C	1x500mLP	
Nitrate/Sulfate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB	<input type="checkbox"/>	4°C	3x1 liter AG	
TPH	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes:

Collected Sample @ 13:40

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

ABB Environmental Services

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: ATRS  
 Project Number: 362062059  
 Sample Location ID: A5GW04301701XY

Site: Location 43 GW-43  
 Date: 8/20/07  
 Time: Start: 14:00 End: 1430  
 Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth 17 Ft. ☐ Measured ☐ Top of Well ☐ Well Riser Stick-up ☐ Ft. ☐ Protective ☐ Ft.  
☐ Historical ☐ Top of Protective Casing (from ground) Casing/Well Difference  
Geoprobe Screen  
 Protective ☐ Ft. Casing  
 Depth to Water 12 Ft. Well Material: ☐ PVC ☐ Yes ☐ Well Dia. ☐ 2 inch ☐ Water Level Equip. Used:  
☐ SS ☐ No ☐ 4 inch ☐ Elect. Cond. Probe  
☐ ☐ 6 inch ☐ Float Activated  
☐ ☐ Press. Transducer  
 Height of Water Column X ☐ .16 Gal/Ft. (2 in.) ☐ Gal/Vol. Well Integrity: Yes No  
☐ .65 Gal/Ft. (4 in.) ☐ Prot. Casing Secure ☐  
☐ 1.5 Gal/Ft. (6 in.) ☐ Concrete Collar Intact ☐  
☐ Gal/Ft. ( in.) ☐ Total Gal Purged Other ☐

Equipment Documentation

**Purging/Sampling Equipment Used:** **Decontamination Fluids Used:**  
 (✓ If Used For) (✓ All That Apply at Location)  
 Purging Sampling Equipment ID  
☐ ☐ Peristaltic Pump ☐ Methanol (100%)  
☐ ☐ Submersible Pump ☐ 25% Methanol/75% ASTM Type II water  
☐ ☐ Bailor ☐ Deionized Water  
☐ ☐ PVC/Silicon Tubing ☐ Liquinox Solution  
☐ ☐ Teflon/Silicon Tubing ☐ Hexane  
☐ ☐ Airlift ☐ HNO<sub>3</sub>/D.I. Water Solution  
☐ ☐ Hand Pump ☐ Potable Water  
☐ ☐ In-line Filter ☐ None  
☐ ☐ Press/Vac Filter ☐

Field Analysis Data

PID: Ambient Air ☐ ppm Well Mouth ☐ ppm Purge Data Collected ☐ In-line ☐ Turbid ☒ Clear ☐ Cloudy  
☐ In Container ☐ Colored ☐ Odor  

Purge Data	@	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	<input checked="" type="checkbox"/>	4°C	2x40 ml	
SVOCs	<input type="checkbox"/>	4°C	2x1 liter AG	
Metals	<input type="checkbox"/>	HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide	<input type="checkbox"/>	NaOH, 4°C	1x500mLP	
Nitrate/Sulfate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB	<input type="checkbox"/>	4°C	3x1 liter AG	
TPH	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: Collect Sample @ 14:20

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

ABB Environmental Services

GROUNDWATER SAMPLE FIELD DATA RECORD					
Project: <u>AIRS</u>		Site: <u>Location 44 GW-44</u>			
Project Number: <u>8612062055</u>		Date: <u>8/16/07</u>			
Sample Location ID: <u>ATG-W04401701XY</u>		Time: Start: <u>15:10</u> End: <u>16:10</u> Signature of Sampler: _____			
Water Level/Well Data	Well Depth <u>19</u> Ft.	<input checked="" type="checkbox"/> Measured <input type="checkbox"/> Historical	<input type="checkbox"/> Top of Well <input type="checkbox"/> Top of Protective Casing	Well Riser Stick-up _____ Ft. (from ground)	Protective _____ Ft. Casing/Well Difference
	<u>Geoprobe Screen</u>				
	Depth to Water <u>14</u> Ft.	Well Material: <input type="checkbox"/> PVC <input type="checkbox"/> SS	Well Locked?: <input type="checkbox"/> Yes <input type="checkbox"/> No	Well Dia. <u>1 1/2</u> <input type="checkbox"/> 2 inch <input type="checkbox"/> 4 inch <input type="checkbox"/> 6 inch	Water Level Equip. Used: <input type="checkbox"/> Elect. Cond. Probe <input type="checkbox"/> Float Activated <input type="checkbox"/> Press. Transducer
	Height of Water Column X _____ Ft.	<u>.16 Gal/Ft. (2 in.)</u> <u>.65 Gal/Ft. (4 in.)</u> <u>1.5 Gal/Ft. (6 in.)</u> <u>_____ Gal/Ft. (____ in.)</u>	[ _____ Gal/Vol. Total Gal Purged ]	Well Integrity: <input type="checkbox"/> Prot. Casing Secure <input type="checkbox"/> Concrete Collar Intact <input type="checkbox"/> Other _____	Yes _____ No _____
Equipment Documentation	Purging/Sampling Equipment Used:			Decontamination Fluids Used:	
	(✓ If Used For) Purging    Sampling	Equipment ID	(✓ All That Apply at Location)		
	<input checked="" type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Bailer <input type="checkbox"/> PVC/Silicon Tubing <input type="checkbox"/> Teflon/Silicon Tubing <input type="checkbox"/> Airlift <input type="checkbox"/> Hand Pump <input type="checkbox"/> In-line Filter <input type="checkbox"/> Press/Vac Filter	_____	<input type="checkbox"/> Methanol (100%) <input type="checkbox"/> 25% Methanol/75% ASTM Type II water <input type="checkbox"/> Deionized Water <input type="checkbox"/> Liquinox Solution <input type="checkbox"/> Hexane <input type="checkbox"/> HNO <sub>3</sub> /D.I. Water Solution <input type="checkbox"/> Potable Water <input type="checkbox"/> None		
	_____	_____	_____		
Field Analysis Data	PID: Ambient Air _____ ppm	Well Mouth _____ ppm	Purge Data Collected _____ In-line _____ In Container	Sample Observations: <input checked="" type="checkbox"/> Turbid <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Colored <input type="checkbox"/> Odor	
	Purge Data @ _____ Gal. @ _____ Gal. @ _____ Gal. @ _____ Gal. @ _____ Gal.				
	Temperature, Deg. C _____ pH, units _____ Specific Conductivity (µmhos/cm) _____ Turbidity (NTUS) _____ Oxidation - Reduction, +/- mv _____ Dissolved Oxygen, ppm _____				
	<u>No Reading</u>				
Sample Collection Requirements (✓ If Required at this Location)	Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle Lot Nos.
	VOCs	<input checked="" type="checkbox"/>	4°C	2x40 ml	_____
	SVOCs	<input type="checkbox"/>	4°C	2x1 liter AG	_____
	Metals	<input type="checkbox"/>	HNO <sub>3</sub> , 4°C	1x1 liter P	_____
	Cyanide	<input type="checkbox"/>	NaOH, 4°C	1x500ml P	_____
	Nitrate/Sulfate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	_____
	Nitrate/Phosphate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	_____
	Pest/PCB	<input type="checkbox"/>	4°C	3x1 liter AG	_____
	TPH	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	_____
	TOC	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	_____
Notes: <u>No reading due to lack of time</u> <u>Collect sample @ 15:55</u>					

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

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: ATRS Site: Location 5 GW-45  
 Project Number: 360062059 Date: 8/25/07  
 Time: Start: 16:10 End: 16:50  
 Sample Location ID: ATGW0450170104 Signature of Sampler: [Signature]

## Water Level/Well Data

Well Depth 19 Ft. ☐ Measured ☐ Top of Well Well Riser Stick-up ☐ Ft. Protective ☐ Ft.  
☐ Historical ☐ Top of Protective Casing (from ground) Casing/Well Difference  
Geoprobe Screen  
 Depth to Water 13 Ft. Well Material: ☐ PVC Well Locked?: ☐ Yes Well Dia. ☐ 2 inch Water Level Equip. Used:  
☐ SS ☐ No ☐ 4 inch ☐ 6 inch ☐ Elect. Cond. Probe  
☐ ☐ ☐ ☐ Float Activated  
☐ ☐ ☐ ☐ Press. Transducer  
 Height of Water Column X ☐ .16 Gal/Ft. (2 in.) ☐ Gal/Vol. Well Integrity: Yes No  
☐ .65 Gal/Ft. (4 in.) ☐ ☐ Prot. Casing Secure ☐ ☐  
☐ 1.5 Gal/Ft. (6 in.) ☐ ☐ Concrete Collar Intact ☐ ☐  
☐ Gal/Ft. ( in.) ☐ Total Gal Purged ☐ Other ☐ ☐

## Equipment Documentation

Purging/Sampling Equipment Used: Decontamination Fluids Used:  
 (✓ If Used For) (✓ All That Apply at Location)  
 Purging Sampling Equipment ID  
☒ ☐ Peristaltic Pump ☐  
☐ ☐ Submersible Pump ☐  
☐ ☐ Bailor ☐  
☐ ☐ PVC/Silicon Tubing ☐  
☐ ☐ Teflon/Silicon Tubing ☐  
☐ ☐ Airlift ☐  
☐ ☐ Hand Pump ☐  
☐ ☐ In-line Filter ☐  
☐ ☐ Press/Vac Filter ☐  
☐ ☐ ☐ Methanol (100%)  
☐ ☐ 25% Methanol/75% ASTM Type II water  
☐ ☐ Deionized Water  
☐ ☐ Liquinox Solution  
☐ ☐ Hexane  
☐ ☐ HNO<sub>3</sub>/D.I. Water Solution  
☐ ☐ Potable Water  
☐ ☐ None

## Field Analysis Data

PID: Ambient Air ☐ ppm Well Mouth ☐ ppm Purge Data Collected ☐ In-line ☒ Turbid ☐ Clear ☐ Cloudy  
☐ In Container ☒ Colored ☐ Odor  
 Purge Data @ ☐ Gal. @ ☐ Gal. @ ☐ Gal. @ ☐ Gal. @ ☐ Gal.  
 Temperature, Deg. C 18.3  
 pH, units 7.32  
 Specific Conductivity (µmhos/cm) 0.771  
 Turbidity (NTUS) 4.61  
 Oxidation - Reduction, +/- mv 14.15  
 Dissolved Oxygen, ppm 14.15

## Sample Collection Requirements

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle Lot Nos.
<u>1</u> VOCs	<input checked="" type="checkbox"/>	4°C	2x40 ml	
SVOCs	<input type="checkbox"/>	4°C	2x1 liter AG	
Metals	<input type="checkbox"/>	HNO <sub>3</sub> , 4°C	1x1 liter P	
Cyanide	<input type="checkbox"/>	NaOH, 4°C	1x500mLP	
Nitrate/Sulfate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Nitrate/Phosphate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
Pest/PCB	<input type="checkbox"/>	4°C	3x1 liter AG	
TPH	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
TOC	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: Head is very turbid  
Collect sample @ 16:50

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

ABB Environmental Services

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: ATRS Site: Location 46 GW-46  
 Project Number: 36000059 Date: 7/29/07  
 Time: Start: 08:46 End: 9:15  
 Sample Location ID: ATG-W04601901VV Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth 19 Ft. ☒ Measured ☐ Top of Well Well Riser Stick-up      Ft. Protective      Ft.  
☐ Historical ☐ Top of Protective Casing (from ground) Casing/Well Difference  
Geoprobe Screen  
 Depth to Water 13 Ft. Well Material:      Well Locked?:      Well Dia. 1 1/2 Water Level Equip. Used:  
☐ PVC ☐ Yes ☐ 2 inch ☐ Elect. Cond. Probe  
☐ SS ☐ No ☐ 4 inch ☐ Float Activated  
☐      ☐ 6 inch ☐ Press. Transducer  
 Height of Water Column      Ft. X      Gal/Ft. (2 in.) =      Gal/Vol. Well Integrity: Yes No  
     Ft. X      Gal/Ft. (4 in.) =      Total Gal Purged Prot. Casing Secure  
     Ft. X      Gal/Ft. (6 in.) =      Concrete Collar Intact  
     Ft. X      Gal/Ft. (in.) =      Other     

Equipment Documentation

## Purging/Sampling Equipment Used:

## Decontamination Fluids Used:

(✓ If Used For)

Purging Sampling

☐ Peristaltic Pump  
☐ Submersible Pump  
☐ Bailer  
☐ PVC/Silicon Tubing  
☐ Teflon/Silicon Tubing  
☐ Airlift  
☐ Hand Pump  
☐ In-line Filter  
☐ Press/Vac Filter

Equipment ID

(✓ All That Apply at Location)

☐ Methanol (100%)  
☐ 25% Methanol/75% ASTM Type II water  
☒ Deionized Water  
☐ Liquinox Solution  
☒ Hexane  
☐ HNO<sub>3</sub>/D.I. Water Solution  
☐ Potable Water  
☐ None

Field Analysis Data

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

Purge Data	@	Gal.	@	Gal.	@	Gal.	@	Gal.	@	Gal.
Temperature, Deg. C	<u>17.5</u>									
pH, units	<u>6.52</u>									
Specific Conductivity (µmhos/cm)	<u>8.794</u>									
Turbidity (NTUS)	<u>3.1</u>									
Oxidation - Reduction, +/- mv	<u>    </u>									
Dissolved Oxygen, ppm	<u>11.92</u>									

Sample Collection Requirements  
 (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle Lot Nos.
<input checked="" type="checkbox"/> VOCs	<input checked="" type="checkbox"/>	4°C	<u>2x40 ml</u>	
<input type="checkbox"/> SVOCs	<input type="checkbox"/>	4°C	2x1 liter AG	
<input type="checkbox"/> Metals	<input type="checkbox"/>	HNO <sub>3</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Cyanide	<input type="checkbox"/>	NaOH, 4°C	1x500mLP	
<input type="checkbox"/> Nitrate/Sulfate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Nitrate/Phosphate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Pest/PCB	<input type="checkbox"/>	4°C	3x1 liter AG	
<input type="checkbox"/> TPH	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
<input type="checkbox"/> TOC	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: Test Dup  
ATG-W04601901DU  
Collect Sample @ 0915

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

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: ATRS

Site: Location 47 GW-47

Project Number: 3612062054

Date: 8/28/07

Sample Location ID: ATG-W04701701X7

Time: Start: 10:15 End: 10:45

Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth 17 Ft. ☐ Measured ☐ Top of Well Well Riser Stick-up      Ft. Protective      Ft.  
☐ Historical ☐ Top of Protective Casing (from ground) Casing/Well Difference

Geoprobe Screen

Depth to Water 13 Ft. Well Material:      PVC      Yes      2 inch      Water Level Equip. Used:  
     SS      No      4 inch      Elect. Cond. Probe  
               6 inch      Float Activated  
                    Press. Transducer

Height of Water Column X      .16 Gal/Ft. (2 in.)      Gal/Vol. Well Integrity: Yes No  
     Ft. X      .65 Gal/Ft. (4 in.) =      Prot. Casing Secure       
          1.5 Gal/Ft. (6 in.)      Total Gal Purged Concrete Collar Intact       
          Gal/Ft. (in.)      Other     

Equipment Documentation

## Purging/Sampling Equipment Used:

## Decontamination Fluids Used:

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

(✓ All That Apply at Location)  
☐ Methanol (100%)  
☐ 25% Methanol/75% ASTM Type II water  
☐ Deionized Water  
☐ Liquinox Solution  
☐ Hexane  
☐ HNO<sub>3</sub>/D.I. Water Solution  
☐ Potable Water  
☐ None  
      
    

Field Analysis Data

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

Purge Data	@	Gal.	@	Gal.	@	Gal.	@	Gal.
Temperature, Deg. C	<u>18.5</u>							
pH, units	<u>8.91</u>							
Specific Conductivity (µmhos/cm)	<u>6271</u>							
Turbidity (NTUS)	<u>9.2</u>							
Oxidation - Reduction, +/- mv								
Dissolved Oxygen, ppm	<u>11.55</u>							

Sample Collection Requirements  
(✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle / Lot Nos.
<input checked="" type="checkbox"/> VOCs	<input type="checkbox"/>	4°C	2x40 ml	
<input type="checkbox"/> SVOCs	<input type="checkbox"/>	4°C	2x1 liter AG	
<input type="checkbox"/> Metals	<input type="checkbox"/>	HNO <sub>3</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Cyanide	<input type="checkbox"/>	NaOH, 4°C	1x500mLP	
<input type="checkbox"/> Nitrate/Sulfate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Nitrate/Phosphate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Pest/PCB	<input type="checkbox"/>	4°C	3x1 liter AG	
<input type="checkbox"/> TPH	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
<input type="checkbox"/> TOC	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: ATG-W04701701X7  
with MS ATG-W04701701X7  
Collect sample @ 10:35

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

ABB Environmental Services

# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: ATRS  
 Project Number: 3612062099  
 Sample Location ID: ATGL04702701X4

Site: Location 47 GL 47  
 Date: 7/29/07  
 Time: Start: 1045 End: 1115  
 Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth 27 Ft. ☐ Measured ☐ Top of Well Well Riser Stick-up ☐ Ft. Protective ☐ Ft.  
☐ Historical ☐ Top of Protective Casing (from ground) Casing/Well Difference  
Geoprobe Screen  
 Depth to Water 15 Ft. Well Material: ☐ PVC Well Locked?: ☐ Yes Well Dia. ☐ 2 inch Water Level Equip. Used:  
☐ SS ☐ No ☐ 4 inch ☐ Elect. Cond. Probe  
☐ 6 inch ☐ Float Activated  
☐ Press. Transducer  
 Height of Water Column X ☐ .16 Gal/Ft. (2 in.) ☐ Gal/Vol. Well Integrity: Yes No  
☐ .65 Gal/Ft. (4 in.) Prot. Casing Secure ☐ ☐  
☐ 1.5 Gal/Ft. (6 in.) Concrete Collar Intact ☐ ☐  
☐ Gal/Ft. (in.) Total Gal Purged Other ☐ ☐

Equipment Documentation

## Purging/Sampling Equipment Used:

## Decontamination Fluids Used:

(✓ If Used For)

Purging Sampling

Peristaltic Pump  
 Submersible Pump  
 Bailor  
 PVC/Silicon Tubing  
 Teflon/Silicon Tubing  
 Airlift  
 Hand Pump  
 In-line Filter  
 Press/Vac Filter

Equipment ID

(✓ All That Apply at Location)

☐ Methanol (100%)  
☐ 25% Methanol/75% ASTM Type II water  
☐ Deionized Water  
☐ Liquinox Solution  
☐ Hexane  
☐ HNO<sub>3</sub>/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										
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.
<input checked="" type="checkbox"/> VOCs	<input type="checkbox"/>	4°C	2x40 ml	
<input type="checkbox"/> SVOCs	<input type="checkbox"/>	4°C	2x1 liter AG	
<input type="checkbox"/> Metals	<input type="checkbox"/>	HNO <sub>3</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Cyanide	<input type="checkbox"/>	NaOH, 4°C	1x500mLP	
<input type="checkbox"/> Nitrate/Sulfate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Nitrate/Phosphate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Pest/PCB	<input type="checkbox"/>	4°C	3x1 liter AG	
<input type="checkbox"/> TPH	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
<input type="checkbox"/> TOC	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes: NO Reading  
Collect sample @ 1110

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

ABB Environmental Services





# GROUNDWATER SAMPLE FIELD DATA RECORD

Project: ATR2 Site: Location 49 GW-49  
 Project Number: 3612062039 Date: 8/1  
 Time: Start: 1250 End: 1330  
 Sample Location ID: ATG-W0890170187 Signature of Sampler: [Signature]

Water Level/Well Data

Well Depth 17 Ft. Measured ☐ Top of Well \_\_\_\_\_ Well Riser Stick-up \_\_\_\_\_ Ft. Protective \_\_\_\_\_ Ft.  
 Historical ☐ Top of Protective Casing \_\_\_\_\_ (from ground) Casing/Well Difference \_\_\_\_\_  
Geoprobe Screen  
 Depth to Water 13 Ft. Well Material: PVC Well Locked?: Yes Well Dia. 2 inch Water Level Equip. Used:  
SS No 4 inch Elect. Cond. Probe  
6 inch Float Activated  
Press. Transducer  
 Height of Water Column X .16 Gal/Ft. (2 in.) \_\_\_\_\_ Gal/Vol. Well Integrity: Yes No  
.65 Gal/Ft. (4 in.) \_\_\_\_\_ Prot. Casing Secure \_\_\_\_\_  
1.5 Gal/Ft. (6 in.) \_\_\_\_\_ Concrete Collar Intact \_\_\_\_\_  
Gal/Ft. (in.) \_\_\_\_\_ Total Gal Purged \_\_\_\_\_ Other \_\_\_\_\_

Equipment Documentation

## Purging/Sampling Equipment Used:

## Decontamination Fluids Used:

(✓ If Used For)  
 Purging Sampling

Equipment ID

(✓ All That Apply at Location)

☒ Peristaltic Pump  
☐ Submersible Pump  
☐ Bailor  
☐ PVC/Silicon Tubing  
☐ Teflon/Silicon Tubing  
☐ Airlift  
☐ Hand Pump  
☐ In-line Filter  
☐ Press/Vac Filter

☐ Methanol (100%)  
☐ 25% Methanol/75% ASTM Type II water  
☒ Deionized Water  
☐ Liquinox Solution  
☐ Hexane  
☐ HNO<sub>3</sub>/D.I. Water Solution  
☐ Potable Water  
☐ None

Field Analysis Data

PID: Ambient Air \_\_\_\_\_ ppm Well Mouth \_\_\_\_\_ ppm Purge Data Collected \_\_\_\_\_ In-line \_\_\_\_\_ Turbid \_\_\_\_\_ Clear \_\_\_\_\_ Cloudy  
 \_\_\_\_\_ In Container \_\_\_\_\_ Colored \_\_\_\_\_ Odor

Purge Data	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.	@ _____ Gal.
Temperature, Deg. C	<u>27.6</u>				
pH, units	<u>7.37</u>				
Specific Conductivity (µmhos/cm)	<u>672</u>				
Turbidity (NTUS)	<u>999</u>				
Oxidation - Reduction, +/- mv					
Dissolved Oxygen, ppm	<u>13.65</u>				

Sample Collection Requirements  
 (✓ If Required at this Location)

Analytical Parameter	✓ If Sample Collected	Preservation Method	Volume Required	Sample Bottle Lot Nos.
<input checked="" type="checkbox"/> VOCs	<input checked="" type="checkbox"/>	4°C	<u>2x40 ml</u>	
<input type="checkbox"/> SVOCs	<input type="checkbox"/>	4°C	2x1 liter AG	
<input type="checkbox"/> Metals	<input type="checkbox"/>	HNO <sub>3</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Cyanide	<input type="checkbox"/>	NaOH, 4°C	1x500mLP	
<input type="checkbox"/> Nitrate/Sulfate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Nitrate/Phosphate	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	
<input type="checkbox"/> Pest/PCB	<input type="checkbox"/>	4°C	3x1 liter AG	
<input type="checkbox"/> TPH	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	2x1 liter AG	
<input type="checkbox"/> TOC	<input type="checkbox"/>	H <sub>2</sub> SO <sub>4</sub> , 4°C	1x1 liter P	

Notes:

Collect sample @ 1315

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

ABB Environmental Services

# Test Boring Log

Project <b>REGION 8 D.L. - GROUP II</b>		Boring/Well No. <b>SB/GW-001</b>	Project No. <b>3612062159/0...</b>
Client <b>NYSDEC</b>	Site <b>Associated</b>		Sheet No. <b>1</b> of <b>2</b>
Logged By <b>B. Shaw</b>	Ground Elevation	Start Date <b>11/1/06</b>	Finish Date <b>11/1/06</b>
Drilling Contractor <b>Geologic, Inc.</b>	Driller's Name <b>Joe Mursel</b>		Rig Type <b>66 DT.</b>
Drilling Method <b>Direct Push</b>	Protection Level <b>D</b>	P.I.D. (eV)	Casing Size <b>1 1/2</b> Auger Size <b>2 1/4</b>
Soil Drilled <b>20'</b>	Rock Drilled	Total Depth <b>30'</b>	Depth to Groundwater/Date
		Piez <input type="checkbox"/>	Well <input type="checkbox"/> Boring <input checked="" type="checkbox"/>

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)		Lab Tests
									PI Meter Field Scan	PI Meter Head Space	
1-20	20/40					0-1 Lt Brown silty clay w/ grass & bricks, net, mp	FI		Lo.1		
2-3						1-3 Black silty sand, Ash & coal & bricks, damp					
3-4						3-3.2 Brick					
4-5						3.2-4 olive brown silty sandy clay, net, w/ some black pieces					
5-6	1.7/4.0					Brown/olive brown sand silt & clay, net, bricks			Lo.1		
6-7						7 Ash, mp/HP					
7-8											
8-9						8 to 9 olive clay w/ trace coarse gravel, moist	CL		Lo.1		
9-10	3.2/4.0					9-9.5 cobbles & some clay	CL				
10-11						9.5-11.5 v. stiff, HP	ML				
11-12						clay brown to grey stratified moist	SC				
12-13						11.5-11.7 cobble	SC		Lo.1		
13-14	1.5/4.0					11.7-12 gray sandy clay wet, mp/HP, ms+ft.	SC				
14-15						12-15 light gray sandy clay ms silt/silt, wet, mp					
15-16						15-16 brown sand to silty sand clay wet, mp/HP, ms+ft.					

Composite  
5' to 7'  
ATGS00106701 ft  
(11230)

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

# Test Boring Log

Project <u>Region 8 D.C. - Group #</u>		Boring/Well No. <u>SB/GW-001</u>	Project No. <u>3612062039/1</u>
Client <u>NYSDEC</u>	Site <u>Associated</u>		Sheet No. <u>2</u> of <u>2</u>
Logged By <u>B. Shaw</u>	Ground Elevation	Start Date <u>11/06/2006</u>	Finish Date <u>11/06/2006</u>
Drilling Contractor <u>Geologic</u>		Driller's Name <u>Joe Muesel</u>	Rig Type <u>66 DT</u>
Drilling Method <u>Direct Push</u>	Protection Level <u>D</u>	P.I.D. (eV)	Casing Size <u>1 1/2"</u> Auger Size <u>2"</u>
Soil Drilled <u>20'</u>	Rock Drilled <u>/</u>	Total Depth <u>20'</u>	Depth to Groundwater/Date <u>~18'</u>
		Piez <input type="checkbox"/>	Well <input type="checkbox"/> Boring <input checked="" type="checkbox"/>

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			Lab Tests
									(ppm)			
									PI Meter Field Scan	PI Meter Head Space		
14												
15							SL					
16												
17												
18	13					olive gray sandy clay wet/saturated w/ stiff shale, HP, @ ~18' gravel gravel w/ some fines & sand saturated, loose						
19	4.0						GW					
20												
21												
22												
23												
24												
25												
26												
27												

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

# Test Boring Log

Project REGION 8 D.C. - GROUP II		Boring Well No. SB/GW-004	Project No. 3612062159/07.2
Client NYSDEC	Site Associated Textiles	Sheet No. 1 of 2	
Logged By B. Shaw	Ground Elevation	Start Date 11/08/2006	Finish Date 11/08/2006
Drilling Contractor Geologic, M	Driller's Name Joe Mangel	Rig Type 66 DT.	
Drilling Method Direct Push	Protection Level D	P.I.D. (eV)	Casing Size 1 1/2 Auger Size 2 1/2
Soil Drilled 20	Rock Drilled	Total Depth 29'	Depth to Groundwater/Date
		Piez <input checked="" type="checkbox"/> Well <input type="checkbox"/> Boring <input type="checkbox"/>	

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)		Lab Tests
									Pi Meter Field Scan	Pi Meter Head Space	
1	1.7					0-1 DK Brown Silty fine Sand, amp. roots, PG	FI				
2	4.0					1-3 Brown fine sand/silt w/ lots of grass & Ash					
3						3-4 Lt orange brown fine Sand/silt, moist, PG, MP, friable dense	SM				
4						4-5.3 yellowish brown fine Sand/silt, dense PG, trace m coarse / large Sand, damp friable					
5	4.0					6-3-7.1 orange brown same as 4-5.3					
6	4.0					7-1-8 Brown Sand/silt w/ some fine gravel, WG, moist, HP/MP, accumulation of cobbles @ 7.4	SC				
8						8-10.2 clayey gravel w/ H/Sand, damp, WG, loose, SP/MP	CL				
9	2.0					10.2-12 gravelly clay w/ some Sand, moist/fert, HP/MP					
10	4.0					MSHT, WG	CL				
11											
12						12-14 Same as 10.2-12					
13	1.8					14-15 Sand gravel clay mix, saturated, loose, WG	GC				
14	4.0					15-15.8 Brownish gray silty Sand & gravel, saturated, WG, loose					
15						15.8-16 lt gray sand gravel & clay loose, WG, v. soft					
16											

FIGURE 4-6

TYPICAL TEST BORING LOG

NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services, Inc.

# Test Boring Log

Project <b>Region 8 D.C. - Group #</b>		Boring/Well No. <b>SB/GW-004</b>	Project No. <b>3612062059/07 2</b>
Client <b>NYSDEC</b>	Site <b>Associated Textiles</b>	Sheet No. <b>2</b> of <b>2</b>	
Logged By <b>B. Shaw</b>	Ground Elevation	Start Date <b>11/18/2006</b>	Finish Date <b>11/18/2006</b>
Drilling Contractor <b>Geologic</b>	Driller's Name <b>Joe Mennel</b>	Rig Type <b>66 DT</b>	
Drilling Method <b>Direct Push</b>	Protection Level <b>D</b>	P.I.D. (eV)	Casing Size <b>1 1/2"</b> Auger Size <b>2"</b>
Soil Drilled <b>20</b>	Rock Drilled <input checked="" type="checkbox"/>	Total Depth <b>29</b>	Depth to Groundwater/Date Piez <input checked="" type="checkbox"/> Well <input type="checkbox"/> Boring <input type="checkbox"/>

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)		Lab Tests
									Pi Meter Field Scan	Pi Meter Head Space	
14											
15							GC				
16											
17	23					16-19 gray brown silty sand, gravel, rounded WG, coarse, saturated	GM				
18											
19	40					19-20 fluvial deposit, gray sand w/ gravel, WG, coarse	SW				
20											
21											
22											
23											
24											
25											
26											
27											

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

ABB Environmental Services, Inc.

# Test Boring Log

Project <b>REGION 8 D.L. - GROUP II</b>		Boring/Well No. <b>SB/GW-008</b>	Project No. <b>361206259/0.02</b>	
Client <b>NYSDEC</b>	Site <b>Associated textiles</b>		Sheet No. <b>1</b> of <b>1</b>	
Logged By <b>B. Snow</b>	Ground Elevation	Start Date <b>11/06/2006</b>	Finish Date <b>11/06/2006</b>	
Drilling Contractor <b>Geologic, W</b>	Driller's Name <b>Joe Munsel</b>		Rig Type <b>66 DT.</b>	
Drilling Method <b>Direct Push</b>	Protection Level <b>D</b>	P.I.D. (eV)	Casing Size <b>1 1/2</b>	Auger Size <b>2 1/2</b>
Soil Drilled <b>16'</b>	Rock Drilled	Total Depth <b>28'</b>	Depth to Groundwater/Date	
		<input type="checkbox"/> Piez <input type="checkbox"/> Well <input checked="" type="checkbox"/> 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)		Lab Tests
									PI Meter Field Scan	PI Meter Head Space	
1						0-1 DK olive / Black silty organic					
2	2.2 / 4.0					1-2.5 Backfill - stage ash	Fill				
3						coally, HSS					
4						2.5-3.5 olive Brn silty sand	GM				
5						gravel, moist, MP, medium PG					
6	1.9 / 4.0					3.5-4 coarse Brn gravelly	GM				
7						clay w/ little sand, moist HP/MP	CLSC				
8						4-4.8 cobble of some silty	GM				
9						sand, WG					
10	1.4 / 4.0					4.8-6 silty sand & gravel, moist	SMGM				
11						WG					
12						6-7.2 Brn med coarse sand,	SP				
13						moist trace coarse sand, PG					
14	7 / 4.0					7.2-8					
15						Same as 7.8 to 6.					
16						olive Brn sandy clay & gravel	GC				
						moist, MP/HP, WG, MStiff					
						DK olive / DK gray silty	GM				
						gravel of fine sand; Substrated					
						100% WG, trace cobble					

FIGURE 4-6

TYPICAL TEST BORING LOG  
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services, Inc.

# Test Boring Log

Project REGION 8 D.C. - Group II		Boring/Well No. SB/GW-009	Project No. 3612062059/0...	
Client NYSDEC	Site Assorted Textiles		Sheet No. 1 of 1	
Logged By B. Shaw	Ground Elevation	Start Date 11/07/2006	Finish Date 11/07/2006	
Drilling Contractor Geologic, M	Driller's Name Joe Mawzel		Rig Type 66 DT.	
Drilling Method Direct Push	Protection Level	P.I.D. (eV)	Casing Size 1 1/2	Auger Size 2 1/2
Soil Drilled 16'	Rock Drilled	Total Depth 16'	Depth to Groundwater/Date	
		<input type="checkbox"/> Piez <input type="checkbox"/> Well <input checked="" type="checkbox"/> 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)		Lab Tests
									PI Meter Field Scan	PI Meter Head Space	
1						0-1 DK Brn silty loam					
2	4.0					1-2.5 Black to white ash, sand & gravel, ssg	Fill				
3						2.5-4 sandy silt & gravel moist, m/p, WG, m Dense	CL				
4						4-5.8 lt Brown fine to m coarse sand, PG, loose, moist	CL				
5	19					5-8-8 Brown gravelly clay w/ some sand, wet, m/p, stiff	CL				
6	4.0										
7											
8											
9						gravelly clay w/ some sand stratified brown to orange	CLSC				
10	2.1					WG, soft to stiff					
11	4.0										
12											
13											
14	0.9					Same as above but soft; saturated (w/15.8)					
15	4.0										
16											

FIGURE 4-6

TYPICAL TEST BORING LOG  
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# Test Boring Log

Project REGION 8 D.C. - Group II		Boring/Well No. SB/GW-01	Project No. 3612062159/07.2
Client NYSDEC	Site Associated Textiles	Sheet No. 1 of 1	
Logged By B. Shaw	Ground Elevation	Start Date 11/07/2006	Finish Date 11/07/2006
Drilling Contractor Geologic, Inc.	Driller's Name Joe Mense	Rig Type 66 DT.	
Drilling Method Direct Push	Protection Level D	P.I.D. (eV)	Casing Size 1 1/2 Auger Size 2 1/2
Soil Drilled	Rock Drilled	Total Depth	Depth to Groundwater/Date
		Piez <input type="checkbox"/> Well <input type="checkbox"/> Boring <input checked="" type="checkbox"/>	

Depth (Feet)	Sample No. & Penetration/ Recovery (Feet)	Sample Type	SPT Blows/5' or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm)		Lab Tests
									PI Meter Field Scan	PI Meter Head Space	
1	1.1					2-2.5 organic silty brown & gravel, deep roots.					
2	4.0					1.5-3.5 Black to white sandy gravel, Ash, silty, glass					
3						3.5-4 olive to lt Brown sandy clay & gravel, waste, HP, PG					
4						4-5 Black sandy gravel					
5	1.4					Ash, silty	Fill				
6	4.0					5-7 Brown sandy gravel w/ some fines, WG, deep, SP					
7						7-8 Brown medium sand w/ some clay & trace fine gravel deep, WG					
8						8-9.5 Same as 7-8					
9	1.2					9.5-12 gravelly clay w/ little sand, vet, PG HP, stuff.					
10	4.0										
11											
12						12-14 Black sandy gravel w/ metal slag					
13	1.1					14-15 orange Brown sandy clay w/ some fine gravel w/ soft H, saturated, WG					
14	4.0					15-16 Brown silty gravel w/ 1-HK sand					
15											
16											



# Test Boring Log

Project REGION 8 D.C. - GROUP II		Boring/Well No. SB/GW-013	Project No. 3612062159/07.0
Client NYSDEC	Site Associated Textiles		Sheet No. 1 of 1
Logged By B. Shaw	Ground Elevation	Start Date 11/17/07	Finish Date 12/06/07
Drilling Contractor Geologic, Inc.	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 1/2
Soil Drilled 16'	Rock Drilled	Total Depth 24' 30"	Depth to Groundwater/Date
		Piez <input checked="" type="checkbox"/> Well <input type="checkbox"/> Boring <input type="checkbox"/>	

Depth (Feet)	Sample No. & Penetration/Recovery (Feet)	Sample Type	SPT Blows/5" or Core Rec./Rqd. %	SPT-N (Blows/Ft.)	Graphic Log	Sample Description	USCS Group Symbol	Notes on Drilling	Monitoring (ppm)		Lab Tests
									PI Meter Field Scan	PI Meter Head Space	
1-2	1.4 / 40					2 to 15 DK Bm silty clay w/ some gravel, damp	Fill				
2-3						1.5 to 3.5 Black to grey sandy silt w/ slag & glass ash, damp					
3-4						3.5-4.0 crumbly orange sandy clayey gravel, damp, WG, medium	FT/OC				
4-5	1.3 / 40					4-7 orange brown clay sand & gravel, some cobbles, moist, WG, medium					
5-6	4.0					7-8 medium to coarse sand damp, loose, FC,					
6-7							SP				
7-8											
8-9						8-11 sand & gravel w/ some fines, wet, WG	SW				
9-10	1.1 / 40					11-12 sandy gravelly clay wet/moist, HP WG					
10-11						trace cobbles (3-11)					
11-12							OC				
12-13	0.8					12-13 olive sandy clay w/ trace fine gravel, moist, HP, FC, soft.	SCC				
13-14	4.6					13-15 stratified orange to black sandy clay, soft.					
14-15						15-16 lt Bm silty clay, saturated, soft.					

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

# Test Boring Log

Project REGION 8 D.C. - GROUP II		Boring/Well No. SB/GW-014	Project No. 3612062159/07.0
Client NYSDEC	Site Associated Textile		Sheet No. 1 of 1
Logged By B. Smart	Ground Elevation	Start Date 11/07/2006	Finish Date 11/07/2006
Drilling Contractor Geologic, M	Driller's Name Joe Mersel		Rig Type 66 DT.
Drilling Method Direct Push	Protection Level D	P.I.D. (eV)	Casing Size 1 1/2 Auger Size 2 1/4
Soil Drilled 16	Rock Drilled	Total Depth 39	Depth to Groundwater/Date ~12 ft
		Piez <input type="checkbox"/>	Well <input type="checkbox"/> Boring <input checked="" type="checkbox"/>

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)		Lab Tests
									PI Meter Field Scan	PI Meter Head Space	
1-3.1	3.1					0-0.6 Asphalt	Asphalt				
2-4.0	4.0					0.6-1.2 Lt Brown cilt sand	Fill				
3						5 fine gravel, dry, WG, MP					
4						1.2-3 Black sandy gravel					
5						of Ash-glass, dry WG					
6	1.4					3-3.2 Cobbles					
7	4.0					3.2-4 stratified Lt Brown fine sand	SC				
8						4-6 yellowish Lt Brown					
9						5.1-6 clay-sand, moist, MP	SC				
10	2.0					PG, fines to coarse sand					
11	4.0					6-8 Brown sand clay-gravel	SCGC				
12						damp WG, M Dense					
13	15.1					8-8.8 same as 6-8					
14						8.8-10 wet sandy clay	CL				
15						some fine gravel, HP/MP, MSHT					
16						10-11.2 olive sandy gravelly clay					
						Saturated, MSHT, slight odor, WG, HP	GC				
						11-12 sandy clay & gravel	SCGC				
						damp, MSHT, MP					
						12-13 gravelly clay, wet	CL				
						moist, WG					
						13-15 yellowish brown of					
						20% fls, v. soft sandy clay					
						wet, WG, more gravel					
						~15-16 dk gray/dk olive silt/sandy gravel, v. moist, saturated					

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

# Test Boring Log

Project REGION 8 D.C. - Group II		Boring/Well No. SB/GW-015	Project No. 3612062159/07.0	
Client NYSDEC	Site Associated Textiles	Sheet No. 1 of 1		
Logged By B. Smart	Ground Elevation	Start Date 11/08/2006	Finish Date 11/08/2006	
Drilling Contractor Geologic, M	Driller's Name Joe Mendel	Rig Type 66 DT.		
Drilling Method Direct Push	Protection Level D	P.I.D. (eV)	Casing Size 1 1/2	Auger Size 2 1/4
Soil Drilled 16	Rock Drilled	Total Depth 20	Depth to Groundwater/Date	
		<input checked="" type="checkbox"/> Piez <input type="checkbox"/> Well <input type="checkbox"/> 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)		Lab Tests
									Pi Meter Field Scan	Pi Meter Head Space	
1	3.6					20.5 Asphalt	Asphalt				
2	4.0					6.5-1 DK Brown/black sandy gravel, moist	fill				
3						1-1.8 Black to white ash					
4						Sand & gravel w/ some glass, WG	ML				
5	3.7					1.8-3 olive silty clay					
6	4.0					trace m. coarse & fine sand, wet, MP, stiff, PG					
7						3-4 orange Brown clay/silt, moist	MD				
8						4-6.3 Same as 3-4	ML				
9						6.3-8 Brown (stratified) gravel					
10						gravelly clay w/ some sand, moist					
11						MP, WG, M Dense to M stiff	GCSC				
12											
13						8.2-11 Same as 6.3-8					
14						11-12 clay gravel sand					
15						wix, wet to saturated, MP, HP, WG, soft					
16											
17						12-12.5 Same as 11-12					
18						12.5-15 Lt orange Brown					
19						c. 1/4" sand & gravel, saturated, wet, WG					
20						15-16 Sandy clay w/ some fine gravel, M stiff, sat, WG					

FIGURE 4-6

TYPICAL TEST BORING LOG

NYSDEC QUALITY ASSURANCE PROGRAM PLAN

# Test Boring Log

Project <b>REGION 8 D.C. - GROUP II</b>		Boring/Well No. <b>SB/GW-01A</b>	Project No. <b>3612062159/07.2</b>	
Client <b>NYSDEC</b>	Site <b>Associated Textiles</b>		Sheet No. <b>1</b> of <b>1</b>	
Logged By <b>B. Shaw</b>	Ground Elevation	Start Date <b>11/8/2006</b>	Finish Date <b>7/8/2006</b>	
Drilling Contractor <b>Geologic, M</b>		Driller's Name <b>De Mense</b>	Rig Type <b>66 DT.</b>	
Drilling Method <b>Direct Push</b>	Protection Level <b>D</b>	P.I.D. (eV) <b>✓</b>	Casing Size <b>1 1/2</b>	Auger Size <b>2 1/4</b>
Soil Drilled <b>12'</b>	Rock Drilled <b>✓</b>	Total Depth <b>14'</b>	Depth to Groundwater/Date <b>8'</b>	
		Piez. <input checked="" type="checkbox"/> Well <input type="checkbox"/> Boring <input type="checkbox"/>		

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			Lab Tests
									(ppm)			
									PI Meter Field Scan	PI Meter Head Space		
1-18						DK brown, soil, plastic, dry PID < 1ppmv 0-0.5', firm						
2-40						0.5 - 1.8' Brown, soil with gravel, poorly graded AD < 1ppmv recovered only 1.8'	SW					
5-15						Brown, soil with gravel poorly graded, PID < 1ppmv 3.7' - 4.5', firm	SGP					
6-40						water observed at ~ 8' recovered only 1.5'						
9-26						Brown, gravelly sands, poorly graded, non-plastic, wet, soft PID <del>3.0</del> 1.0ppmv recovered 2.6'	SW					
10-40												
11												
12												
13												

Bottom of 10' screen at 14'

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

# Test Boring Log

Project <b>A + RS</b>		Boring/Well No. <b>GW-31</b>	Project No. <b>3612062059</b>	
Client <b>NYSDEC</b>	Site <b>El. moa</b>		Sheet No. <b>1</b> of <b>1</b>	
Logged By <b>MAM</b>	Ground Elevation <b>—</b>	Start Date <b>2/27/07</b>	Finish Date <b>2/27/07</b>	
Drilling Contractor <b>Geologic</b>		Driller's Name <b>Steve</b>		Rig Type <b>Geoprobe</b>
Drilling Method <b>Direct Push</b>		Protection Level <b>D</b>	P.I.D. (eV) <b>500 B</b>	Casing Size <b>2"</b>
Soil Drilled <b>16'</b>	Rock Drilled	Total Depth <b>~16'</b>	Depth to Groundwater/Date <b>~14'</b>	
		Piez <input type="checkbox"/> Well <input type="checkbox"/> Boring <input checked="" type="checkbox"/>		

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)		Lab Tests
									PI Meter Field Scan	PI Meter Head Space	
0-4	4/2.9	Soil				0-4 GM, Good, ident coarse grain soil, Fine	GM		0.0 ppm	0.0 ppm	
4-5	4/3.1	Soil				4-5; silt clay, medium organic clays, brown with some reddish color			0.0	0.0	
5-6						5-6 - OL, grayish, dense soft,	OL				
6-7						6-7 - OL, brownish, dense	OL				
8-10	4/3.8	Soil				8-10; OL, brownish, good hard fast	OL		1.2 ppm		
10-12						10-12; OL, brownish to gray very stiff, Fine sand soil	OL		0.0		
12-14	4/3.7	Soil				12-14; silt clay, with some medium dense, good, gray	OL		2.0 ppm		
14-16						14-16; wet, clay, brownish					

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

ABB Environmental Services, Inc.

# Test Boring Log

Project <i>ATRS</i>		Boring/Well No. <i>GW-32</i>		Project No. <i>36 12062059</i>	
Client <b>NYSDEC</b>		Site <i>Elma</i>		Sheet No. <i>1</i> of <i>1</i>	
Logged By <i>MAN</i>		Ground Elevation		Start Date <i>8/27/07</i>	
				Finish Date <i>8/27/07</i>	
Drilling Contractor <i>Geological</i>		Driller's Name <i>Steve</i>		Rig Type <i>Geopac</i>	
Drilling Method <i>Direct Push</i>		Protection Level <i>D</i>		P.I.D. (eV) <i>58013</i>	
				Casing Size <i>2"</i>	
Soil Drilled <i>16'</i>		Rock Drilled		Total Depth <i>16'</i>	
				Depth to Groundwater/Date <i>~12'</i>	
				Piez <input type="checkbox"/> Well <input type="checkbox"/> Boring <input checked="" type="checkbox"/>	

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			Lab Tests
									(ppm)			
									PI Meter Field Scan	PI Meter Head Space		
0-1	4.0/2.0	Soil				2-4 - coarse Gravelly soils GW, lite to dark brownish 100SC,	GW		2.1 ppm			
1-2	4.0/2.9	Soil				4-5; Gravel with Fines GC, medium dense, dry, brownish, clayey	GW GC		0.0 ppm			
						5-8, Reddish Gray, clay, dense, to stiff, damp,	CL		6 ppm			
8-12	4.0/3.0	Soil				2-10.5, brownish gray, OL, low plastic, medium stiff	OL		0.0 ppm			
12-16	4.0/3.9	Soil				10.5-12 - gray (b), clay to silty clay, damp, 12-14 - grayish, silty clay well graded damp, CL 14-15 - grayish, silty clay well graded, damp to moist	CL CL CL		1.5 ppm 3 ppm			

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

# Test Boring Log

Project <b>ATRS</b>		Boring/Well No. <b>GW-33</b>	Project No. <b>3612062057</b>	
Client <b>NYSDEC</b>	Site <b>Elima</b>		Sheet No. <b>1</b> of <b>1</b>	
Logged By <b>MAM</b>	Ground Elevation	Start Date <b>7/27/07</b>	Finish Date <b>8/27/07</b>	
Drilling Contractor <b>Geologic</b>		Driller's Name <b>Steve</b>		Rig Type <b>Geopne</b>
Drilling Method <b>Direct Run</b>		Protection Level <b>D</b>	P.I.D. (eV) <b>580B</b>	Casing Size <b>2"</b>
Soil Drilled <b>16'</b>	Rock Drilled	Total Depth <b>~16'</b>	Depth to Groundwater/Date <b>~15'</b>	
		Piez <input type="checkbox"/> Well <input type="checkbox"/> Boring <input checked="" type="checkbox"/>		

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			Lab Tests
									(ppm)			
									PI Meter Field Scan	PI Meter Head Space		
0-4	40130					0-4 Gravel with fine brownish to gray, loose dry,	GW		0.0			
4-6	40140					4-6; Brown, medium dense clay, dry, 1 a vents	CL		0.0			
6-8	40135					6-8; dark Brown, dense clay, some silty clay in between,	OL		0.0			
8-12	40125					8-12; gray, silty clay/rocky dry, loose	SH		0.0			
12-16						12-15; brownish, gray, weathered rocky, dry,	OL					
						15-16; wet, gray, silty clay						

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

# Test Boring Log

Project <b>ATRS</b>		Boring/Well No. <b>GW-34</b>		Project No. <b>361006059</b>	
Client <b>NYSDEC</b>		Site <b>Elmira</b>		Sheet No. <b>1</b> of <b>1</b>	
Logged By <b>MA</b>		Ground Elevation		Start Date <b>8/27/07</b>	
Drilling Contractor <b>Geolos.</b>		Driller's Name <b>John</b>		Rig Type <b>Geoprobe</b>	
Drilling Method <b>Direct Push</b>		Protection Level <b>D</b>		P.I.D. (eV) <b>580 B</b>	
Casing Size <b>2"</b>		Auger Size			
Soil Drilled <b>16'</b>		Rock Drilled		Total Depth <b>~16'</b>	
Depth to Groundwater/Date <b>~15'</b>		Piez <input type="checkbox"/>		Well <input type="checkbox"/>	
Boring <input checked="" type="checkbox"/>					

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			Lab Tests
									(ppm)			
									PI Meter Field Scan	PI Meter Head Space		
0-4	40120 Soil					0-4; Gravel with fine brown to black, poorly graded, loose	GW		2.1 ppm			
4-8	40138 Soil					4-4.5; Gravel with fine black, poorly graded medium dense,	GW		0.0 ppm			
8-12	40145 Soil					4.5-8; S. lty clay, brown, layers to faint green dry,	OL		0.0 ppm			
12-16	40115 Soil					8-12; wet s. lty, clay some weathered, gray, loose to silty loose,	OL		0.0 ppm			
						12-16 - wet, s. lty clay elastic high, moist,	OL		0.0 ppm			

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



# Test Boring Log

Project <b>ATRS</b>		Boring/Well No. <b>GW-35</b>		Project No. <b>5612082059</b>	
Client <b>NYSDEC</b>		Site <b>E. L. area</b>		Sheet No. <b>1</b> of <b>1</b>	
Logged By <b>NAM</b>		Ground Elevation		Start Date <b>8/27/07</b>	
				Finish Date <b>8/27/07</b>	
Drilling Contractor <b>Geological</b>		Driller's Name <b>Steve</b>		Rig Type <b>Geopack</b>	
Drilling Method <b>Direct Push</b>		Protection Level <b>D</b>		Casing Size <b>5.0 2"</b>	
Soil Drilled <b>16'</b>		Rock Drilled		Total Depth <b>16'</b>	
				Depth to Groundwater/Date <b>15'</b>	
				Piez <input type="checkbox"/> Well <input type="checkbox"/> Boring <input type="checkbox"/>	

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			Lab Tests
									(ppm)			
									PI Meter Field Scan	PI Meter Head Space		
0-4	40/25	Soil				0-4, gravel sandy little to no fines, black	GW		0-1 GPM			
4-8	40.13.8	Soil				4-8, weathered clay, medium brown, liquid fair to good dry	CL		0 ppm			
8-12	40/25	Soil				8-12, silty clay, weathered rock reddish brown, loose to compact	OL		0 ppm			
12-16	40/25	Soil				12-16, silty clay, wet elastic high, moist	OL		15/163 ppm			

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

# Test Boring Log

Project <b>ATR 5</b>		Boring/Well No. <b>3C</b>	Project No. <b>3620620501</b>	
Client <b>NYSDEC</b>	Site <b>E. Ind</b>		Sheet No. <b>1</b> of <b>1</b>	
Logged By <b>MAM</b>	Ground Elevation	Start Date <b>8/27/07</b>	Finish Date <b>8/27/07</b>	
Drilling Contractor <b>Geologic</b>		Driller's Name <b>glee</b>		Rig Type <b>Geopac</b>
Drilling Method <b>Direct Push</b>		Protection Level <b>0</b>	P.I.D. (eV) <b>500 B</b>	Casing Size <b>2"</b>
Soil Drilled <b>16'</b>	Rock Drilled	Total Depth <b>~16'</b>	Depth to Groundwater/Date <b>~14'</b>	
		Piez <input type="checkbox"/> Well <input type="checkbox"/> Boring <input checked="" type="checkbox"/>		

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			Lab Tests
									(ppm)			
									PI Meter Field Scan	PI Meter Head Space		
0-4	4.0/20	Soil				0-4, gravel, silt, little to little fines, black	GW		6.6 ppm			
4-8	4.0/3.8	Soil				4-8, silty clay, brown dense, CL	CL		0.0 ppm			
						10-12, weathered clay medium, brown, layered dry	CL		0.0 ppm			
8-12	4.0/2.5	Soil				CLM 8-10, <del>silt</del> , stiff brownish dry, silty plastic	CL		0.0 ppm			
						10-12, OL, damp, grayish	OL		0.0 ppm			
12-16	4.0/2.0	Soil				12-16, wet, weathered silty clay, soft, poor	OL		0.0 ppm			

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

ABB Environmental Services, Inc.

# Test Boring Log

Project <u>ATRS</u>		Boring/Well No. <u>GW-37</u>	Project No. <u>3612062059</u>	
Client <u>NYSDEC</u>	Site <u>Elmora</u>		Sheet No. <u>1</u> of <u>1</u>	
Logged By <u>MAM</u>	Ground Elevation	Start Date <u>8/27/07</u>	Finish Date <u>8/27/07</u>	
Drilling Contractor <u>Geologic</u>		Driller's Name <u>Steve</u>	Rig Type <u>Geoprobe</u>	
Drilling Method <u>Direct Push</u>		Protection Level <u>D</u>	P.I.D. (eV)	Casing Size <u>2"</u>
Soil Drilled <u>16'</u>	Rock Drilled	Total Depth <u>16</u>	Depth to Groundwater/Date <u>14</u>	
		Piez <input type="checkbox"/> Well <input type="checkbox"/> Boring <input checked="" type="checkbox"/>		

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)		Lab Tests
									PI Meter Field Scan	PI Meter Head Space	
0-4	4.0/2.5	Soil				0-4, gravel, little to fine black, clay & s.	GW			0.1 ppm	
4-8	4.2/2.6	Soil				4-8, layered, clay, medium to stiff	CL			0.9 ppm 1.1 ppm	
8-12	4.0/3.5	Soil				8-12, silty clay, brown loose to compact	OL			0.0 ppm	
12-16	4.0/0.0	Soil				no recovery, hit rock				0.0 ppm	

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

# Test Boring Log

Project <b>ATR 3</b>		Boring/Well No. <b>GW 38</b>	Project No. <b>362062057</b>	
Client <b>NYSDEC</b>	Site <b>Elmira</b>		Sheet No. <b>1</b> of <b>1</b>	
Logged By <b>MAW</b>	Ground Elevation	Start Date <b>8/22/07</b>	Finish Date	
Drilling Contractor <b>Geolog. L</b>		Driller's Name <b>Steel</b>	Rig Type <b>Geopunk</b>	
Drilling Method <b>Direct Push</b>	Protection Level <b>D</b>	P.I.D. (eV)	Casing Size	Auger Size
Soil Drilled <b>16'</b>	Rock Drilled	Total Depth <b>~16'</b>	Depth to Groundwater/Date <b>14'</b>	Piez <input type="checkbox"/> Well <input type="checkbox"/> Boring <input checked="" type="checkbox"/>

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			Lab Tests
									(ppm)			
									PI Meter Field Scan	PI Meter Head Space		
0-4	4022	Soil				0-4-6w, trace of clay very loose, wh. fish to gray dry	GW		0.0 ppm			
4-8	4017.5	Soil				4-8, S. lty clay, layered medium brown, dry	OL		0.0 ppm			
8-12	4013.5	Soil				8-12, S. lty clay, gray to brown, medium stiff, dry 1.1% silty calc	OL		0.1 ppm			
12-16	4012.5	Soil				12-16, wet, weathered S. lty clay, soft,	OL		3 ppm			

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

ABB Environmental Services, Inc.

# Test Boring Log

Project <i>Assoc. Levee</i>		Boring/Well No. <i>39</i>		Project No. <i>3612062051</i>	
Client <b>NYSDEC</b>		Site <i>Assoc. Levee Elmira NY</i>		Sheet No. <i>1</i> of <i>1</i>	
Logged By <i>MAW</i>		Ground Elevation		Start Date <i>8/27/08</i>	
Drilling Contractor <i>Geoprobe</i>		Driller's Name <i>Steve</i>		Rig Type <i>Geoprobe</i>	
Drilling Method <i>Direct Push</i>		Protection Level <i>0</i>		P.I.D. (eV) <i>580 B</i>	
Casing Size <i>2"</i>		Auger Size			
Soil Drilled <i>16'</i>		Rock Drilled		Total Depth <i>16'</i>	
Depth to Groundwater/Date <i>~14'</i>		Piez		Well	
<input type="checkbox"/>		<input type="checkbox"/>		<input checked="" type="checkbox"/>	

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)			Lab Tests
									PI Meter Field Scan	PI Meter Head Space		
0-1	4.0/28	Soil				0-1; GP, silty, little to little fine, black to brown	GP		0.0 ppm			
1-2	4.0/35	Soil				2-4; GP, silty, brown						
4-8						4-8; weathered clay, medium brown, layered fair to good dry	CH		1.0 ppm			
8-12	4.0/33	Soil				8-12 - S. lty clay, weathered rock, brown, base to compact	CH		0.1 ppm			
12-16	4.0/1	Soil				12-16 - S. lty, weathered rock wet moist	CH		167 ppm			

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

ABB Environmental Services, Inc.

# Test Boring Log

Project <b>ATRS</b>		Boring/Well No. <b>GW 417</b>		Project No. <b>3612062059</b>	
Client <b>NYSDEC</b>		Site <b>ATRS</b>		Sheet No. <b>1</b> of <b>1</b>	
Logged By <b>man</b>		Ground Elevation		Start Date <b>8/29</b>	
				Finish Date <b>8/29/07</b>	
Drilling Contractor <b>Geologic</b>		Driller's Name <b>Steve</b>		Rig Type <b>Geoprob</b>	
Drilling Method <b>direct push</b>		Protection Level <b>D</b>		Casing Size <b>2"</b>	
Soil Drilled <b>16'</b>		Rock Drilled		Auger Size	
		Total Depth <b>~16'</b>		Depth to Groundwater/Date <b>~15'</b>	
				Piez <input type="checkbox"/> Well <input type="checkbox"/> Boring <input type="checkbox"/>	

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			Lab Tests
									(ppm)			
									PI Meter Field Scan	PI Meter Head Space		
0-1	4.0/2.5	Soil				0-1 - silty gravel, loose, little clayey dry, grayish to brown	GM		0.0			
1-4	4.0/2.5	Soil				1-4, Inorganic, silty, dry brown	MC		0.0			
4-8						4-8, Fine grained soil rocky clay dry, brown	CL		1.0			
8-10	4.0/1.5	Soil				8-10, moist, silty, clay damp	CH		0.1			
10-12						10-12, moist, silty clay medium stiff			0.1			
12-16	4.0/1.0	Soil				12-16, wet, brownish to gray clay, fair to good silty plastic	CH		0.0			

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

ABB Environmental Services, Inc.

# Test Boring Log

Project <i>ATR 5</i>		Boring/Well No. <i>GW 48</i>		Project No. <i>3612062051</i>	
Client <b>NYSDEC</b>		Site <i>Elmira</i>		Sheet No. <i>1</i> of <i>1</i>	
Logged By <i>MAW</i>		Ground Elevation		Start Date <i>8/25/07</i>	
Drilling Contractor <i>Ceclog</i>		Driller's Name <i>Steve</i>		Rig Type <i>Geoprobe</i>	
Drilling Method <i>Direct Run</i>		Protection Level <i>D</i>		Casing Size	
Soil Drilled <i>16'</i>		Rock Drilled		Total Depth <i>16'</i>	
		Depth to Groundwater/Date <i>~15'</i>		Piez <input type="checkbox"/> Well <input type="checkbox"/> Boring <input checked="" type="checkbox"/>	

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			Lab Tests
									(ppm)			
									PI Meter Field Scan	PI Meter Head Space		
0-1	4012.5	Soil				0-1; brownish gravel poorly graded, wet, dry	GM		0.0			
1-4	4011.9	Soil				1-4; somewhat, sand mixed in, dry	GM		0.0			
4-8	4011.9	Soil				4-8; gravel, poorly graded sands, little no fines	SP		0.0			
8-10	4012.0	Soil				8-10; silty gravel, little clay, damp	GC		0.0			
10-12	4011.5	Soil				10-12; moist to wet, clay, silty	ML		0.0			
12-16						12-16; moist, silty, gravel, clay						

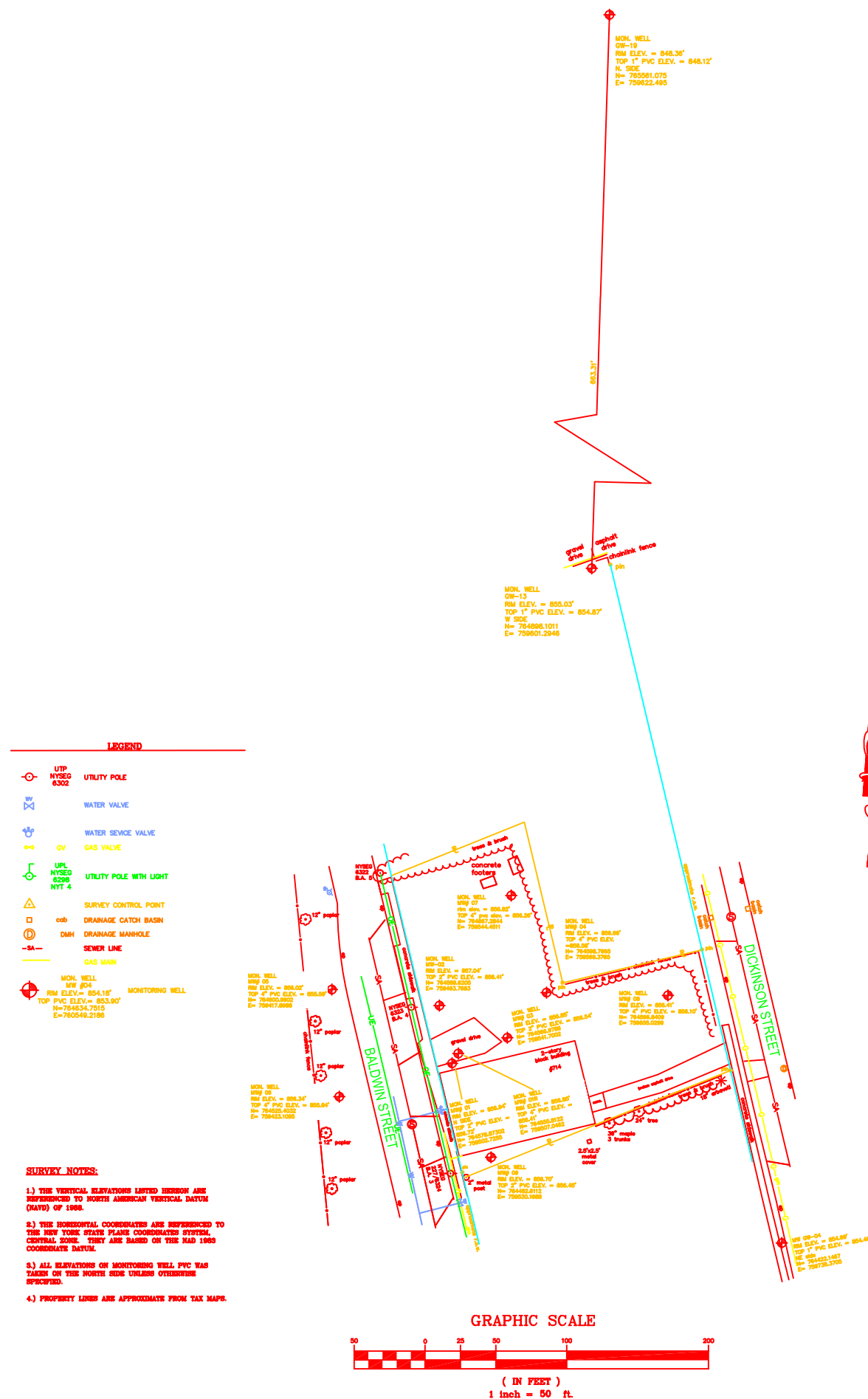
FIGURE 4-6  
TYPICAL TEST BORING LOG  
NYSDEC QUALITY ASSURANCE PROGRAM PLAN

ABB Environmental Services, Inc.

## **APPENDIX D**

### **SITE SURVEY**



[illegible]

2/07	ADDED WELL GW-19	CR
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### 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.



JOSEPH C. LU ENGINEERING AND  
LAND SURVEYING, P.C.  
2230 Penfield Road  
Penfield, New York 14526  
(585) 377-1450  
FAX: (585) 377-1266

PROJECT:

ASSOCIATED TEXTILE  
RENTAL SERVICES  
ELMIRA, NY

**CLIENT:**

MACTEC ENGINEERING, INC.  
511 CONGRESS STREET  
PORTLAND, ME 04101

**DRAWING TITLE:**

## Environmental MAP

DESIGNED BY:	SCALE: 1" = 50'
DRAWN BY: AEM	DATE: 01/02/07
CHECKED BY: CJR	PROJECT No. 36414-02

SHEET 1 OF 1	DRAWING No. S-1
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## **APPENDIX E**

### **DATA USABILITY SUMMARY REPORT**

**DATA USABILITY SUMMARY REPORT**  
**2006 GROUNDWATER SAMPLING EVENT**  
**ASSOCIATED TEXTILES**  
**ELMIRA, NEW YORK**

**Introduction:**

Fifty-three groundwater samples were collected by MACTEC at the Associated Textiles site in November 2006. Samples were analyzed on-site by MACTEC for volatile organic compounds using the Photovac portable Gas Chromatograph (GC) Model 10S50 by the analytical method described in EPA SOP #2109. The samples were analyzed for a short-list of compounds which included benzene, cis-1,2-dichloroethene, trichloroethene, tetrachloroethene, and vinyl chloride.

A project chemist review was completed based on NYSDEC Division of Environmental Remediation guidance for Data Usability Summary Reports (NYSDEC, 2002). The project chemist review included evaluations of sample collection, holding times, QC data (blanks and duplicates), data transcription, electronic data reporting, and calculations. With the exception of the items discussed below, results are interpreted to be usable as reported by the on-site laboratory. The following laboratory or data validation qualifiers are used in the final data presentation.

U = target analyte is not detected above the reported detection limit

A summary of the final on-site field sample data is presented in Appendix E, Table 1.1. Results are interpreted to be usable as reported by the laboratory unless discussed in the following sections.

**Groundwater Samples - Volatile Organic Compounds**

**Blank Contamination**

The equipment blanks associated with all of the onsite VOC samples reported detections of vinyl chloride (6.9 µg/L and 12 µg/L). An action level was calculated at five times the highest detection reported in the blanks. The results for vinyl chloride in samples ATDCG2101801XF, ATDCG2201801XF, ATDCG02301801XF, ATGW00102901XF, ATGW00201801XF, ATGW00401701XF, ATGW00601701XF, ATGW00602801DF, ATGW00602801XF,

ATGW00702801XF, ATGW00802701XF, ATGW00901701XF, ATGW01002201XF, ATGW01102001XF, ARGW01301701XF, ATGW01302301XF, ATGW01401601XF, ATGW01402901XF, ATMW00101701XF, ATMW00401601XF, TREE-1, TREE-2, TREE-3, and TREE-4 were less than the action level and were qualified as non-detect (U).

#### On-site/Off-site Comparison

Split sample results obtained from the off-site laboratory were compared to the results of the on-site laboratory. Relative percent differences (RPDs) were calculated to determine how well the results correlate. Forty-nine water splits were collected.

At five of the forty-nine sample locations detections of benzene were reported by both the on-site and off-site laboratories. Three of the five locations had relative percent differences that were greater than the control limit of 30. The majority of the benzene results were reported as non-detect by both the on-site and off-site laboratories.

At twenty-five of the forty-nine sample locations detections of cis-1,2-dichloroethene were reported by both laboratories. Only five of the twenty-five locations had RPDs that were greater than the control limit of 30 which indicates that there was good agreement between the data sets for cis-1,2-dichloroethene.

At fifteen of forty-nine sample locations detections of tetrachloroethene were reported by both the on-site and off-site laboratories. At all fifteen locations, the relative percent differences were found to be greater than the control limit of 30. This indicates poor correlation between the on-site and off-site data results. The on-site laboratory reported higher results for detections that were greater than two times the reporting limit while the off-site laboratory reported higher results for detections that were less than the reporting limit. At several locations, trace concentrations of tetrachloroethene were reported by the off-site laboratory and were reported as non-detect by the on-site laboratory. This may be due to higher on-site detection limits.

At fifteen of the forty-nine sample locations, detections of trichloroethene were reported by both the on-site and off-site laboratories. At eleven of the fifteen locations, the RPDs were found to be outside the control limit of 30 which indicates poor correlation between onsite and off-site results. Again, results that were greater than the reporting limit tended to be reported as higher by the on-

site laboratory and results less than the reporting limit tended to be reported higher by the off-site laboratory.

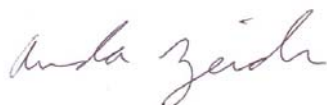
At eight of the forty-nine sample locations, detections of vinyl chloride were reported by both the on-site and off-site laboratories. At all eight locations the RPDs were found to be near or over 100 percent which indicates there was very poor correlation between the on-site and off-site data results. Also at all eight locations, the results reported by the on-site laboratory were significantly higher than the off-site laboratory. There were also several location where the off-site laboratory reported trace detections of the vinyl chloride when the on-site laboratory did not. This may be due to lower detection limits reported by the off-site laboratory.

**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: Amanda Zeidler

Signature \_\_\_\_\_

Date June 4, 2007

**Appendix E**  
**Table 1.1: Onsite VOC Results**

Parameter Name	Lab Sample Id		ATDCG2101801XF		ATDCG2201801XF		ATDCG2301801XF		ATDCMW101801XF		ATDCMW202101XF		ATDCMW302101XF	
	Loc Name		GW-021		GW-022		GW-023		MW-101		MW-002		MW-003	
	Field Sample Id		ATDCG2101801XF		ATDCG2201801XF		ATDCG2301801XF		ATDCMW101801XF		ATDCMW202101XF		ATDCMW302101XF	
	Field Sample Date		11/9/2006		11/10/2006		11/10/2006		10/31/2006		11/10/2006		11/10/2006	
	Qc Code		FS		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Benzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	180		50		52		5.7		88		19			
Tetrachloroethene	240		85		160		6.4		650		73			
Trichloroethene	1	U	1	U	18		8		37		1	U		
Vinyl chloride	30	U	8.1	U	5.5	U	1	U	1	U	1	U		

Notes:  
 Results in micrograms per liter (µg/L)  
 Samples analyzed onsite by MACTEC for VOCs by EPA SOP #2109  
 QC Code:  
     FS = Field Sample  
     FD = Field Duplicate  
 Qualifiers:  
     U = Not detected at a concentration greater than the RL

Appendix E  
 Table 1.1: Onsite VOC Results

Parameter Name	Lab Sample Id		ATDCMW401801XF		ATDCMW502001XF		ATDCW1001501XF		ATEB001XXX01XF		ATEB002XXX01XF		ATGW00101901DF	
	Loc Name		MW-004		MW-005		MW-010		QC		QC		GW-001	
	Field Sample Id		ATDCMW401801XF		ATDCMW502001XF		ATDCW1001501XF		ATEB001XXX01XF		ATEB002XXX01XF		ATGW00101901DF	
	Field Sample Date		11/9/2006		11/10/2006		11/10/2006		11/7/2006		11/7/2006		11/6/2006	
	Qc Code		FS		FS		FS		FS		FS		FD	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Benzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	32		1300		1	U	1	U	1	U	1	U	37	
Tetrachloroethene	3600		33		5.4		1	U	1	U	1	U	1	U
Trichloroethene	2.1		1	U	1	U	1	U	1	U	1	U	24	
Vinyl chloride	1	U	340		1	U	6.9	U	12	U	67			

Notes:  
 Results in micrograms per liter (µg/L)  
 Samples analyzed onsite by MACTEC for VOCs by EPA SOP #2109  
 QC Code:  
     FS = Field Sample  
     FD = Field Duplicate  
 Qualifiers:  
     U = Not detected at a concentration greater than the RL

**Appendix E**  
**Table 1.1: Onsite VOC Results**

Parameter Name	Lab Sample Id		ATGW00101901XF		ATGW00102901XF		ATGW00201801XF		ATGW00301801XF		ATGW00401701XF		ATGW00501701XF	
	Loc Name		GW-001		GW-001		GW-002		GW-003		GW-004		GW-005	
	Field Sample Id		ATGW00101901XF		ATGW00102901XF		ATGW00201801XF		ATGW00301801XF		ATGW00401701XF		ATGW00501701XF	
	Field Sample Date		11/6/2006		11/6/2006		11/10/2006		11/10/2006		11/8/2006		11/7/2006	
	Qc Code		FS		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Benzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	38		52		220		1	U	48		34			
Tetrachloroethene	1	U	2.1		6700		1	U	4		1.2			
Trichloroethene	24		13		2900		1	U	22		1	U		
Vinyl chloride	67		46	U	34	U	1	U	14	U	65			

Notes:

Results in micrograms per liter (µg/L)

Samples analyzed onsite by MACTEC for VOCs by EPA SOP #2109

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the RL



Appendix E  
 Table 1.1: Onsite VOC Results

Parameter Name	Lab Sample Id		ATGW00502801XF		ATGW00601701XF		ATGW00602801DF		ATGW00602801XF		ATGW00701601XF		ATGW00701701XF	
	Loc Name		GW-005		GW-006		GW-006		GW-006		GW-007		GW-007	
	Field Sample Id		ATGW00502801XF		ATGW00601701XF		ATGW00602801DF		ATGW00602801XF		ATGW00701601XF		ATGW00701701XF	
	Field Sample Date		11/7/2006		11/7/2006		11/7/2006		11/7/2006		11/7/2006		11/7/2006	
	Qc Code		FS		FS		FD		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Benzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	76		1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	1.5		1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene	2.5		1	U	1	U	1	U	1	U	1	U	1	U
Vinyl chloride	84		30	U	15	U	3.9	U	1	U	65			

Notes:

Results in micrograms per liter (µg/L)

Samples analyzed onsite by MACTEC for VOCs by EPA SOP #2109

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the RL

Appendix E  
 Table 1.1: Onsite VOC Results

Parameter Name	Lab Sample Id	ATGW00702801XF		ATGW00802001XF		ATGW00802701XF		ATGW00901701XF		ATGW00902801XF		ATGW01002201XF	
	Loc Name	GW-007		GW-008		GW-008		GW-009		GW-009		GW-010	
	Field Sample Id	ATGW00702801XF		ATGW00802001XF		ATGW00802701XF		ATGW00901701XF		ATGW00902801XF		ATGW01002201XF	
	Field Sample Date	11/7/2006		11/6/2006		11/6/2006		11/7/2006		11/7/2006		11/6/2006	
	Qc Code	FS		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	
Benzene	1	U	1	U	1	U	1	U	1	U	1	U	
Cis-1,2-Dichloroethene	1	U	1	U	1	U	150		9.1		64		
Tetrachloroethene	1	U	1	U	1	U	1	U	1	U	1	U	
Trichloroethene	1	U	1	U	1	U	11		1	U	1	U	
Vinyl chloride	7.9	U	1	U	39	U	38	U	64		28	U	

Notes:

Results in micrograms per liter (µg/L)

Samples analyzed onsite by MACTEC for VOCs by EPA SOP #2109

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the RL

**Appendix E**  
**Table 1.1: Onsite VOC Results**

Parameter Name	Lab Sample Id		ATGW01002901XF		ATGW01101701XF		ATGW01102001XF		ATGW01301701XF		ATGW01302301XF		ATGW01401601XF	
	Loc Name		GW-010		GW-011		GW-011		GW-013		GW-013		GW-014	
	Field Sample Id		ATGW01002901XF		ATGW01101701XF		ATGW01102001XF		ATGW01301701XF		ATGW01302301XF		ATGW01401601XF	
	Field Sample Date		11/6/2006		11/7/2006		11/7/2006		11/7/2006		11/7/2006		11/7/2006	
	Qc Code		FS		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Benzene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cis-1,2-Dichloroethene	49		39		180		20		53		1	U	1	U
Tetrachloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene	1	U	14		1.4		1	U	1	U	1	U	1	U
Vinyl chloride	76		1	U	35	U	15	U	8	U	20	U		

Notes:

Results in micrograms per liter (µg/L)

Samples analyzed onsite by MACTEC for VOCs by EPA SOP #2109

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the RL

Appendix E  
 Table 1.1: Onsite VOC Results

Parameter Name	Lab Sample Id	ATGW01402901XF		ATGW01501601XF		ATGW01801101XF		ATGW01901301XF		ATGW02002601XF		ATGW02003401XF	
	Loc Name	GW-014		GW-015		GW-018		GW-019		GW-020		GW-020	
	Field Sample Id	ATGW01402901XF		ATGW01501601XF		ATGW01801101XF		ATGW01901301XF		ATGW02002601XF		ATGW02003401XF	
	Field Sample Date	11/7/2006		11/8/2006		11/9/2006		11/9/2006		11/9/2006		11/9/2006	
	Qc Code	FS		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	
Benzene	1	U	1	U	1	U	1	U	1	U	1	U	
Cis-1,2-Dichloroethene	1.3		1	U	1	U	1	U	1	U	1	U	
Tetrachloroethene	1	U	1	U	1	U	1	U	1	U	1	U	
Trichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	
Vinyl chloride	25	U	1	U	1	U	1	U	1	U	130		

Notes:  
 Results in micrograms per liter (µg/L)  
 Samples analyzed onsite by MACTEC for VOCs by EPA SOP #2109  
 QC Code:  
     FS = Field Sample  
     FD = Field Duplicate  
 Qualifiers:  
     U = Not detected at a concentration greater than the RL

Appendix E  
 Table 1.1: Onsite VOC Results

Parameter Name	Lab Sample Id		ATMW00101701XF		ATMW001R1701XF		ATMW00201601XF		ATMW00301601XF		ATMW00401601XF		ATMW00501601XF	
	Loc Name		MW-001		MW-001		MW-002		MW-003		MW-004		MW-005	
	Field Sample Id		ATMW00101701XF		ATMW001R1701XF		ATMW00201601XF		ATMW00301601XF		ATMW00401601XF		ATMW00501601XF	
	Field Sample Date		11/7/2006		11/9/2006		11/7/2006		11/6/2006		11/6/2006		11/8/2006	
	Qc Code		FS		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Benzene	1	U	91		1600		1	U	180		1	U		
Cis-1,2-Dichloroethene	1	U	32		1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Vinyl chloride	14	U	300		2200		1	U	48	U			1	U

Notes:

Results in micrograms per liter (µg/L)

Samples analyzed onsite by MACTEC for VOCs by EPA SOP #2109

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the RL

**Appendix E**  
**Table 1.1: Onsite VOC Results**

Parameter Name	Lab Sample Id	ATMW00601601XF		ATMW00801601DF		ATMW00801601XF		ATMW00901701XF		TREE-1		TREE-2	
	Loc Name	MW-006		MW-008		MW-008		MW-009		TREE		TREE	
	Field Sample Id	ATMW00601601XF		ATMW00801601DF		ATMW00801601XF		ATMW00901701XF		TREE-1		TREE-2	
	Field Sample Date	11/7/2006		11/8/2006		11/8/2006		11/9/2006		11/6/2006		11/6/2006	
	Qc Code	FS		FD		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	
Benzene	65		1	U	1	U	15		1	U	1	U	
Cis-1,2-Dichloroethene	360		1	U	1	U	49		1	U	1	U	
Tetrachloroethene	1	U	1	U	1	U	3.3		1	U	1	U	
Trichloroethene	1	U	2.3		3.5		1	U	1	U	1	U	
Vinyl chloride	65		1	U	1	U	1	U	7.9	U	0.3	U	

Notes:

Results in micrograms per liter (µg/L)

Samples analyzed onsite by MACTEC for VOCs by EPA SOP #2109

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the RL

**Appendix E**  
**Table 1.1: Onsite VOC Results**

Parameter Name	Lab Sample Id	TREE-3		TREE-4	
	Loc Name	TREE		TREE	
	Field Sample Id	TREE-3		TREE-4	
	Field Sample Date	11/6/2006		11/6/2006	
	Qc Code	FS		FS	
		Result	Qualifier	Result	Qualifier
Benzene		1	U	1	U
Cis-1,2-Dichloroethene		1	U	1	U
Tetrachloroethene		1	U	1	U
Trichloroethene		1	U	1	U
Vinyl chloride		3.6	U	2.5	U

Notes:  
 Results in micrograms per liter (µg/L)  
 Samples analyzed onsite by MACTEC for VOCs by EPA SOP #2109  
 QC Code:  
     FS = Field Sample  
     FD = Field Duplicate  
 Qualifiers:  
     U = Not detected at a concentration greater than the RL

**DATA USABILITY SUMMARY REPORT**  
**NOVEMBER 2006 SAMPLING PROGRAM**  
**ASSOCIATED SITE**  
**REGION 8, NEW YORK**

**1.0 Introduction:**

Water, soil, and soil vapor samples were collected at the Associated Cleaners site in from October through December 2006 and submitted for off-site laboratory analyses. Samples were analyzed by CHEMTECH in Mountainside, New Jersey. A listing of samples included in this investigation is presented in Table 1. Samples were analyzed for the following parameters:

- Soil Vapor: EPA Method TO-15 for VOCs
- Water: VOCs and SVOCs by CLP OLM04.2
- Soil: VOCs by CLP OLM04.2

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).

Data validation was completed based on NYSDEC Division of Environmental Remediation guidance for Data Usability Summary Reports (NYSDEC, 1997) and USEPA Region II Guidelines (USEPA, 1993; USEPA, 1994) and the USEPA National Functional Guidelines (USEPA, 1999). Samples were reported in lab sample delivery groups (SDG) X5191, X5286, X5313, and X5403. Validation was completed by EDV, Inc. in Pittsburgh, Pennsylvania. Validation reports for each SDG are presented in Attachment 1. In addition, MACTEC validated SDG X5887 which is also included in this summary and the DUSR is presented in Attachment 1. The validation reports were reviewed by MACTEC and the reports were accepted as presented by EDV with the following modifications:

Sample ATGS00100701XX was analyzed at a dilution due to compounds that exceeded the calibration range of the instrument. The diluted methanol run reported results that were approximately fifty times higher than the results reported in the low level analytical run. Calculation checks and chromatograph reviews were completed which resulted in no errors being



found. Based on professional judgment, the results for tetrachloroethene and trichloroethene were reported from the methanol run while the remaining compounds were reported from the low level analytical run.

Results for 1,1-dichloroethene in a subset of samples were rejected due to a low laboratory control sample (LCS) recovery of 55 percent. Based on professional judgment and procedures in the USEPA National Functional Guidelines, these results were qualified estimated (UJ) in the final data set.

The relative percent difference between the matrix spike and matrix spike duplicate associated with sample ATGW01301701XX was greater than the control of 20 for acenaphthene (22). The procedures in the USEPA National Functional Guidelines indicate that only the parent sample associated with the matrix spike should be qualified as estimated (UJ) and not all samples in the SDG.

Samples ATDCMW20210XX, ATDCMW401801XX, and ATDCMW502001XX required dilutions due to results that exceeded the calibration curve. These samples also had surrogate recoveries for toluene-d8 that were less than control limits. The samples were diluted and surrogate recoveries were found to be within the calibration range of the instrument. Based on professional judgment and the desire to meet project required detection limits, results from the original analytical run were reported with the exception of the compounds that exceeded the calibration range of the instrument. Results reported from the original analytical run in samples ATDCMW20210XX, ATDCMW401801XX, and ATDCMW502001XX were qualified as estimated (J/UJ).

With the exception of the items discussed in the validation reports in Attachment 1, results are interpreted to be usable as reported by the laboratory. A summary of final sample results is presented in Appendix D. 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

### Tentatively Identified Compounds

Tentatively identified compounds (TICs) were reported in accordance with the CLP methods if detected. A summary of detected TICs is provided in Appendix E Table 1.5. The lab reported aldol condensation products and the VOC target compound toluene, o-xylene, tetrachloroethene in a subset of SVOC samples and these were rejected and deleted from the final data set. Only samples that reported TICs are included in Table 1.5.

**TABLE 1**  
**SUMMARY OF SAMPLES**

<b>SDG</b>	<b>Field Sample ID</b>	<b>Lab Sample ID</b>	<b>Method</b>	<b>Sample Date</b>	<b>Matrix</b>	<b>QC Code</b>
X5191	ATMW00501601XX	X5191-01	OLM04.2_SVOA	11/8/2006	GW	FS
X5191	ATMW00801601XX	X5191-02	OLM04.2_SVOA	11/8/2006	GW	FS
X5191	ATMW00801601XD	X5191-03	OLM04.2_SVOA	11/8/2006	GW	FD
X5191	ATGW00401701XX	X5191-04	OLM04.2_SVOA	11/8/2006	GW	FS
X5286	ATMW00301601XX	X5286-01	OLM04.2_SVOA	11/6/2006	GW	FS
X5286	ATMW00401601XX	X5286-02	OLM04.2_SVOA	11/6/2006	GW	FS
X5313	ATMW00101701XX	X5313-01	OLM04.2_SVOA	11/7/2006	GW	FS
X5313	ATMW00201601XX	X5313-02	OLM04.2_SVOA	11/7/2006	GW	FS
X5313	ATMW00601601XX	X5313-03	OLM04.2_SVOA	11/7/2006	GW	FS
X5313	ATMW00701601XX	X5313-04	OLM04.2_SVOA	11/7/2006	GW	FS
X5313	ATGW00901701XX	X5313-14	OLM04.2_SVOA	11/7/2006	GW	FS
X5313	ATGW01301701XX	X5313-18	OLM04.2_SVOA	11/7/2006	GW	FS
X5403	ATMW00901701XX	X5403-05	OLM04.2_SVOA	11/9/2006	GW	FS
X5403	ATGW02002601XX	X5403-12	OLM04.2_SVOA	11/9/2006	GW	FS
X5403	ATMW01R01701XX	X5403-19	OLM04.2_SVOA	11/9/2006	GW	FS
X5191	ATMW00501601XX	X5191-01	OLM04.2_VOA	11/8/2006	GW	FS
X5191	ATMW00801601XX	X5191-02	OLM04.2_VOA	11/8/2006	GW	FS
X5191	ATMW00801601XD	X5191-03	OLM04.2_VOA	11/8/2006	GW	FD
X5191	ATGW00401701XX	X5191-04	OLM04.2_VOA	11/8/2006	GW	FS
X5191	ATGW01501601XX	X5191-05	OLM04.2_VOA	11/8/2006	GW	FS

X5191	ATTB003XXX01XX	X5191-08	OLM04.2_VOA	11/8/2006	BW	TB
X5202	ATDCMW101801XX	X5202-01	OLM04.2_VOA	10/31/2006	GW	FS
X5286	ATMW00301601XX	X5286-01	OLM04.2_VOA	11/6/2006	GW	FS
X5286	ATMW00401601XX	X5286-02	OLM04.2_VOA	11/6/2006	GW	FS
X5286	ATGS00100701XX	X5286-03	OLM04.2_VOA	11/6/2006	SOIL	FS
X5286	ATGS00800801XX	X5286-06	OLM04.2_VOA	11/6/2006	SOIL	FS
X5286	ATGW00102001XX	X5286-07	OLM04.2_VOA	11/6/2006	GW	FS
X5286	ATGW00102001XD	X5286-08	OLM04.2_VOA	11/6/2006	GW	FD
X5286	ATGW00102901XX	X5286-09	OLM04.2_VOA	11/6/2006	GW	FS
X5286	ATGW00802001XX	X5286-10	OLM04.2_VOA	11/6/2006	GW	FS
X5286	ATGW00802701XX	X5286-11	OLM04.2_VOA	11/6/2006	GW	FS
X5286	ATGW01002201XX	X5286-12	OLM04.2_VOA	11/6/2006	GW	FS
X5286	ATGW01002901XX	X5286-13	OLM04.2_VOA	11/6/2006	GW	FS
X5286	ATTB001XXX01XX	X5286-14	OLM04.2_VOA	11/6/2006	BW	TB
X5313	ATMW00101701XX	X5313-01	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATMW00201601XX	X5313-02	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATMW00601601XX	X5313-03	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATMW00701601XX	X5313-04	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATEB001XXX01XX	X5313-05	OLM04.2_VOA	11/7/2006	BW	EB
X5313	ATGW00501701XX	X5313-06	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATGW00502801XX	X5313-07	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATEB002XXX01XX	X5313-08	OLM04.2_VOA	11/7/2006	BW	EB
X5313	ATGW00601701XX	X5313-09	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATGW00602801XD	X5313-10	OLM04.2_VOA	11/7/2006	GW	FD
X5313	ATGW00602801XX	X5313-11	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATGW00701701XX	X5313-12	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATGW00702801XX	X5313-13	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATGW00901701XX	X5313-14	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATGW00902801XX	X5313-15	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATGW01101701XX	X5313-16	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATGW01102801XX	X5313-17	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATGW01301701XX	X5313-18	OLM04.2_VOA	11/7/2006	GW	FS

X5313	ATGW01302301XX	X5313-19	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATGW01401601XX	X5313-20	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATGW01402901XX	X5313-21	OLM04.2_VOA	11/7/2006	GW	FS
X5313	ATTB002XXX01XX	X5313-22	OLM04.2_VOA	11/7/2006	BW	TB
X5403	ATDCMW202101XX	X5403-01	OLM04.2_VOA	11/10/2006	GW	FS
X5403	ATDCMW302101XX	X5403-02	OLM04.2_VOA	11/10/2006	GW	FS
X5403	ATDCMW401801XX	X5403-03	OLM04.2_VOA	11/9/2006	GW	FS
X5403	ATDCMW502001XX	X5403-04	OLM04.2_VOA	11/10/2006	GW	FS
X5403	ATMW00901701XX	X5403-05	OLM04.2_VOA	11/9/2006	GW	FS
X5403	ATGW00201801XX	X5403-06	OLM04.2_VOA	11/10/2006	GW	FS
X5403	ATGW00301801XX	X5403-07	OLM04.2_VOA	11/10/2006	GW	FS
X5403	ATGW01801101XX	X5403-08	OLM04.2_VOA	11/9/2006	GW	FS
X5403	ATGW01901301XX	X5403-11	OLM04.2_VOA	11/9/2006	GW	FS
X5403	ATGW02002601XX	X5403-12	OLM04.2_VOA	11/9/2006	GW	FS
X5403	ATGW02003401XX	X5403-13	OLM04.2_VOA	11/9/2006	GW	FS
X5403	ATDCG2101801XX	X5403-15	OLM04.2_VOA	11/9/2006	GW	FS
X5403	ATDCW1001501XX	X5403-16	OLM04.2_VOA	11/10/2006	GW	FS
X5403	ATDCG2201801XX	X5403-17	OLM04.2_VOA	11/10/2006	GW	FS
X5403	ATDCG2301801XX	X5403-18	OLM04.2_VOA	11/10/2006	GW	FS
X5403	ATMW01R01701XX	X5403-19	OLM04.2_VOA	11/9/2006	GW	FS
X5544	ATTB005XXX01XX	X5544-01	OLM04.2_VOA	11/17/2006	BW	TB
X5544	ATGW02401601XX	X5544-02	OLM04.2_VOA	11/17/2006	GW	FS
X5544	ATGW02501601XX	X5544-03	OLM04.2_VOA	11/17/2006	GW	FS
X5544	ATGW02501601XD	X5544-04	OLM04.2_VOA	11/17/2006	GW	FD
X5544	ATGW02601601XX	X5544-05	OLM04.2_VOA	11/17/2006	GW	FS
X5544	ATGW02701501XX	X5544-06	OLM04.2_VOA	11/17/2006	GW	FS
X5544	ATGW02801401XX	X5544-09	OLM04.2_VOA	11/17/2006	GW	FS
X5544	ATGW02901601XX	X5544-10	OLM04.2_VOA	11/17/2006	GW	FS
X5544	ATGW03001401XX	X5544-11	OLM04.2_VOA	11/17/2006	GW	FS
X5544	ATGW03001401XD	X5544-12	OLM04.2_VOA	11/17/2006	GW	FD
X5191	ATGV00101201XX	X5191-06	TO-15	11/8/2006	AIR	FS
X5191	ATGV00201001XX	X5191-07	TO-15	11/8/2006	AIR	FS

X5403	ATGV00301201XX	X5403-14	TO-15	11/9/2006	AIR	FS
X5887	ATSV00100101XX	X5887-1	TO-15	12/19/2006	AIR	FS

**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.

U.S. Environmental Protection Agency (USEPA), 1993. "USEPA Region II Checklist SOP HW-15"; Revision 2; May 1993.

U.S. Environmental Protection Agency (USEPA), 1994. "USEPA Region II Checklist SOP HW-18"; Revision 0; August 1994.

U.S. Environmental Protection Agency (USEPA), 1999. "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review"; Office of Emergency and Remedial Response; EPA-540/R-99/008; October 1999.

Data Validation Review: Amanda Zeidler

Signature: 

Date: 3/29/07

Quality Assurance Officer: Chris Ricardi, NRCC-EAC



Date: 3/30/07

**ATTACHMENT 1**  
**DATA VALIDATION REPORTS**

**SDG X5191**

**SDG X5286**

**SDG X5313**

**SDG X5403**

**SDG X5202 & X5544**

**SDG X5887**

# ***DATA VALIDATION REPORT***

## ***Volatile & Semi-volatile Analyses***

***SDG No. X5191  
Sampling Date: November 8, 2006***

***Submitted to:***

***MACTEC, Inc.,  
511 Congress Street  
Portland, ME 04112  
207-775-5401***

***Submitted by:***

***EDV, Inc.,  
1326 Oranewood Avenue  
Pittsburgh, PA 15216  
412-341-5281***

***January 16, 2006***

Site: Associated Textiles/NYSDEC

Client: MACTEC, Inc.

Analytical Laboratory: Chemtech  
284 Sheffield Street  
Mountainside, NJ 07092

Sample Delivery Group (SDG): X5191

Sampling Date: November 8, 2006

Analyses: Volatile

Analytical Method: CLP OLM 4.2 and USEPA TO-15

Summary of Data Validation:

The adherence of laboratory analytical performance to CLP and USEPA TO-15 Analytical Specifications were evaluated during the data validation process. The USEPA Region II's data validation SOP Checklists (SOP HW-18 Rev 0, August 1994, SOP, HW-15 Rev 2, May 1993) and the National Functional Guidelines for Organic Data Review (October 1999), were used as guidelines for data qualifications.

**Volatile:** 1,1-Dichloroethene was rejected in samples ATMW00801601XX and ATGW01501601XX due to LCS recovery issues. Several other compounds were qualified as estimated due to calibration, surrogate and or LCS issues. Some chloroform results were qualified as non-detects due to blank contamination.

**Semi-volatile:** Hexachlorocyclopentadiene and 2, 4-dinitrophenol results were qualified as estimated due to calibration issues. Some other compounds were qualified as estimated due to internal standard area issues.

The sample qualifiers applied by the data validator are in section 15.0 and Attachment A- Form 1s. The detailed discussions can be found in the report.



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## 1.0 Sample Identifications

The following table summarizes sample IDENTIFICATIONS, matrix of each sample and analyses present in the data package for each sample.

Client Sample ID	Matrix	Volatile	TO-15	Semi-volatile
<i>SDG X5191</i>				
ATMW00501601XX	WATER	X	–	X
ATMW00801601XX	WATER	X	–	X
ATMW00801601XD	WATER	X	–	X
ATGW00401701XX	WATER	X	–	X
ATGW01501601XX	WATER	X	–	–
ATGV00101201XX	AIR	–	X	–
ATGV00201001XX	AIR	–	X	–
ATTB003XXX01XX	WATER	X	–	–
<b>QC sample ID</b>	<b>Matrix</b>			
ATGV00101201XXMS	AIR	–	X	–
ATGV00101201XXMSD	AIR	–	X	–
LCS	WATER	X	–	X
LCSD	WATER	X	–	X

## 2.0 Completeness Checklist

The following table identifies the summary form information and raw data found in the data package. Form numbers shown in parentheses refer to the current U.S. EPA CLP SOW equivalent reporting of results in an alternate summary format that has been determined to be acceptable. Analyses in this data package were performed in accordance with USEPA CLP and TO-15 Methods.

Completeness Checklist

X	Case Narrative
X	Chain of Custody Records/Traffic Reports/Tracking Records
X	Preservation Information
X	Sample Cross Reference with Unique Identifiers
X	Sample Results Summary Form (Form 1/Form 1-TIC)
X	CLP Flagging used on Results Summary
X	SMC/Surrogate Results Summary (Form 2)
NR	Matrix Spike/Matrix Spike Duplicate Results Summary (Form 3)
X	Laboratory Control Sample (LCS)/ Blank Spike Results Summary (Form 3)
NR	Control Charts
X	Method/Preparation Blank Results Summary (Form 4)
X	Volatile Initial Calibration Summary (Forms 6)
X	Volatile Continuing Calibration Summary (Form 7)
X	Volatile Analytical Sequence (Form 8)
x	Internal Standard Area Summary (Form X11)
X	Raw Data (incl. IS, Surr/SMC, RT, quant. Reports, etc.)
X	Samples
X	Initial Calibration
NR	Clean-ups
X	Continuing Calibration
NR	Instrument Blanks
X	Preparation Blanks/Method Blanks
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X	Field Duplicates
X	Extraction Log Benchsheets
X	Instrument Run Logs
X	Sample Descriptions
X	Legible Pages
x	Pages in Package Numbered and in Sequence
X	Electronic Data Deliverable (EDD)

X: Included in original Data Package

NR: Not Required

O: Not Included and/or Not Available

RS: Provided as a Resubmission

X/RS: Incomplete in original data package, completed as a resubmission

### 3.0 Detection Limits

All Contract Required Detection Limits (CRDLs) were met.

### 4.0 Holding Time

Holding times were acceptable.

#### 4.1 Sample Preservation

Samples were appropriately preserved.

#### 4.2 Percent Moisture

Percent moisture is not applicable.

#### 4.3 Chain of Custody Record

Chain of Custody Record was present.

### 5.0 Calibration Quality Control

#### 5.1 Initial Calibration

Air samples-cyclohexane-31% and 4-ethyl toluene-31% recovery exceeded the 30 %RSD criterion. All results were qualified as estimated due to this anomaly.

#### 5.2 Continuing Calibration (CCAL)

VOA: The following compounds exceeded the 25% QC criterion;

Compound	%D-11/18/06
Trichlorofluoromethane	27.2

SVOA: For water samples the following %D criteria were exceeded;

Compound	%D-11/29/06 (1)	%D-11/29/06 (2)
Hexachlorocyclopentadiene	-	31.6
2,4-dinitrophenol	27.4	28.4

### 6.0 Blanks Quality Control

VOA Method blank reported acetone contamination. Qualifications were made based on trip blank contamination.

### 7.0 Surrogate Recoveries

VOA: ATMW00801601XD-85% reported recoveries below 88-100% QC limits. All compounds were qualified as estimated.

## **8.0 Accuracy**

### **8.1 Laboratory Control Samples (LCS)/Blank Spikes**

TO-15-LCS recovery for 4 ethyl toluene-140% and 1, 2, 4-trichlorobenzene-136% were above the required 65-135% QC limits.

VOA: Recovery for 1,1-dichloroethene-55% was below the required 70-145% QC limits. This resulted in this compound being rejected in samples ATMW00801601XX and ATGW01501601XX.

### **8.2 Matrix Spike/Matrix Spike Duplicates (MS/MSD)**

#### **8.2.1 Frequency**

Frequency was met.

#### **8.2.2 Recovery**

Recoveries are acceptable.

## **9.0 Precision**

### **9.1 Matrix Spike Duplicates**

The results were acceptable.

### **9.2 Matrix Duplicate**

RPDs were acceptable.

## **10.0 Field QC**

### **10.1 Field Blanks/Rinse Blanks**

There were no field blanks associated with this SDG.

### **10.2 Trip Blanks**

Trip blanks reported acetone and chloroform contamination. All detected results for these compounds were qualified as non-detects due to this anomaly.

### **10.3 Field Duplicate**

Sample ATMW00801601XD was presented as a field duplicate. The original sample is identified as ATMW00801601XX. RPDs are calculated when both original and duplicate report detects. RPDs were acceptable.

## **11.0 Internal Standards (IS)**

### **11.1 IS Area Counts**

IS area counts are acceptable.

### **11.2 Retention Time (RT)**

All RTs were within the method accepted criteria.

## **12.0 Target Compound Identification**

All target compounds identification is acceptable.

### **12.1 Tentatively Identified Compounds (TICs)**

SVOA: Some TICs were rejected since they are volatile target compounds.

## **13.0 Calculations and Transcription**

Raw data were accurately transcribed to summary data sheets.

## **14.0 Additional Comments**

2, 2, 4-Trimethylpentane in sample RCGV00101201XX was qualified as estimated "J" due to calibration range exceedance. The original analysis was performed at an elevated CRDL (10X). The sample was reanalyzed at 98X dilution in which 2, 2, 4-trimethylpentane was reported as a non-detect. Based on professional judgment and technical information the validator determined that the compound was present in the sample, but an accurate concentration was not attainable at 10X dilution, thus an estimated concentration.

## 15.0 Data Qualifier Table

Volatile

Sample Identification	Compound	Qualifier	Section Reference
ATGW00401701XX ATMW00501601XX	Trichlorofluoromethane	UJ	5.2
ATMW00501601XX ATMW01501601XX	Chloroform	U	10.2
ATMW01501601XX, ATMW00801601XD	1,1-Dichloroethene	R	8.1
ATMW00801601XD	Ethyl benzene Styrene Chloromethane Chloroethane Vinyl chloride Methylene chloride Carbon disulfide Bromoform Bromodichloromethane 1,1-Dichloroethane Trichlorofluoromethane Dichlorodifluoromethane 1,1,2-Trichloro-1,2,2-Trifluoroethane 1,2-Dichloropropane 2-Butanone 1,1,2-Trichloroethane Acetic acid, methyl ester 1,1,2,2-Tetrachloroethane o-Xylene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane Isopropylbenzene Xylene, m/p cis-1,3-Dichloropropene trans-1,3-Dichloropropene 1,4-Dichlorobenzene 1,2-Dibromoethane 1,2-Dichloroethane 4-Methyl-2-pentanone Methyl cyclohexane Toluene Chlorobenzene Cyclohexane 1,2,4-Trichlorobenzene Chlorodibromomethane Tetrachloroethene	UJ	7.0



Sample Identification	Compound	Qualifier	Section Reference
	trans-1,2-Dichloroethene 1,3-Dichlorobenzene Carbon tetrachloride 2-Hexanone Acetone Chloroform Benzene 1,1,1-Trichloroethane Bromomethane		
ATMW00801601XD	Methyl tertbutyl Ether	J	7.0
ATGV00101201XX	Cyclohexane	UJ	5.1
	4-Ethyl toluene, 1,2,4-trichlorobenzene	J	5.1/8.1
ATGV00201001XX	Cyclohexane	J	5.1/8.1
	4-Ethyl toluene	UJ	5.1/8.1

#### Semi-volatile

Sample Identification	Compound	Qualifier	Section Reference
ATGW00801601XX ATMW00501601XX, ATGW00401701XX ATGW00801601XD	2,4-Dinitrophenol	UJ	5.2
ATGW00801601XD ATGW00401701XX	Hexachlorocyclopentadiene	UJ	5.2

# ***DATA VALIDATION REPORT***

## ***Volatile & Semi-volatile Analyses***

***SDG No. X5286***

***Sampling Date: November 6, 2006***

***Submitted to:***

***MACTEC, Inc.,  
511 Congress Street  
Portland, ME 04112  
207-775-5401***

***Submitted by:***

***EDV, Inc.,  
1326 Oranewood Avenue  
Pittsburgh, PA 15216  
412-341-5281***

***January 16, 2006***

Site: Associated Textiles/NYSDEC

Client: MACTEC, Inc.

Analytical Laboratory: Chemtech  
284 Sheffield Street  
Mountainside, NJ 07092

Sample Delivery Group (SDG): X5286

Sampling Date: November 6, 2006

Analyses: Volatile and semi-volatile

Analytical Method: CLP OLM 4.2

Summary of Data Validation:

The adherence of laboratory analytical performance to CLP Analytical Specifications was evaluated during the data validation process. The USEPA Region II's data validation SOP Checklists (SOP HW-18 Rev 0, August 1994, SOP, HW-15 Rev 2, May 1993) and the National Functional Guidelines for Organic Data Review (October 1999), were used as guidelines for data qualifications.

**Volatile:** Some methylene chloride results were qualified as non-detects due to blank contamination.. Some compounds were qualified as estimated due to calibration issues. Several compounds were qualified as estimated due to surrogate recovery issues. Several other compounds were qualified as estimated due to internal standard area issues.

**Semi-volatile:** 2, 4-Dinitrophenol was qualified as estimated due to calibration issues. One bis (2-ethyl hexyl) phthalate results were qualified as non-detects due to method blank contamination.

The sample qualifiers applied by the data validator are in section 15.0 and Attachment A- Form 1s. The detailed discussions can be found in the report.

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### **List of Appendices**

- A Validated and Qualified Data Sheets (Form 1s)
- B Case Narrative and Chain of Custody

## 1.0 Sample Identifications

The following table summarizes sample IDENTIFICATIONS, matrix of each sample and analyses present in the data package for each sample.

Client Sample ID	Matrix	Volatile	Semi-volatile
<b><i>SDG X5286</i></b>			
ATMW00301601XX	WATER	X	X
ATMW00401601XX.	WATER	X	X
ATGS00100701XX	SOIL	X	–
ATGS00800801XX	SOIL	X	–
ATGW00102001XX	WATER	X	–
ATGW00102001XD	WATER	X	–
ATGW00102901XX	WATER	X	–
ATGW00802001XX	WATER	X	–
ATGW00802701XX	WATER	X	–
ATGW01002201XX	WATER	X	–
ATGW01002901XX	WATER	X	–
ATTB001XXX01XX	WATER	X	–
<b>QC sample ID</b>	<b>Matrix</b>		
ATGS00800801XXMS	SOIL	X	–
ATGS00800801XXMSD	SOIL	X	–
LCS	WATER	–	X
LCSD	WATER	–	X

## 2.0 Completeness Checklist

The following table identifies the summary form information and raw data found in the data package. Form numbers shown in parentheses refer to the current U.S. EPA CLP SOW equivalent reporting of results in an alternate summary format that has been determined to be acceptable. Analyses in this data package were performed in accordance with USEPA CLP Methods.

Completeness Checklist	
X	Case Narrative
X	Chain of Custody Records/Traffic Reports/Tracking Records
X	Preservation Information
X	Sample Cross Reference with Unique Identifiers
X	Sample Results Summary Form (Form 1/Form 1-TIC)
X	CLP Flagging used on Results Summary
X	SMC/Surrogate Results Summary (Form 2)
NR	Matrix Spike/Matrix Spike Duplicate Results Summary (Form 3)
X	Laboratory Control Sample (LCS)/ Blank Spike Results Summary (Form 3)
NR	Control Charts
X	Method/Preparation Blank Results Summary (Form 4)
X	Volatile Initial Calibration Summary (Forms 6)
X	Volatile Continuing Calibration Summary (Form 7)
X	Volatile Analytical Sequence (Form 8)
x	Internal Standard Area Summary (Form X11)
X	Raw Data (incl. IS, Surr/SMC, RT, quant. Reports, etc.)
X	Samples
X	Initial Calibration
NR	Clean-ups
X	Continuing Calibration
NR	Instrument Blanks
X	Preparation Blanks/Method Blanks
O	Other Blanks
X	LCS/Blank Spike
X	Matrix Spikes/Matrix Spike Duplicates
NR	Matrix Duplicates/Replicates
O	Field Blanks – Trip Blank
X	Field Duplicates
X	Extraction Log Benchsheets
X	Instrument Run Logs
X	Sample Descriptions
X	Legible Pages
x	Pages in Package Numbered and in Sequence
X	Electronic Data Deliverable (EDD)

X: Included in original Data Package

NR: Not Required

O: Not Included and/or Not Available

RS: Provided as a Resubmission

X/RS: Incomplete in original data package, completed as a resubmission

### 3.0 Detection Limits

All Contract Required Detection Limits (CRDLs) were met.

### 4.0 Holding Time

Holding times were acceptable.

#### 4.1 Sample Preservation

Samples were appropriately preserved.

#### 4.2 Percent Moisture

Percent moisture results were acceptable.

#### 4.3 Chain of Custody Record

Chain of Custody Record was present.

### 5.0 Calibration Quality Control

#### 5.1 Initial Calibration

The ICAL is acceptable.

#### 5.2 Continuing Calibration (CCAL)

VOA: The following compounds exceed the 25% QC criterion;

Compound	% D-11/15/06
1,1,2- Trichlorofluoromethane	27
1,1-Dichloroethene	35

SVOA: The following compounds exceed the 25% QC criterion;

Compound	% D-11/23/06
2,4-dinitrophenol	37.4

### 6.0 Blanks Quality Control

VOA: Method blank reported acetone and methylene chloride contamination. All affected detected results for these compounds were qualified as non-detects due to this anomaly. See also Section 10.2.

SVOA: Method blank reported bis (2-ethyl hexyl) phthalate contamination at 3.1µg/L. This resulted in associated detected results for this compound being qualified as a non-detect at CRDL.

### 7.0 Surrogate Recoveries

Several surrogate recoveries were outside their required QC limits and this resulted in qualification of some sample results as estimated. See Section 15.0.



## **8.0 Accuracy**

### **8.1 Laboratory Control Samples (LCS)/Blank Spikes**

LCS recoveries were acceptable.

### **8.2 Matrix Spike/Matrix Spike Duplicates (MS/MSD)**

#### **8.2.1 Frequency**

Frequency was met

#### **8.2.2 Recovery**

Recoveries were acceptable.

## **9.0 Precision**

### **9.1 Matrix Spike Duplicates**

The results were acceptable.

### **9.2 Matrix Duplicate**

RPDs were acceptable.

## **10.0 Field QC**

### **10.1 Field Blanks/Rinse Blanks**

There were no field blanks associated with this SDG.

### **10.2 Trip Blanks**

Trip blanks reported low levels of acetone and methylene contamination. All affected associated compounds were qualified as non-detects at CRDL.

### **10.3 Field Duplicate**

Sample ATGW00102001XD was presented as a field duplicate. The original sample is identified as ATGW00102001XX. RPDs are calculated when both original and duplicate report detects. RPDs were acceptable.

## **11.0 Internal Standards (IS)**

### **11.1 IS Area Counts**

VOA: IS area count for 1,4-difluorobenzene in sample ATGW01002201XXRE was below the required QC limits. All affected samples were qualified as estimated due to this anomaly.

## **11.2 Retention Time (RT)**

All RTs were within the method accepted criteria.

## **12.0 Target Compound Identification**

All target compounds identification is acceptable.

### **12.1 Tentatively Identified Compounds (TICs)**

TICs were acceptable.

## **13.0 Calculations and Transcription**

Raw data were accurately transcribed to summary data sheets.

## **14.0 Additional Comments**

The laboratory experienced severe difficulty performing on some several groundwater samples and on the LCS. These samples reported low surrogate recoveries and upon reanalysis they reported high surrogate recoveries. This is indicative of a systematic problem with the laboratory.

## 15.0 Data Qualifier Table

### Volatile

Sample Identification	Compound	Qualifier	Section Reference
ATMW00401601XX	Cyclohexane, methyl cyclohexane, benzene	J	7.0
ATGW00102001XX, ATGW00102001XD ATGW00102901XX ATGW00802001XXRE ATGW00802701XX ATGW01002201XXRE ATGW01002901XXRE	1,1,2-Trichlorotrifluoroethane, 1,1-dichloroethene	UJ	5.2
ATGS00800801XX, ATGS00100701XX	Methylene chloride	U	6.0
ATGW00102001XD, ATGW01002901XXRE	Cis-1,2-dichloroethene, trichloroethene	J	7.0
ATMW00401601XX	Acetone	U	10.2
ATGW01002201XXRE	2-Butanone, carbon tetrachloride, 1,1,1-trichloroethane, benzene, 1,2-dichloroethane,, 1,2-dichloropropane, Bromodichloromethane, trans-1,3-dichloropropene, cis-1,3-dichloropropene, 1,1,2-trichloroethane, dibromochloromethane, 1,2-dibromothane, bromoform	UJ	11.1

### Semi-volatile

Sample Identification	Compound	Qualifier	Section Reference
ATMW00301601XX, ATMW00401601XX	2,4-Dinitrophenol,	UJ	5.2
ATMW00301601XX	Bis (2-ethyl hexyl) phthalate	U	6.0

# ***DATA VALIDATION REPORT***

## ***Volatile & Semi-volatile Analyses***

***SDG No. X5313***

***Sampling Date: November 7, 2006***

***Submitted to:***

***MACTEC, Inc.,  
511 Congress Street  
Portland, ME 04112  
207-775-5401***

***Submitted by:***

***EDV, Inc.,  
1326 Oranewood Avenue  
Pittsburgh, PA 15216  
412-341-5281***

***January 16, 2006***

Site: Associated Textiles/NYSDEC

Client: MACTEC, Inc.

Analytical Laboratory: Chemtech  
284 Sheffield Street  
Mountainside, NJ 07092

Sample Delivery Group (SDG): X5313

Sampling Date: November 7, 2006

Analyses: Volatile and semi-volatile

Analytical Method: CLP OLM 4.2 and USEPA TO-15

Summary of Data Validation:

The adherence of laboratory analytical performance to CLP Analytical Specifications was evaluated during the data validation process. The USEPA Region II's data validation SOP Checklists (SOP HW-18 Rev 0, August 1994, SOP, HW-15 Rev 2, May 1993) and the National Functional Guidelines for Organic Data Review (October 1999), were used as guidelines for data qualifications.

**Volatile:** Bromomethane and trichlorofluoromethane results in some samples were qualified as estimated due to calibration exceedance. All compounds in sample ATGW00501701XX were qualified as estimated due to surrogate recovery issues. Tert methylethyl ether and cis-1,2-dichloroethene results in some samples were qualified as estimated due to surrogate recovery issues.

**Semi-volatile:** Bis (2-ethyl hexyl) phthalate in some samples were qualified as non-detects due to method blank contamination. Acenaphthene results in all samples were qualified as estimated due to precision issues.

The sample qualifiers applied by the data validator are in section 15.0 and Attachment A- Form 1s. The detailed discussions can be found in the report.

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<b>10.0</b>	<b>Field QC.....</b>	<b>4</b>
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<b>12.0</b>	<b>Target Compound Identification.....</b>	<b>5</b>
	12.1 Tentatively Identified Compounds (TICs) .....	5
<b>13.0</b>	<b>Calculations and Transcription.....</b>	<b>5</b>
<b>14.0</b>	<b>Additional Comments .....</b>	<b>5</b>
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### **List of Appendices**

- A Validated and Qualified Data Sheets (Form 1s)
- B Case Narrative and Chain of Custody

## 1.0 Sample Identifications

The following table summarizes sample IDENTIFICATIONS, matrix of each sample and analyses present in the data package for each sample.

Client Sample ID	Matrix	Volatile	Semi-volatile
<b><i>SDG X5313</i></b>			
ATMW00101701XX	WATER	X	X
ATMW00201601XX	WATER	X	X
ATMW00601601XX	WATER	X	X
ATMW00701601XX	WATER	X	X
ATEB001XXX01XX	WATER	X	–
ATGW00501701XX	WATER	X	–
ATGW00502801XX	WATER	X	–
ATEB002XXX01XX	WATER	X	–
ATGW00601701XX	WATER	X	–
ATGW00602801XD	WATER	X	–
ATGW00602801XX	WATER	X	–
ATGW00701701XX	WATER	X	–
ATGW00702801XX	WATER	X	–
ATGW00901701XX	WATER	X	X
ATGW00902801XX	WATER	X	–
ATGW01101701XX	WATER	X	–
ATGW01102801XX	WATER	X	–
ATGW01301701XX	WATER	X	X
ATGW01302301XX	WATER	X	–
ATGW01401601XX	WATER	X	–
ATGW01402901XX	WATER	X	–
ATTB002XXX01XX	WATER	X	–
<b>QC sample ID</b>	<b>Matrix</b>		
LCS	WATER	X	X
LCSD	WATER	X	–
ATGW01301701XXMS	WATER	–	X
ATGW01301701XXMSD	WATER	–	X



## 2.0 Completeness Checklist

The following table identifies the summary form information and raw data found in the data package. Form numbers shown in parentheses refer to the current U.S. EPA CLP SOW equivalent reporting of results in an alternate summary format that has been determined to be acceptable. Analyses in this data package were performed in accordance with USEPA CLP Method.

Completeness Checklist	
X	Case Narrative
X	Chain of Custody Records/Traffic Reports/Tracking Records
X	Preservation Information
X	Sample Cross Reference with Unique Identifiers
X	Sample Results Summary Form (Form 1/Form 1-TIC)
X	CLP Flagging used on Results Summary
X	SMC/Surrogate Results Summary (Form 2)
NR	Matrix Spike/Matrix Spike Duplicate Results Summary (Form 3)
X	Laboratory Control Sample (LCS)/ Blank Spike Results Summary (Form 3)
NR	Control Charts
X	Method/Preparation Blank Results Summary (Form 4)
X	Volatile Initial Calibration Summary (Forms 6)
X	Volatile Continuing Calibration Summary (Form 7)
X	Volatile Analytical Sequence (Form 8)
x	Internal Standard Area Summary (Form X11)
X	Raw Data (incl. IS, Surr/SMC, RT, quant. Reports, etc.)
X	Samples
X	Initial Calibration
NR	Clean-ups
X	Continuing Calibration
NR	Instrument Blanks
X	Preparation Blanks/Method Blanks
O	Other Blanks
X	LCS/Blank Spike
X	Matrix Spikes/Matrix Spike Duplicates
NR	Matrix Duplicates/Replicates
O	Field Blanks – Trip Blank
X	Field Duplicates
X	Extraction Log Benchsheets
X	Instrument Run Logs
X	Sample Descriptions
X	Legible Pages
x	Pages in Package Numbered and in Sequence
X	Electronic Data Deliverable (EDD)

X: Included in original Data Package

NR: Not Required

O: Not Included and/or Not Available

RS: Provided as a Resubmission

X/RS: Incomplete in original data package, completed as a resubmission

### 3.0 Detection Limits

All Contract Required Detection Limits (CRDLs) were met.

### 4.0 Holding Time

Holding times were acceptable.

#### 4.1 Sample Preservation

Samples were appropriately preserved.

#### 4.2 Percent Moisture

Percent moisture is not applicable.

#### 4.3 Chain of Custody Record

Chain of Custody Record was present.

### 5.0 Calibration Quality Control

#### 5.1 Initial Calibration

ICAL was acceptable.

#### 5.2 Continuing Calibration (CCAL)

VOA: The following %D criteria were exceeded;

Compound	% D-110/16/06	% D-11/18/06
Bromomethane	32	-
Trichlorofluoromethane	-	27.2

All associated results were qualified as estimated "UJ" to indicate they are estimated due to this anomaly.

### 6.0 Blanks Quality Control

VOA: Method blank reported acetone contamination. There were no detects thus no qualification was necessary.

SVOA: Method blank reported bis (2-ethyl hexyl) phthalate contamination at 3.1µg/L. This resulted in associated detected results for this compound being qualified as a non-detect at CRDL.

### 7.0 Surrogate Recoveries

VOA: Several surrogate recoveries were outside their required QC limits and this resulted in some sample results being qualified as estimated. See Section 15.0.

### 8.0 Accuracy

#### 8.1 Laboratory Control Samples (LCS)/Blank Spikes

LCS recoveries were acceptable.

## **8.2 Matrix Spike/Matrix Spike Duplicates (MS/MSD)**

### **8.2.1 Frequency**

Frequency was met

### **8.2.2 Recovery**

Recoveries were acceptable.

## **9.0 Precision**

### **9.1 Matrix Spike Duplicates**

SVOA-RPD for acenaphthene-22% was above the required QC limits of 20%. This resulted in this compound in all samples being qualified as estimated.

### **9.2 Matrix Duplicate**

RPDs were acceptable.

## **10.0 Field QC**

### **10.1 Field Blanks/Rinse Blanks**

Rinse blank reported acetone and chloroform contamination. Affected associated samples were qualified as non-detects.

### **10.2 Trip Blanks**

Trip blanks reported acetone and methylene chloride contamination. Affected associated samples were qualified as non-detects.

### **10.3 Field Duplicate**

Sample ATGW00602801XD was presented as a field duplicate. The original sample is identified as ATGW00602801XX. RPDs are calculated when both original and duplicate report detects. RPDs were acceptable.

## **11.0 Internal Standards (IS)**

### **11.1 IS Area Counts**

IS area counts were acceptable.

### **11.2 Retention Time (RT)**

All RTs were within the method accepted criteria.

## **12.0 Target Compound Identification**

All target compounds identification is acceptable.

### **12.1 Tentatively Identified Compounds (TICs)**

SVOA: Some TICs were rejected since they were VOA target compounds.

## **13.0 Calculations and Transcription**

Raw data were accurately transcribed to summary data sheets.

## **14.0 Additional Comments**

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## 15.0 Data Qualifier Table

Volatile

Sample Identification	Compound	Qualifier	Section Reference
ATGW00501701XX	Ethyl benzene Styrene Chloromethane Chloroethane Methylene chloride Carbon disulfide Bromoform Bromodichloromethane 1,1-Dichloroethene Trichlorofluoromethane Dichlorodifluoromethane 1,1,2-Trichloro-1,2,2-Trifluoroethane 1,2-Dichloropropane 2-Butanone 1,1,2-Trichloroethane Acetic acid, methyl ester 1,1,2,2-Tetrachloroethane o-Xylene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane Isopropylbenzene Xylene, m/p cis-1,3-Dichloropropene trans-1,3-Dichloropropene 1,4-Dichlorobenzene 1,2-Dibromoethane 1,2-Dichloroethane 4-Methyl-2-pentanone Methyl cyclohexane Toluene Chlorobenzene Cyclohexane 1,2,4-Trichlorobenzene Chlorodibromomethane trans-1,2-Dichloroethene 1,3-Dichlorobenzene Carbon tetrachloride 2-Hexanone Acetone Chloroform Benzene Bromomethane	<u>UJ</u>	<u>7.0</u>
<u>ATGW00501701XX</u>	<u>Cis-1,2-Dichloroethene</u>	<u>J</u>	<u>7.0</u>
ATMW00201601XXDL, ATMW00601601XX, ATGW00502801XX , ATGW00602801XX	Bromomethane	UJ	5.2

Sample Identification	Compound	Qualifier	Section Reference
ATMW00701601XXRE	Methyl tert-butyl ether	J	7.0
ATEB001XXX01XX, ATGW00601701XX, ATGW00701701XX, ATGW01101701XX ATTB002XXX01XX	Trichlorofluoromethane	UJ	5.2
ATGW00901701XX	cis-1,2-Dichloroethene	J	7.0

#### Semi-volatile

Sample Identification	Compound	Qualifier	Section Reference
ATMW00101701XX ATMW00601601XX ATGW00901701XX ATGW01301701XX	Bis (2-ethyl hexyl) phthalate	U	6.0
ATMW00101701XX ATMW00601601XX ATGW00901701XX ATGW01301701XX ATMW00201601XX ATMW00701601XX	Acenaphthene	UJ	9.1

# ***DATA VALIDATION REPORT***

## ***Volatile & Semi-volatile Analyses***

***SDG No. X5403***

***Sampling Date: November 9 -10, 2006***

***Submitted to:***

***MACTEC, Inc.,  
511 Congress Street  
Portland, ME 04112  
207-775-5401***

***Submitted by:***

***EDV, Inc.,  
1326 Oranewood Avenue  
Pittsburgh, PA 15216  
412-341-5281***

***January 12, 2007***

Site: Associated Textile/NYSDEC

Client: MACTEC, Inc.

Analytical Laboratory: Chemtech  
284 Sheffield Street  
Mountainside, NJ 07092

Sample Delivery Group (SDG): X5403

Sampling Date: November 9-10, 2006

Analyses: Volatile & Semi volatile

Analytical Method: CLP OLM 4.2 and USEPA TO-15

Summary of Data Validation:

The adherence of laboratory analytical performance to CLP and USEPA TO-15 Analytical Specifications were evaluated during the data validation process. The USEPA Region II's data validation SOP Checklists (SOP HW-18 Rev 0, August 1994; SOP, HW-15 Rev 2, May 1993) and the National Functional Guidelines for Organic Data Review (October 1999), were used as guidelines for data qualifications.

**Volatile:** Some methylene chloride results were qualified as estimated due to calibration issues. Cis-1,2-dichloroethene in one sample was qualified as estimated due to surrogate recovery issues.

**Semi-volatile:** Hexachlorobutadiene and 2,4-dinitrophenol were qualified as estimated due to calibration issues.

The sample qualifiers applied by the data validator are in section 15.0 and Attachment A- Form 1s. The detailed discussions can be found in the report.



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### **List of Appendices**

- A Validated and Qualified Data Sheets (Form 1s)
- B Case Narrative and Chain of Custody

## 1.0 Sample Identifications

The following table summarizes sample IDENTIFICATIONS, matrix of each sample and analyses present in the data package for each sample.

Client Sample ID	Matrix	Volatile	TO-15	Semi-volatile
ATDCMW202101XX	WATER	X	–	–
ATDCMW302101XX	WATER	X	–	–
ATDCMW401801XX	WATER	X	–	–
ATDCMW502001XX	WATER	X	–	–
ATMW00901701XX	WATER	X	–	X
ATGW00201801XX	WATER	X	–	–
ATGW00301801XX	WATER	X	–	–
ATGW01801101XX	WATER	X	–	–
ATGW01901301XX	WATER	X	–	–
ATGW02002601XX	WATER	X	–	X
ATGW02003401XX	WATER	X	–	–
ATGV00301201XX	AIR	–	X	–
ATDCG2101801XX	WATER	X	–	–
ATDCW1001501XX	WATER	X	–	–
ATDCG2201801XX	WATER	X	–	–
ATDCG2301801XX	WATER	X	–	–
AMTW01R01701XX	WATER	X	–	X
<b>QC sample ID</b>	<b>Matrix</b>			
LCS	WATER	X	X	X
LCSD	WATER	X	X	X
ATGW01801101XXMS	WATER	X	–	–
ATGW01801101XXMSD	WATER	X	–	–

## 2.0 Completeness Checklist

The following table identifies the summary form information and raw data found in the data package. Form numbers shown in parentheses refer to the current U.S. EPA CLP SOW equivalent reporting of results in an alternate summary format that has been determined to be acceptable. Analyses in this data package were performed in accordance with USEPA CLP and TO-15 Methods.

Completeness Checklist

X	Case Narrative
X	Chain of Custody Records/Traffic Reports/Tracking Records
X	Preservation Information
X	Sample Cross Reference with Unique Identifiers
X	Sample Results Summary Form (Form 1/Form 1-TIC)
X	CLP Flagging used on Results Summary
X	SMC/Surrogate Results Summary (Form 2)
NR	Matrix Spike/Matrix Spike Duplicate Results Summary (Form 3)
X	Laboratory Control Sample (LCS)/ Blank Spike Results Summary (Form 3)
NR	Control Charts
X	Method/Preparation Blank Results Summary (Form 4)
X	Volatile Initial Calibration Summary (Forms 6)
X	Volatile Continuing Calibration Summary (Form 7)
X	Volatile Analytical Sequence (Form 8)
x	Internal Standard Area Summary (Form X11)
X	Raw Data (incl. IS, Surr/SMC, RT, quant. Reports, etc.)
X	Samples
X	Initial Calibration
NR	Clean-ups
X	Continuing Calibration
NR	Instrument Blanks
X	Preparation Blanks/Method Blanks
O	Other Blanks
X	LCS/Blank Spike
X	Matrix Spikes/Matrix Spike Duplicates
NR	Matrix Duplicates/Replicates
O	Field Blanks – Trip Blank
X	Field Duplicates
X	Extraction Log Benchsheets
X	Instrument Run Logs
X	Sample Descriptions
X	Legible Pages
x	Pages in Package Numbered and in Sequence
X	Electronic Data Deliverable (EDD)

X: Included in original Data Package

NR: Not Required

O: Not Included and/or Not Available

RS: Provided as a Resubmission

X/RS: Incomplete in original data package, completed as a resubmission

### **3.0 Detection Limits**

Detection limits are acceptable.

### **4.0 Holding Time**

Holding times were acceptable.

#### **4.1 Sample Preservation**

Samples were appropriately preserved.

#### **4.2 Percent Moisture**

Percent moisture is not applicable.

#### **4.3 Chain of Custody Record**

Chain of Custody Record was present.

### **5.0 Calibration Quality Control**

#### **5.1 Initial Calibration**

The initial calibration was acceptable.

#### **5.2 Continuing Calibration (CCAL)**

VOA: Methylene chloride-26% exceeded the 25% QC criterion. Affected samples were qualified as estimated due to this exceedance.

SVOA: Hexachlorocyclopentadiene-32 and 2,4-dinitrophenol-28% exceeded the 25% QC criterion. Affected samples were qualified as estimated due to this exceedance.

### **6.0 Blanks Quality Control**

Method blank results are acceptable.

### **7.0 Surrogate Recoveries**

Cis-1,2-dichloroethene in sample ATDC21011801XXDL was qualified due to high surrogate recovery. The results for this sample were presented as a hybrid of the original and diluted analyses.

### **8.0 Accuracy**

#### **8.1 Laboratory Control Samples (LCS)/Blank Spikes**

LCS recoveries were acceptable.

#### **8.2 Matrix Spike/Matrix Spike Duplicates (MS/MSD)**

### **8.2.1 Frequency**

Frequency was met.

### **8.2.2 Recovery**

Recoveries were acceptable.

## **9.0 Precision**

### **9.1 Matrix Spike Duplicates**

The results were acceptable.

### **9.2 Matrix Duplicate**

RPDs were acceptable.

## **10.0 Field QC**

### **10.1 Field Blanks/Rinse Blanks**

No rinse blanks were reported with this SDG.

### **10.2 Trip Blanks**

No trip blank was reported.

### **10.3 Field Duplicate**

No field duplicates were presented with this SDG.

## **11.0 Internal Standards (IS)**

### **11.1 IS Area Counts**

IS area counts were within QC limit.

### **11.2 Retention Time (RT)**

All RTs were within the method accepted criteria.

## **12.0 Target Compound Identification**

All target compounds identification is acceptable.

### **12.1 Tentatively Identified Compounds (TICs)**

No TICs were reported.

## **13.0 Calculations and Transcription**

Raw data were accurately transcribed to summary data sheets.

## **14.0 Additional Comments**

Samples ATDCMW20210XX and ATDCMW401801XX were reanalyzed due to target compound calibration exceedance. Based on professional judgment and technical information the validator presented the diluted analyses for both samples. Sample ATDCMW502001XX was also reanalyzed due to target compound calibration range exceedance. Based on professional judgment and technical information, the validator presented this sample as a hybrid of the diluted and original analyses.

## 15.0 Data Qualifier Table

### Volatile

Sample Identification	Compound	Qualifier	Section Reference
ATMW00901701XX ATGW00201801XX ATGW00301801XX ATGW01901301XX ATGW02002601XXRE ATGW02003401XXRE ATDCG2101801XX ATMW01R01701XX	Methylene chloride	UJ	6.0
ATDCG2101801XXDL	Cis-1,2-dichloroethene	J	7.0

### Semi-volatile

Sample Identification	Compound	Qualifier	Section Reference
ATMW00901701XX ATGW02002601XX ATMW01R01701XX	Hexachlorocyclopentadiene, 2,4-dinitrophenol	UJ	5.2



# ***DATA VALIDATION REPORT***

## ***Volatile Analyses***

***SDG Nos. X5202 & X5544  
Sampling Date: October 31 & November 17, 2006***

***Submitted to:***

***MACTEC, Inc.,  
511 Congress Street  
Portland, ME 04112  
207-775-5401***

***Submitted by:***

***EDV, Inc.,  
1326 Oranewood Avenue  
Pittsburgh, PA 15216  
412-341-5281***

***January 16, 2006***

Site: Associated Textiles/NYSDEC

Client: MACTEC, Inc.

Analytical Laboratory: Chemtech  
284 Sheffield Street  
Mountainside, NJ 07092

Sample Delivery Group (SDG): X5202 & X5544

Sampling Date: October 31 & November 17, 2006

Analyses: Volatile

Analytical Method: CLP OLM 4.2

Summary of Data Validation:

The adherence of laboratory analytical performance to CLP Analytical Specifications was evaluated during the data validation process. The USEPA Region II's data validation SOP Checklists (SOP, HW-15 Rev 2, May 1993) and the National Functional Guidelines for Organic Data Review (October 1999), were used as guidelines for data qualifications.

**SDG X5202:** One compound was qualified as estimated due to calibration issues.

**SDG X5544:** Several samples were qualified as estimated due to calibration issues.

The sample qualifiers applied by the data validator are in section 15.0 and Attachment A- Form 1s. The detailed discussions can be found in the report.

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### **List of Appendices**

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- B Case Narrative and Chain of Custody

## 1.0 Sample Identifications

The following table summarizes sample IDENTIFICATIONS, matrix of each sample and analyses present in the data package for each sample.

Client Sample ID	Matrix	Volatile
<i><b>SDG X5544</b></i>		
ATTB005XXX01XX	WATER	<b>X</b>
ATGW02401601XX	WATER	<b>X</b>
ATGW02501601XX	WATER	<b>X</b>
ATGW02501601XD	WATER	<b>X</b>
ATGW02601601XX	WATER	<b>X</b>
ATGW02701501XX	WATER	<b>X</b>
ATGW02801401XX	WATER	<b>X</b>
ATGW02901601XX	WATER	<b>X</b>
ATGW03001401XX	WATER	<b>X</b>
ATGW03001401XD	WATER	<b>X</b>
<i><b>SDG X5202</b></i>		
ATDCMW101801XX	WATER	<b>X</b>
<b>QC sample ID</b>	<b>Matrix</b>	
ATGW02701501XXMS	WATER	X
ATGW02701501XXMSD	WATER	X

## 2.0 Completeness Checklist

The following table identifies the summary form information and raw data found in the data package. Form numbers shown in parentheses refer to the current U.S. EPA CLP SOW equivalent reporting of results in an alternate summary format that has been determined to be acceptable. Analyses in this data package were performed in accordance with USEPA CLP Method.

Completeness Checklist

X	Case Narrative
X	Chain of Custody Records/Traffic Reports/Tracking Records
X	Preservation Information
X	Sample Cross Reference with Unique Identifiers
X	Sample Results Summary Form (Form 1/Form 1-TIC)
X	CLP Flagging used on Results Summary
X	SMC/Surrogate Results Summary (Form 2)
NR	Matrix Spike/Matrix Spike Duplicate Results Summary (Form 3)
X	Laboratory Control Sample (LCS)/ Blank Spike Results Summary (Form 3)
NR	Control Charts
X	Method/Preparation Blank Results Summary (Form 4)
X	Volatile Initial Calibration Summary (Forms 6)
X	Volatile Continuing Calibration Summary (Form 7)
X	Volatile Analytical Sequence (Form 8)
x	Internal Standard Area Summary (Form X11)
X	Raw Data (incl. IS, Surr/SMC, RT, quant. Reports, etc.)
X	Samples
X	Initial Calibration
NR	Clean-ups
X	Continuing Calibration
NR	Instrument Blanks
X	Preparation Blanks/Method Blanks
O	Other Blanks
X	LCS/Blank Spike
X	Matrix Spikes/Matrix Spike Duplicates
NR	Matrix Duplicates/Replicates
O	Field Blanks – Trip Blank
X	Field Duplicates
X	Extraction Log Benchsheets
X	Instrument Run Logs
X	Sample Descriptions
X	Legible Pages
x	Pages in Package Numbered and in Sequence
X	Electronic Data Deliverable (EDD)

X: Included in original Data Package

NR: Not Required

O: Not Included and/or Not Available

RS: Provided as a Resubmission

X/RS: Incomplete in original data package, completed as a resubmission

### 3.0 Detection Limits

All Contract Required Detection Limits (CRDLs) were met.

### 4.0 Holding Time

Holding times were acceptable.

#### 4.1 Sample Preservation

Samples were appropriately preserved.

#### 4.2 Percent Moisture

Percent moisture is not applicable.

#### 4.3 Chain of Custody Record

Chain of Custody Record was present.

### 5.0 Calibration Quality Control

#### 5.1 Initial Calibration

The ICAL is acceptable.

#### Continuing Calibration (CCAL)

SDG 5544: The following compounds exceeded the 25% QC criterion;

Compound	% D-11/23/06	% D-11/23/06
Dichlorodifluoromethane	32	-
Chloromethane	28	-
Methyl tert butyl ether	27	-
Methylene chloride	37	-
1,1,2,2-Tetrachloroethane	-	28

All affected compounds were qualified as estimated.

SDG X5202

Compound	% D-11/70/06
Methyl acetate	70

All affected compounds were qualified as estimated.

### 6.0 Blanks Quality Control

SDG X5544: Method blank reported methylene chloride contamination. Affected detected samples were qualified as non-detects.

### 7.0 Surrogate Recoveries

Recoveries were acceptable.

## **8.0 Accuracy**

### **8.1 Laboratory Control Samples (LCS)/Blank Spikes**

Recoveries were acceptable

### **8.2 Matrix Spike/Matrix Spike Duplicates (MS/MSD)**

#### **8.2.1 Frequency**

Frequency was met.

#### **8.2.2 Recovery**

Recoveries are acceptable.

## **9.0 Precision**

### **9.1 Matrix Spike Duplicates**

The results were acceptable.

### **9.2 Matrix Duplicate**

RPDs were acceptable.

## **10.0 Field QC**

### **10.1 Field Blanks/Rinse Blanks**

There were no field blanks associated with this SDG.

### **10.2 Trip Blanks**

Trip blanks reported no contamination.

### **10.3 Field Duplicate**

SDG X5544: Sample ATGW003001401XD was presented as a field duplicate. The original sample is identified as ATGW003001401XX. Sample ATGW02501601XD was presented as a field duplicate. The original sample is identified as ATGW02501601XX. RPDs are calculated when both original and duplicate report detects. RPDs were acceptable.

## **11.0 Internal Standards (IS)**

### **11.1 IS Area Counts**

IS area counts are acceptable.



## **11.2 Retention Time (RT)**

All RTs were within the method accepted criteria.

## **12.0 Target Compound Identification**

All target compounds identification is acceptable.

### **12.1 Tentatively Identified Compounds (TICs)**

TICs are acceptable.

## **13.0 Calculations and Transcription**

Raw data were accurately transcribed to summary data sheets.

## **14.0 Additional Comments**

## 15.0 Data Qualifier Table

Volatile

SDG X5544

Sample Identification	Compound	Qualifier	Section Reference
ATTB005XXX01XX ATGW02401601XX ATGW02501601XX ATGW02501601XD ATGW02801401XX ATGW02901601XX	Dichlorodifluoromethane Chloromethane Methylene chloride	UJ	5.2
ATGW02401601XX ATGW02501601XX ATGW02501601XD	Methyl tert butyl ether	J	7.0
ATGW02801401XX ATTB005XXX01XX	Methyl tert butyl ether	UJ	7.0
ATGW03001401XX ATGW03001401XD	1,1,2,2-Tetrachloroethane	UJ	5.2

SDG X5202

Sample Identification	Compound	Qualifier	Section Reference
ATDCMW101801XX	Methyl Acetate	UJ	5.2

**DATA USABILITY SUMMARY REPORT**  
**2006 AIR SAMPLING EVENT**  
**ASSOCIATED TEXTILES**  
**ELMIRA, NEW YORK**

**Introduction:**

One air sample was collected by MACTEC at the Associated Textiles site in December 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. Samples were analyzed for the following parameters:

- Volatile organic compounds (VOCs) by EPA Method TO-15.

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 laboratory or data validation qualifiers are used in the final data presentation.

U = target analyte is not detected above the reported detection limit

UJ = target analyte is not detected at the reported detection limit and is estimated

J = concentration is estimated

D = result is reported from an additional dilution run

E = result exceeds the calibration range of the instrument

A summary of the final field sample data is presented in Table 2. Results are interpreted to be usable as reported by the laboratory unless discussed in the following sections.

## **Air Samples - Volatile Organic Compounds**

### Internal Standards

Sample ATSV00100101XX had responses for the internal standards 1,4-difluorobenzene and chlorobenzene-d5 that were low and outside of control limits. In addition, the diluted analytical run of sample ATSV00100101XX had a low response for the internal standard 1,4-difluorobenzene. All results associated with these internal standards were qualified as estimated (J/UJ).

### Initial Calibration

The initial calibration associated with sample ATSV00100101XX had a relative standard deviation that was greater than the control limit of 30 for 1,2,4-trichlorobenzene (36). The result for 1,2,4-trichlorobenzene was non-detect and was qualified as estimated (UJ).

### Continuing Calibration

The continuing calibration associated with sample ATSV00100101XX had a percent differences for heptane (-26), vinyl acetate (-27), trans-1,3-dichloropropene (-34), 2-hexanone (-52), ethylbenzene (-44), 1,4-dichlorobenzene (-42), and 1,2-dichlorobenzene (-30) that were greater than the control limit of 25. The results for these compounds in sample ATSV00100101XX were non-detect and were qualified as estimated (UJ).

### Surrogate Recoveries

Sample ATSV00100101XX had a recovery for the surrogate 1-bromo-4-fluorobenzene that was less than the laboratory control limits of 65-135. All results in sample ATSV00100101XX were qualified as estimated (J/UJ).

### Laboratory Control Samples

The LCS associated with sample ATSV00100101XX had a percent recovery for hexachloro-1,3-butadiene (48) that was less than the control limit of 60-140 indicating a low bias. The result for hexachloro-1,3-butadiene in sample ATSV00100101XX was non-detect and was qualified as estimated (UJ).

### Miscellaneous

Sample ATSV00100101XX had a detection for trichloroethene that was greater than the calibration range of the instrument. The sample was reanalyzed at a dilution and still had a detection for trichloroethene that was greater than the calibration range. The result was reported from the diluted analytical run and is lab qualified as "E" to indicate this exceedence.

TABLE 1

SDG	Sample Name	Date Collected	Method	Parameter	Type
X5887	ATSV00100101XX	12/19/06	TO-15	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: Amanda Zeidler

Signature 

Date January 24, 2006

Quality Assurance Officer: Chris Ricardi, NRCC-EAC

A handwritten signature in black ink that reads "Chris Ricardi". The signature is written in a cursive style with a large, looping initial "C" and a stylized "R".

Date: 3/30/07

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5286-07		X5286-08RE		X5286-09		X5429-08		X5403-06	
	SDG		X5286		X5286		X5286		X5429		X5403	
	Location		GW-1		GW-1		GW-1		GW-2		GW-2	
	Field Sample Id		ATGW00102001XX		ATGW00102001XD		ATGW00102901XX		ATDCGW201502XX		ATGW00201801XX	
	Field Sample Date		11/6/2006		11/6/2006		11/6/2006		11/16/2006		11/10/2006	
	Qc Code		FS		FD		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	2.1	J	2.3	J	8.2	J	10	U	250	U		
1,1,2,2-Tetrachloroethane	10	U	10	U	10	U	10	UJ	250	U		
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	UJ	10	UJ	10	UJ	10	U	250	U		
1,1,2-Trichloroethane	10	U	10	U	10	U	10	U	250	U		
1,1-Dichloroethane	10	U	10	U	10	U	10	U	250	U		
1,1-Dichloroethene	10	UJ	10	UJ	10	UJ	10	U	250	U		
1,2,4-Trichlorobenzene	10	U	10	U	10	U	10	U	250	U		
1,2-Dibromo-3-chloropropane	10	U	10	U	10	U	10	U	250	U		
1,2-Dibromoethane	10	U	10	U	10	U	10	U	250	U		
1,2-Dichlorobenzene	10	U	10	U	10	U	10	U	250	U		
1,2-Dichloroethane	10	U	10	U	10	U	10	U	250	U		
1,2-Dichloropropane	10	U	10	U	10	U	10	U	250	U		
1,3-Dichlorobenzene	10	U	10	U	10	U	10	U	250	U		
1,4-Dichlorobenzene	10	U	10	U	10	U	10	U	250	U		
2-Butanone	50	U	50	U	50	U	50	U	1200	U		
2-Hexanone	50	U	50	U	50	U	50	U	1200	U		
4-Methyl-2-pentanone	50	U	50	U	50	U	50	U	1200	U		
Acetic acid, methyl ester	10	U	10	U	10	U	10	U	250	U		
Acetone	50	U	50	U	50	U	50	U	1200	U		
Benzene	1.3	J	1.4	J	10	U	10	U	250	U		
Bromodichloromethane	10	U	10	U	10	U	10	U	250	U		
Bromoform	10	U	10	U	10	U	10	U	250	U		
Bromomethane	10	U	10	U	10	U	10	U	250	U		
Carbon disulfide	10	U	10	U	10	U	10	U	250	U		
Carbon tetrachloride	10	U	10	U	10	U	10	U	250	U		
Chlorobenzene	10	U	10	U	10	U	10	U	250	U		
Chlorodibromomethane	10	U	10	U	10	U	10	U	250	U		
Chloroethane	10	U	10	U	10	U	10	U	250	U		
Chloroform	10	U	10	U	10	U	10	U	250	U		
Chloromethane	10	U	10	U	10	U	10	U	250	U		
Cis-1,2-Dichloroethene	34		37	J	48		31		250	J		
cis-1,3-Dichloropropene	10	U	10	U	10	U	10	U	250	U		
Cyclohexane	10	U	10	U	10	U	10	U	250	U		
Dichlorodifluoromethane	10	U	10	U	10	U	10	U	250	U		

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5286-07		X5286-08RE		X5286-09		X5429-08		X5403-06	
	SDG		X5286		X5286		X5286		X5429		X5403	
	Location		GW-1		GW-1		GW-1		GW-2		GW-2	
	Field Sample Id		ATGW00102001XX		ATGW00102001XD		ATGW00102901XX		ATDCGW201502XX		ATGW00201801XX	
	Field Sample Date		11/6/2006		11/6/2006		11/6/2006		11/16/2006		11/10/2006	
Qc Code	FS		FD		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Ethyl benzene	10	U	10	U	10	U	10	U	10	U	250	U
Isopropylbenzene	10	U	10	U	10	U	10	U	10	U	250	U
Methyl cyclohexane	10	U	10	U	10	U	10	U	10	U	250	U
Methyl Tertbutyl Ether	2.9	J	3	J	15		10	U	250	U		
Methylene chloride	10	U	10	U	10	U	10	U	10	U	250	UJ
o-Xylene	10	U	10	U	10	U	10	U	10	U	250	U
Styrene	10	U	10	U	10	U	10	U	10	U	250	U
Tetrachloroethene	2.5	J	2.5	J	12		210	D	2100			
Toluene	10	U	10	U	10	U	10	U	10	U	250	U
trans-1,2-Dichloroethene	10	U	10	U	10	U	10	U	10	U	250	U
trans-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U	250	U
Trichloroethene	20		20	J	13		27		190	J		
Trichlorofluoromethane	10	U	10	U	10	U	10	U	10	U	250	U
Vinyl chloride	3.9	J	4	J	10	U	10	U	250	U		
Xylene, m/p	10	U	10	U	10	U	10	U	10	U	250	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 greater than the RL

J = Estimated Result

B = Analyte was detected in the method blank

D = Result was reported from a diluted analytical run.



Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5403-07		X5191-04		X5313-06		X5313-07		X5313-09	
	SDG		X5403		X5191		X5313		X5313		X5313	
	Location		GW-3		GW-4		GW-5		GW-5		GW-6	
	Field Sample Id		ATGW00301801XX		ATGW00401701XX		ATGW00501701XX		ATGW00502801XX		ATGW00601701XX	
	Field Sample Date		11/10/2006		11/8/2006		11/7/2006		11/7/2006		11/7/2006	
	Qc Code		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	10	U	17		2.6	J	5.2	J	10	U		
1,1,2,2-Tetrachloroethane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,1,2-Trichloroethane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,1-Dichloroethane	10	U	3	J	1.2	J	2.8	J	10	U	10	U
1,1-Dichloroethene	10	U	1.2	J	10	UJ	1.1	J	10	U	10	U
1,2,4-Trichlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U
1,2-Dibromo-3-chloropropane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,2-Dibromoethane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,2-Dichlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U
1,2-Dichloroethane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,2-Dichloropropane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,3-Dichlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U
1,4-Dichlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U
2-Butanone	50	U	50	U	50	UJ	50	U	50	U	50	U
2-Hexanone	50	U	50	U	50	UJ	50	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	UJ	50	U	50	U	50	U
Acetic acid, methyl ester	10	U	10	U	10	UJ	10	U	10	U	10	U
Acetone	50	U	50	U	50	UJ	50	U	50	U	50	U
Benzene	10	U	10	U	10	UJ	10	U	10	U	10	U
Bromodichloromethane	10	U	10	U	10	UJ	10	U	10	U	10	U
Bromoform	10	U	10	U	10	UJ	10	U	10	U	10	U
Bromomethane	10	U	10	U	10	UJ	10	UJ	10	UJ	10	U
Carbon disulfide	10	U	10	U	10	UJ	10	U	10	U	10	U
Carbon tetrachloride	10	U	10	U	10	UJ	10	U	10	U	10	U
Chlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U
Chlorodibromomethane	10	U	10	U	10	UJ	10	U	10	U	10	U
Chloroethane	10	U	10	U	10	UJ	10	U	10	U	10	U
Chloroform	10	U	10	U	10	UJ	10	U	10	U	10	U
Chloromethane	10	U	10	U	10	UJ	10	U	10	U	10	U
Cis-1,2-Dichloroethene	10	U	47		22	J	43		10	U		
cis-1,3-Dichloropropene	10	U	10	U	10	UJ	10	U	10	U	10	U
Cyclohexane	10	U	10	U	10	UJ	10	U	10	U	10	U
Dichlorodifluoromethane	10	U	10	U	10	UJ	10	U	10	U	10	U

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5403-07		X5191-04		X5313-06		X5313-07		X5313-09	
	SDG		X5403		X5191		X5313		X5313		X5313	
	Location		GW-3		GW-4		GW-5		GW-5		GW-6	
	Field Sample Id		ATGW00301801XX		ATGW00401701XX		ATGW00501701XX		ATGW00502801XX		ATGW00601701XX	
	Field Sample Date		11/10/2006		11/8/2006		11/7/2006		11/7/2006		11/7/2006	
	Qc Code		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Ethyl benzene	10	U	10	U	10	UJ	10	U	10	U	10	U
Isopropylbenzene	10	U	10	U	10	UJ	10	U	10	U	10	U
Methyl cyclohexane	10	U	10	U	10	UJ	10	U	10	U	10	U
Methyl Tertbutyl Ether	10	U	3	J	1.3	J	3	J	10	U	10	U
Methylene chloride	10	UJ	10	U	10	UJ	10	U	10	U	10	U
o-Xylene	10	U	10	U	10	UJ	10	U	10	U	10	U
Styrene	10	U	10	U	10	UJ	10	U	10	U	10	U
Tetrachloroethene	10	U	17		3	J	6.9	J	9.2	J		
Toluene	10	U	10	U	10	UJ	10	U	10	U	10	U
trans-1,2-Dichloroethene	10	U	10	U	10	UJ	10	U	10	U	10	U
trans-1,3-Dichloropropene	10	U	10	U	10	UJ	10	U	10	U	10	U
Trichloroethene	10	U	15		1.5	J	4.1	J	10	U	10	U
Trichlorofluoromethane	10	U	10	UJ	10	UJ	10	U	10	UJ	10	UJ
Vinyl chloride	10	U	2.9	J	1.7	J	4.2	J	10	U	10	U
Xylene, m/p	10	U	10	U	10	UJ	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 greater than the RL

J = Estimated Result

B = Analyte was detected in the method blank

D = Result was reported from a diluted analytical run.

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5313-10		X5313-11		X5313-12		X5313-13		X5286-10RE	
	SDG		X5313		X5313		X5313		X5313		X5286	
	Location		GW-6		GW-6		GW-7		GW-7		GW-8	
	Field Sample Id		ATGW00602801XD		ATGW00602801XX		ATGW00701701XX		ATGW00702801XX		ATGW00802001XX	
	Field Sample Date		11/7/2006		11/7/2006		11/7/2006		11/7/2006		11/6/2006	
Qc Code	FD		FS		FS		FS		FS		FS	
	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
1,1,2,2-Tetrachloroethane	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	UJ
1,1,2-Trichloroethane	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
1,1-Dichloroethene	10	U	10	U	10	U	10	U	10	U	10	UJ
1,2,4-Trichlorobenzene	10	U	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	10	U
1,2-Dibromoethane	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
1,2-Dichloroethane	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	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
1,4-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	U	50	U	50	U	50	U	50	U	50	U
2-Hexanone	50	U	50	U	50	U	50	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	U	50	U	50	U	50	U
Acetic acid, methyl ester	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	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
Bromoform	10	U	10	U	10	U	10	U	10	U	10	U
Bromomethane	10	UJ	10	UJ	10	U	10	U	10	U	10	U
Carbon disulfide	10	U	10	U	10	U	10	U	10	U	10	U
Carbon tetrachloride	10	U	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	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
Chloroethane	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
Chloromethane	10	U	10	U	10	U	10	U	10	U	10	U
Cis-1,2-Dichloroethene	10	U	10	U	0.93	J	10	U	10	U	5.1	J
cis-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U	10	U
Cyclohexane	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

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5313-10		X5313-11		X5313-12		X5313-13		X5286-10RE	
	SDG		X5313		X5313		X5313		X5313		X5286	
	Location		GW-6		GW-6		GW-7		GW-7		GW-8	
	Field Sample Id		ATGW00602801XD		ATGW00602801XX		ATGW00701701XX		ATGW00702801XX		ATGW00802001XX	
	Field Sample Date		11/7/2006		11/7/2006		11/7/2006		11/7/2006		11/6/2006	
	Qc Code		FD		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Ethyl benzene	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
Methyl cyclohexane	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	4.9	J
Methylene chloride	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
Styrene	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	10	U	10	U	1.6	J	2.2	J	2.6	J	2.6	J
Toluene	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	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
Trichloroethene	10	U	10	U	10	U	10	U	10	U	1.3	J
Trichlorofluoromethane	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	1	J	1.2	J	1.5	J	2.5	J	10	U	10	U
Xylene, m/p	2.8	J	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 greater than the RL

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Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5286-11		X5313-14		X5313-15		X5286-12RE		X5286-13RE	
	SDG		X5286		X5313		X5313		X5286		X5286	
	Location		GW-8		GW-9		GW-9		GW-10		GW-10	
	Field Sample Id		ATGW00802701XX		ATGW00901701XX		ATGW00902801XX		ATGW01002201XX		ATGW01002901XX	
	Field Sample Date		11/6/2006		11/7/2006		11/7/2006		11/6/2006		11/6/2006	
	Qc Code		FS		FS		FS		FS		FS	
	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	UJ	10	U
1,1,2,2-Tetrachloroethane	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	UJ	10	UJ
1,1,2-Trichloroethane	10	U	10	U	10	U	10	U	10	UJ	10	U
1,1-Dichloroethane	10	U	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	10	UJ	10	U	10	U	10	U	10	UJ	10	UJ
1,2,4-Trichlorobenzene	10	U	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	10	U
1,2-Dibromoethane	10	U	10	U	10	U	10	U	10	UJ	10	U
1,2-Dichlorobenzene	10	U	10	U	10	U	10	U	10	UJ	10	U
1,2-Dichloroethane	10	U	10	U	10	U	10	U	10	UJ	10	U
1,2-Dichloropropane	10	U	10	U	10	U	10	U	10	UJ	10	U
1,3-Dichlorobenzene	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
2-Butanone	50	U	50	U	50	U	50	U	50	UJ	50	U
2-Hexanone	50	U	50	U	50	U	50	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	U	50	U	50	U	50	U
Acetic acid, methyl ester	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	10	U	10	U	10	U	10	U	10	UJ	10	U
Bromodichloromethane	10	U	10	U	10	U	10	U	10	UJ	10	U
Bromoform	10	U	10	U	10	U	10	U	10	UJ	10	U
Bromomethane	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
Carbon tetrachloride	10	U	10	U	10	U	10	U	10	UJ	10	U
Chlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U
Chlorodibromomethane	10	U	10	U	10	U	10	U	10	UJ	10	U
Chloroethane	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
Chloromethane	10	U	10	U	10	U	10	U	10	U	10	U
Cis-1,2-Dichloroethene	2.8	J	140	J	19		19		69		42	J
cis-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	UJ	10	U
Cyclohexane	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

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5286-11		X5313-14		X5313-15		X5286-12RE		X5286-13RE	
	SDG		X5286		X5313		X5313		X5286		X5286	
	Location		GW-8		GW-9		GW-9		GW-10		GW-10	
	Field Sample Id		ATGW00802701XX		ATGW00901701XX		ATGW00902801XX		ATGW01002201XX		ATGW01002901XX	
	Field Sample Date		11/6/2006		11/7/2006		11/7/2006		11/6/2006		11/6/2006	
	Qc Code		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Ethyl benzene	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
Methyl cyclohexane	10	U	10	U	10	U	10	U	10	U	10	U
Methyl Tertbutyl Ether	10	U	10	U	10	U	10	U	2.2	J	2.9	J
Methylene chloride	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
Styrene	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	2.7	J	5	J	1.2	J	10	U	10	U	10	U
Toluene	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	10	U	1.3	J	10	U	10	U	3.6	J	1	J
trans-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	UJ	10	U
Trichloroethene	10	U	7.9	J	10	U	10	U	1.5	J	10	U
Trichlorofluoromethane	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	10	U	1.4	J	9	J	2.8	J	4.5	J		
Xylene, m/p	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 greater than the RL

J = Estimated Result

B = Analyte was detected in the method blank

D = Result was reported from a diluted analytical run.

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5313-16		X5313-17		X5313-18		X5313-19		X5313-20	
	SDG		X5313		X5313		X5313		X5313		X5313	
	Location		GW-11		GW-11		GW-13		GW-13		GW-14	
	Field Sample Id		ATGW01101701XX		ATGW01102801XX		ATGW01301701XX		ATGW01302301XX		ATGW01401601XX	
	Field Sample Date		11/7/2006		11/7/2006		11/7/2006		11/7/2006		11/7/2006	
	Qc Code		FS		FS		FS		FS		FS	
	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
1,1,2,2-Tetrachloroethane	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
1,1,2-Trichloroethane	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
1,1-Dichloroethene	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
1,2-Dibromo-3-chloropropane	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dibromoethane	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
1,2-Dichloroethane	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	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
1,4-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	U	50	U	50	U	50	U	50	U	50	U
2-Hexanone	50	U	50	U	50	U	50	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	U	50	U	50	U	50	U
Acetic acid, methyl ester	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	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
Bromoform	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
Carbon disulfide	10	U	10	U	10	U	10	U	10	U	10	U
Carbon tetrachloride	10	U	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	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
Chloroethane	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
Chloromethane	10	U	10	U	10	U	10	U	10	U	10	U
Cis-1,2-Dichloroethene	34		140		23		44		1.7	J		
cis-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U	10	U
Cyclohexane	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

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5313-16		X5313-17		X5313-18		X5313-19		X5313-20	
	SDG		X5313		X5313		X5313		X5313		X5313	
	Location		GW-11		GW-11		GW-13		GW-13		GW-14	
	Field Sample Id		ATGW01101701XX		ATGW01102801XX		ATGW01301701XX		ATGW01302301XX		ATGW01401601XX	
	Field Sample Date		11/7/2006		11/7/2006		11/7/2006		11/7/2006		11/7/2006	
	Qc Code		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Ethyl benzene	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
Methyl cyclohexane	10	U	10	U	10	U	10	U	10	U	10	U
Methyl Tertbutyl Ether	10	U	3.7	J	3.1	J	1.8	J	10	U	10	U
Methylene chloride	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
Styrene	10	U	10	U	10	U	10	U	10	U	10	U
Tetrachloroethene	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	1	J	6.2	J	2.1	J	3.9	J	10	U	10	U
trans-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	10		3.7	J	10	U	10	U	10	U	10	U
Trichlorofluoromethane	10	UJ	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	10	U	4.7	J	1	J	1.2	J	10	U	10	U
Xylene, m/p	10	U	10	U	10	U	10	U	10	U	0.89	J

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 greater than the RL

J = Estimated Result

B = Analyte was detected in the method blank

D = Result was reported from a diluted analytical run.



Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5313-21		X5191-05		X5403-08		X5403-11		X5403-12RE	
	SDG		X5313		X5191		X5403		X5403		X5403	
	Location		GW-14		GW-15		GW-18		GW-19		GW-20	
	Field Sample Id		ATGW01402901XX		ATGW01501601XX		ATGW01801101XX		ATGW01901301XX		ATGW02002601XX	
	Field Sample Date		11/7/2006		11/8/2006		11/9/2006		11/9/2006		11/9/2006	
	Qc Code		FS		FS		FS		FS		FS	
	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
1,1,2,2-Tetrachloroethane	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
1,1,2-Trichloroethane	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
1,1-Dichloroethene	10	U	10	UJ	10	U	10	U	10	U	10	U
1,2,4-Trichlorobenzene	10	U	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	10	U
1,2-Dibromoethane	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
1,2-Dichloroethane	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	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
1,4-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	U	50	U	50	U	50	U	50	U	50	U
2-Hexanone	50	U	50	U	50	U	50	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	U	50	U	50	U	50	U
Acetic acid, methyl ester	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	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
Bromoform	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
Carbon disulfide	10	U	10	U	10	U	10	U	10	U	10	U
Carbon tetrachloride	10	U	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	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
Chloroethane	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
Chloromethane	10	U	10	U	10	U	10	U	10	U	10	U
Cis-1,2-Dichloroethene	9.7	J	10	U	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U	10	U
Cyclohexane	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

Appendix E

Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5313-21		X5191-05		X5403-08		X5403-11		X5403-12RE	
	SDG		X5313		X5191		X5403		X5403		X5403	
	Location		GW-14		GW-15		GW-18		GW-19		GW-20	
	Field Sample Id		ATGW01402901XX		ATGW01501601XX		ATGW01801101XX		ATGW01901301XX		ATGW02002601XX	
	Field Sample Date		11/7/2006		11/8/2006		11/9/2006		11/9/2006		11/9/2006	
	Qc Code		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Ethyl benzene	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
Methyl cyclohexane	10	U	10	U	10	U	10	U	10	U	10	U
Methyl Tertbutyl Ether	0.83	J	10	U	10	U	10	U	10	U	10	U
Methylene chloride	10	U	10	U	10	U	10	U	10	UJ	10	UJ
o-Xylene	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
Tetrachloroethene	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	1.2	J	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
Trichloroethene	10	U	10	U	10	U	10	U	10	U	10	U
Trichlorofluoromethane	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	0.88	J	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

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 greater than the RL

J = Estimated Result

B = Analyte was detected in the method blank

D = Result was reported from a diluted analytical run.

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5403-13RE		X5403-15		X5403-17		X5403-18		X5544-02	
	SDG		X5403		X5403		X5403		X5403		X5544	
	Location		GW-20		GW-21		GW-22		GW-23		GW-24	
	Field Sample Id		ATGW02003401XX		ATDCG2101801XX		ATDCG2201801XX		ATDCG2301801XX		ATGW02401601XX	
	Field Sample Date		11/9/2006		11/9/2006		11/10/2006		11/10/2006		11/17/2006	
Qc Code	FS		FS		FS		FS		FS		FS	
	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
1,1,2,2-Tetrachloroethane	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
1,1,2-Trichloroethane	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
1,1-Dichloroethene	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
1,2-Dibromo-3-chloropropane	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dibromoethane	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
1,2-Dichloroethane	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	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
1,4-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	U	50	U	50	U	50	U	3.5	J	50	U
2-Hexanone	50	U	50	U	50	U	50	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	U	50	U	50	U	50	U
Acetic acid, methyl ester	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	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
Bromoform	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
Carbon disulfide	10	U	10	U	10	U	10	U	10	U	10	U
Carbon tetrachloride	10	U	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	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
Chloroethane	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
Chloromethane	10	U	10	U	10	U	10	U	10	U	10	UJ
Cis-1,2-Dichloroethene	10	U	170	J	66		38		10	U	10	U
cis-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U	10	U
Cyclohexane	10	U	10	U	10	U	10	U	10	U	10	U
Dichlorodifluoromethane	10	U	10	U	10	U	10	U	10	U	10	UJ

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5403-13RE		X5403-15		X5403-17		X5403-18		X5544-02	
	SDG		X5403		X5403		X5403		X5403		X5544	
	Location		GW-20		GW-21		GW-22		GW-23		GW-24	
	Field Sample Id		ATGW02003401XX		ATDCG2101801XX		ATDCG2201801XX		ATDCG2301801XX		ATGW02401601XX	
	Field Sample Date		11/9/2006		11/9/2006		11/10/2006		11/10/2006		11/17/2006	
	Qc Code		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Ethyl benzene	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
Methyl cyclohexane	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	26	J
Methylene chloride	10	UJ	10	UJ	10	U	10	U	10	U	10	UJ
o-Xylene	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
Tetrachloroethene	10	U	98		17		65		10	U	10	U
Toluene	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	10	U	1.8	J	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U	10	U
Trichloroethene	10	U	17		4.7	J	9.1	J	10	U	10	U
Trichlorofluoromethane	10	U	10	U	10	U	10	U	10	U	10	U
Vinyl chloride	10	U	1.1	J	10	U	10	U	10	U	10	U
Xylene, m/p	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 greater than the RL

J = Estimated Result

B = Analyte was detected in the method blank

D = Result was reported from a diluted analytical run.

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5544-03		X5544-04		X5544-05		X5544-06		X5544-09	
	SDG		X5544		X5544		X5544		X5544		X5544	
	Location		GW-25		GW-25		GW-26		GW-27		GW-28	
	Field Sample Id		ATGW02501601XX		ATGW02501601XD		ATGW02601601XX		ATGW02701501XX		ATGW02801401XX	
	Field Sample Date		11/17/2006		11/17/2006		11/17/2006		11/17/2006		11/17/2006	
Qc Code	FS		FD		FS		FS		FS		FS	
	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
1,1,2,2-Tetrachloroethane	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
1,1,2-Trichloroethane	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
1,1-Dichloroethene	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
1,2-Dibromo-3-chloropropane	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dibromoethane	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
1,2-Dichloroethane	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	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
1,4-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	U	50	U	50	U	50	U	50	U	50	U
2-Hexanone	50	U	50	U	50	U	50	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	U	50	U	50	U	50	U
Acetic acid, methyl ester	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	50	U	50	U	50	U	50	U	50	U	50	U
Benzene	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
Bromoform	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
Carbon disulfide	10	U	10	U	10	U	10	U	10	U	10	U
Carbon tetrachloride	10	U	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	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
Chloroethane	10	U	10	U	10	U	10	U	10	U	10	U
Chloroform	10	U	10	U	10	U	10	U	3	J	10	U
Chloromethane	10	UJ	10	UJ	10	U	10	U	10	U	10	UJ
Cis-1,2-Dichloroethene	10	U	10	U	16		2.6	J	98			
cis-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U	10	U
Cyclohexane	10	U	10	U	10	U	10	U	10	U	10	U
Dichlorodifluoromethane	10	UJ	10	UJ	10	U	10	U	10	U	10	UJ

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5544-03		X5544-04		X5544-05		X5544-06		X5544-09	
	SDG		X5544		X5544		X5544		X5544		X5544	
	Location		GW-25		GW-25		GW-26		GW-27		GW-28	
	Field Sample Id		ATGW02501601XX		ATGW02501601XD		ATGW02601601XX		ATGW02701501XX		ATGW02801401XX	
	Field Sample Date		11/17/2006		11/17/2006		11/17/2006		11/17/2006		11/17/2006	
	Qc Code		FS		FD		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Ethyl benzene	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
Methyl cyclohexane	10	U	10	U	10	U	10	U	10	U	10	U
Methyl Tertbutyl Ether	26	J	29	J	10	U	10	U	10	U	10	UJ
Methylene chloride	10	UJ	10	UJ	10	U	10	U	10	U	10	UJ
o-Xylene	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
Tetrachloroethene	10	U	10	U	4300	D	96	D	28			
Toluene	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	10	U	10	U	10	U	10	U	5.1	J		
trans-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U		
Trichloroethene	10	U	10	U	200		3.9	J	98			
Trichlorofluoromethane	10	U	10	U	10	U	10	U	10	U		
Vinyl chloride	10	U	10	U	10	U	10	U	0.88	J		
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

Qualifiers:

U = Not detected at a concentration greater than the RL

J = Estimated Result

B = Analyte was detected in the method blank

D = Result was reported from a diluted analytical run.

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5544-10		X5544-11		X5544-12		X5403-19		X5202-01	
	SDG		X5544		X5544		X5544		X5403		X5202	
	Location		GW-29		GW-30		GW-30		MW-1		MW-1	
	Field Sample Id		ATGW02901601XX		ATGW03001401XX		ATGW03001401XD		ATMW01R01701XX		ATDCMW101801XX	
	Field Sample Date		11/17/2006		11/17/2006		11/17/2006		11/9/2006		10/31/2006	
Qc Code	FS		FS		FD		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	10		10	U	10	U	100	U	100	U	10	U
1,1,2,2-Tetrachloroethane	10	U	10	U	10	UJ	100	U	100	U	10	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	U	10	U	10	U	100	U	100	U	10	U
1,1,2-Trichloroethane	10	U	10	U	10	U	100	U	100	U	10	U
1,1-Dichloroethane	4.8	J	10	U	10	U	100	U	100	U	10	U
1,1-Dichloroethene	10	U	0.91	J	0.83	J	100	U	100	U	10	U
1,2,4-Trichlorobenzene	10	U	10	U	10	U	100	U	100	U	10	U
1,2-Dibromo-3-chloropropane	10	U	10	U	10	U	100	U	100	U	10	U
1,2-Dibromoethane	10	U	10	U	10	U	100	U	100	U	10	U
1,2-Dichlorobenzene	10	U	10	U	10	U	100	U	100	U	10	U
1,2-Dichloroethane	10	U	10	U	10	U	100	U	100	U	10	U
1,2-Dichloropropane	10	U	10	U	10	U	100	U	100	U	10	U
1,3-Dichlorobenzene	10	U	10	U	10	U	100	U	100	U	10	U
1,4-Dichlorobenzene	10	U	10	U	10	U	100	U	100	U	10	U
2-Butanone	50	U	50	U	50	U	500	U	500	U	50	U
2-Hexanone	50	U	50	U	50	U	500	U	500	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	U	500	U	500	U	50	U
Acetic acid, methyl ester	10	U	10	U	10	U	100	U	100	U	10	UJ
Acetone	50	U	50	U	50	U	500	U	500	U	50	U
Benzene	6	J	10	U	10	U	70	J	100	U	10	U
Bromodichloromethane	10	U	10	U	10	U	100	U	100	U	10	U
Bromoform	10	U	10	U	10	U	100	U	100	U	10	U
Bromomethane	10	U	10	U	10	U	100	U	100	U	10	U
Carbon disulfide	10	U	10	U	10	U	100	U	100	U	10	U
Carbon tetrachloride	10	U	10	U	10	U	100	U	100	U	10	U
Chlorobenzene	10	U	10	U	10	U	100	U	100	U	10	U
Chlorodibromomethane	10	U	10	U	10	U	100	U	100	U	10	U
Chloroethane	10	U	10	U	10	U	100	U	100	U	10	U
Chloroform	10	U	10	U	10	U	100	U	100	U	10	U
Chloromethane	10	UJ	10	U	10	U	100	U	100	U	10	U
Cis-1,2-Dichloroethene	11		47		51		100	U	100	U	10	
cis-1,3-Dichloropropene	10	U	10	U	10	U	100	U	100	U	10	U
Cyclohexane	10	U	10	U	10	U	87	J	100	U	10	U
Dichlorodifluoromethane	10	UJ	10	U	10	U	100	U	100	U	10	U

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5544-10		X5544-11		X5544-12		X5403-19		X5202-01	
	SDG		X5544		X5544		X5544		X5403		X5202	
	Location		GW-29		GW-30		GW-30		MW-1		MW-1	
	Field Sample Id		ATGW02901601XX		ATGW03001401XX		ATGW03001401XD		ATMW01R01701XX		ATDCMW101801XX	
	Field Sample Date		11/17/2006		11/17/2006		11/17/2006		11/9/2006		10/31/2006	
	Qc Code		FS		FS		FD		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Ethyl benzene	10	U	10	U	10	U	10	U	210		10	U
Isopropylbenzene	10	U	10	U	10	U	10	U	19	J	10	U
Methyl cyclohexane	10	U	10	U	10	U	10	U	67	J	10	U
Methyl Tertbutyl Ether	7.8	J	10	U	10	U	10	U	19	J	10	U
Methylene chloride	10	UJ	10	U	10	U	10	U	100	UJ	10	U
o-Xylene	10	U	10	U	10	U	10	U	32	J	10	U
Styrene	10	U	10	U	10	U	10	U	100	U	10	U
Tetrachloroethene	6.4	J	1.7	J	1.4	J	100	U	26			
Toluene	10	U	10	U	10	U	10	U	79	J	10	U
trans-1,2-Dichloroethene	10	U	10	U	10	U	100	U	100	U	10	U
trans-1,3-Dichloropropene	10	U	10	U	10	U	100	U	100	U	10	U
Trichloroethene	3.3	J	33		34		100	U	7	J		
Trichlorofluoromethane	10	U	10	U	10	U	100	U	10	U		
Vinyl chloride	6.3	J	6.5	J	6	J	100	U	10	U		
Xylene, m/p	10	U	10	U	10	U	210		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 greater than the RL

J = Estimated Result

B = Analyte was detected in the method blank

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Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5313-01		X5313-02DL		X5403-01		X5403-02		X5403-03	
	SDG		X5313		X5313		X5403		X5403		X5403	
	Location		MW-1R		MW-2		MW-2		MW-3		MW-4	
	Field Sample Id		ATMW00101701XX		ATMW00201601XX		ATDCMW202101XX		ATDCMW302101XX		ATDCMW401801XX	
	Field Sample Date		11/7/2006		11/7/2006		11/9/2006		11/9/2006		11/9/2006	
	Qc Code		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
1,1,2,2-Tetrachloroethane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
1,1,2-Trichloroethane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
1,1-Dichloroethane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
1,1-Dichloroethene	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
1,2,4-Trichlorobenzene	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
1,2-Dibromo-3-chloropropane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
1,2-Dibromoethane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
1,2-Dichlorobenzene	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
1,2-Dichloroethane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
1,2-Dichloropropane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
1,3-Dichlorobenzene	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
1,4-Dichlorobenzene	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
2-Butanone	50	U	1200	U	50	UJ	50	U	50	UJ	50	UJ
2-Hexanone	50	U	1200	U	50	UJ	50	U	50	UJ	50	UJ
4-Methyl-2-pentanone	50	U	1200	U	50	UJ	50	U	50	UJ	50	UJ
Acetic acid, methyl ester	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
Acetone	50	U	1200	U	50	UJ	50	U	50	UJ	50	UJ
Benzene	1.5	J	2100	D	10	UJ	10	U	10	UJ	10	UJ
Bromodichloromethane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
Bromoform	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
Bromomethane	10	U	250	UJ	10	UJ	10	U	10	UJ	10	UJ
Carbon disulfide	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
Carbon tetrachloride	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
Chlorobenzene	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
Chlorodibromomethane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
Chloroethane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
Chloroform	10	U	250	U	10	UJ	2.3	J	10	UJ	10	UJ
Chloromethane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
Cis-1,2-Dichloroethene	10	U	250	U	65	J	18	J	33	J	33	J
cis-1,3-Dichloropropene	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
Cyclohexane	10		220	JD	10	UJ	10	U	10	UJ	10	UJ
Dichlorodifluoromethane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5313-01		X5313-02DL		X5403-01		X5403-02		X5403-03	
	SDG		X5313		X5313		X5403		X5403		X5403	
	Location		MW-1R		MW-2		MW-2		MW-3		MW-4	
	Field Sample Id		ATMW00101701XX		ATMW00201601XX		ATDCMW202101XX		ATDCMW302101XX		ATDCMW401801XX	
	Field Sample Date		11/7/2006		11/7/2006		11/9/2006		11/9/2006		11/9/2006	
	Qc Code		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Ethyl benzene	3.7	J	1700	D	10	UJ	10	U	10	UJ	10	UJ
Isopropylbenzene	10	U	70	JD	10	UJ	10	U	10	UJ	10	UJ
Methyl cyclohexane	6	J	110	JD	10	UJ	10	U	10	UJ	10	UJ
Methyl Tertbutyl Ether	6.4	J	250	U	10	UJ	10	U	10	UJ	10	UJ
Methylene chloride	10	U	250	U	10	UJ	10	U	0.87	J	10	UJ
o-Xylene	3.3	J	1200	D	10	UJ	10	U	10	UJ	10	UJ
Styrene	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
Tetrachloroethene	10	U	250	U	220	D	28		890	D	10	UJ
Toluene	2.1	J	1100	D	10	UJ	10	U	10	UJ	10	UJ
trans-1,2-Dichloroethene	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
trans-1,3-Dichloropropene	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
Trichloroethene	10	U	250	U	15	J	4.1	J	10	J	10	UJ
Trichlorofluoromethane	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
Vinyl chloride	10	U	250	U	10	UJ	10	U	10	UJ	10	UJ
Xylene, m/p	8.4	J	5800	D	10	UJ	10	U	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 greater than the RL

J = Estimated Result

B = Analyte was detected in the method blank

D = Result was reported from a diluted analytical run.

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5403-04		X5286-01		X5286-02		X5191-01		X5313-03	
	SDG		X5403		X5286		X5286		X5191		X5313	
	Location		MW-5		MW-3		MW-4		MW-5		MW-6	
	Field Sample Id		ATDCMW502001XX		ATMW00301601XX		ATMW00401601XX		ATMW00501601XX		ATMW00601601XX	
	Field Sample Date		11/9/2006		11/6/2006		11/6/2006		11/8/2006		11/7/2006	
Qc Code	FS		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	10	UJ	10	U	10	U	10	U	10	U	10	U
1,1,2,2-Tetrachloroethane	10	UJ	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
1,1,2-Trichloroethane	10	UJ	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	10	UJ	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	1.6	J	10	U	10	U	10	U	10	U	10	U
1,2,4-Trichlorobenzene	10	UJ	10	U	10	U	10	U	10	U	10	U
1,2-Dibromo-3-chloropropane	10	UJ	10	U	10	U	10	U	10	U	10	U
1,2-Dibromoethane	10	UJ	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
1,2-Dichloroethane	10	UJ	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	10	UJ	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
1,4-Dichlorobenzene	10	UJ	10	U	10	U	10	U	10	U	0.88	J
2-Butanone	50	UJ	50	U	50	U	50	U	50	U	50	U
2-Hexanone	50	UJ	50	U	50	U	50	U	50	U	50	U
4-Methyl-2-pentanone	50	UJ	50	U	50	U	50	U	50	U	50	U
Acetic acid, methyl ester	10	UJ	10	U	10	U	10	U	10	U	10	U
Acetone	4.8	JB	50	U	50	U	50	U	50	U	50	U
Benzene	1.8	J	10	U	89	J	10	U	3.8	J		
Bromodichloromethane	10	UJ	10	U	10	U	10	U	10	U	10	U
Bromoform	10	UJ	10	U	10	U	10	U	10	U	10	U
Bromomethane	10	UJ	10	U	10	U	10	U	10	U	10	UJ
Carbon disulfide	10	UJ	10	U	10	U	10	U	10	U	10	U
Carbon tetrachloride	10	UJ	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	10	UJ	10	U	10	U	10	U	10	U	10	U
Chlorodibromomethane	10	UJ	10	U	10	U	10	U	10	U	10	U
Chloroethane	10	UJ	10	U	10	U	10	U	10	U	10	U
Chloroform	10	UJ	10	U	10	U	10	U	10	U	10	U
Chloromethane	10	UJ	10	U	10	U	10	U	10	U	10	U
Cis-1,2-Dichloroethene	1500	D	10	U	2.7	J	10	U	10	U	10	U
cis-1,3-Dichloropropene	10	UJ	10	U	10	U	10	U	10	U	10	U
Cyclohexane	10	UJ	10	U	63	J	10	U	160			
Dichlorodifluoromethane	10	UJ	10	U	10	U	10	U	10	U	10	U

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5403-04		X5286-01		X5286-02		X5191-01		X5313-03	
	SDG		X5403		X5286		X5286		X5191		X5313	
	Location		MW-5		MW-3		MW-4		MW-5		MW-6	
	Field Sample Id		ATDCMW502001XX		ATMW00301601XX		ATMW00401601XX		ATMW00501601XX		ATMW00601601XX	
	Field Sample Date		11/9/2006		11/6/2006		11/6/2006		11/8/2006		11/7/2006	
	Qc Code		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Ethyl benzene	7.1	J	10	U	5.2	J	10	U	9.4	J		
Isopropylbenzene	14	J	10	U	5.3	J	10	U	36			
Methyl cyclohexane	10	UJ	10	U	26	J	10	U	180			
Methyl Tertbutyl Ether	10	UJ	10	U	10	U	10	U	10	U		
Methylene chloride	10	UJ	10	U	10	U	10	U	10	U		
o-Xylene	80	J	10	U	2.6	J	10	U	10	U		
Styrene	10	UJ	10	U	10	U	10	U	10	U		
Tetrachloroethene	79	J	10	U	10	U	10	U	10	U		
Toluene	6.3	J	10	U	6.1	J	10	U	1.4	J		
trans-1,2-Dichloroethene	2.2	J	10	U	10	U	10	U	1.2	J		
trans-1,3-Dichloropropene	10	UJ	10	U	10	U	10	U	10	U		
Trichloroethene	11	J	10	U	10	U	10	U	10	U		
Trichlorofluoromethane	10	UJ	10	U	10	U	10	UJ	10	U		
Vinyl chloride	130	J	10	U	3.1	J	10	U	10	U		
Xylene, m/p	31	J	10	U	6.8	J	10	U	2.8	J		

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 greater than the RL

J = Estimated Result

B = Analyte was detected in the method blank

D = Result was reported from a diluted analytical run.

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5313-04RE		X5191-02		X5191-03		X5403-05		X5191-08	
	SDG		X5313		X5191		X5191		X5403		X5191	
	Location		MW-7		MW-8		MW-8		MW-9		QC	
	Field Sample Id		ATMW00701601XX		ATMW00801601XX		ATMW00801601XD		ATMW00901701XX		ATTB003XXX01XX	
	Field Sample Date		11/7/2006		11/8/2006		11/8/2006		11/9/2006		11/8/2006	
	Qc Code		FS		FS		FD		FS		TB	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	10	U	1.1	J	10	UJ	10	U	10	U	10	U
1,1,2,2-Tetrachloroethane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,1,2-Trichloroethane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,1-Dichloroethane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,1-Dichloroethene	10	U	10	U	10	UJ	10	U	10	U	10	U
1,2,4-Trichlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U
1,2-Dibromo-3-chloropropane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,2-Dibromoethane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,2-Dichlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U
1,2-Dichloroethane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,2-Dichloropropane	10	U	10	U	10	UJ	10	U	10	U	10	U
1,3-Dichlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U
1,4-Dichlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U
2-Butanone	50	U	50	U	50	UJ	50	U	50	U	50	U
2-Hexanone	50	U	50	U	50	UJ	50	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	UJ	50	U	50	U	50	U
Acetic acid, methyl ester	10	U	10	U	10	UJ	10	U	10	U	10	U
Acetone	50	U	50	U	50	UJ	50	U	50	U	6.9	JB
Benzene	10	U	10	U	10	UJ	10	U	10	U	10	U
Bromodichloromethane	10	U	10	U	10	UJ	10	U	10	U	10	U
Bromoform	10	U	10	U	10	UJ	10	U	10	U	10	U
Bromomethane	10	U	10	U	10	UJ	10	U	10	U	10	U
Carbon disulfide	10	U	10	U	10	UJ	10	U	10	U	10	U
Carbon tetrachloride	10	U	10	U	10	UJ	10	U	10	U	10	U
Chlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U
Chlorodibromomethane	10	U	10	U	10	UJ	10	U	10	U	10	U
Chloroethane	10	U	10	U	10	UJ	10	U	10	U	10	U
Chloroform	10	U	10	U	10	UJ	10	U	10	U	2	J
Chloromethane	10	U	10	U	10	UJ	10	U	10	U	10	U
Cis-1,2-Dichloroethene	10	U	3	J	2.7	J	32		10	U	10	U
cis-1,3-Dichloropropene	10	U	10	U	10	UJ	10	U	10	U	10	U
Cyclohexane	10	U	10	U	10	UJ	18		10	U	10	U
Dichlorodifluoromethane	10	U	10	U	10	UJ	10	U	10	U	10	U

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5313-04RE		X5191-02		X5191-03		X5403-05		X5191-08	
	SDG		X5313		X5191		X5191		X5403		X5191	
	Location		MW-7		MW-8		MW-8		MW-9		QC	
	Field Sample Id		ATMW00701601XX		ATMW00801601XX		ATMW00801601XD		ATMW00901701XX		ATTB003XXX01XX	
	Field Sample Date		11/7/2006		11/8/2006		11/8/2006		11/9/2006		11/8/2006	
	Qc Code		FS		FS		FD		FS		TB	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Ethyl benzene	10	U	10	U	10	UJ	31		10	U		
Isopropylbenzene	10	U	10	U	10	UJ	5.1	J	10	U		
Methyl cyclohexane	10	U	10	U	10	UJ	5.7	J	10	U		
Methyl Tertbutyl Ether	20	J	10	J	11	J	14		10	U		
Methylene chloride	10	U	10	U	10	UJ	10	UJ	10	U		
o-Xylene	10	U	10	U	10	UJ	21		10	U		
Styrene	10	U	10	U	10	UJ	10	U	10	U		
Tetrachloroethene	10	U	10	U	10	UJ	12		10	U		
Toluene	10	U	10	U	10	UJ	7.5	J	10	U		
trans-1,2-Dichloroethene	10	U	10	U	10	UJ	10	U	10	U		
trans-1,3-Dichloropropene	10	U	10	U	10	UJ	10	U	10	U		
Trichloroethene	10	U	5.3	J	5.8	J	12		10	U		
Trichlorofluoromethane	10	U	10	U	10	UJ	10	U	10	U		
Vinyl chloride	10	U	10	U	10	UJ	10	U	10	U		
Xylene, m/p	10	U	10	U	10	UJ	54		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 greater than the RL

J = Estimated Result

B = Analyte was detected in the method blank

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Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5286-14		X5313-05		X5313-08		X5313-22		X5544-01	
	SDG		X5286		X5313		X5313		X5313		X5544	
	Location		QC		QC		QC		QC		QC	
	Field Sample Id		ATTB001XXX01XX		ATEB001XXX01XX		ATEB002XXX01XX		ATTB002XXX01XX		ATTB005XXX01XX	
	Field Sample Date		11/6/2006		11/7/2006		11/7/2006		11/7/2006		11/17/2006	
Qc Code	TB		EB		EB		EB		TB		TB	
	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
1,1,2,2-Tetrachloroethane	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
1,1,2-Trichloroethane	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
1,1-Dichloroethene	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
1,2-Dibromo-3-chloropropane	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dibromoethane	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
1,2-Dichloroethane	10	U	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	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
1,4-Dichlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	U	50	U	50	U	50	U	50	U	50	U
2-Hexanone	50	U	50	U	50	U	50	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	U	50	U	50	U	50	U
Acetic acid, methyl ester	10	U	10	U	10	U	10	U	10	U	10	U
Acetone	10	J	50	U	7.2	JB	9.8	J	50	U	50	U
Benzene	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
Bromoform	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
Carbon disulfide	10	U	10	U	10	U	10	U	10	U	10	U
Carbon tetrachloride	10	U	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	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
Chloroethane	10	U	10	U	10	U	10	U	10	U	10	U
Chloroform	10	U	1.2	J	1.2	J	10	U	10	U	10	U
Chloromethane	10	U	10	U	10	U	10	U	10	U	10	U
Cis-1,2-Dichloroethene	10	U	10	U	10	U	10	U	10	U	10	U
cis-1,3-Dichloropropene	10	U	10	U	10	U	10	U	10	U	10	U
Cyclohexane	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

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter	Lab Sample Id		X5286-14		X5313-05		X5313-08		X5313-22		X5544-01	
	SDG		X5286		X5313		X5313		X5313		X5544	
	Location		QC		QC		QC		QC		QC	
	Field Sample Id		ATTB001XXX01XX		ATEB001XXX01XX		ATEB002XXX01XX		ATTB002XXX01XX		ATTB005XXX01XX	
	Field Sample Date		11/6/2006		11/7/2006		11/7/2006		11/7/2006		11/17/2006	
	Qc Code		TB		EB		EB		TB		TB	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Ethyl benzene	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
Methyl cyclohexane	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
Methylene chloride	1	J	10	U	10	U	10	U	1.4	J	10	U
o-Xylene	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
Tetrachloroethene	10	U	10	U	10	U	10	U	10	U	10	U
Toluene	10	U	10	U	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	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
Trichloroethene	10	U	10	U	10	U	10	U	10	U	10	U
Trichlorofluoromethane	10	U	10	U	10	U	10	U	10	UJ	10	U
Vinyl chloride	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

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 greater than the RL

J = Estimated Result

B = Analyte was detected in the method blank

D = Result was reported from a diluted analytical run.



Appendix E  
 Table 1.2: Groundwater SVOC Results

Lab Sample Id SDG Location Field Sample Id Field Sample Date Qc Code Parameter	X5191-04		X5313-14		X5313-18		X5403-12		X5403-19		X5313-01	
	X5191		X5313		X5313		X5403		X5403		X5313	
	GW-4		GW-9		GW-13		GW-20		MW-1		MW-1R	
	ATGW00401701XX		ATGW00901701XX		ATGW01301701XX		ATGW02002601XX		ATMW01R01701XX		ATMW00101701XX	
	11/8/2006		11/7/2006		11/7/2006		11/9/2006		11/9/2006		11/7/2006	
	FS		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
2,4,5-Trichlorophenol	10	U	10	U	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	20	UJ	20	U	20	U	21	UJ	20	UJ	20	U
2,4-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	10	U	10	U	10	U	10	U	10	U	10	U
2-Nitrophenol	10	U	10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U	21	U	20	U	20	U
3-Nitroaniline	10	U	10	U	10	U	10	U	10	U	10	U
4,6-Dinitro-2-methylphenol	20	U	20	U	20	U	21	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U	10	U	10	U	10	U
4-Methylphenol	10	U	10	U	10	U	10	U	10	U	10	U
4-Nitroaniline	10	U	10	U	10	U	10	U	10	U	10	U
4-Nitrophenol	20	U	20	U	20	U	21	U	20	U	20	U
Acenaphthene	10	U	10	U	10	UJ	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(ghi)perylene	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U	10	U	10	U	10	U
Biphenyl	10	U	10	U	10	U	10	U	10	U	10	U
Bis(2-Chloroethoxy)methane	10	U	10	U	10	U	10	U	10	U	10	U
Bis(2-Chloroethyl)ether	10	U	10	U	10	U	10	U	10	U	10	U
Bis(2-Chloroisopropyl)ether	10	U	10	U	10	U	10	U	10	U	10	U

Appendix E  
 Table 1.2: Groundwater SVOC Results

Lab Sample Id SDG Location Field Sample Id Field Sample Date Qc Code Parameter	X5191-04		X5313-14		X5313-18		X5403-12		X5403-19		X5313-01	
	X5191		X5313		X5313		X5403		X5403		X5313	
	GW-4		GW-9		GW-13		GW-20		MW-1		MW-1R	
	ATGW00401701XX		ATGW00901701XX		ATGW01301701XX		ATGW02002601XX		ATMW01R01701XX		ATMW00101701XX	
	11/8/2006		11/7/2006		11/7/2006		11/9/2006		11/9/2006		11/7/2006	
Parameter	FS		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U	4.9	J	10	U	10	U
Butylbenzylphthalate	10	U	10	U	10	U	10	U	10	U	10	U
Caprolactum	10	U	10	U	10	U	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U	10	U	10	U	10	U
Di-n-butylphthalate	10	U	10	U	2.7	J	10	U	10	U	10	U
Di-n-octylphthalate	10	U	10	U	10	U	10	U	10	U	10	U
Dibenz(a,h)anthracene	10	U	10	U	10	U	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U	10	U	10	U	10	U
Diethylphthalate	10	U	10	U	10	U	10	U	10	U	10	U
Dimethylphthalate	10	U	10	U	10	U	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	UJ	10	U	10	U	10	UJ	10	UJ	10	U
Hexachloroethane	10	U	10	U	10	U	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U	10	U	10	U	10	U
N-Nitrosodi-n-propylamine	10	U	10	U	10	U	10	U	10	U	10	U
N-Nitrosodiphenylamine	10	U	10	U	10	U	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U	21	U	20	U	20	U
Phenanthrene	10	U	10	U	10	U	10	U	10	U	10	U
Phenol	10	U	10	U	10	U	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U	10	U	10	U	10	U

Notes:

Results in micrograms per liter (µg/L)

Samples analyzed for SVOCs by EPA Method OLM04.2

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the RL

J = Estimated Result

Appendix E  
 Table 1.2: Groundwater SVOC Results

Lab Sample Id SDG Location Field Sample Id Field Sample Date Qc Code Parameter	X5313-02		X5286-01		X5286-02		X5191-01		X5313-03		X5313-04	
	X5313		X5286		X5286		X5191		X5313		X5313	
	MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
	ATMW00201601XX		ATMW00301601XX		ATMW00401601XX		ATMW00501601XX		ATMW00601601XX		ATMW00701601XX	
	11/7/2006		11/6/2006		11/6/2006		11/8/2006		11/7/2006		11/7/2006	
	FS		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
2,4,5-Trichlorophenol	10	U	10	U	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	22		10	U	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	20	U	20	UJ	20	UJ	20	UJ	20	U	20	U
2,4-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U	10	U	10	U	10	U
2-Methylnaphthalene	53		10	U	10	U	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U	10	U	10	U	10	U
2-Nitroaniline	10	U	10	U	10	U	10	U	10	U	10	U
2-Nitrophenol	10	U	10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U	20	U	20	U	20	U
3-Nitroaniline	10	U	10	U	10	U	10	U	10	U	10	U
4,6-Dinitro-2-methylphenol	20	U	20	U	20	U	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U	10	U	10	U	10	U
4-Methylphenol	9.9	J	10	U	10	U	10	U	10	U	10	U
4-Nitroaniline	10	U	10	U	10	U	10	U	10	U	10	U
4-Nitrophenol	20	U	20	U	20	U	20	U	20	U	20	U
Acenaphthene	10	U	10	U	10	U	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(ghi)perylene	10	U	10	U	10	U	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U	10	U	10	U	10	U
Biphenyl	10	U	10	U	10	U	10	U	10	U	10	U
Bis(2-Chloroethoxy)methane	10	U	10	U	10	U	10	U	10	U	10	U
Bis(2-Chloroethyl)ether	10	U	10	U	10	U	10	U	10	U	10	U
Bis(2-Chloroisopropyl)ether	10	U	10	U	10	U	10	U	10	U	10	U

Appendix E  
 Table 1.2: Groundwater SVOC Results

Lab Sample Id SDG Location Field Sample Id Field Sample Date Qc Code Parameter	X5313-02		X5286-01		X5286-02		X5191-01		X5313-03		X5313-04	
	X5313		X5286		X5286		X5191		X5313		X5313	
	MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
	ATMW00201601XX		ATMW00301601XX		ATMW00401601XX		ATMW00501601XX		ATMW00601601XX		ATMW00701601XX	
	11/7/2006		11/6/2006		11/6/2006		11/8/2006		11/7/2006		11/7/2006	
	FS		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U	10	U	10	U	10	U
Butylbenzylphthalate	10	U	10	U	10	U	10	U	10	U	10	U
Caprolactum	10	U	10	U	10	U	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U	10	U	10	U	10	U
Di-n-butylphthalate	10	U	10	U	10	U	10	U	10	U	10	U
Di-n-octylphthalate	10	U	10	U	10	U	10	U	10	U	10	U
Dibenz(a,h)anthracene	10	U	10	U	10	U	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U	10	U	10	U	10	U
Diethylphthalate	10	U	10	U	10	U	10	U	10	U	10	U
Dimethylphthalate	10	U	10	U	10	U	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	U	10	U	10	U	10	U	10	U
Hexachloroethane	10	U	10	U	10	U	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U	10	U	10	U	10	U
N-Nitrosodi-n-propylamine	10	U	10	U	10	U	10	U	10	U	10	U
N-Nitrosodiphenylamine	10	U	10	U	10	U	10	U	10	U	10	U
Naphthalene	240	D	10	U	10	U	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U	20	U	20	U	20	U
Phenanthrene	10	U	10	U	10	U	10	U	10	U	10	U
Phenol	17		10	U	10	U	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U	10	U	10	U	10	U

Notes:

Results in micrograms per liter (µg/L)

Samples analyzed for SVOCs by EPA Method OLM04.2

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the RL

J = Estimated Result

**Appendix E**  
**Table 1.2: Groundwater SVOC Results**

Parameter	Lab Sample Id		X5191-02		X5191-03		X5403-05	
	SDG		X5191		X5191		X5403	
	Location		MW-8		MW-8		MW-9	
	Field Sample Id		ATMW00801601XX		ATMW00801601XD		ATMW00901701XX	
	Field Sample Date		11/8/2006		11/8/2006		11/9/2006	
	Qc Code		FS		FD		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
2,4,5-Trichlorophenol	10	U	10	U	10	U	10	U
2,4,6-Trichlorophenol	10	U	10	U	10	U	10	U
2,4-Dichlorophenol	10	U	10	U	10	U	10	U
2,4-Dimethylphenol	10	U	10	U	10	U	10	U
2,4-Dinitrophenol	20	UJ	20	UJ	20	UJ	20	UJ
2,4-Dinitrotoluene	10	U	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U	10	U
2-Chloronaphthalene	10	U	10	U	10	U	10	U
2-Chlorophenol	10	U	10	U	10	U	10	U
2-Methylnaphthalene	10	U	10	U	10	U	10	U
2-Methylphenol	10	U	10	U	10	U	10	U
2-Nitroaniline	10	U	10	U	10	U	10	U
2-Nitrophenol	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U	20	U
3-Nitroaniline	10	U	10	U	10	U	10	U
4,6-Dinitro-2-methylphenol	20	U	20	U	20	U	20	U
4-Bromophenyl phenyl ether	10	U	10	U	10	U	10	U
4-Chloro-3-methylphenol	10	U	10	U	10	U	10	U
4-Chloroaniline	10	U	10	U	10	U	10	U
4-Chlorophenyl phenyl ether	10	U	10	U	10	U	10	U
4-Methylphenol	10	U	10	U	10	U	10	U
4-Nitroaniline	10	U	10	U	10	U	10	U
4-Nitrophenol	20	U	20	U	20	U	20	U
Acenaphthene	10	U	10	U	10	U	10	U
Acenaphthylene	10	U	10	U	10	U	10	U
Acetophenone	10	U	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U	10	U
Atrazine	10	U	10	U	10	U	10	U
Benzaldehyde	10	U	10	U	10	U	10	U
Benzo(a)anthracene	10	U	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U	10	U
Benzo(ghi)perylene	10	U	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U	10	U
Biphenyl	10	U	10	U	10	U	10	U
Bis(2-Chloroethoxy)methane	10	U	10	U	10	U	10	U
Bis(2-Chloroethyl)ether	10	U	10	U	10	U	10	U
Bis(2-Chloroisopropyl)ether	10	U	10	U	10	U	10	U

**Appendix E**  
**Table 1.2: Groundwater SVOC Results**

Parameter	Lab Sample Id		X5191-02		X5191-03		X5403-05	
	SDG		X5191		X5191		X5403	
	Location		MW-8		MW-8		MW-9	
	Field Sample Id		ATMW00801601XX		ATMW00801601XD		ATMW00901701XX	
	Field Sample Date		11/8/2006		11/8/2006		11/9/2006	
	Qc Code		FS		FD		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Bis(2-Ethylhexyl)phthalate	10	U	10	U	10	U	10	U
Butylbenzylphthalate	10	U	10	U	10	U	10	U
Caprolactum	10	U	10	U	10	U	10	U
Carbazole	10	U	10	U	10	U	10	U
Chrysene	10	U	10	U	10	U	10	U
Di-n-butylphthalate	10	U	10	U	10	U	10	U
Di-n-octylphthalate	10	U	10	U	10	U	10	U
Dibenz(a,h)anthracene	10	U	10	U	10	U	10	U
Dibenzofuran	10	U	10	U	10	U	10	U
Diethylphthalate	10	U	10	U	10	U	10	U
Dimethylphthalate	10	U	10	U	10	U	10	U
Fluoranthene	10	U	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U	10	U
Hexachlorobutadiene	10	U	10	U	10	U	10	U
Hexachlorocyclopentadiene	10	U	10	UJ	10	UJ	10	UJ
Hexachloroethane	10	U	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U	10	U
Isophorone	10	U	10	U	10	U	10	U
N-Nitrosodi-n-propylamine	10	U	10	U	10	U	10	U
N-Nitrosodiphenylamine	10	U	10	U	10	U	10	U
Naphthalene	10	U	10	U	10	U	10	U
Nitrobenzene	10	U	10	U	10	U	10	U
Pentachlorophenol	20	U	20	U	20	U	20	U
Phenanthrene	10	U	10	U	10	U	10	U
Phenol	10	U	10	U	10	U	10	U
Pyrene	10	U	10	U	10	U	10	U

Notes:

Results in micrograms per liter (µg/L)

Samples analyzed for SVOCs by EPA Method OLM04.2

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the RL

J = Estimated Result

**Appendix E**  
**Table 1.3: Soil VOC Results**

Parameter	Lab Sample Id	X5286-03		X5286-06	
	SDG	X5286		X5286	
	Location	GS-1		GS-8	
	Field Sample Id	ATGS00100701XX		ATGS00800801XX	
	Field Sample Date	11/6/2006		11/6/2006	
	Qc Code	FS		FS	
		Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane		13	U	11	U
1,1,2,2-Tetrachloroethane		13	U	11	U
1,1,2-Trichloro-1,2,2-Trifluoroethane		13	U	11	U
1,1,2-Trichloroethane		13	U	11	U
1,1-Dichloroethane		13	U	11	U
1,1-Dichloroethene		13	U	11	U
1,2,4-Trichlorobenzene		13	U	11	U
1,2-Dibromo-3-chloropropane		13	U	11	U
1,2-Dibromoethane		13	U	11	U
1,2-Dichlorobenzene		13	U	11	U
1,2-Dichloroethane		13	U	11	U
1,2-Dichloropropane		13	U	11	U
1,3-Dichlorobenzene		13	U	11	U
1,4-Dichlorobenzene		13	U	11	U
2-Butanone		66	U	57	U
2-Hexanone		66	U	57	U
4-Methyl-2-pentanone		66	U	57	U
Acetic acid, methyl ester		13	U	11	U
Acetone		66	U	57	U
Benzene		13	U	11	U
Bromodichloromethane		13	U	11	U
Bromoform		13	U	11	U
Bromomethane		13	U	11	U
Carbon disulfide		13	U	11	U
Carbon tetrachloride		13	U	11	U
Chlorobenzene		13	U	11	U
Chlorodibromomethane		13	U	11	U
Chloroethane		13	U	11	U
Chloroform		13	U	11	U
Chloromethane		13	U	11	U
Cis-1,2-Dichloroethene		25		11	U
cis-1,3-Dichloropropene		13	U	11	U
Cyclohexane		13	U	11	U
Dichlorodifluoromethane		13	U	11	U
Ethyl benzene		13	U	11	U
Isopropylbenzene		13	U	11	U
Methyl cyclohexane		13	U	11	U
Methyl Tertbutyl Ether		13	U	11	U
Methylene chloride		13	U	11	U
o-Xylene		13	U	11	U
Styrene		13	U	11	U
Tetrachloroethene		2700	D	11	U
Toluene		2.4	J	11	U

**Appendix E**  
**Table 1.3: Soil VOC Results**

	<b>Lab Sample Id</b>	<b>X5286-03</b>		<b>X5286-06</b>	
	<b>SDG</b>	<b>X5286</b>		<b>X5286</b>	
	<b>Location</b>	<b>GS-1</b>		<b>GS-8</b>	
	<b>Field Sample Id</b>	<b>ATGS00100701XX</b>		<b>ATGS00800801XX</b>	
	<b>Field Sample Date</b>	<b>11/6/2006</b>		<b>11/6/2006</b>	
	<b>Qc Code</b>	<b>FS</b>		<b>FS</b>	
<b>Parameter</b>		<b>Result</b>	<b>Qualifier</b>	<b>Result</b>	<b>Qualifier</b>
trans-1,2-Dichloroethene		13	U	11	U
trans-1,3-Dichloropropene		13	U	11	U
Trichloroethene		32000	D	4.2	J
Trichlorofluoromethane		13	U	11	U
Vinyl chloride		13	U	11	U
Xylene, m/p		13	U	11	U

Notes:

Results in micrograms per kilogram (µg/kg)

Samples analyzed for VOCs by EPA Method OLM04.2

QC Code:

FS = Field Sample

Qualifiers:

U = Not detected at a concentration greater than the RL

J = Estimated value

D = Result was reported from a diluted analytical run



Table 1.4: Soil Vapor VOC Results

Parameter	Lab Sample Id	X5191-06		X5191-07		X5403-14		X5887-01	
	SDG	X5191		X5191		X5403		X5887	
	Location	GV-01		GV-02		GV-03		SV-001	
	Field Sample Id	ATGV00101201XX		ATGV00201001XX		ATGV00301201XX		ATSV00100101XX	
	Field Sample Date	11/8/2006		11/8/2006		11/9/2006		12/19/2006	
	Qc Code	FS		FS		FS		FS	
		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane		5.44	U	298		5.44	U	13.1	
1,1,2,2-Tetrachloroethane		9.62		6.87	U	6.87	U	13.74	UJ
1,1,2-Trichloro-1,2,2-Trifluoroethane		10.7		7.65	U	7.65	U	15.3	U
1,1,2-Trichloroethane		5.44	U	5.44	U	5.44	U	10.88	UJ
1,1-Dichloroethane		4.05	U	11.7		4.05	U	8.1	U
1,1-Dichloroethene		3.97	U	3.97	U	3.97	U	7.93	U
1,2,4-Trichlorobenzene		14.8	J	7.4	U	7.4	U	14.81	UJ
1,2,4-Trimethylbenzene		26		4.91	U	4.91	U	9.82	UJ
1,2-Dibromoethane		7.69	U	7.69	U	7.69	U	15.38	UJ
1,2-Dichloro-1,1,2,2-tetrafluoroethane		6.99	U	6.99	U	6.99	U	13.99	U
1,2-Dichlorobenzene		7.21		6.01	U	6.01	U	12.02	UJ
1,2-Dichloroethane		4.05	U	4.05	U	4.05	U	8.1	UJ
1,2-Dichloropropane		4.62	U	4.62	U	4.62	U	9.24	UJ
1,3,5-Trimethylbenzene		11.8		4.91	U	4.91	U	9.82	UJ
1,3-Dichlorobenzene		6.61		6.01	U	6.01	U	12.02	UJ
1,4-Dichlorobenzene		7.21		6.01	U	6.01	U	12.02	UJ
1,4-Dioxane		7.2	U	7.2	U	7.2	U	14.4	UJ
2-Butanone		5.89	U	16.5		5.89	U	11.78	UJ
2-Hexanone		8.18	U	8.18	U	8.18	U	16.36	UJ
2-Propanol		4.91	U	4.91	U	4.91	U	9.82	U
4-Ethyltoluene		13.7	J	4.91	UJ	4.91	U	9.82	UJ
4-Methyl-2-pentanone		8.18	U	8.18	U	8.18	U	16.36	UJ
Acetone		4.74	U	4.74	U	4.74	U	50.8	
Allyl chloride		3.15	U	3.15	U	3.15	U	6.3	U
Benzene		12.8		20.1		10.8		6.38	UJ
Benzyl chloride		5.77	U	5.77	U	5.77	U	11.53	UJ
Bromodichloromethane		6.71	U	6.71	U	6.71	U	13.42	UJ
Bromoform		12.4		10.35	U	10.35	U	20.7	UJ
Bromomethane		5.44		3.89	U	3.89	U	7.77	U
Butadiene, 1,3-		2.21	U	2.21	U	2.21	U	4.42	U
Carbon disulfide		3.11	U	3.11	U	3.11	U	6.22	U
Carbon tetrachloride		7.56		6.3	U	6.3	U	12.6	UJ
Chlorobenzene		6.01		4.62	U	4.62	U	9.24	UJ
Chlorodibromomethane		11.9		8.51	U	8.51	U	17.01	UJ
Chloroethane		3.72		2.66	U	2.66	U	5.32	U
Chloroform		17		37		27.7		23.4	
Chloromethane		2.04	U	2.04	U	2.04	U	4.09	U
Cis-1,2-Dichloroethene		6.35		20.2		3.97	U	129	
cis-1,3-Dichloropropene		4.54	U	4.54	U	4.54	U	9.08	UJ
Cyclohexane		3.35	UJ	32.5	J	3.35	U	6.71	U
Dichlorodifluoromethane		6.93		4.95	U	4.95	U	9.9	U
Ethyl acetate		3.6	U	3.6	U	3.6	U	7.2	U
Ethyl benzene		12.6		4.34	U	4.34	U	8.67	UJ
Heptane		16.8		55.6		20.9		8.18	U
Hexachlorobutadiene		10.67	U	10.67	U	10.67	U	21.35	UJ
Hexane		7.03	U	178		84.8		14.07	U
Isooctane		1166	J	4.66	U	4.66	U	41	J
Methyl Tertbutyl Ether		3.6	U	3.6	U	3.6	U	7.2	U
Methylene chloride		10.1		6.95	U	6.95	U	16	
o-Xylene		9.97		4.34	U	4.34	U	8.67	UJ
Propylene		1944	D	523	D	602	D	17.18	U
Styrene		4.25	U	4.25	U	4.25	U	8.51	UJ
Tetrachloroethene		17		38.7		31.9		1.310	J
Tetrahydrofuran		5.89	U	5.89	U	5.89	U	11.78	UJ
Toluene		19.6		46.3		9.78		7.53	UJ

Table 1.4: Soil Vapor VOC Results

Parameter	Lab Sample Id	X5191-06		X5191-07		X5403-14		X5887-01	
	SDG	X5191		X5191		X5403		X5887	
	Location	GV-01		GV-02		GV-03		SV-001	
	Field Sample Id	ATGV00101201XX		ATGV00201001XX		ATGV00301201XX		ATSV00100101XX	
	Field Sample Date	11/8/2006		11/8/2006		11/9/2006		12/19/2006	
	Qc Code	FS		FS		FS		FS	
		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
trans-1,2-Dichloroethene		6.35		5.95		3.97	U	14.3	
trans-1,3-Dichloropropene		4.54	U	4.54	U	4.54	U	9.08	UJ
Trichloroethene		5.36	U	1737	D	20.9		17472	EDJ
Trichlorofluoromethane		6.72		5.6	U	5.6	U	11.21	U
Vinyl acetate		3.52	U	3.52	U	3.52	U	7.03	U
Vinyl bromide		4.38	U	4.38	U	4.38	U	8.75	U
Vinyl chloride		3.07		2.56	U	2.56	U	5.11	U
Xylene, m/p		52.9		11.3		8.67	U	17.34	UJ

## Notes:

Results in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )

Samples analyzed for VOCs by EPA Method TO-15

QC Code:

FS = Field Sample

Qualifiers:

U = Not detected at a concentration greater than the RL

J = Estimated value

D = Analyte was reported from a diluted analytical run

**Appendix E**  
**Table 1.5: Groundwater TIC Results**

Sample Name	Lab ID	Type	SDG	Method	Chemical Name	Result	Qualifier	Units
ATMW00501601XX	X5191-01	FS	X5191	OLM04.2_SVOA	Cyclohexadecane, 1,2-diethyl-	3.6	JN	ug/L
ATMW00501601XX	X5191-01	FS	X5191	OLM04.2_SVOA	Squalene	3.4	JN	ug/L
ATMW00801601XX	X5191-02	FS	X5191	OLM04.2_SVOA	1-Docosene	2.8	JN	ug/L
ATMW00801601XD	X5191-03	FD	X5191	OLM04.2_SVOA	1-Tricosene	3.9	JN	ug/L
ATMW00801601XD	X5191-03	FD	X5191	OLM04.2_SVOA	n-Hexadecanoic acid	2.4	JN	ug/L
ATMW00801601XD	X5191-03	FD	X5191	OLM04.2_SVOA	Squalene	3.9	JN	ug/L
ATGW00401701XX	X5191-04	FS	X5191	OLM04.2_SVOA	Cycloeicosane	2.8	JN	ug/L
ATMW00301601XX	X5286-01	FS	X5286	OLM04.2_SVOA	unknown2.74	3.1	J	ug/L
ATMW00301601XX	X5286-01	FS	X5286	OLM04.2_SVOA	1-Propene, 1,2,3-trichloro-, (E)-	3.3	JN	ug/L
ATMW00301601XX	X5286-01	FS	X5286	OLM04.2_SVOA	1,2-Benzenedicarboxylic acid, buty	2.4	JN	ug/L
ATMW00301601XX	X5286-01	FS	X5286	OLM04.2_SVOA	unknown9.59	3.6	J	ug/L
ATMW00301601XX	X5286-01	FS	X5286	OLM04.2_SVOA	Octadec-9-enoic acid	6.6	JN	ug/L
ATMW00301601XX	X5286-01	FS	X5286	OLM04.2_SVOA	Heneicosane	2.2	JN	ug/L
ATMW00301601XX	X5286-01	FS	X5286	OLM04.2_SVOA	Octadecane	2.7	JN	ug/L
ATMW00301601XX	X5286-01	FS	X5286	OLM04.2_SVOA	Squalene	7.0	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_VOA	Cyclopentene	14	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_VOA	Pentane, 3-methyl-	14	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	unknown2.31	4.8	J	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_VOA	Cyclopentane, methyl-	51	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	Cyclopentanol, 1-methyl-	5.5	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_VOA	Cyclopropane, 1-methyl-2-octyl-	21	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	2-Pentanol, 2,3-dimethyl-	4.0	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_VOA	2-Pentene, 3,4-dimethyl-, (Z)-	15	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_VOA	Cyclohexene, 4-methyl-	37	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	1-Methylcyclohexanol	12	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_VOA	Cyclohexene, 1-methyl-	19	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	Benzene, (1-methylethyl)-	3.7	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_VOA	Diisopropyl sulfide	16	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	Benzene, propyl-	3.7	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_VOA	Benzene, 1,2,4,5-tetramethyl-	11	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	Indene	5.5	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	unknown4.50	3.5	J	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	unknown4.78	2.9	J	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	Benzene, 1,2,4,5-tetramethyl-	5.8	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	unknown5.13	8.1	J	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	Naphthalene, 1,2,3,4-tetrahydro-1-	6.6	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	unknown6.00	3.8	J	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	unknown6.22	3.6	J	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	unknown6.54	3.0	J	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	n-Hexadecanoic acid	6.2	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	6-Octadecenoic acid, (Z)-	8.8	JN	ug/L
ATMW00401601XX	X5286-02	FS	X5286	OLM04.2_SVOA	1-Docosene	5.0	JN	ug/L
ATGW00102001XX	X5286-07	FS	X5286	OLM04.2_VOA	Cyclopropane	5.7	JN	ug/L

Appendix E  
Table 1.5: Groundwater TIC Results

Sample Name	Lab ID	Type	SDG	Method	Chemical Name	Result	Qualifier	Units
ATGW01002901XX	X5286-13	FS	X5286	OLM04.2_VOA	Cyclopropane	5.1	JN	ug/L
ATGW01002901XX	X5286-13RE	FS	X5286	OLM04.2_VOA	Propene	7.0	JN	ug/L
ATMW00101701XX	X5313-01	FS	X5313	OLM04.2_SVOA	2-Butanol, 2,3-dimethyl-	5.7	JN	ug/L
ATMW00101701XX	X5313-01	FS	X5313	OLM04.2_SVOA	unknown4.43	6.2	J	ug/L
ATMW00101701XX	X5313-01	FS	X5313	OLM04.2_SVOA	Octadec-9-enoic acid	4.1	JN	ug/L
ATMW00101701XX	X5313-01	FS	X5313	OLM04.2_SVOA	Tridecane, 1-iodo-	2.1	JN	ug/L
ATMW00101701XX	X5313-01	FS	X5313	OLM04.2_SVOA	unknown10.35	4.6	J	ug/L
ATMW00101701XX	X5313-01	FS	X5313	OLM04.2_SVOA	Cyclotetracosane	5.6	JN	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_SVOA	Benzene, 1-ethyl-3-methyl-	26	JN	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_SVOA	Benzene, 1,2,3-trimethyl-	51	JN	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_SVOA	unknown4.29	20	J	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_SVOA	Benzene, 1-methyl-3-(1-methylethyl	9.2	JN	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_SVOA	Benzene, 1,2,3,4-tetramethyl-	5.3	JN	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_SVOA	Benzene, 2-ethenyl-1,4-dimethyl-	9.6	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_SVOA	Benzene, 1-ethyl-3-methyl-	120	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_SVOA	Benzene, 1,3,5-trimethyl-	83	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_SVOA	Unknown4.02	260	J	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_SVOA	Benzene, 1,2,3-trimethyl-	100	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_SVOA	Benzene, 2-ethyl-1,4-dimethyl-	37	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_SVOA	Benzene, 1,2,3,5-tetramethyl-	59	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_SVOA	1-Phenyl-1-butene	100	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	unknown2.98	7.1	J	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	unknown3.74	3.8	J	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	3-Ethylcyclopentanone	5.6	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	Benzene, 1,2,3-trimethyl-	15	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	Benzene, 1,3-diethyl-	10	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	Benzene, 1-ethyl-2,3-dimethyl-	4.0	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	Benzene, 1-methyl-2-propyl-	8.1	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	Benzene, 1,2,3,5-tetramethyl-	12	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	unknown4.92	5.3	J	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	Indan, 1-methyl-	5.2	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	1-Phenyl-1-butene	34	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	Benzenemethanol, 3,5-dimethyl-	3.9	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	Naphthalene, 1-methyl-	8.9	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	unknown7.27	14	J	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	unknown7.61	4.5	J	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	unknown7.94	4.5	J	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	unknown8.80	4.5	J	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	n-Hexadecanoic acid	8.3	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_SVOA	Octadec-9-enoic acid	20	JN	ug/L
ATMW00701601XX	X5313-04	FS	X5313	OLM04.2_SVOA	Cyclotrisiloxane, hexamethyl-	2.6	JN	ug/L
ATMW00701601XX	X5313-04	FS	X5313	OLM04.2_SVOA	Benzoic acid, 2,4-dichloro-	3.1	JN	ug/L
ATMW00701601XX	X5313-04	FS	X5313	OLM04.2_SVOA	n-Hexadecanoic acid	3.7	JN	ug/L

**Appendix E**  
**Table 1.5: Groundwater TIC Results**

Sample Name	Lab ID	Type	SDG	Method	Chemical Name	Result	Qualifier	Units
ATMW00701601XX	X5313-04	FS	X5313	OLM04.2_SVOA	9-Octadecenoic acid, (E)-	12	JN	ug/L
ATMW00701601XX	X5313-04	FS	X5313	OLM04.2_SVOA	5-Eicosene, (E)-	4.5	JN	ug/L
ATMW00701601XX	X5313-04	FS	X5313	OLM04.2_SVOA	Squalene	4.1	JN	ug/L
ATGW00901701XX	X5313-14	FS	X5313	OLM04.2_SVOA	n-Hexadecanoic acid	2.8	JN	ug/L
ATGW00901701XX	X5313-14	FS	X5313	OLM04.2_SVOA	6-Octadecenoic acid, (Z)-	13	JN	ug/L
ATGW00901701XX	X5313-14	FS	X5313	OLM04.2_SVOA	1-Docosene	6.4	JN	ug/L
ATGW01301701XX	X5313-18	FS	X5313	OLM04.2_SVOA	Propanoic acid, 2-methyl-, 2,2-dim	2.2	JN	ug/L
ATGW01301701XX	X5313-18	FS	X5313	OLM04.2_SVOA	unknown7.43	2.1	J	ug/L
ATGW01301701XX	X5313-18	FS	X5313	OLM04.2_SVOA	9-Octadecenoic acid, (E)-	6.0	JN	ug/L
ATGW01301701XX	X5313-18	FS	X5313	OLM04.2_SVOA	1-Heneicosyl formate	2.9	JN	ug/L
ATMW00101701XX	X5313-01	FS	X5313	OLM04.2_VOA	Butane	16	JN	ug/L
ATMW00101701XX	X5313-01	FS	X5313	OLM04.2_VOA	Butane, 2-methyl-	29	JN	ug/L
ATMW00101701XX	X5313-01	FS	X5313	OLM04.2_VOA	Pentane	10	JN	ug/L
ATMW00101701XX	X5313-01	FS	X5313	OLM04.2_VOA	Pentane, 2-methyl-	33	JN	ug/L
ATMW00101701XX	X5313-01	FS	X5313	OLM04.2_VOA	Pentane, 3-methyl-	12	JN	ug/L
ATMW00101701XX	X5313-01	FS	X5313	OLM04.2_VOA	Cyclopentane, methyl-	15	JN	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_VOA	2-Butene, 2-methyl-	160	JN	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_VOA	Benzene, propyl-	170	JN	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_VOA	Benzene, 1-ethyl-2-methyl-	1100	JN	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_VOA	Benzene, 1,3,5-trimethyl-	500	JN	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_VOA	Unknown19.5	430	J	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_VOA	Benzene, 1,2,3-trimethyl-	1100	JN	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_VOA	Benzene, 1,2,4-trimethyl-	470	JN	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_VOA	Indane	430	JN	ug/L
ATMW00201601XX	X5313-02	FS	X5313	OLM04.2_VOA	1H-Indene, 2,3-dihydro-5-methyl-	160	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_VOA	Butane	470	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_VOA	Butane, 2-methyl-	450	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_VOA	2-Methyl-1-butene	670	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_VOA	2-Butene, 2-methyl-	920	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_VOA	Benzene, 1-ethyl-3-methyl-	1300	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_VOA	Benzene, 1,3,5-trimethyl-	630	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_VOA	Benzene, 1-ethyl-2-methyl-	500	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_VOA	Benzene, 1,2,3-trimethyl-	2100	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_VOA	Benzene, 1,2,4-trimethyl-	530	JN	ug/L
ATMW00201601XX	X5313-02DL	FS	X5313	OLM04.2_VOA	Indane	470	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_VOA	Butane	41	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_VOA	Butane, 2-methyl-	70	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_VOA	Pentane, 2-methyl-	120	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_VOA	Pentane, 3-methyl-	68	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_VOA	Cyclopentane, methyl-	150	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_VOA	1-Hexanol, 3-methyl-	65	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_VOA	Indane	46	JN	ug/L
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_VOA	Benzene, (2-methyl-1-propenyl)-	36	JN	ug/L

Appendix E  
Table 1.5: Groundwater TIC Results

Sample Name	Lab ID	Type	SDG	Method	Chemical Name	Result	Qualifier	Units
ATMW00601601XX	X5313-03	FS	X5313	OLM04.2_VOA	3-Phenylbut-1-ene	42	JN	ug/L
ATGW00502801XX	X5313-07	FS	X5313	OLM04.2_VOA	Propene	7.8	JN	ug/L
ATGW00902801XX	X5313-15	FS	X5313	OLM04.2_VOA	unknown1.85	5.8	J	ug/L
ATMW00901701XX	X5403-05	FS	X5403	OLM04.2_SVOA	Tetrachloroethylene	3.4	JN	ug/L
ATMW00901701XX	X5403-05	FS	X5403	OLM04.2_SVOA	Hexanoic acid, 2,2-dimethyl-	8.9	JN	ug/L
ATMW00901701XX	X5403-05	FS	X5403	OLM04.2_SVOA	6-Octadecenoic acid, (Z)-	2.8	JN	ug/L
ATMW00901701XX	X5403-05	FS	X5403	OLM04.2_SVOA	1-Tricosene	4.1	JN	ug/L
ATGW02002601XX	X5403-12	FS	X5403	OLM04.2_SVOA	1-Eicosene	2.4	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	2-Butanol, 2,3-dimethyl-	3.6	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	Cyclopentanone	8.1	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	3-Pentanone, 2,2-dimethyl-	3.3	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	2-Cyclopenten-1-one	4.9	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	Cyclopentanone, 3-methyl-	14	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	Cyclopentanone, 2,3-dimethyl-	2.8	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	1,3-Cyclohexanedione	4.7	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	2-Cyclohexen-1-one	5.1	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	1-Hexanol, 2,2-dimethyl-	11	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	Furan, 2,4-dimethyl-	5.8	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	unknown4.44	2.9	J	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	unknown4.74	5.4	J	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	unknown4.91	3.6	J	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	unknown5.58	5.5	J	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	1H-Inden-1-one, 2,3-dihydro-	7.7	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	1-Methylindan-2-one	2.9	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	Benzene, 1-ethenyl-2-methyl-	3.0	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	Octadec-9-enoic acid	4.2	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_SVOA	Cyclohexadecane, 1,2-diethyl-	5.4	JN	ug/L
ATDCMW502001XX	X5403-04	FS	X5403	OLM04.2_VOA	Benzene, propyl-	35	JN	ug/L
ATDCMW502001XX	X5403-04	FS	X5403	OLM04.2_VOA	Benzene, 1-ethyl-3-methyl-	240	JN	ug/L
ATDCMW502001XX	X5403-04	FS	X5403	OLM04.2_VOA	Benzene, 1,3,5-trimethyl-	210	JN	ug/L
ATDCMW502001XX	X5403-04	FS	X5403	OLM04.2_VOA	Benzene, 1,2,4-trimethyl-	170	JN	ug/L
ATDCMW502001XX	X5403-04	FS	X5403	OLM04.2_VOA	Benzene, 1,2,3-trimethyl-	520	JN	ug/L
ATDCMW502001XX	X5403-04	FS	X5403	OLM04.2_VOA	Benzene, 1-methyl-2-(1-methylethyl)	32	JN	ug/L
ATDCMW502001XX	X5403-04	FS	X5403	OLM04.2_VOA	Unknown20.88	360	J	ug/L
ATDCMW502001XX	X5403-04	FS	X5403	OLM04.2_VOA	Indane	75	JN	ug/L
ATDCMW502001XX	X5403-04	FS	X5403	OLM04.2_VOA	1,3,8-p-Menthatriene	33	JN	ug/L
ATDCMW502001XX	X5403-04	FS	X5403	OLM04.2_VOA	Benzene, 1-methyl-3-(1-methylethyl)	31	JN	ug/L
ATDCMW502001XX	X5403-04DL	FS	X5403	OLM04.2_VOA	Benzene, 1,2,3-trimethyl-	380	JN	ug/L
ATMW00901701XX	X5403-05	FS	X5403	OLM04.2_VOA	Butane	100	JN	ug/L
ATMW00901701XX	X5403-05	FS	X5403	OLM04.2_VOA	Butane, 2-methyl-	97	JN	ug/L
ATMW00901701XX	X5403-05	FS	X5403	OLM04.2_VOA	Cyclopropane, 1,2-dimethyl-, cis-	25	JN	ug/L
ATMW00901701XX	X5403-05	FS	X5403	OLM04.2_VOA	Pentane, 2-methyl-	37	JN	ug/L
ATMW00901701XX	X5403-05	FS	X5403	OLM04.2_VOA	unknown2.11	29	J	ug/L

**Appendix E**  
**Table 1.5: Groundwater TIC Results**

Sample Name	Lab ID	Type	SDG	Method	Chemical Name	Result	Qualifier	Units
ATMW00901701XX	X5403-05	FS	X5403	OLM04.2_VOA	unknown3.11	67	J	ug/L
ATMW00901701XX	X5403-05	FS	X5403	OLM04.2_VOA	Benzene, 1-ethyl-2-methyl-	35	JN	ug/L
ATMW00901701XX	X5403-05	FS	X5403	OLM04.2_VOA	Benzene, 1,2,3-trimethyl-	28	JN	ug/L
ATMW00901701XX	X5403-05	FS	X5403	OLM04.2_VOA	Benzene, 1,3,5-trimethyl-	72	JN	ug/L
ATMW00901701XX	X5403-05	FS	X5403	OLM04.2_VOA	Benzene, 1-ethyl-3-methyl-	21	JN	ug/L
ATGW02003401XX	X5403-13RE	FS	X5403	OLM04.2_VOA	unknown1.07	14	J	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_VOA	Butane	240	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_VOA	Butane, 2-methyl-	270	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_VOA	Cyclopropane, 1,2-dimethyl-, cis-	190	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_VOA	2-Butene, 2-methyl-	250	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_VOA	Cyclopentene	160	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_VOA	Cyclopentane, methyl-	130	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_VOA	Benzene, 1-ethyl-2-methyl-	100	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_VOA	Benzene, 1,3,5-trimethyl-	270	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_VOA	Benzene, 1,2,3-trimethyl-	68	JN	ug/L
ATMW01R01701XX	X5403-19	FS	X5403	OLM04.2_VOA	Benzene, cyclopropyl-	68	JN	ug/L

Notes:

J = estimated concentration  
N = uncertain identification

**DATA USABILITY SUMMARY REPORT**  
**AUGUST 2007 SAMPLING EVENT**  
**ASSOCIATED TEXTILES**  
**ELMIRA, NEW YORK**

**1.0 Introduction:**

Twelve soil and nineteen groundwater samples were collected by MACTEC at the Associated Textiles site in August 2007 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. Samples were analyzed for the following parameter:

- Volatile organic compounds (VOCs) by EPA Method OLM04.3.

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 laboratory or data validation qualifiers are used in the final data presentation.

U = target analyte is not detected above the reported detection limit

UJ = target analyte is not detected at the reported detection limit and is estimated

J = concentration is estimated

D = result is reported from an additional dilution run

Results are interpreted to be usable as reported by the laboratory unless discussed in the following sections.



## **2.0 Groundwater Samples - Volatile Organic Compounds**

### Initial Calibration

The initial calibration had relative percent standard deviations that were greater than the control limit of 30 for 1,1,2-trichlorotrifluoroethane (36), 1,1-dichloroethene (37), and carbon disulfide (32). The results for these compounds were non-detect in all groundwater samples and were qualified as estimated (UJ).

### Continuing Calibration

The continuing calibration had percent differences between the average and continuing calibration response factors that were greater than the control limit of 25 for dichlorodifluoromethane (-39), chloromethane (-30), vinyl chloride (-36), bromomethane (-28), chloroethane (-29), trichlorofluoromethane (-32), and methyl acetate (-43). The results for these compounds in samples ATGW03502701XX, ATGW03901801XX, ATGW04401901XX, ATGW04601901XX, ATGW04601901DU, and ATGW04801701XX were qualified as estimated (J/UJ).

The continuing calibration had percent differences between the average and continuing calibration response factors that were greater than the control limit of 25 for methyl acetate (-39). The results for methyl acetate in samples ATGW04802701XX, ATGW04702701XX, ATGW04901701XX, and ATGW04701701XX were all non-detect and were qualified as estimated (UJ).

### Surrogate Recoveries

Samples ATGW04301701XX, ATGW03901801XX, ATGW04501901XX, and ATGW04401901XX had percent recoveries for two or more surrogates that were less than laboratory control limits indicating a potential low bias. The samples were reanalyzed with similar results. All results associated with these samples were qualified as estimated (J/UJ).

The original runs of samples ATGW04601901XX and ATGW04601901DU had surrogate recoveries that were greater than laboratory control limits, indicating a potential high bias. Positive

results in samples ATGW04601901XX and ATGW04601901DU were qualified as estimated (J). These samples were reanalyzed at a dilution due to concentrations of tetrachloroethene above the calibration range. The surrogate recoveries in the diluted analytical runs of samples ATGW04601901XX and ATGW04601901DU were below laboratory control limits indicating a potential low bias. The tetrachloroethene results reported from samples ATGW04601901XXDL and ATGW04601901DUDL were reported by the laboratory and qualified D. These results were qualified as estimated (J) during the validation review.

#### Matrix Spike/Matrix Spike Duplicate

The relative percent difference between the matrix spike and matrix spike duplicate was greater than the laboratory control limit of 14 for 1,1-dichloroethene (30). The result for 1,1-dichloroethene in sample ATGW04001701XX was non-detect and was qualified as estimated (UJ).

The relative percent difference between the matrix spike and matrix spike duplicate associated with sample ATGW04701701XX was greater than the laboratory control limit of 22 for 1,1-dichloroethene (30). The result for 1,1-dichloroethene was non-detect in sample ATGW04701701XX and was qualified as estimated (UJ).

#### Tentatively Identified Compounds

Tentatively identified compounds (TICs) were reported in accordance with the CLP methods if detected. A summary of detected TICs is provided Appendix E. Only samples that reported TICs are included in the table.

### **3.0 Soil Samples - Volatile Organic Compounds**

#### Initial Calibration

The initial calibration had relative percent standard deviations that were greater than the control limit of 30 for 1,1,2-trichlorotrifluoroethane (36), 1,1-dichloroethene (37), and carbon disulfide (32). The results for these compounds were non-detect in all soil samples and were qualified as estimated (UJ).

### Continuing Calibration

A continuing calibration had percent differences between the average and continuing calibration response factors that were greater than the control limit of 25 for methyl acetate (-39). The result for methyl acetate in sample ATGS04700501XX was non-detect and was qualified as estimated (UJ).

A continuing calibration had percent differences between the average and continuing calibration response factors that were greater than the control limit of 25 for bromomethane (28) and methyl acetate (-30). The results for these compounds were non-detect in sample ATGS04801201XX and were qualified as estimated (UJ).

### Matrix Spike/Matrix Spike Duplicate

The MS/MSD associated with sample ATGS03801401XX had percent recoveries for 1,1-dichloroethene (21, 21) that were below the control limit of 59-172 indicating a potential low bias. The 1,1-dichloroethene result in sample ATGS03801401XX was non-detect and was qualified as estimated (UJ).

### Tentatively Identified Compounds

Tentatively identified compounds (TICs) were reported in accordance with the CLP methods if detected. TICS were reported in samples ATGS03501501XX and ATGS03901S01XX and are summarized in Appendix E.

**TABLE 1**  
**SAMPLE SUMMARY TABLE**

<b>SDG</b>	<b>Sample Name</b>	<b>Date Collected</b>	<b>Method</b>	<b>Parameter</b>	<b>Type</b>
Y4130	ATGS03101301XX	8/27/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGS03200701XX	8/27/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGS03200701DU	8/27/2007	OLM04.3_VOA	VOC	FD

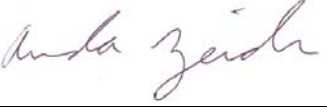
Y4130	ATGS03301601XX	8/27/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGS03401501XX	8/27/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGS03501501XX	8/27/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGS03600401XX	8/27/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGS03700701XX	8/27/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGS03801401XX	8/27/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGS03901S01XX	8/27/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGW03501701XX	8/28/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGW03502701XX	8/28/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGW03901801XX	8/28/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGW03901801DU	8/28/2007	OLM04.3_VOA	VOC	FD
Y4130	ATGW04001701XX	8/28/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGW04101701XX	8/28/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGW04201701XX	8/28/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGW04301701XX	8/28/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGW04401901XX	8/28/2007	OLM04.3_VOA	VOC	FS
Y4130	ATGW04501901XX	8/28/2007	OLM04.3_VOA	VOC	FS
Y4130	TRIPBLANK	8/28/2007	OLM04.3_VOA	VOC	TB
Y4280	ATGW04601901XX	8/29/2007	OLM04.3_VOA	VOC	FS
Y4280	ATGW04601901DU	8/29/2007	OLM04.3_VOA	VOC	FD
Y4280	ATGS04700501XX	8/29/2007	OLM04.3_VOA	VOC	FS
Y4280	ATGW04701701XX	8/29/2007	OLM04.3_VOA	VOC	FS
Y4280	ATGW04702701XX	8/29/2007	OLM04.3_VOA	VOC	FS
Y4280	ATGS04801201XX	8/29/2007	OLM04.3_VOA	VOC	FS
Y4280	ATGW04801701XX	8/29/2007	OLM04.3_VOA	VOC	FS
Y4280	ATGW04802701XX	8/29/2007	OLM04.3_VOA	VOC	FS
Y4280	ATGW04901701XX	8/29/2007	OLM04.3_VOA	VOC	FS
Y4280	TRIPBLANK	8/22/2007	OLM04.3_VOA	VOC	TB

**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: Amanda Zeidler

Signature \_\_\_\_\_

Date October 8, 2007

Quality Assurance Officer: Chris Ricardi, NRCC-EAC



Date: October 22, 2007

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter Name	Lab Sample Id		Y4130-13		Y4130-14		Y4130-15		Y4130-16		Y4130-17		Y4130-19		Y4130-21	
	Lab Sample Delivery Group		Y4130		Y4130		Y4130		Y4130		Y4130		Y4130		Y4130	
	Loc Name		GW-035		GW-035		GW-039		GW-039		GW-040		GW-041		GW-042	
	Field Sample Id		ATGW03501701XX		ATGW03502701XX		ATGW03901801XX		ATGW03901801DU		ATGW04001701XX		ATGW04101701XX		ATGW04201701XX	
	Field Sample Date		8/28/2007		8/28/2007		8/28/2007		8/28/2007		8/28/2007		8/28/2007		8/28/2007	
	Qc Code		FS		FS		FS		FD		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	10	U	78		3.3	J	3.7	J	1.6	J	10	U	9.3	J		
1,1,2,2-Tetrachloroethane	10	U	10	U	10	UJ	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	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,1,2-Trichloroethane	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethane	4	J	27		10	UJ	10	U	10	U	10	U	10	U	10	U
1,1-Dichloroethene	10	UJ	6.8	J	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
1,2,4-Trichlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
1,2-Dibromo-3-chloropropane	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
1,2-Dibromoethane	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
1,2-Dichlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
1,2-Dichloroethane	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
1,2-Dichloropropane	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
1,3-Dichlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
1,4-Dichlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
2-Butanone	50	U	50	U	50	UJ	50	U	50	U	50	U	50	U	50	U
2-Hexanone	50	U	50	U	50	UJ	50	U	50	U	50	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	UJ	50	U	50	U	50	U	50	U	50	U
Acetic acid, methyl ester	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U
Acetone	50	U	50	U	50	UJ	50	U	50	U	50	U	50	U	50	U
Benzene	9.5	J	4.4	J	10	UJ	10	U	1.1	J	3.8	J	10	U	10	U
Bromodichloromethane	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
Bromoform	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
Bromomethane	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U
Carbon disulfide	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
Carbon tetrachloride	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
Chlorobenzene	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
Chlorodibromomethane	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
Chloroethane	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U
Chloroform	10	U	10	U	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U
Chloromethane	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U
Cis-1,2-Dichloroethene	5.1	J	65		30	J	35		14		6.6	J	26			
cis-1,3-Dichloropropene	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
Cyclohexane	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
Dichlorodifluoromethane	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U
Ethyl benzene	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
Isopropylbenzene	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
Methyl cyclohexane	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
Methyl Tertbutyl Ether	10	U	6.5	J	10	UJ	10	U	10	U	10	U	10	U	3.3	J
Methylene chloride	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U
o-Xylene	10	U	10	U	10	UJ	10	U	10	U	10	U	10	U	10	U

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter Name	Lab Sample Id		Y4130-13		Y4130-14		Y4130-15		Y4130-16		Y4130-17		Y4130-19		Y4130-21	
	Lab Sample Delivery Group		Y4130		Y4130		Y4130		Y4130		Y4130		Y4130		Y4130	
	Loc Name		GW-035		GW-035		GW-039		GW-039		GW-040		GW-041		GW-042	
	Field Sample Id		ATGW03501701XX		ATGW03502701XX		ATGW03901801XX		ATGW03901801DU		ATGW04001701XX		ATGW04101701XX		ATGW04201701XX	
	Field Sample Date		8/28/2007		8/28/2007		8/28/2007		8/28/2007		8/28/2007		8/28/2007		8/28/2007	
	Qc Code		FS		FS		FS		FD		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Styrene	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U	10	U
Tetrachloroethene	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U	19	
Toluene	10	U	1.3	J	10	UJ	10	UJ	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	10	U	10	U	10	UJ	10	UJ	10	U	10	U	10	U	10	U
Trichloroethene	10	U	15		10	UJ	10	UJ	10	U	1.6	J	10	U	30	
Trichlorofluoromethane	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	U	10	U
Vinyl chloride	5.2	J	3.3	J	5.9	J	11	J	1.7	J	10	U	10	U	10	U
Xylene, m/p	20	U	20	U	20	UJ	20	UJ	20	U	20	U	20	U	20	U

Notes:

Results in micrograms per liter (µg/L)

Samples analyzed for VOCs by EPA Method OLM04.3

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

D = Analyte was reported from a diluted analytical run.

Appendix E  
 Table 1.1: Groundwater VOC Results

Lab Sample Id Lab Sample Delivery Group Loc Name Field Sample Id Field Sample Date Qc Code	Y4130-22		Y4130-23		Y4130-24		Y4130-25		Y4280-01		Y4280-02	
	Y4130		Y4130		Y4130		Y4130		Y4280		Y4280	
	GW-043		GW-044		GW-045		QC		GW-046		GW-046	
	ATGW04301701XX		ATGW04401901XX		ATGW04501901XX		TRIPBLANK		ATGW04601901XX		ATGW04601901DU	
	8/28/2007		8/28/2007		8/28/2007		8/28/2007		8/29/2007		8/29/2007	
Parameter Name	FS		FS		FS		TB		FS		FD	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
1,1,2,2-Tetrachloroethane	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	UJ	50	UJ	10	UJ	10	U	10	UJ	10	UJ
1,1,2-Trichloroethane	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
1,1-Dichloroethane	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
1,1-Dichloroethene	10	UJ	50	UJ	10	UJ	10	U	10	UJ	10	UJ
1,2,4-Trichlorobenzene	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
1,2-Dibromo-3-chloropropane	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
1,2-Dibromoethane	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
1,2-Dichlorobenzene	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
1,2-Dichloroethane	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
1,2-Dichloropropane	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
1,3-Dichlorobenzene	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
1,4-Dichlorobenzene	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
2-Butanone	50	UJ	250	UJ	50	UJ	50	U	50	U	50	U
2-Hexanone	50	UJ	250	UJ	50	UJ	50	U	50	U	50	U
4-Methyl-2-pentanone	50	UJ	250	UJ	50	UJ	50	U	50	U	50	U
Acetic acid, methyl ester	10	UJ	50	UJ	10	UJ	10	U	10	UJ	10	UJ
Acetone	50	UJ	250	UJ	50	UJ	50	U	50	U	50	U
Benzene	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
Bromodichloromethane	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
Bromoform	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
Bromomethane	10	UJ	50	UJ	10	UJ	10	U	10	UJ	10	UJ
Carbon disulfide	10	UJ	50	UJ	10	UJ	10	U	10	UJ	10	UJ
Carbon tetrachloride	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
Chlorobenzene	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
Chlorodibromomethane	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
Chloroethane	10	UJ	50	UJ	10	UJ	10	U	10	UJ	10	UJ
Chloroform	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
Chloromethane	10	UJ	50	UJ	10	UJ	10	U	10	UJ	10	UJ
Cis-1,2-Dichloroethene	11	J	50	UJ	91	D	10	U	81	J	88	J
cis-1,3-Dichloropropene	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
Cyclohexane	10	UJ	50	UJ	10	UJ	10	U	5.5	J	5.1	J
Dichlorodifluoromethane	10	UJ	50	UJ	10	UJ	10	U	10	UJ	10	UJ
Ethyl benzene	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
Isopropylbenzene	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
Methyl cyclohexane	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
Methyl Tertbutyl Ether	10	UJ	50	UJ	10	UJ	10	U	5.5	J	5.7	J
Methylene chloride	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U
o-Xylene	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U



Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter Name	Lab Sample Id		Y4130-22		Y4130-23		Y4130-24		Y4130-25		Y4280-01		Y4280-02	
	Lab Sample Delivery Group		Y4130		Y4130		Y4130		Y4130		Y4280		Y4280	
	Loc Name		GW-043		GW-044		GW-045		QC		GW-046		GW-046	
	Field Sample Id		ATGW04301701XX		ATGW04401901XX		ATGW04501901XX		TRIPBLANK		ATGW04601901XX		ATGW04601901DU	
	Field Sample Date		8/28/2007		8/28/2007		8/28/2007		8/28/2007		8/29/2007		8/29/2007	
	Qc Code		FS		FS		FS		TB		FS		FD	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Styrene	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U	10	U
Tetrachloroethene	850	DJ	50	UJ	900	D	10	U	470	DJ	490	DJ		
Toluene	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	10	UJ	50	UJ	10	UJ	10	U	10	U	10	U	10	U
Trichloroethene	76	J	50	UJ	100	D	10	U	82	J	86	J		
Trichlorofluoromethane	10	UJ	50	UJ	10	UJ	10	U	10	UJ	10	UJ	10	UJ
Vinyl chloride	10	UJ	50	UJ	10	UJ	10	U	3.8	J	4.1	J		
Xylene, m/p	20	UJ	100	UJ	20	UJ	20	U	20	U	20	U	20	U

Notes:

Results in micrograms per liter (µg/L)

Samples analyzed for VOCs by EPA Method OLM04.3

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

D = Analyte was reported from a diluted analytical run.

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter Name	Lab Sample Id		Y4280-04		Y4280-06		Y4280-08		Y4280-10		Y4280-11		Y4280-13	
	Lab Sample Delivery Group		Y4280		Y4280		Y4280		Y4280		Y4280		Y4280	
	Loc Name		GW-047		GW-047		GW-048		GW-048		GW-049		QC	
	Field Sample Id		ATGW04701701XX		ATGW04702701XX		ATGW04801701XX		ATGW04802701XX		ATGW04901701XX		TRIPBLANK	
	Field Sample Date		8/29/2007		8/29/2007		8/29/2007		8/29/2007		8/29/2007		8/22/2007	
	Qc Code		FS		FS		FS		FS		FS		TB	
	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	50	U	2	J	10	U
1,1,2,2-Tetrachloroethane	10	U	10	U	10	U	10	U	50	U	10	U	10	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	10	UJ	10	UJ	10	UJ	10	UJ	50	UJ	10	UJ	10	U
1,1,2-Trichloroethane	10	U	10	U	10	U	10	U	50	U	10	U	10	U
1,1-Dichloroethane	10	U	10	U	10	U	10	U	50	U	10	U	10	U
1,1-Dichloroethene	10	UJ	10	UJ	10	UJ	10	UJ	50	UJ	10	UJ	10	U
1,2,4-Trichlorobenzene	10	U	10	U	10	U	10	U	50	U	10	U	10	U
1,2-Dibromo-3-chloropropane	10	U	10	U	10	U	10	U	50	U	10	U	10	U
1,2-Dibromoethane	10	U	10	U	10	U	10	U	50	U	10	U	10	U
1,2-Dichlorobenzene	10	U	10	U	10	U	10	U	50	U	10	U	10	U
1,2-Dichloroethane	10	U	10	U	10	U	10	U	50	U	10	U	10	U
1,2-Dichloropropane	10	U	10	U	10	U	10	U	50	U	10	U	10	U
1,3-Dichlorobenzene	10	U	10	U	10	U	10	U	50	U	10	U	10	U
1,4-Dichlorobenzene	10	U	10	U	10	U	10	U	50	U	10	U	10	U
2-Butanone	50	U	50	U	50	U	50	U	250	U	50	U	50	U
2-Hexanone	50	U	50	U	50	U	50	U	250	U	50	U	50	U
4-Methyl-2-pentanone	50	U	50	U	50	U	50	U	250	U	50	U	50	U
Acetic acid, methyl ester	10	UJ	10	UJ	10	UJ	10	UJ	50	UJ	10	UJ	10	U
Acetone	50	U	50	U	50	U	50	U	250	U	50	U	50	U
Benzene	10	U	10	U	10	U	10	U	50	U	10	U	10	U
Bromodichloromethane	10	U	10	U	10	U	10	U	50	U	10	U	10	U
Bromoform	10	U	10	U	10	U	10	U	50	U	10	U	10	U
Bromomethane	10	U	10	U	10	U	10	UJ	50	U	10	U	10	U
Carbon disulfide	10	UJ	10	UJ	10	UJ	10	UJ	50	UJ	10	UJ	10	U
Carbon tetrachloride	10	U	10	U	10	U	10	U	50	U	10	U	10	U
Chlorobenzene	10	U	10	U	10	U	10	U	50	U	10	U	10	U
Chlorodibromomethane	10	U	10	U	10	U	10	U	50	U	10	U	10	U
Chloroethane	10	U	10	U	10	U	10	UJ	50	U	10	U	10	U
Chloroform	10	U	10	U	10	U	10	U	50	U	10	U	10	U
Chloromethane	10	U	10	U	10	U	10	UJ	50	U	10	U	10	U
Cis-1,2-Dichloroethene	3.7	J	3.8	J			43		45	J	10	U	10	U
cis-1,3-Dichloropropene	10	U	10	U			10	U	50	U	10	U	10	U
Cyclohexane	10	U	10	U			10	U	50	U	10	U	10	U
Dichlorodifluoromethane	10	U	10	U			10	UJ	50	U	10	U	10	U
Ethyl benzene	10	U	10	U			10	U	50	U	10	U	10	U
Isopropylbenzene	10	U	10	U			10	U	50	U	10	U	10	U
Methyl cyclohexane	10	U	10	U			10	U	50	U	10	U	10	U
Methyl Tertbutyl Ether	2.8	J	3.7	J			10	U	50	U	10	U	10	U
Methylene chloride	3.5	J	12				10	U	54		1.6	J	10	U
o-Xylene	10	U	10	U			10	U	50	U	10	U	10	U

Appendix E  
 Table 1.1: Groundwater VOC Results

Parameter Name	Lab Sample Id		Y4280-04		Y4280-06		Y4280-08		Y4280-10		Y4280-11		Y4280-13	
	Lab Sample Delivery Group		Y4280		Y4280		Y4280		Y4280		Y4280		Y4280	
	Loc Name		GW-047		GW-047		GW-048		GW-048		GW-049		QC	
	Field Sample Id		ATGW04701701XX		ATGW04702701XX		ATGW04801701XX		ATGW04802701XX		ATGW04901701XX		TRIPBLANK	
	Field Sample Date		8/29/2007		8/29/2007		8/29/2007		8/29/2007		8/29/2007		8/22/2007	
	Qc Code		FS		FS		FS		FS		FS		TB	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Styrene	10	U	10	U	10	U	50	U	10	U	10	U	10	U
Tetrachloroethene	10	U	10	U	10	U	50	U	10	U	10	U	10	U
Toluene	10	U	10	U	10	U	50	U	10	U	10	U	10	U
trans-1,2-Dichloroethene	10	U	10	U	3.1	J	50	U	10	U	10	U	10	U
trans-1,3-Dichloropropene	10	U	10	U	10	U	50	U	10	U	10	U	10	U
Trichloroethene	10	U	10	U	10	U	50	U	3.2	J	10	U	10	U
Trichlorofluoromethane	10	U	10	U	10	UJ	50	U	10	U	10	U	10	U
Vinyl chloride	10	U	3.2	J	10	UJ	50	U	10	U	10	U	10	U
Xylene, m/p	20	U	20	U	20	U	100	U	20	U	20	U	20	U

Notes:

Results in micrograms per liter (µg/L)

Samples analyzed for VOCs by EPA Method OLM04.3

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

D = Analyte was reported from a diluted analytical run.

Appendix E  
 Table 1.2: Soil VOC Results

Lab Sample Id Lab Sample Delivery Group Loc Name Field Sample Id Field Sample Date Qc Code Parameter Name	Y4130-01		Y4130-02		Y4130-03		Y4130-04		Y4130-05		Y4130-06	
	Y4130		Y4130		Y4130		Y4130		Y4130		Y4130	
	GS-031		GS-032		GS-032		GS-033		GS-034		GS-035	
	ATGS03101301XX		ATGS03200701XX		ATGS03200701DU		ATGS03301601XX		ATGS03401501XX		ATGS03501501XX	
	8/27/2007		8/27/2007		8/27/2007		8/27/2007		8/27/2007		8/27/2007	
	FS		FS		FD		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
1,1,2,2-Tetrachloroethane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	1,500	UJ	760	UJ	570	UJ	1,200	UJ	480	UJ	570	UJ
1,1,2-Trichloroethane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
1,1-Dichloroethane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
1,1-Dichloroethene	1,500	UJ	760	UJ	570	UJ	1,200	UJ	480	UJ	570	UJ
1,2,4-Trichlorobenzene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
1,2-Dibromo-3-chloropropane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
1,2-Dibromoethane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
1,2-Dichlorobenzene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
1,2-Dichloroethane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
1,2-Dichloropropane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
1,3-Dichlorobenzene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
1,4-Dichlorobenzene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
2-Butanone	7,300	U	3,800	U	2,800	U	6,000	U	2,400	U	2,800	U
2-Hexanone	7,300	U	3,800	U	2,800	U	6,000	U	2,400	U	2,800	U
4-Methyl-2-pentanone	7,300	U	3,800	U	2,800	U	6,000	U	2,400	U	2,800	U
Acetic acid, methyl ester	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Acetone	7,300	U	3,800	U	2,800	U	6,000	U	2,400	U	2,800	U
Benzene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Bromodichloromethane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Bromoform	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Bromomethane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Carbon disulfide	1,500	UJ	760	UJ	570	UJ	1,200	UJ	480	UJ	570	UJ
Carbon tetrachloride	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Chlorobenzene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Chlorodibromomethane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Chloroethane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Chloroform	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Chloromethane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Cis-1,2-Dichloroethene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
cis-1,3-Dichloropropene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Cyclohexane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Dichlorodifluoromethane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Ethyl benzene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Isopropylbenzene	1,500	U	760	U	570	U	1,200	U	480	U	570	U

**Appendix E**  
**Table 1.2: Soil VOC Results**

Lab Sample Id Lab Sample Delivery Group Loc Name Field Sample Id Field Sample Date Qc Code Parameter Name	Y4130-01		Y4130-02		Y4130-03		Y4130-04		Y4130-05		Y4130-06	
	Y4130		Y4130		Y4130		Y4130		Y4130		Y4130	
	GS-031		GS-032		GS-032		GS-033		GS-034		GS-035	
	ATGS03101301XX		ATGS03200701XX		ATGS03200701DU		ATGS03301601XX		ATGS03401501XX		ATGS03501501XX	
	8/27/2007		8/27/2007		8/27/2007		8/27/2007		8/27/2007		8/27/2007	
	FS		FS		FD		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Methyl cyclohexane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Methyl Tertbutyl Ether	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Methylene chloride	1,500	U	760	U	570	U	1,200	U	480	U	570	U
o-Xylene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Styrene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Tetrachloroethene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Toluene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
trans-1,2-Dichloroethene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
trans-1,3-Dichloropropene	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Trichloroethene	1,500	U	760	U	570	U	1,200	U	120	J	540	J
Trichlorofluoromethane	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Vinyl chloride	1,500	U	760	U	570	U	1,200	U	480	U	570	U
Xylene, m/p	1,500	U	760	U	570	U	1,200	U	480	U	570	U

Notes:

Results in micrograms per kilogram (µg/kg)

Samples analyzed for VOCs by EPA Method OLM04.3

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the RL

J = Estimated Value

Appendix E  
 Table 1.2: Soil VOC Results

Lab Sample Id Lab Sample Delivery Group Loc Name Field Sample Id Field Sample Date Qc Code Parameter Name	Y4130-07		Y4130-08		Y4130-09		Y4130-11		Y4280-03		Y4280-07	
	Y4130		Y4130		Y4130		Y4130		Y4280		Y4280	
	GS-036		GS-037		GS-038		GS-039		GS-047		GS-048	
	ATGS03600401XX		ATGS03700701XX		ATGS03801401XX		ATGS03901S01XX		ATGS04700501XX		ATGS04801201XX	
	8/27/2007		8/27/2007		8/27/2007		8/27/2007		8/29/2007		8/29/2007	
	FS		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1-Trichloroethane	1,000	U	2,000	U	630	U	830	U	660	U	740	U
1,1,2,2-Tetrachloroethane	1,000	U	2,000	U	630	U	830	U	660	U	740	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	1,000	UJ	2,000	UJ	630	UJ	830	UJ	660	UJ	740	UJ
1,1,2-Trichloroethane	1,000	U	2,000	U	630	U	830	U	660	U	740	U
1,1-Dichloroethane	1,000	U	2,000	U	630	U	830	U	660	U	740	U
1,1-Dichloroethene	1,000	UJ	2,000	UJ	630	UJ	830	UJ	660	UJ	740	UJ
1,2,4-Trichlorobenzene	1,000	U	2,000	U	630	U	830	U	660	U	740	U
1,2-Dibromo-3-chloropropane	1,000	U	2,000	U	630	U	830	U	660	U	740	U
1,2-Dibromoethane	1,000	U	2,000	U	630	U	830	U	660	U	740	U
1,2-Dichlorobenzene	1,000	U	2,000	U	630	U	830	U	660	U	740	U
1,2-Dichloroethane	1,000	U	2,000	U	630	U	830	U	660	U	740	U
1,2-Dichloropropane	1,000	U	2,000	U	630	U	830	U	660	U	740	U
1,3-Dichlorobenzene	1,000	U	2,000	U	630	U	830	U	660	U	740	U
1,4-Dichlorobenzene	1,000	U	2,000	U	630	U	830	U	660	U	740	U
2-Butanone	5,000	U	10,000	U	3,100	U	4,200	U	3300	U	3700	U
2-Hexanone	5,000	U	10,000	U	3,100	U	4,200	U	3300	U	3700	U
4-Methyl-2-pentanone	5,000	U	10,000	U	3,100	U	4,200	U	3300	U	3700	U
Acetic acid, methyl ester	1,000	U	2,000	U	630	U	830	U	660	UJ	740	UJ
Acetone	5,000	U	10,000	U	3,100	U	4,200	U	3300	U	3700	U
Benzene	1,000	U	2,000	U	630	U	830	U	660	U	740	U
Bromodichloromethane	1,000	U	2,000	U	630	U	830	U	660	U	740	U
Bromoform	1,000	U	2,000	U	630	U	830	U	660	U	740	U
Bromomethane	1,000	U	2,000	U	630	U	830	U	660	U	740	UJ
Carbon disulfide	1,000	UJ	2,000	UJ	630	UJ	830	UJ	660	UJ	740	UJ
Carbon tetrachloride	1,000	U	2,000	U	630	U	830	U	660	U	740	U
Chlorobenzene	1,000	U	2,000	U	630	U	830	U	660	U	740	U
Chlorodibromomethane	1,000	U	2,000	U	630	U	830	U	660	U	740	U
Chloroethane	1,000	U	2,000	U	630	U	830	U	660	U	740	U
Chloroform	1,000	U	2,000	U	630	U	830	U	660	U	740	U
Chloromethane	1,000	U	2,000	U	630	U	830	U	660	U	740	U
Cis-1,2-Dichloroethene	400	J	500	J	630	U	830	U	660	U	740	U
cis-1,3-Dichloropropene	1,000	U	2,000	U	630	U	830	U	660	U	740	U
Cyclohexane	1,000	U	2,000	U	630	U	830	U	660	U	740	U
Dichlorodifluoromethane	1,000	U	2,000	U	630	U	830	U	660	U	740	U
Ethyl benzene	1,000	U	2,000	U	630	U	830	U	660	U	740	U
Isopropylbenzene	1,000	U	2,000	U	630	U	830	U	660	U	740	U

Appendix E  
 Table 1.2: Soil VOC Results

Parameter Name	Lab Sample Id		Y4130-07		Y4130-08		Y4130-09		Y4130-11		Y4280-03		Y4280-07	
	Lab Sample Delivery Group		Y4130		Y4130		Y4130		Y4130		Y4280		Y4280	
	Loc Name		GS-036		GS-037		GS-038		GS-039		GS-047		GS-048	
	Field Sample Id		ATGS03600401XX		ATGS03700701XX		ATGS03801401XX		ATGS03901S01XX		ATGS04700501XX		ATGS04801201XX	
	Field Sample Date		8/27/2007		8/27/2007		8/27/2007		8/27/2007		8/29/2007		8/29/2007	
	Qc Code		FS		FS		FS		FS		FS		FS	
	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
Methyl cyclohexane	1,000	U	2,000	U	630	U	830	U	660	U	740	U		
Methyl Tertbutyl Ether	1,000	U	2,000	U	630	U	830	U	660	U	740	U		
Methylene chloride	1,000	U	2,000	U	630	U	830	U	180	J	740	U		
o-Xylene	1,000	U	2,000	U	630	U	830	U	660	U	740	U		
Styrene	1,000	U	2,000	U	630	U	830	U	660	U	740	U		
Tetrachloroethene	1,200		2,000	U	630	U	830	U	660	U	740	U		
Toluene	170	J	2,100		630	U	830	U	660	U	740	U		
trans-1,2-Dichloroethene	1,000	U	2,000	U	630	U	830	U	660	U	740	U		
trans-1,3-Dichloropropene	1,000	U	2,000	U	630	U	830	U	660	U	740	U		
Trichloroethene	2,500		11,000		630	U	830	U	660	U	740	U		
Trichlorofluoromethane	1,000	U	2,000	U	630	U	830	U	660	U	740	U		
Vinyl chloride	1,000	U	2,000	U	630	U	830	U	660	U	740	U		
Xylene, m/p	1,000	U	2,000	U	630	U	830	U	660	U	740	U		

Notes:

Results in micrograms per kilogram (µg/kg)

Samples analyzed for VOCs by EPA Method OLM04.3

QC Code:

FS = Field Sample

FD = Field Duplicate

Qualifiers:

U = Not detected at a concentration greater than the RL

J = Estimated Value

**Appendix E**  
**Table 1.3: TIC Results**

Sample Name	Lab ID	Type	SDG	Method	Chemical Name	Result	Qualifier	Units
ATGS03501501XX	Y4130-06	FS	Y4130	OLM04.3_VOA	Decane, 2,2,8-trimethyl-	1200	NJ	ug/Kg
ATGS03501501XX	Y4130-06	FS	Y4130	OLM04.3_VOA	Eicosane	890	NJ	ug/Kg
ATGS03501501XX	Y4130-06	FS	Y4130	OLM04.3_VOA	Decane, 2,2,6-trimethyl-	2100	NJ	ug/Kg
ATGS03501501XX	Y4130-06	FS	Y4130	OLM04.3_VOA	Heptane, 2,2,4,6,6-pentamethyl-	810	NJ	ug/Kg
ATGS03501501XX	Y4130-06	FS	Y4130	OLM04.3_VOA	Undecane, 5-ethyl-	1900	NJ	ug/Kg
ATGS03501501XX	Y4130-06	FS	Y4130	OLM04.3_VOA	Hexane, 2,2,4-trimethyl-	2000	NJ	ug/Kg
ATGS03501501XX	Y4130-06	FS	Y4130	OLM04.3_VOA	Hexane, 2,2,5-trimethyl-	2400	NJ	ug/Kg
ATGS03501501XX	Y4130-06	FS	Y4130	OLM04.3_VOA	Nonane, 3,7-dimethyl-	1900	NJ	ug/Kg
ATGS03501501XX	Y4130-06	FS	Y4130	OLM04.3_VOA	Unknown14.83	1200	J	ug/Kg
ATGS03501501XX	Y4130-06	FS	Y4130	OLM04.3_VOA	Dodecane, 2,7,10-trimethyl-	1400	NJ	ug/Kg
ATGS03901S01XX	Y4130-11	FS	Y4130	OLM04.3_VOA	Hexane, 2,2,3-trimethyl-	41000	NJ	ug/Kg
ATGS03901S01XX	Y4130-11	FS	Y4130	OLM04.3_VOA	Heptane, 2,2,4,6,6-pentamethyl-	20000	NJ	ug/Kg
ATGS03901S01XX	Y4130-11	FS	Y4130	OLM04.3_VOA	Decane, 2-methyl-	32000	NJ	ug/Kg
ATGS03901S01XX	Y4130-11	FS	Y4130	OLM04.3_VOA	Heptane, 2,2-dimethyl-	43000	NJ	ug/Kg
ATGS03901S01XX	Y4130-11	FS	Y4130	OLM04.3_VOA	Dodecane, 2,2,11,11-tetramethyl-	21000	NJ	ug/Kg
ATGS03901S01XX	Y4130-11	FS	Y4130	OLM04.3_VOA	Octane, 4-methyl-	67000	NJ	ug/Kg
ATGS03901S01XX	Y4130-11	FS	Y4130	OLM04.3_VOA	Dodecane, 3-methyl-	19000	NJ	ug/Kg
ATGS03901S01XX	Y4130-11	FS	Y4130	OLM04.3_VOA	Pentane, 3-ethyl-2,2-dimethyl-	44000	NJ	ug/Kg
ATGS03901S01XX	Y4130-11	FS	Y4130	OLM04.3_VOA	Decane, 3,8-dimethyl-	39000	NJ	ug/Kg
ATGS03901S01XX	Y4130-11	FS	Y4130	OLM04.3_VOA	1-Iodo-2-methylnonane	39000	NJ	ug/Kg
ATGW03901801XX	Y4130-15	FS	Y4130	OLM04.3_VOA	Boronic acid, phenyl-	5.4	NJ	ug/L
ATGW03901801DU	Y4130-16	FD	Y4130	OLM04.3_VOA	2,4-Hexadiyne	5.9	NJ	ug/L
ATGW04001701XX	Y4130-17	FS	Y4130	OLM04.3_VOA	Ethylene oxide	91	NJ	ug/L
ATGW04001701XX	Y4130-17	FS	Y4130	OLM04.3_VOA	Undecane, 5-ethyl-	5.8	NJ	ug/L
ATGW04601901XX	Y4280-01	FS	Y4280	OLM04.3_VOA	Butane, 2-methyl-	97	NJ	ug/L
ATGW04601901XX	Y4280-01	FS	Y4280	OLM04.3_VOA	Cyclopentane	27	NJ	ug/L
ATGW04601901XX	Y4280-01DL	FS	Y4280	OLM04.3_VOA	Butane, 2-methyl-	110	NJD	ug/L
ATGW04601901DU	Y4280-02	FD	Y4280	OLM04.3_VOA	Butane, 2-methyl-	89	NJ	ug/L
ATGW04601901DU	Y4280-02	FD	Y4280	OLM04.3_VOA	Cyclopentane	27	NJ	ug/L
ATGW04601901DU	Y4280-02DL	FD	Y4280	OLM04.3_VOA	Butane, 2-methyl-	120	NJD	ug/L
ATGW04901701XX	Y4280-11	FS	Y4280	OLM04.3_VOA	Benzeneethanamine, N-[(pentafluoro	5.3	NJ	ug/L
ATGW04901701XX	Y4280-11	FS	Y4280	OLM04.3_VOA	Naphthalene, 1,2,3,4-tetrahydro-2,	5.2	NJ	ug/L

Notes:

J = estimated concentration

N = uncertain identification

D = Result was reported from a diluted analytical run



## **APPENDIX F**

### **CALCULATIONS**

Derivation of the soil gas concentration at the source area.

$$C_{sg} = \frac{H * C_{soil} * \rho_b}{\theta_w + (K_d * \rho_b) + H\theta_a} * (1000)$$

Inputs:

Contaminant = TCE

H = 0.403

K<sub>oc</sub> = 126

C<sub>soil</sub> = PCE = 32 mg/Kg

$$C_{sg} = \frac{0.403 * 32 * 1.5}{0.15 + (0.756 * 1.5) + 0.403 * 0.28} * (1000)$$

$$C_{sg} = 9,834 \mu\text{g/L}$$

Converted to  $\mu\text{g/M}^3$  =

$$C_{sg} = 9,834,000 \mu\text{g/M}^3$$

**Parameter = Definition (units)**

C<sub>sg</sub> = soil gas concentration ( $\mu\text{g/L}$ )

$\rho_b$  = dry soil bulk density ( $\text{kg/L}$ ) = assume 1.5

K<sub>d</sub> = soil-water partition coefficient ( $\text{L/kg}$ ) = K<sub>oc</sub> x f<sub>oc</sub>

K<sub>oc</sub> = organic carbon partition coefficient ( $\text{L/kg}$ )

f<sub>oc</sub> = fraction organic carbon in soil ( $\text{g/g}$ ) = 0.006 (0.6%)

$\theta_w$  = water-filled soil porosity ( $L_{\text{water}} / L_{\text{soil}}$ ) = 0.15

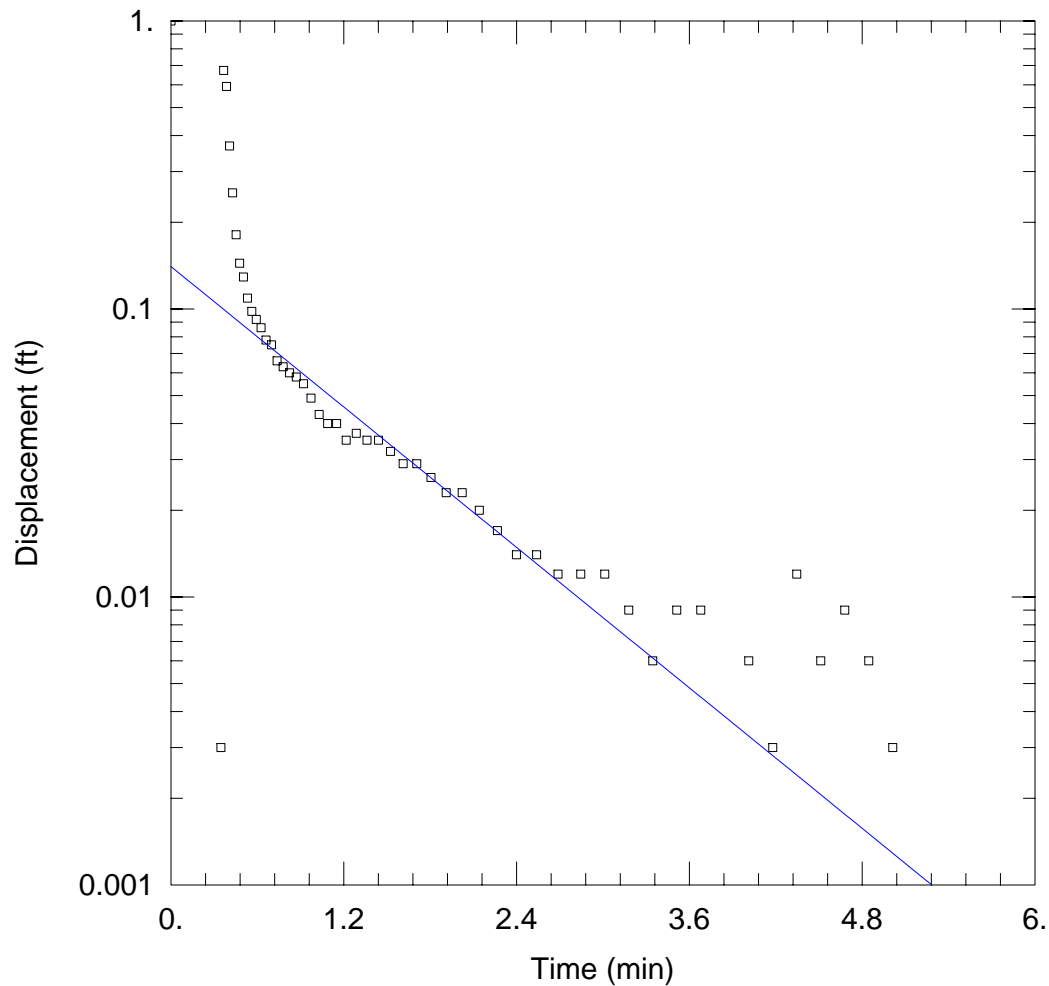
H = dimensionless Henry's law constant

$\theta_a$  = air-filled soil porosity ( $L_{\text{air}} / L_{\text{soil}}$ ) = n -  $\theta_w$

n = total soil porosity ( $L_{\text{pore}} / L_{\text{soil}}$ ) = 1 - ( $\rho_b / \rho_s$ )

$\rho_s$  = soil particle density ( $\text{kg/L}$ ) = 2.65

<sup>a</sup> Assume a pH of 6.8 when selecting default K<sub>d</sub> values



#### MW-3-RISING 1

Data Set: P:\...\MW\_3.aqt  
Date: 11/19/07

Time: 12:51:58

#### PROJECT INFORMATION

Company: MACTEC  
Client: NYSDEC  
Location: ATRS-DC  
Test Well: MW-3-1  
Test Date: 8/29/07

#### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

#### WELL DATA (MW-3)

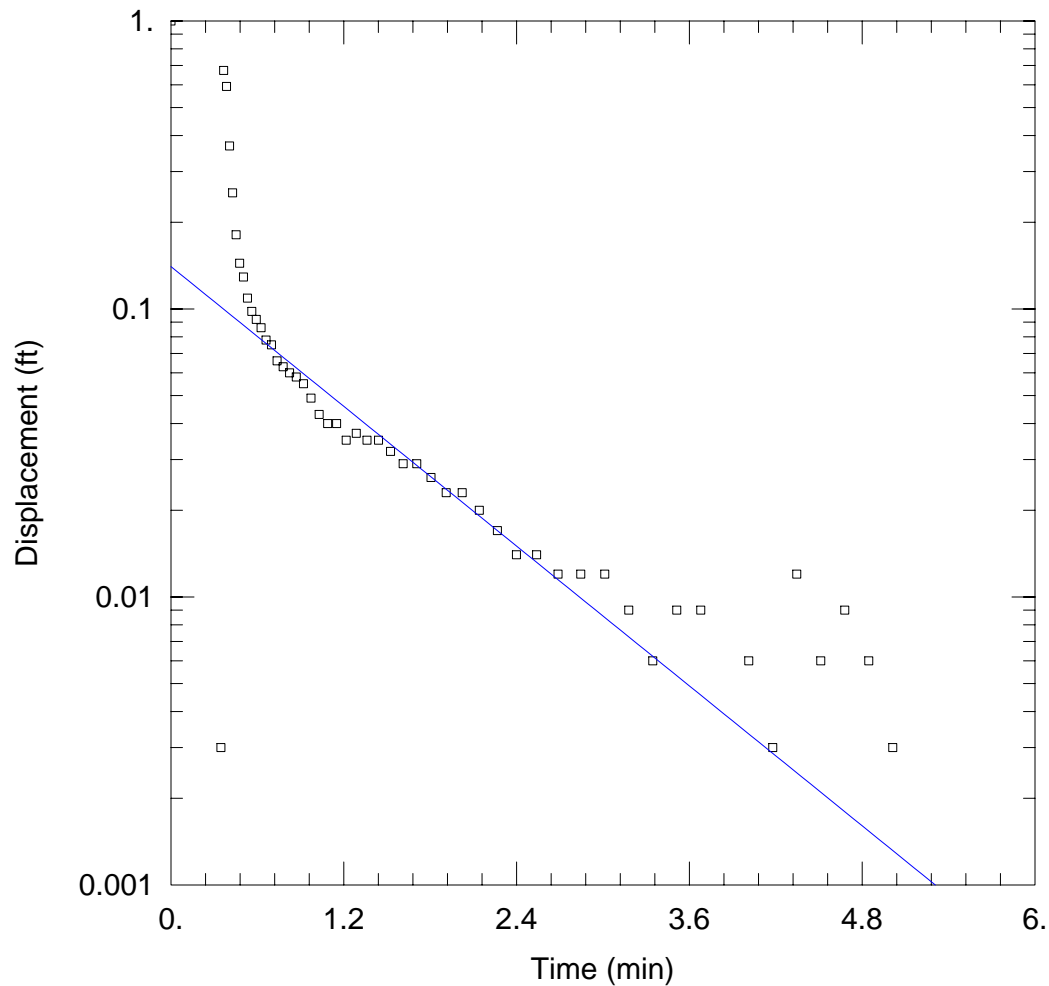
Initial Displacement: 1. ft  
Total Well Penetration Depth: 3.77 ft  
Casing Radius: 0.083 ft

Static Water Column Height: 3.77 ft  
Screen Length: 10. ft  
Wellbore Radius: 0.166 ft  
Gravel Pack Porosity: 0.3

#### SOLUTION

Aquifer Model: Unconfined  
 $K = 0.001349$  ft/min

Solution Method: Bouwer-Rice  
 $y_0 = 0.1403$  ft



#### MW-3-RISING 1

Data Set: P:\...\MW\_3.aqt  
Date: 11/19/07

Time: 12:49:26

#### PROJECT INFORMATION

Company: MACTEC  
Client: NYSDEC  
Location: ATRS-DC  
Test Well: MW-3-1  
Test Date: 8/29/07

#### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

#### WELL DATA (MW-3)

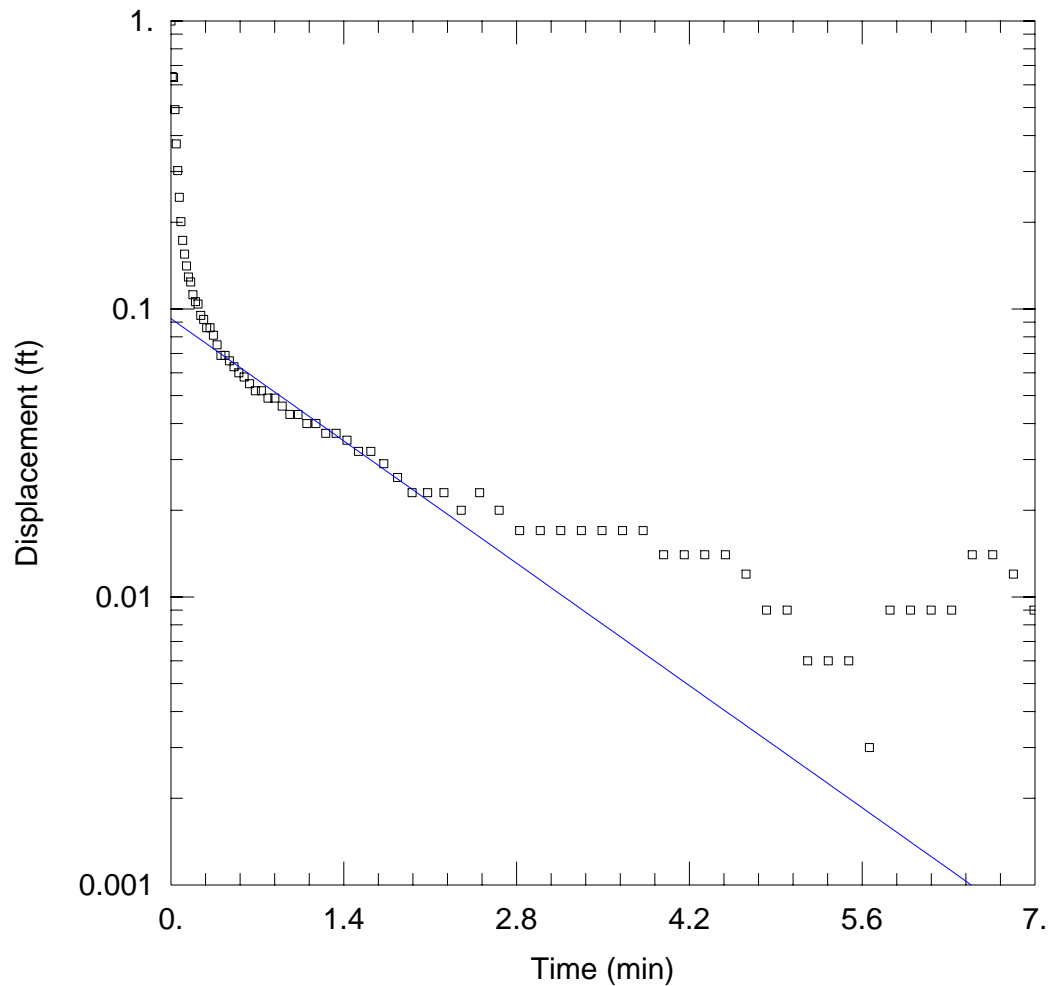
Initial Displacement: 1. ft  
Total Well Penetration Depth: 3.77 ft  
Casing Radius: 0.083 ft

Static Water Column Height: 3.77 ft  
Screen Length: 10. ft  
Wellbore Radius: 0.166 ft  
Gravel Pack Porosity: 0.3

#### SOLUTION

Aquifer Model: Unconfined  
 $K = 0.002498$  ft/min

Solution Method: Hvorslev  
 $y_0 = 0.1403$  ft



### MW-3-RISING 2

Data Set: P:\...\MW\_3.aqt  
 Date: 11/19/07

Time: 12:55:03

### PROJECT INFORMATION

Company: MACTEC  
 Client: NYSDEC  
 Location: ATRS-DC  
 Test Well: MW-3-2  
 Test Date: 8/29/07

### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (MW-3)

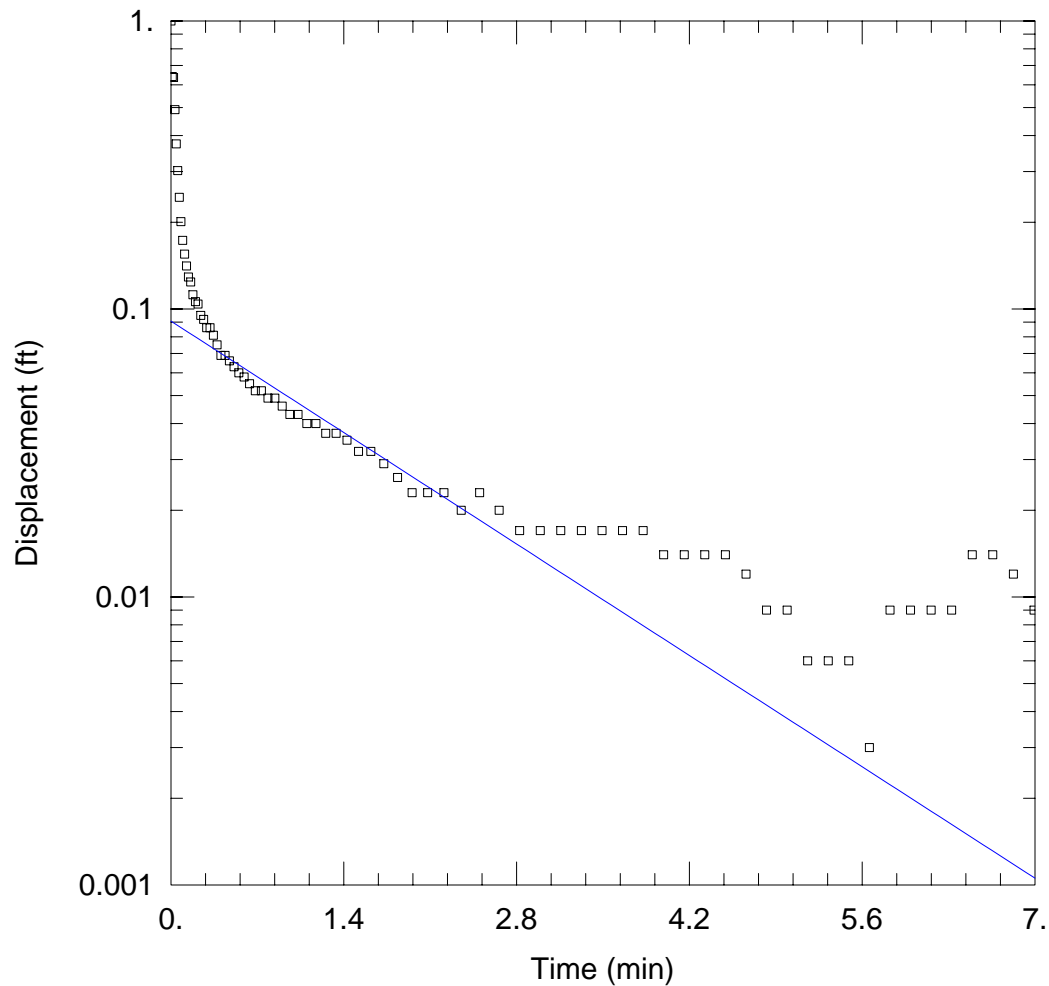
Initial Displacement: 1. ft  
 Total Well Penetration Depth: 3.77 ft  
 Casing Radius: 0.083 ft

Static Water Column Height: 3.77 ft  
 Screen Length: 10. ft  
 Wellbore Radius: 0.166 ft  
 Gravel Pack Porosity: 0.3

### SOLUTION

Aquifer Model: Unconfined  
 $K = 0.001007$  ft/min

Solution Method: Bouwer-Rice  
 $y_0 = 0.09251$  ft



### MW-3-RISING 2

Data Set: P:\...\MW\_3.aqt  
Date: 11/19/07

Time: 12:56:07

### PROJECT INFORMATION

Company: MACTEC  
Client: NYSDEC  
Location: ATRS-DC  
Test Well: MW-3-2  
Test Date: 8/29/07

### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (MW-3)

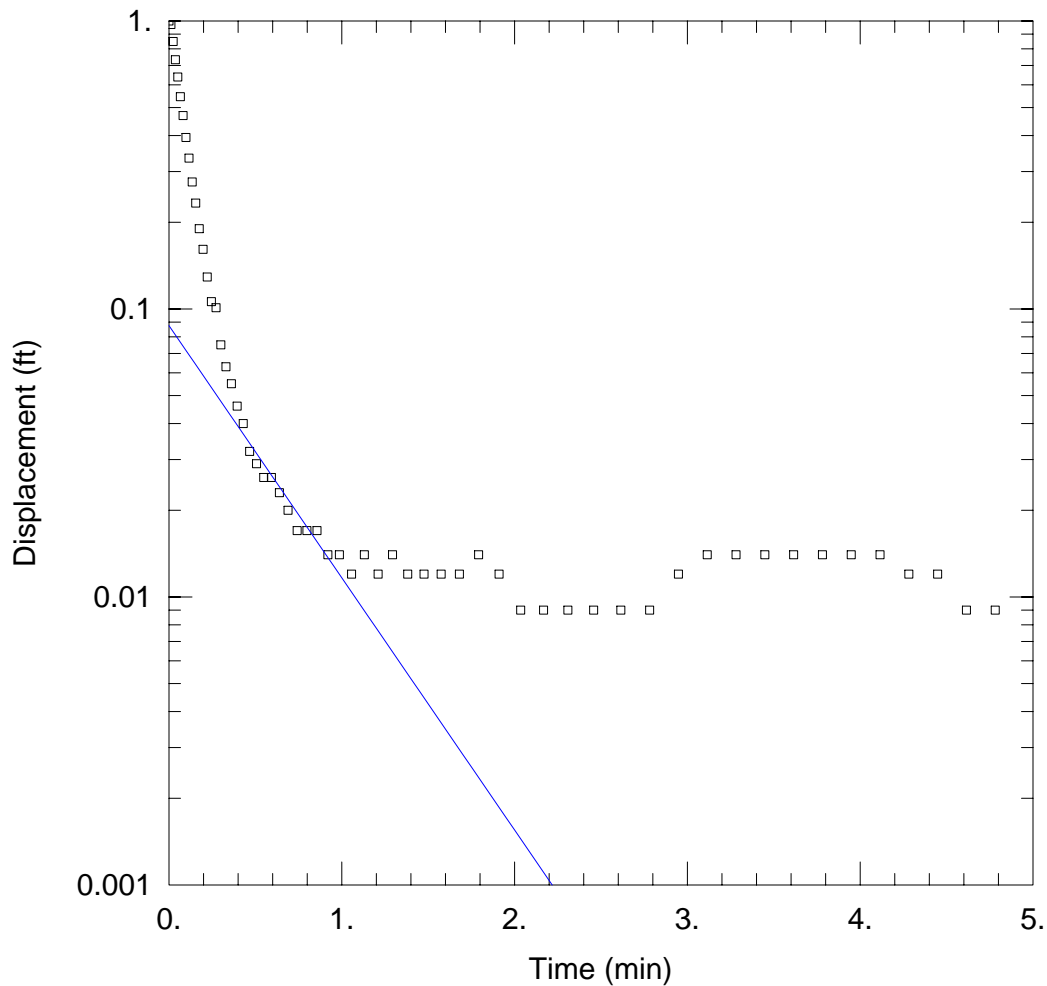
Initial Displacement: 1. ft  
Total Well Penetration Depth: 3.77 ft  
Casing Radius: 0.083 ft

Static Water Column Height: 3.77 ft  
Screen Length: 10. ft  
Wellbore Radius: 0.166 ft  
Gravel Pack Porosity: 0.3

### SOLUTION

Aquifer Model: Unconfined  
 $K = 0.001707$  ft/min

Solution Method: Hvorslev  
 $y_0 = 0.09069$  ft



#### MW-9-RISING 1

Data Set: P:\...\MW\_9.aqt  
Date: 11/19/07

Time: 13:01:53

#### PROJECT INFORMATION

Company: MACTEC  
Client: NYSDEC  
Location: ATRS-DC  
Test Well: MW-9-1  
Test Date: 8/29/07

#### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

#### WELL DATA (MW-9)

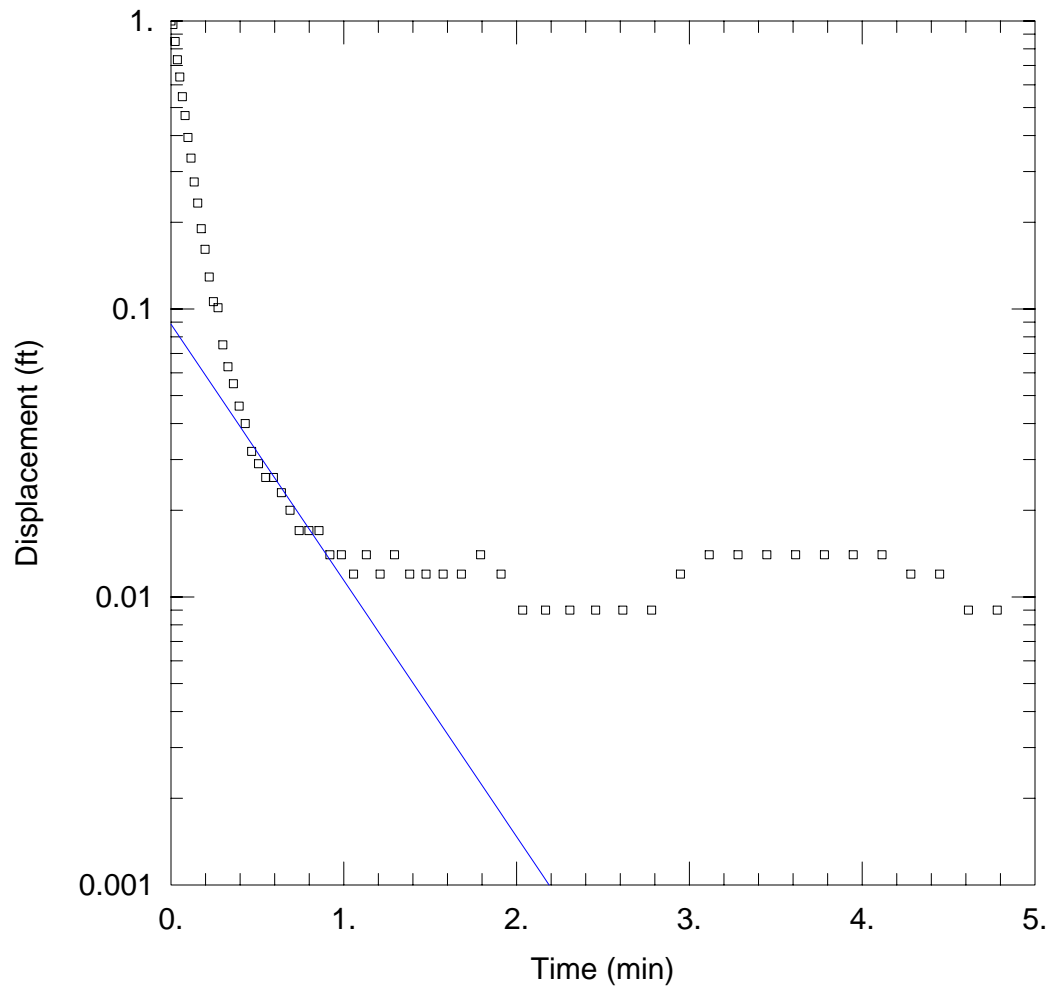
Initial Displacement: 1. ft  
Total Well Penetration Depth: 4.73 ft  
Casing Radius: 0.083 ft

Static Water Column Height: 4.73 ft  
Screen Length: 10. ft  
Wellbore Radius: 0.166 ft  
Gravel Pack Porosity: 0.3

#### SOLUTION

Aquifer Model: Unconfined  
 $K = 0.003071$  ft/min

Solution Method: Bouwer-Rice  
 $y_0 = 0.08749$  ft



### MW-9-RISING 1

Data Set: P:\...\MW\_9.aqt

Date: 11/19/07

Time: 13:01:08

### PROJECT INFORMATION

Company: MACTEC

Client: NYSDEC

Location: ATRS-DC

Test Well: MW-9-1

Test Date: 8/29/07

### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (MW-9)

Initial Displacement: 1. ft

Static Water Column Height: 4.73 ft

Total Well Penetration Depth: 4.73 ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.166 ft

Gravel Pack Porosity: 0.3

### SOLUTION

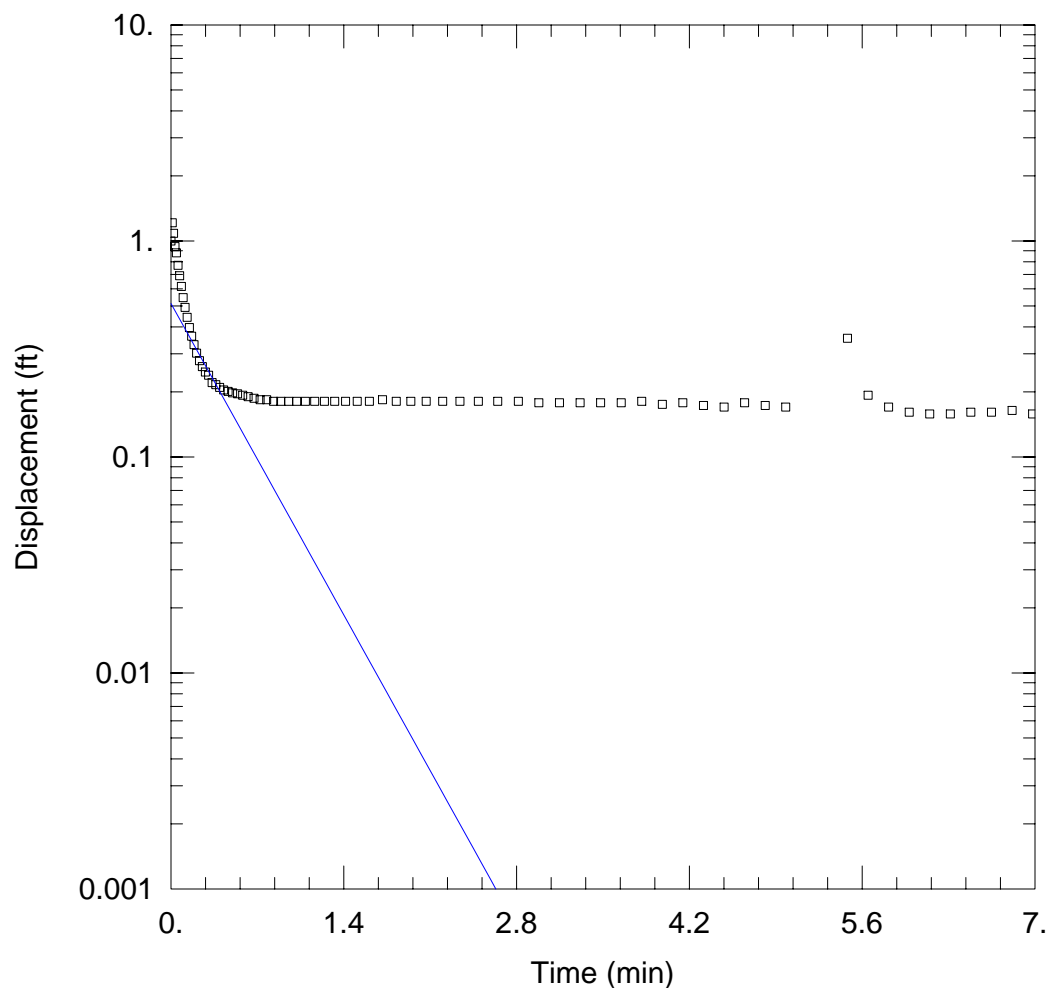
Aquifer Model: Unconfined

Solution Method: Hvorslev

$K = 0.005495$  ft/min

$y_0 = 0.08851$  ft





### MW-9-RISING 2

Data Set: P:\...\MW\_9.aqt

Date: 11/19/07

Time: 13:06:41

### PROJECT INFORMATION

Company: MACTEC

Client: NYSDEC

Location: ATRS-DC

Test Well: MW-9-2

Test Date: 8/29/07

### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (MW-9)

Initial Displacement: 1. ft

Total Well Penetration Depth: 4.73 ft

Casing Radius: 0.083 ft

Static Water Column Height: 4.73 ft

Screen Length: 10. ft

Wellbore Radius: 0.166 ft

Gravel Pack Porosity: 0.3

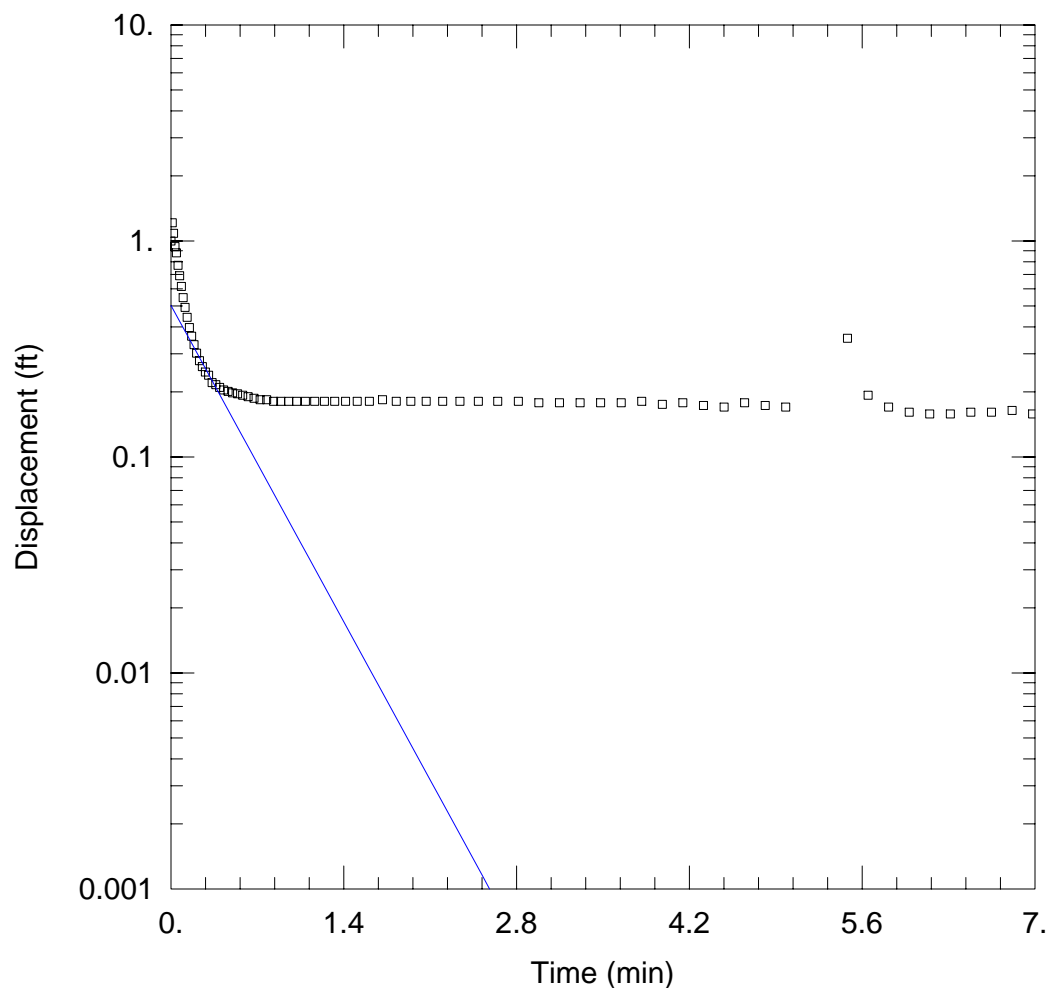
### SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.003611$  ft/min

$y_0 = 0.513$  ft



### MW-9-RISING 2

Data Set: P:\...\MW\_9.aqt

Date: 11/19/07

Time: 13:09:15

### PROJECT INFORMATION

Company: MACTEC

Client: NYSDEC

Location: ATRS-DC

Test Well: MW-9-2

Test Date: 8/29/07

### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (MW-9)

Initial Displacement: 1. ft

Static Water Column Height: 4.73 ft

Total Well Penetration Depth: 4.73 ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.166 ft

Gravel Pack Porosity: 0.3

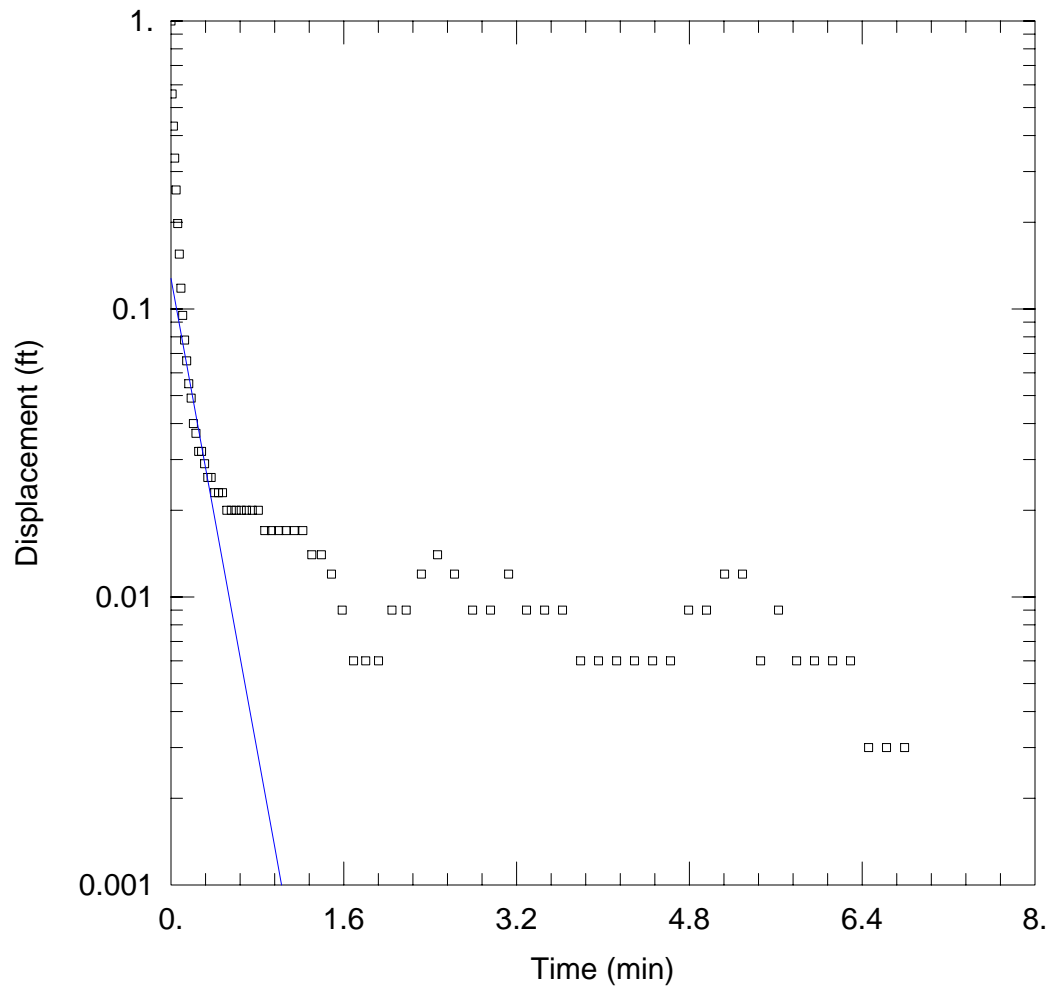
### SOLUTION

Aquifer Model: Unconfined

Solution Method: Hvorslev

$K = 0.006462$  ft/min

$y_0 = 0.5028$  ft



### DCMW-3-RISING 1

Data Set: P:\...\DCMW\_3.aqt

Date: 11/19/07

Time: 12:31:05

### PROJECT INFORMATION

Company: MACTEC

Client: NYSDEC

Location: ATRS-DC

Test Well: DCMW-3-1

Test Date: 8/29/07

### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (DCMW-3)

Initial Displacement: 1. ft

Static Water Column Height: 12.28 ft

Total Well Penetration Depth: 12.28 ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.166 ft

Gravel Pack Porosity: 0.3

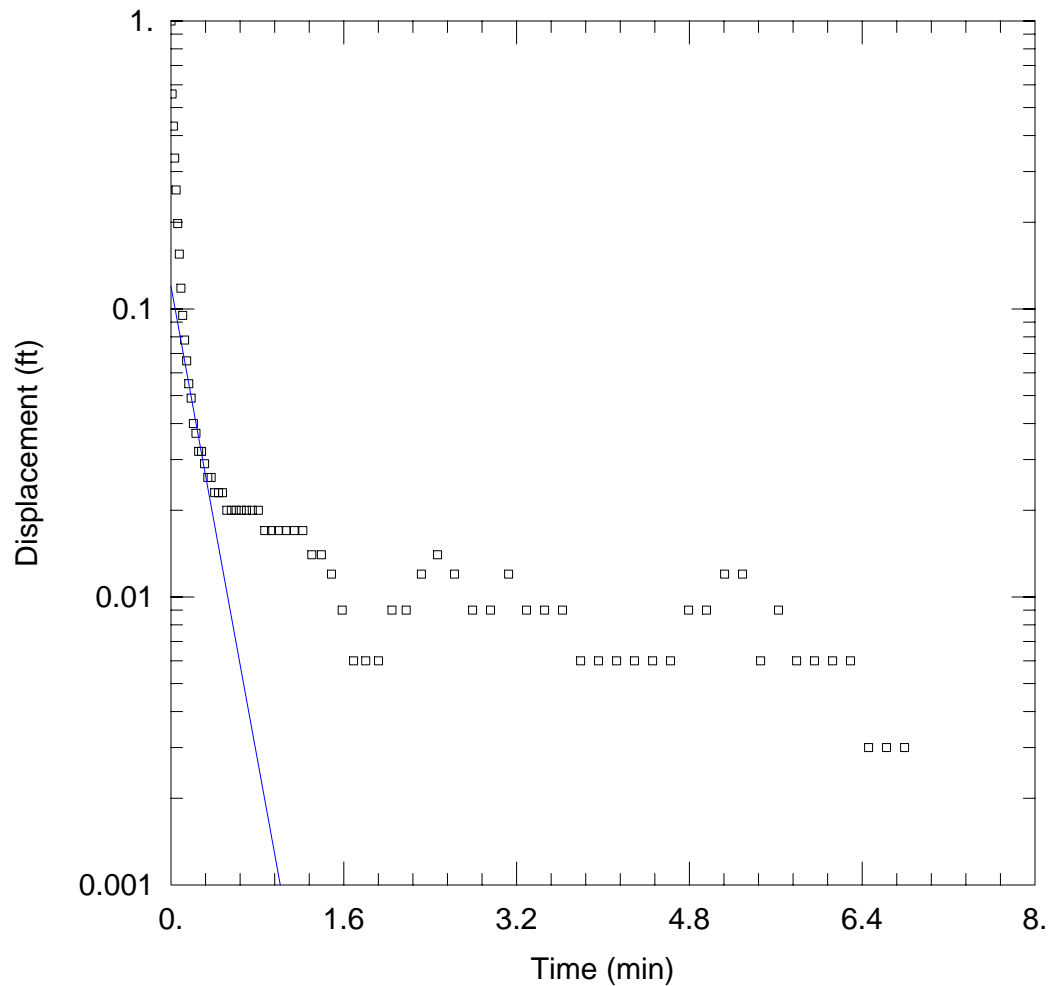
### SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.008756$  ft/min

$y_0 = 0.1275$  ft



#### DCMW-3-RISING 1

Data Set: P:\...\DCMW\_3.aqt  
Date: 11/19/07

Time: 12:28:26

#### PROJECT INFORMATION

Company: MACTEC  
Client: NYSDEC  
Location: ATRS-DC  
Test Well: DCMW-3-1  
Test Date: 8/29/07

#### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

#### WELL DATA (DCMW-3)

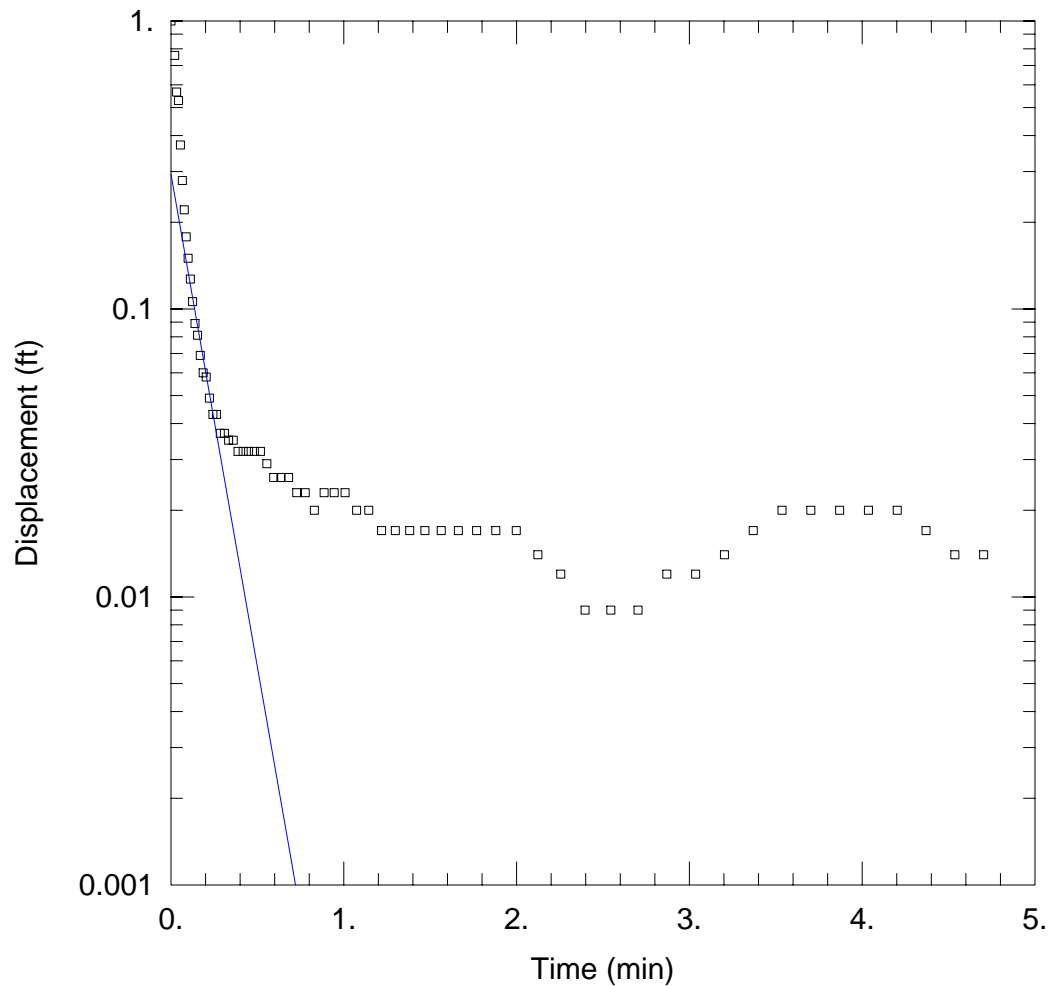
Initial Displacement: 1. ft  
Total Well Penetration Depth: 12.28 ft  
Casing Radius: 0.083 ft

Static Water Column Height: 12.28 ft  
Screen Length: 10. ft  
Wellbore Radius: 0.166 ft  
Gravel Pack Porosity: 0.3

#### SOLUTION

Aquifer Model: Unconfined  
 $K = 0.01268$  ft/min

Solution Method: Hvorslev  
 $y_0 = 0.1198$  ft



### DCMW-3-RISING 2

Data Set: P:\...\DCMW\_3.aqt  
 Date: 11/19/07

Time: 12:34:57

### PROJECT INFORMATION

Company: MACTEC  
 Client: NYSDEC  
 Location: ATRS-DC  
 Test Well: DCMW-3-2  
 Test Date: 8/29/07

### AQUIFER DATA

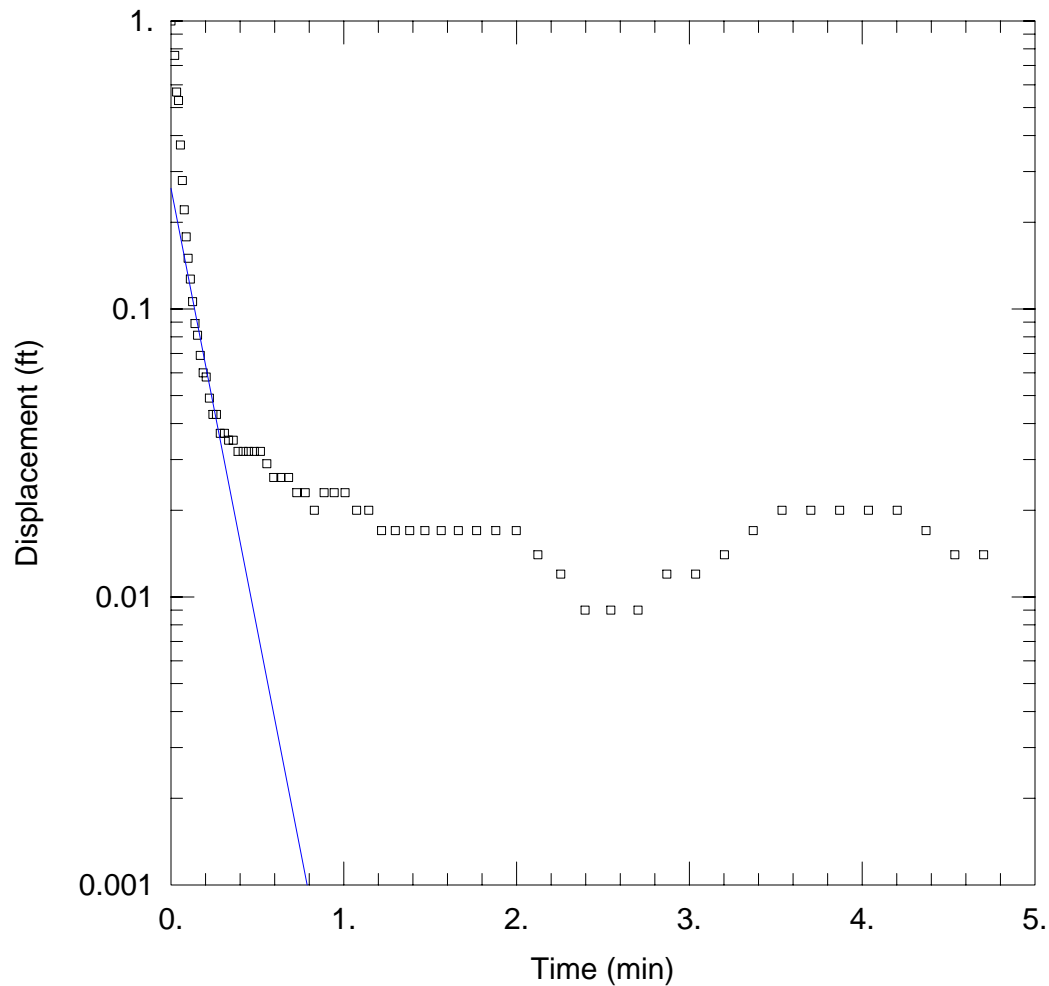
Saturated Thickness: 30. ft      Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (DCMW-3)

Initial Displacement: 1. ft      Static Water Column Height: 12.28 ft  
 Total Well Penetration Depth: 12.28 ft      Screen Length: 10. ft  
 Casing Radius: 0.083 ft      Wellbore Radius: 0.166 ft  
    Gravel Pack Porosity: 0.3

### SOLUTION

Aquifer Model: Unconfined      Solution Method: Bouwer-Rice  
 $K = 0.01458$  ft/min       $y_0 = 0.2934$  ft



### DCMW-3-RISING 2

Data Set: P:\...\DCMW\_3.aqt

Date: 11/19/07

Time: 13:24:54

### PROJECT INFORMATION

Company: MACTEC

Client: NYSDEC

Location: ATRS-DC

Test Well: DCMW-3-2

Test Date: 8/29/07

### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (DCMW-3)

Initial Displacement: 1. ft

Total Well Penetration Depth: 12.28 ft

Casing Radius: 0.083 ft

Static Water Column Height: 12.28 ft

Screen Length: 10. ft

Wellbore Radius: 0.166 ft

Gravel Pack Porosity: 0.3

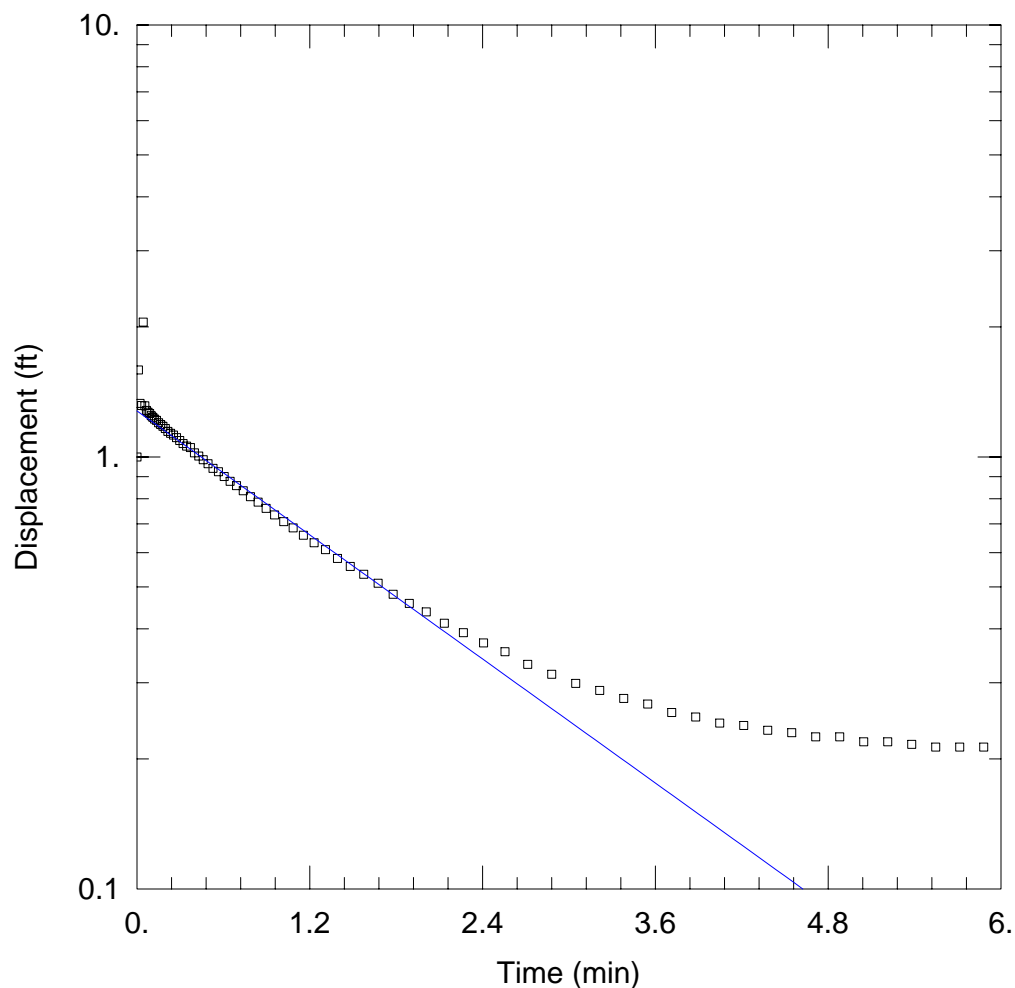
### SOLUTION

Aquifer Model: Unconfined

$K = 0.01896$  ft/min

Solution Method: Hvorslev

$y_0 = 0.2622$  ft



#### DCMW-4-RISING 1

Data Set: P:\...\DCMW\_4.aqt

Date: 11/19/07

Time: 11:48:54

#### PROJECT INFORMATION

Company: MACTEC

Client: NYSDEC

Location: ATRS-DC

Test Well: DCMW-4-1

Test Date: 8/29/07

#### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

#### WELL DATA (DCMW-4)

Initial Displacement: 1. ft

Static Water Column Height: 2.78 ft

Total Well Penetration Depth: 2.78 ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.166 ft

Gravel Pack Porosity: 0.3

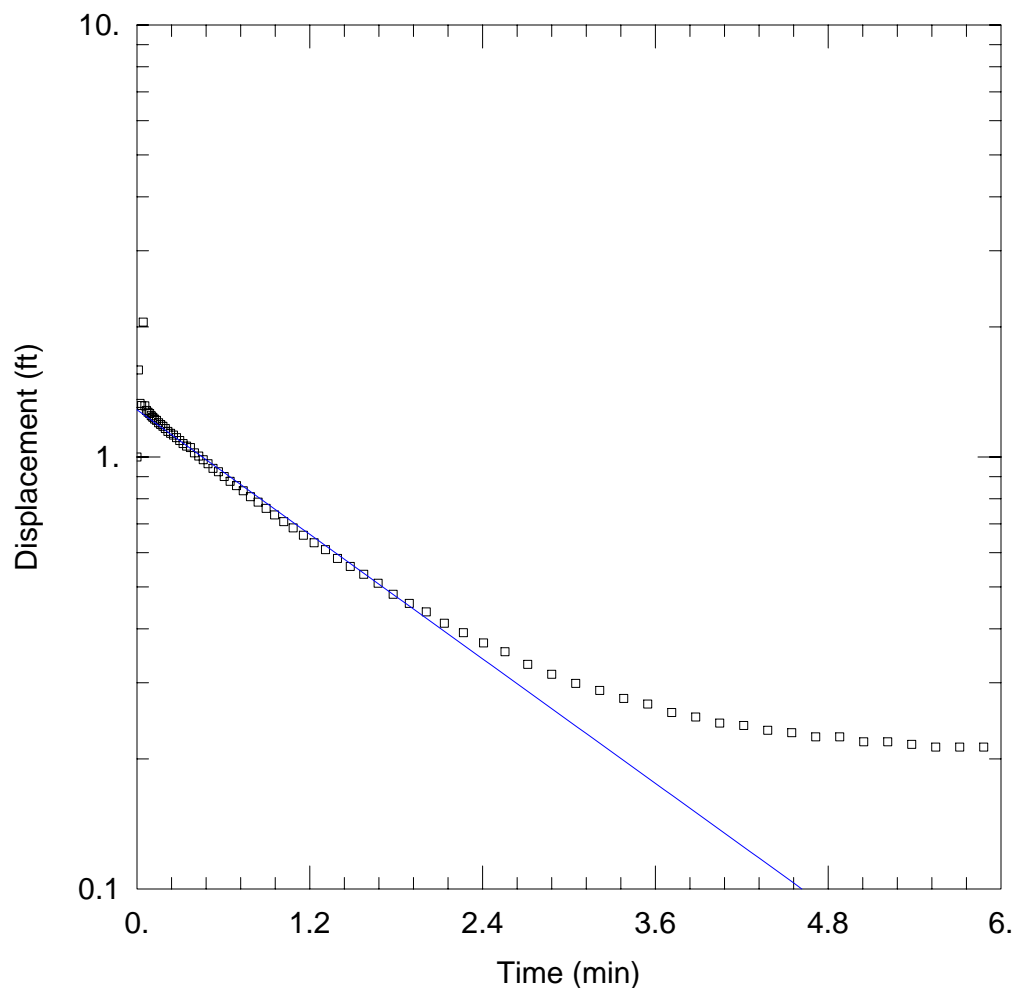
#### SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.0007326$  ft/min

$y_0 = 1.278$  ft



#### DCMW-4-RISING 1

Data Set: P:\...\DCMW\_4.aqt

Date: 11/19/07

Time: 11:50:33

#### PROJECT INFORMATION

Company: MACTEC

Client: NYSDEC

Location: ATRS-DC

Test Well: DCMW-4-1

Test Date: 8/29/07

#### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

#### WELL DATA (DCMW-4)

Initial Displacement: 1. ft

Static Water Column Height: 2.78 ft

Total Well Penetration Depth: 2.78 ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.166 ft

Gravel Pack Porosity: 0.3

#### SOLUTION

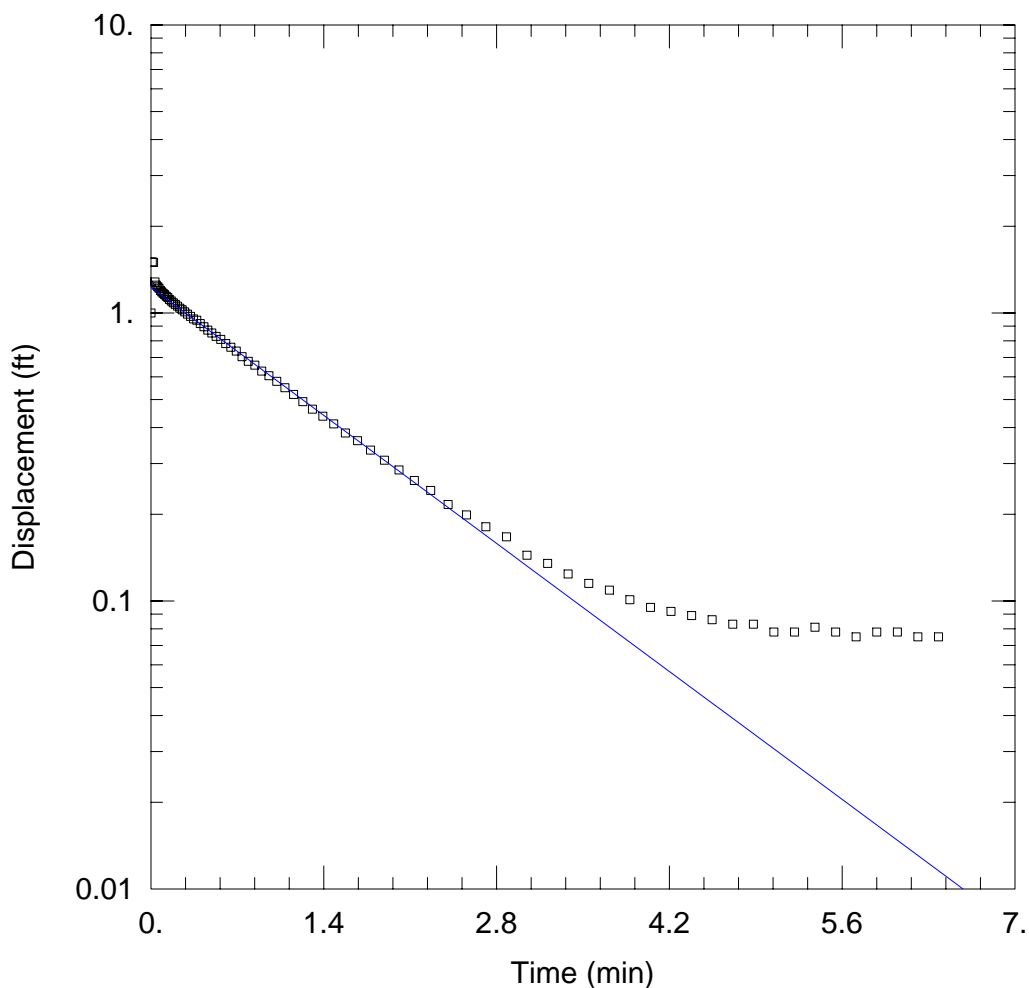
Aquifer Model: Unconfined

Solution Method: Hvorslev

$K = 0.001483$  ft/min

$y_0 = 1.285$  ft





#### DCMW-4-RISING 2

Data Set: P:\...\DCMW\_4.aqt

Date: 11/19/07

Time: 11:29:31

#### PROJECT INFORMATION

Company: MACTEC

Client: NYSDEC

Location: ATRS-DC

Test Well: DCMW-4-2

Test Date: 8/29/07

#### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

#### WELL DATA (DCMW-4)

Initial Displacement: 1. ft

Total Well Penetration Depth: 2.78 ft

Casing Radius: 0.083 ft

Static Water Column Height: 2.78 ft

Screen Length: 10. ft

Wellbore Radius: 0.166 ft

Gravel Pack Porosity: 0.3

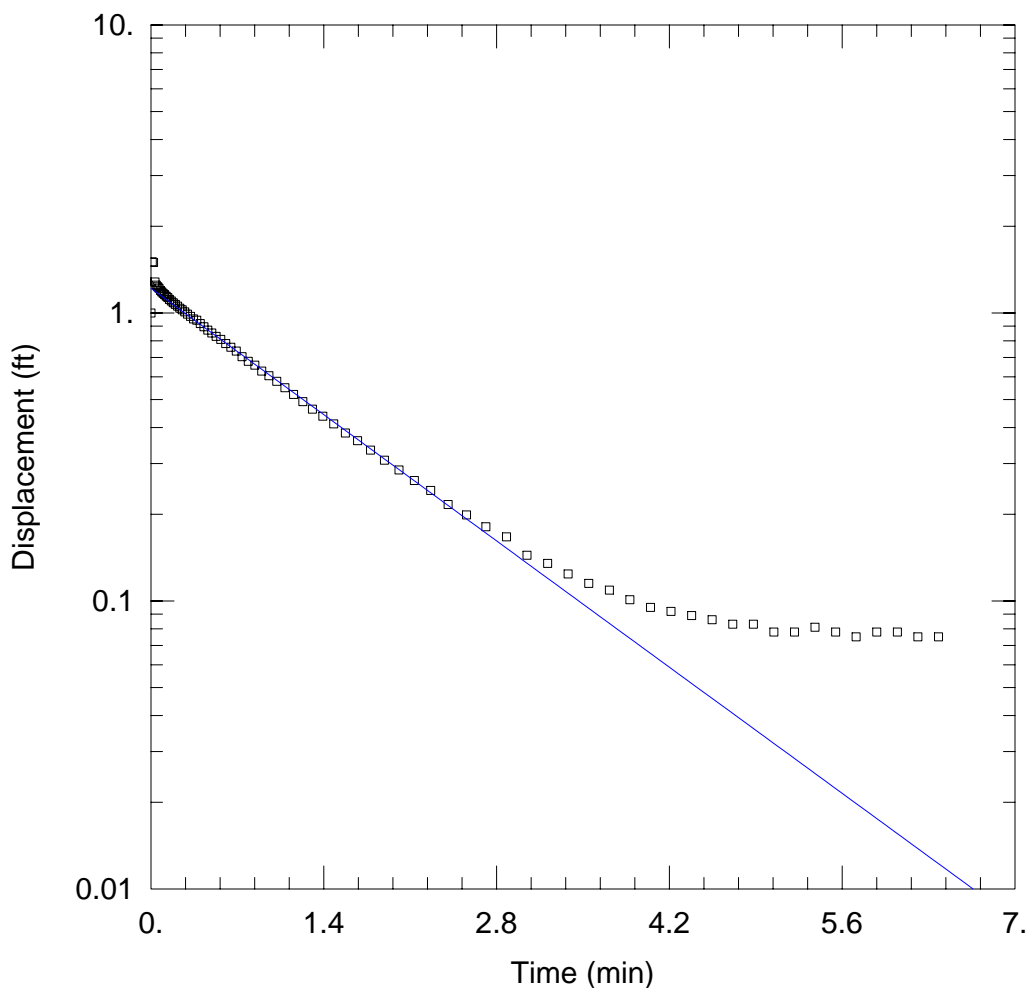
#### SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.0009719$  ft/min

$y_0 = 1.227$  ft



#### DCMW-4-RISING 2

Data Set: P:\...\DCMW\_4.aqt

Date: 11/19/07

Time: 11:37:22

#### PROJECT INFORMATION

Company: MACTEC

Client: NYSDEC

Location: ATRS-DC

Test Well: DCMW-4-2

Test Date: 8/29/07

#### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

#### WELL DATA (DCMW-4)

Initial Displacement: 1. ft

Static Water Column Height: 2.78 ft

Total Well Penetration Depth: 2.78 ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.166 ft

Gravel Pack Porosity: 0.3

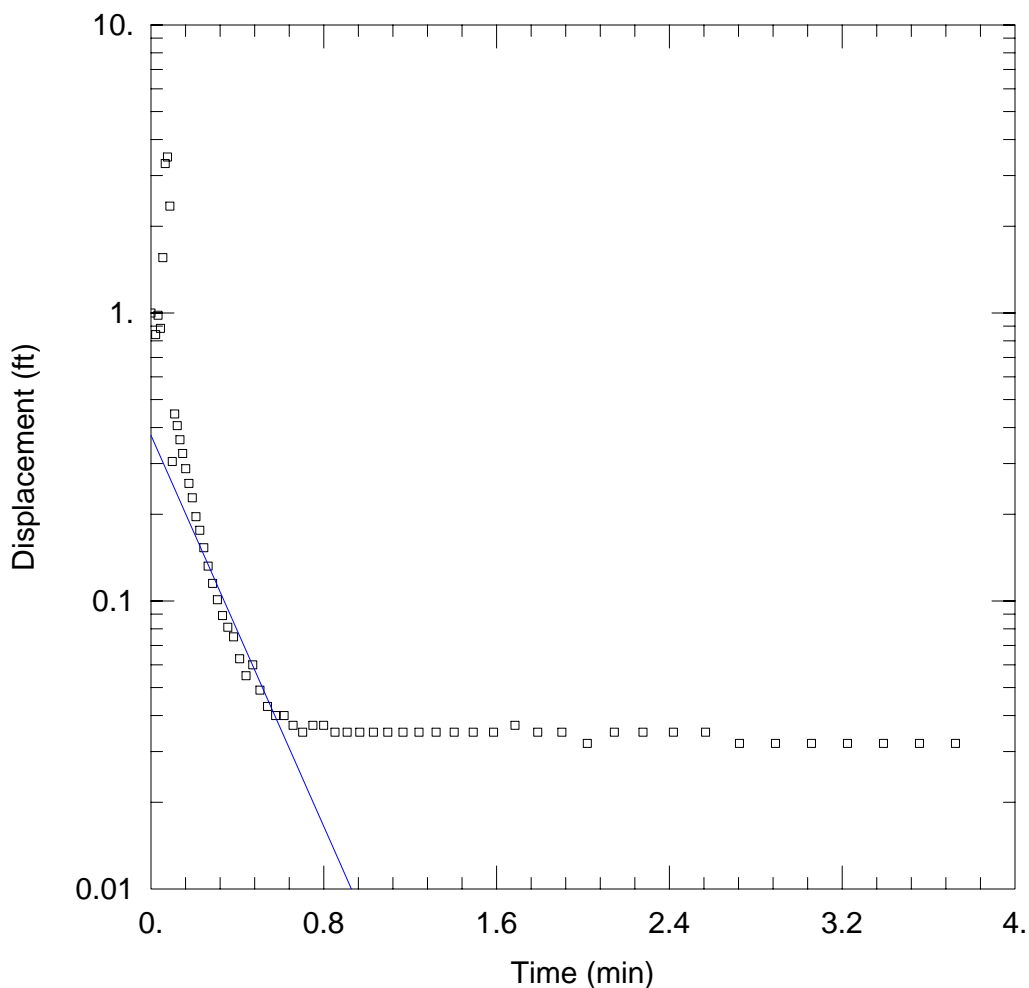
#### SOLUTION

Aquifer Model: Unconfined

Solution Method: Hvorslev

$K = 0.001934$  ft/min

$y_0 = 1.216$  ft



#### DCMW-5-RISING 1

Data Set: P:\...\DCMW\_5.aqt

Date: 11/19/07

Time: 12:04:29

#### PROJECT INFORMATION

Company: MACTEC

Client: NYSDEC

Location: ATRS-DC

Test Well: DCMW-5-1

Test Date: 8/29/07

#### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

#### WELL DATA (DCMW-5)

Initial Displacement: 1. ft

Static Water Column Height: 10.89 ft

Total Well Penetration Depth: 10.89 ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.166 ft

Gravel Pack Porosity: 0.3

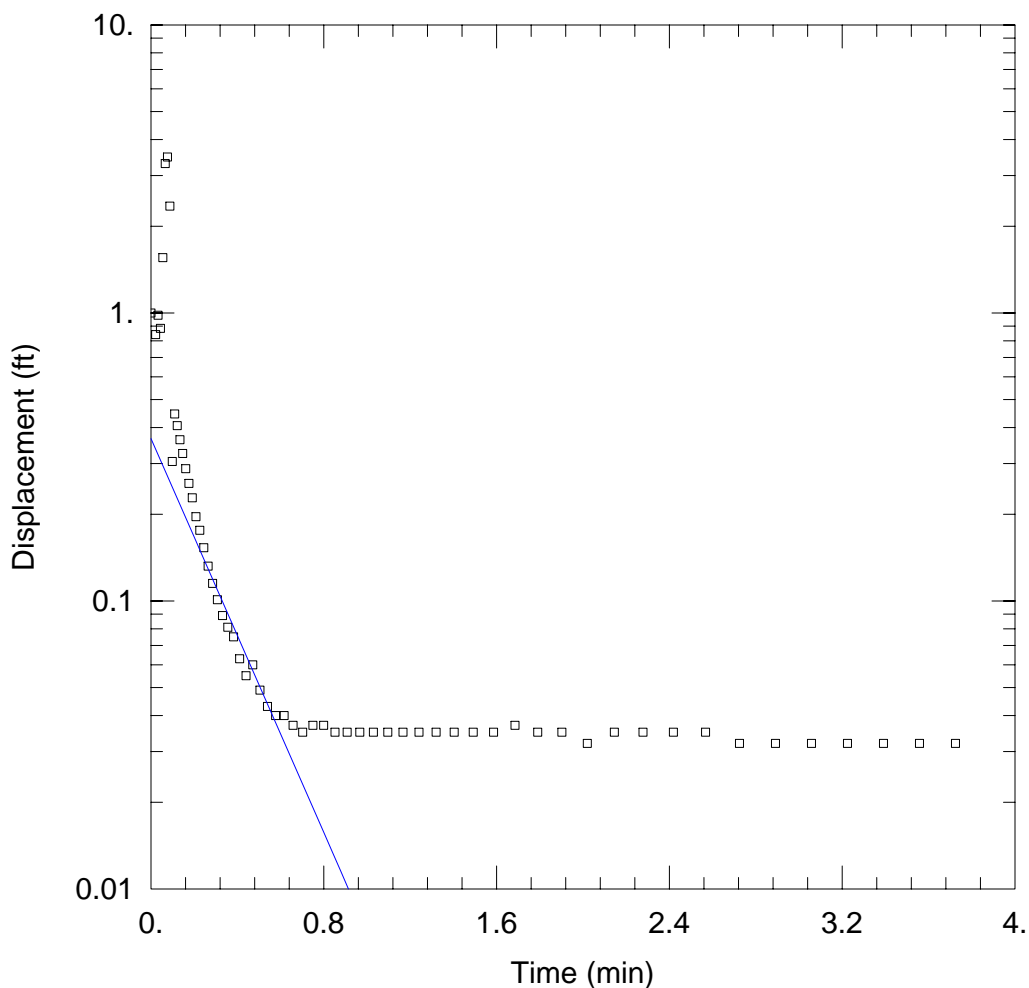
#### SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.007072$  ft/min

$y_0 = 0.3757$  ft



#### DCMW-5-RISING 1

Data Set: P:\...\DCMW\_4.aqt

Date: 11/19/07

Time: 11:56:53

#### PROJECT INFORMATION

Company: MACTEC

Client: NYSDEC

Location: ATRS-DC

Test Well: DCMW-5-1

Test Date: 8/29/07

#### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

#### WELL DATA (DCMW-5)

Initial Displacement: 1. ft

Static Water Column Height: 10.89 ft

Total Well Penetration Depth: 10.89 ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.166 ft

Gravel Pack Porosity: 0.3

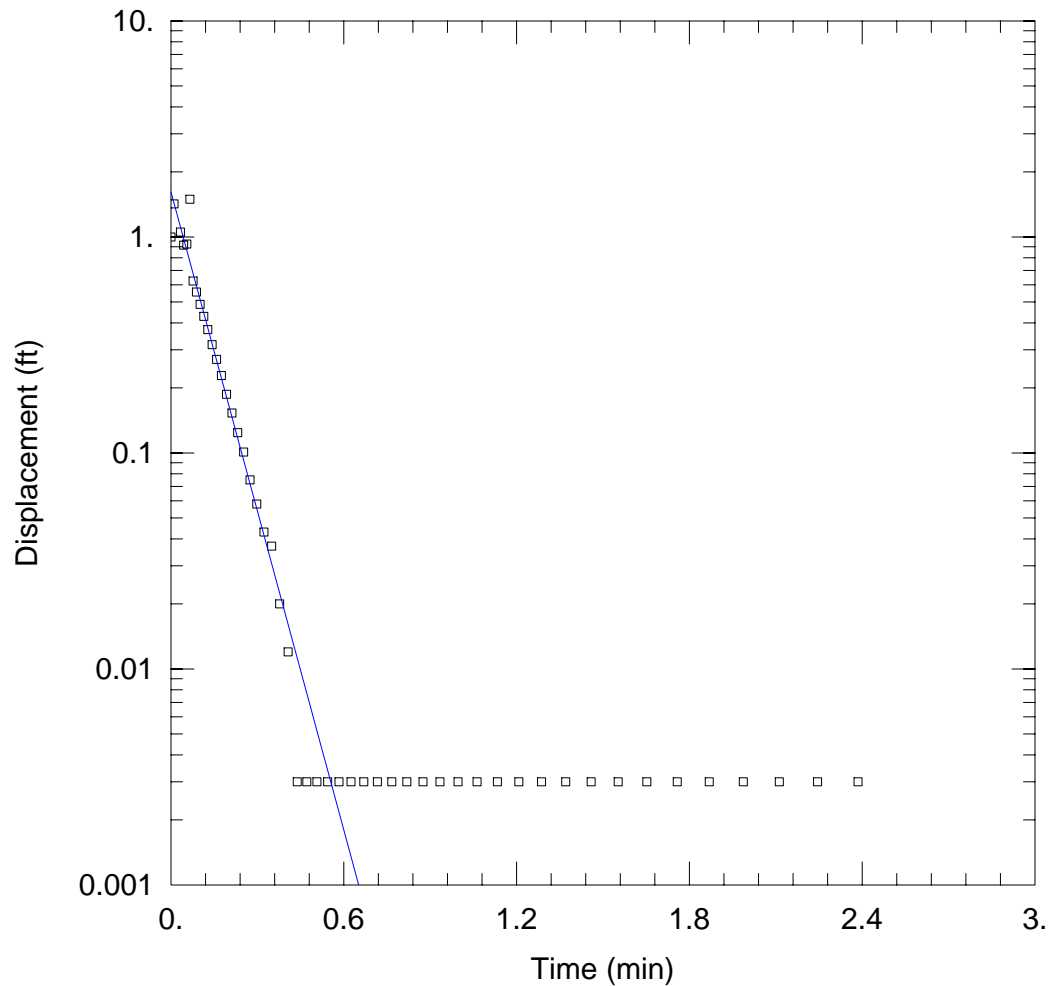
#### SOLUTION

Aquifer Model: Unconfined

Solution Method: Hvorslev

$K = 0.01056$  ft/min

$y_0 = 0.366$  ft



### DCMW-5-RISING 2

Data Set: P:\...\DCMW\_5.aqt

Date: 11/19/07

Time: 12:10:10

### PROJECT INFORMATION

Company: MACTEC

Client: NYSDEC

Location: ATRS-DC

Test Well: DCMW-5-2

Test Date: 8/29/07

### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (DCMW-5)

Initial Displacement: 1. ft

Static Water Column Height: 10.89 ft

Total Well Penetration Depth: 10.89 ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.166 ft

Gravel Pack Porosity: 0.3

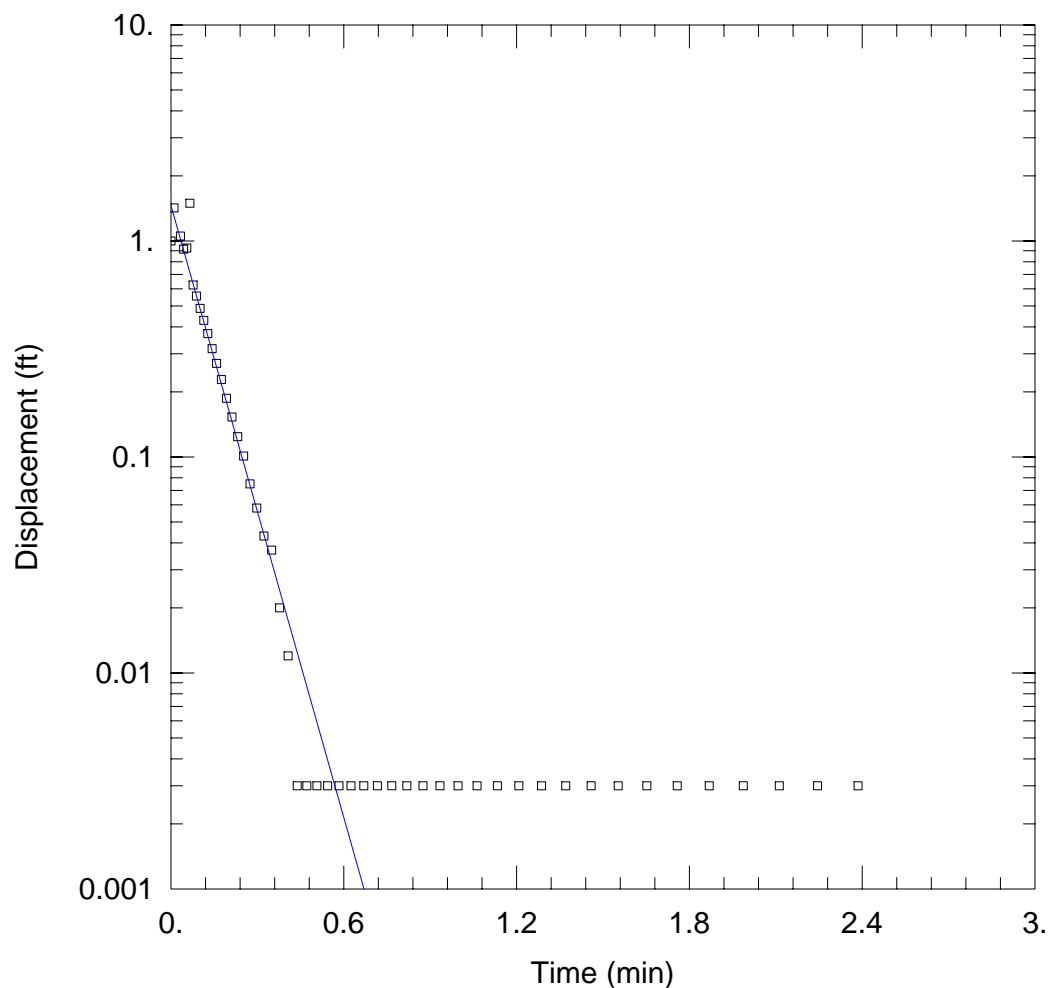
### SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 0.02051$  ft/min

$y_0 = 1.613$  ft



### DCMW-5-RISING 2

Data Set: P:\...\DCMW\_5.aqt

Date: 11/19/07

Time: 12:12:37

### PROJECT INFORMATION

Company: MACTEC

Client: NYSDEC

Location: ATRS-DC

Test Well: DCMW-5-2

Test Date: 8/29/07

### AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio ( $K_z/K_r$ ): 1.

### WELL DATA (DCMW-5)

Initial Displacement: 1. ft

Static Water Column Height: 10.89 ft

Total Well Penetration Depth: 10.89 ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.166 ft

Gravel Pack Porosity: 0.3

### SOLUTION

Aquifer Model: Unconfined

Solution Method: Hvorslev

$K = 0.02916$  ft/min

$y_0 = 1.456$  ft