



Environment

Prepared for:  
SUPERFUND STANDBY PROGRAM  
NYSDEC  
625 Broadway  
Albany, New York 12233

Prepared by:  
AECOM  
Latham, New York  
July 2012

**Periodic Review Report: July 2008 - June 2012**  
**34 Freeman's Bridge Road Site**  
**NYSDEC Site No. 4-47-028**  
**Work Assignment No. D004445-9.1**



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**Engineering Certification**

I, Scott Underhill, certify that I am currently a NYS registered professional engineer and that this Periodic Review Report for the 34 Freeman's Bridge Road Site (Site No. 4-47-028) was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Respectfully submitted,

AECOM Technical Services Northeast, Inc.



July 20, 2012

Date

Scott Underhill

Registered Professional Engineer  
New York License NO E075632

## Contents

<b>Engineering Certification .....</b>	<b>i</b>
<b>1.0 Site Overview .....</b>	<b>1-1</b>
1.1 Remedial History.....	1-2
1.1.1 Groundwater Monitoring.....	1-5
1.1.2 Sub-Surface Soil Vapor Monitoring .....	1-5
<b>2.0 Evaluate Remedy Performance, Effectiveness and Protectiveness .....</b>	<b>2-1</b>
2.1 IC/EC Report .....	2-1
2.2 Monitoring Plan Compliance Report.....	2-1
2.2.1 Confirm Compliance with Site Management Plan .....	2-1
2.2.2 Confirm that Performance Standards are Being Met .....	2-2
<b>3.0 Evaluate Costs .....</b>	<b>3-1</b>
3.1 Summary of Costs .....	3-1
<b>4.0 Conclusions and Recommendations .....</b>	<b>4-1</b>
4.1 Conclusions.....	4-1
4.2 Recommendations .....	4-2

## List of Tables

- Table 1 Groundwater Elevations – January 2012
- Table 2 Groundwater Analytical Summary Through January 2012 – VOCs
- Table 3 Groundwater Analytical Summary Through January 2012 – SVOCs
- Table 4 Groundwater Analytical Summary Through January 2012 – Metals
- Table 5 Groundwater Analytical Summary Through January 2012 – PCBs
- Table 6 Groundwater Analytical Summary Through January 2012 – Pesticides
- Table 7 Sub-Surface Soil Vapor Sampling Results – April 2008

## List of Figures

- Figure 1 Site Location Map
- Figure 2 Site Details
- Figure 3 Groundwater Contours – Shallow Zone
- Figure 4 Groundwater Contours – Deep Zone
- Figure 5 VOC Detections and Exceedances
- Figure 6 Total VOC Concentration Trends – Most Wells
- Figure 7 Total VOC Concentration Trends – MW-20 and MW-30
- Figure 8 Total VOC Isoconcentrations Map (March 2008)
- Figure 9 Total VOC Isoconcentrations Map (January 2012)
- Figure 10 SVOC Detections and Exceedances
- Figure 11 SVOC Concentration Trends
- Figure 12 Total SVOC Isoconcentrations Map (March 2008)
- Figure 13 Total SVOC Isoconcentrations Map (January 2012)
- Figure 14 Conceptual Site Model

## Executive Summary

The 34 Freeman's Bridge Road Site (the "Site") is located in the Village of Scotia, Town of Glenville, Schenectady County, New York. The Site is approximately 13 acres in size and is an open field located in a commercial and residential area.

The Site was added to the New York State Department of Environmental Conservation (NYSDEC) Registry of Inactive Hazardous Waste Sites as a Class 2a site (Site No. 4-47-028) following the discovery of polychlorinated biphenyls (PCBs) in sub-surface soil samples and following an Immediate Investigation Work Assignment (IWA) in 1996. A remedial investigation/feasibility study (RI/FS) was initiated in 2000 and a Record of Decision (ROD) was issued in March 2004 for impacted groundwater, surface soil, sub-surface soil, surface water, and sediment.

The remedy consisted of: installation of trenches/wells to remove non-aqueous phase liquid (NAPL) and groundwater from main source area; construction of temporary water treatment system to handle liquids; excavation of contaminated soil and debris; performing on-site low temperature thermal treatment and stabilization on contaminated soil; backfill and restoration of property with treated soil, topsoil, and vegetation; monitoring to confirm no further potential impacts; and installation of institutional controls such as future groundwater use restrictions.

The remedial action began in November 2006 and was completed in October 2007, during which time over 75,000 tons of hazardous and non-hazardous soils were treated by low temperature thermal desorption or disposed off-site and over 9 million gallons of groundwater from the Site operations were treated by the on-site wastewater treatment plant and discharged into the Warner Creek.

A Site Management Plan (SMP) was developed for the Site and approved by the NYSDEC in July 2008. In accordance with the SMP, the network of groundwater monitoring wells were sampled and reported quarterly from the fall of 2008 through fall of 2010. Following the quarterly events, the sampling and reporting schedule changed to sampling every five quarters, the first of which was performed in January 2012.

Based on AECOM's review of the existing historical data and information, the selected remedy at the Site continues to function as intended.

Total annual costs for completing the required activities associated with groundwater monitoring and evaluation of environmental controls (ECs) between 2008 and 2012 are \$174,800, which averages out to approximately \$35,000 per year or \$19,000 per sampling event

Recommendations for the Site include continuation of long-term monitoring, repairs to monitoring wells MW-15D and MW-18, and preparation of a five-year, field oversight periodic review report (PRR).

## 1.0 Site Overview

The periodic review process is used for determining if a remedy is properly managed, as set forth in site documents, and if the remedy is protective of human health and the environment. This Periodic Review Report (PRR) includes historical information, sub-surface soil vapor data, and groundwater monitoring well data through January 2012.

This PRR has been prepared to evaluate the overall effectiveness of the remedies selected and their implementation at the site. AECOM Technical Services Northeast, Inc. (AECOM) monitors the 34 Freeman's Bridge Site (the "Site") for the New York State Department of Environmental Conservation (NYSDEC) under Work Assignment D004445-9.1 of the Superfund Standby Contract. The NYSDEC originally classified the Site (NYSDEC Site No. 4-47-028) as Class 5 in 1984 and following additional investigations classified the Site as Class 2a in 1996. A Class 5 site is defined as having been properly closed in a setting where a consequential amount of hazardous waste or its constituents remain, but do not require continued operation, maintenance and/or monitoring and no further action required. A Class 2 site is defined as the disposal of hazardous waste has been confirmed and the presence of such hazardous waste or its components or breakdown products represent a significant threat to the environment or to public health.

A remedial investigation/feasibility study (RI/FS) for the Site was initiated in 2000 and culminated with a RI/FS report issued to the NYSDEC in January 2004. The Record of Decision (ROD) was issued by the NYSDEC in March 2004.

The Site is located in a residential and commercial area on Freeman's Bridge Road in the Village of Scotia, Town of Glenville, New York (**Figure 1**). The Site, currently owned by Lyon's Ventures, Inc. (Lyon's), is now a 13-acre open field (**Figure 2**).

The Site is generally flat and covered with grass, small bushes, and trees along the perimeter. The former building and associated parking areas were located in the extreme southwest corner of the property. A thick layer of contaminated soil and construction and demolition (C&D) debris covered most of the property and several adjacent properties.

To the north of the property is Maple Avenue, with residential and commercial properties. To the west of the property is Freeman's Bridge Road, with residential and commercial properties. To the east of the property are the Delaware and Hudson Railroad, and Niagara Mohawk power line right-of-ways and an asphalt emulsion business. The nearest residential dwelling is located approximately 450 feet from the Site. Warner Creek (also known as Kromme Creek), located northwest of the Site, is a Mohawk River tributary. A portion of the property is included with Warner Creek's watershed. Mohawk River approaches within 300 feet of the Site at its closest point (**Figure 1**).

The Site lies within the Mohawk River Valley Lowlands of the Hudson-Mohawk Lowlands Physiographic Province. A principal influence of the regional physiography was to divide the glaciers that covered the region into well-defined lobes. 34 Freeman's Bridge Road is located near the confluence of two such lobes, the Hudson Lobe and the Mohawk Lobe. The southward flowing Hudson Lobe overrode the Hudson Lowlands and adjacent uplands, while the westward flowing Mohawk Lobe overrode the Mohawk Lowlands west of the site (LaFleur, 1965, Dineen, 1986). This has included covering much of the valley floor with a veneer of alluvial sand and silt deposited by the

present Mohawk River. Silt deposition predominated in backwater or topographic depressions in the floodplain. A mapped lens of such lacustrine silt (Brown, 1982) overlying sand is present in the Site area. Floodplain alluvium encountered in test pits and borings during the RI is probably related to this feature.

Previous investigations at the site and the recent RI activities have identified the following five stratigraphic units that comprise the conceptual geologic model of the Site. The stratigraphic units from oldest to youngest (in order of decreasing depth) are as follows:

- Bedrock
- Glacial Till and Other Basal Deposits
- Deep Sand
- Floodplain Alluvium
- Fill

The three principal hydrogeologic units of interest at the Site are the fill, floodplain alluvium, and deep sand. The fill and deep sand function as water-bearing units whereas the floodplain alluvium is an aquitard between these two units. The fill and floodplain alluvium are limited in lateral extent and are primarily of local importance, whereas the deep sand is spatially extensive and hydrogeologically connected with the Schenectady Aquifer. The thickness and extent of the floodplain alluvium aquitard is not great enough to warrant designation of the fill and deep sand as two separate aquifers. However, the alluvium's characteristics and impact on local groundwater flow are sufficiently significant to warrant designation of two separate water bearing zones.

The overall direction of groundwater flow in the shallow water bearing zone is to the north in the southern section of the Site, trending to the northeast in the northern section of the Site, towards Warner Creek. The groundwater gradient is approximately 0.0015 ft/ft, indicating a relatively flat gradient. The overall direction and velocity of groundwater flow has remained consistent since post-remedial monitoring began in 2008. The overall direction of groundwater flow in the deeper water bearing zone is to the northeast and eventually to Warner Creek.

## 1.1 Remedial History

The Site was owned and operated by the Kitchton Cooperage Company as a drum recycling facility from the late 1950's to 1972. Generated waste was reportedly disposed onto the ground surface and into pits, lagoons, and ditches to the rear of the cooperage building.

A 12-acre parcel, as shown in a Town of Glenville Tax Map (Tax ID #30.19-01-26.1), was purchased in 1978 by Lyon's. In addition to operating a commercial used furniture business, Lyon's operations also included storing drummed waste on the Site and receiving large quantities of fill and C&D debris that were spread across an 11-acre area south of Warner Creek.

Drum recycling operations by the Kitchton Cooperage Company, and more recent drum storage and unregulated fill operations conducted by Lyon's released contaminants that impacted the soil and groundwater at the Site. In particular, the southwest corner of the Site was contaminated with polychlorinated biphenyls (PCBs).

The activities leading up to the RI/FS for the Site are summarized below:

- In 1984 and 1985, the Site was listed on the NYSDEC Registry of Inactive Hazardous Waste Sites as a class 5 site due to the presence of drummed wastes. An emergency removal of twelve 55-gallon drums was conducted after an April 1989 inspection of the

property revealed approximately 80 55-gallon drums. Upon completion of the emergency removal activities, the Site was removed from the registry.

- In 1996, the property was considered for a voluntary clean-up program. Subsequent investigation work conducted by Touhey Associates and The Environmental Design Partnership, revealed the presence of contamination, including PCBs in the sub-surface soils.
- In 1996, the NYS Department of Health (DOH) sampled four residential and one commercial drinking well for volatile organic compounds (VOCs). The results of this investigation reported that no VOCs were detectable at a concentration greater than the method detection limits (MDLs) of the compounds.
- In June 1996, NYSDEC issued an Immediate Investigation Work Assignment (IIWA) that revealed further surface and sub-surface soil PCB contamination. Parsons Engineering Science, Inc., contractor to NYSDEC, installed seven monitoring wells and numerous soil gas monitoring points as part of their investigation.
- In December 1996, the Site was re-listed as a Class 2a Inactive Hazardous Waste Site by NYSDEC.
- In 1997, NYSDEC Division of Environmental Enforcement identified Lyons Ventures, Inc, and 'all those associated' as the Potentially Responsible Party (PRP) for the 34 Freeman's Bridge Site.
- In May 1999, NYSDEC observed the installation of three soil borings during construction activities for a new sewer line project. Borings contained gravel to approximately five feet below ground surface (bgs) followed by clay to a depth of thirteen feet bgs. Soil samples collected from the borings reported the detection of PCBs and benzene, toluene, ethylbenzene, and xylenes (BTEX).

The RI/FS for the Site was initiated in 2000 and culminated with a report issued to the NYSDEC in January 2004. The RI/FS was conducted in two phases (Phase I and Phase II). Phase I of the RI/FS included:

- Preparation of a Site Base Map and research of historical information;
- Geophysical Survey;
- Test Pits;
- Monitoring Well Installation;
- Groundwater Sampling and Analysis;
- Direct Push Technology Soil Borings; and
- Surface Water and Sediment Sampling.

Phase II or the supplemental field investigation of the RI/FS included:

- Direct Push Technology Soil Borings;
- Test Pits;
- Monitoring Well Installation;

- Well Abandonment;
- Groundwater Sampling and Analysis;
- Surface Water and Sediment Sampling; and
- Hydraulic Conductivity Tests.

The ROD was issued by the NYSDEC in March 2004. The site-specific contaminants of concern (COCs) identified in the ROD were VOCs, semi-VOCs (SVOCs), PCBs, and metals. The remedies discussed in the ROD were selected to eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous waste disposed at the Site through the proper application of scientific and engineering principles.

The selected remedy for the 34 Freeman's Bridge Road Site, per the 2004 ROD, was excavation and on-Site thermal treatment and stabilization of groundwater, surface soil, sub-surface soil, surface water, and sediment contamination. Activities associated with the selected remedy consisted of:

- Installation of trenches/wells to remove NAPL and groundwater from main source area;
- Construction of temporary water treatment system to handle liquids;
- Excavation of contaminated soil and debris;
- Performing on-site low temperature thermal treatment and stabilization on contaminated soil;
- Backfill and restoration of property with treated soil, topsoil, and vegetation;
- Monitoring to confirm no further potential impacts; and
- Installation of institutional controls such as future groundwater use restrictions.

After the ROD was issued, the following activities were performed:

- A Work Plan was developed and implementation of the preferred remediation alternative began in November 2006 and was completed in October 2007. In addition to treating over 75,000 tons of hazardous and non-hazardous soils, over 9 million gallons of groundwater from the Site operations were treated by the on-site wastewater treatment plant and discharged into the Warner Creek in accordance with the NYSDEC approved Site Dewatering Plan.
- No treatment systems or other facilities were left in place upon completion of the project, and the Site was restored as an open, grass-covered field, except for a gravel drive and parking area.
- A Site Management Plan (SMP) was developed for the Site and approved by the NYSDEC in July 2008. Groundwater monitoring wells and sub-surface soil vapor points were installed accordingly, and a Post Remediation Field Investigation Report was submitted in September 2008.
- In accordance with the SMP, the network of groundwater monitoring wells were sampled and reported quarterly for the first two years after remedial activities concluded. In January 2012, the sampling and reporting schedule changed to an annual event and subsequently revised by the NYSDEC to sampling every five quarters.

### 1.1.1 Groundwater Monitoring

Groundwater monitoring at the 34 Freeman's Bridge Site includes sampling of 20 on-site and off-site wells for VOCs, SVOCs, PCBs, metals, and pesticides. See **Figure 2** for groundwater monitoring well locations. Sampling was performed quarterly from 2008 to 2010 and five quarters later in 2012.

In addition to collecting groundwater samples, depth-to-groundwater and water quality parameters are measured and recorded for all 20 wells. Water quality parameters, which includes temperature, specific conductivity, conductivity, pH, turbidity, dissolved oxygen (DO), oxygen-reduction potential (ORP), color, and odor, are measured with a water quality meter (e.g., YSI-556). Due to the nature of the soil on-site, depth-to-groundwater is measured with an oil/water interface probe. The depth-to-groundwater measurements are used to calculate groundwater elevations and develop contour maps for both the shallow and deep groundwater zones.

All groundwater samples, including a blind field duplicate, are sent to a NYSDEC contracted laboratory (currently TestAmerica), under standard chain-of-custody and quality assurance/quality control (QA/QC) procedures. QA/QC procedures include the addition of a trip blank with ever shipping container (i.e., cooler) with VOC samples and a matrix spike/matrix spike duplicate with all sample delivery groups. Data from all sampling events are used to evaluate the post remedial aquifer conditions. In addition, analytical data for the COCs in the groundwater at the Site are tabulated and graphed after each sampling event to assess the effectiveness of the selected remedy for the Site. All monitoring data are compared to the NYS Ambient Water Quality Standards (AWQS) and Guidance Values (GV).

### 1.1.2 Sub-Surface Soil Vapor Monitoring

In 2008, AECOM installed 13 temporary sub-surface soil vapor sampling points (**Figure 2**). The actual locations of the sub-surface soil vapor points were dependant on field conditions at the time of installation. Due to excessive rain and saturation during sampling period, deeper holes could not be drilled and seven of the original 20 proposed sampling points were abandoned.

All vapor points were installed into the sub-surface soil and connected to a SUMMA canister with dedicated, polyethylene tubing. Prior to installation of the tubing into the sub-surface soil, VOC readings were measured with a photoionization detector (PID) and recorded for each point. The canisters were equipped with regulators that were set to collect sub-surface soil vapor over a 24-hour period. After 24 hours of collecting sub-surface soil vapor, the valves on the SUMMA canisters were shut off and the canisters were collected.

All samples were shipped to Chemtech of Mountainside, New Jersey, an Environmental Laboratory Approval Program (ELAP) certified laboratory and analyzed for VOCs using Environmental Protection Agency (EPA) Method TO-15. An enhanced Category B-type deliverable package was requested. At the directive of the NYSDEC, a Data Usability Summary Report (DUSR) was not required, but the data packages are available upon request.

## 2.0 Evaluate Remedy Performance, Effectiveness and Protectiveness

### 2.1 IC/EC Report

The Site is located in the Village of Scotia, Town of Glenville, New York and consists of approximately 13 acres in postal zone 12302 (**Figure 1**). The property, which is now comprised of an open field, is owned by Lyon's Ventures, Inc.

During the reporting period, the Site property was not sold, subdivided, merged, did not undergo a tax map amendment, and was not issued any federal, state, and/or local permits.

The institutional controls (ICs) reported by the NYSDEC and included in this PRR are:

- Environmental easement (pending);
- Restricting Groundwater Use; and
- Land Use.

The engineering controls (ECs) reported by the NYSDEC and included in this PRR are:

- Fencing/Access Control; and
- Signage.

During the reporting period, the current use of the Site was consistent with the ICs imposed on the property.

AECOM personnel conducted an inspection of the ECs on January 20, 2012. All ECs employed at the Site have been unchanged since the date that the controls were implemented or approved by the NYSDEC, except for the signage. There are not enough signs posted along the site fence, however, there are signs at the gate to the Site. The ability of the other controls to protect public health and the environment has not been impaired.

A SMP was developed for the Site and approved by the NYSDEC in July 2008. An Operation and Maintenance (O&M) Plan related to the Site is not necessary, as no treatment systems exist on-site.

### 2.2 Monitoring Plan Compliance Report

#### 2.2.1 Confirm Compliance with Site Management Plan

Activity	Required Frequency (X)			Compliance Dates
	Quarter	Semi-Annual	Five Quarter	
Sub-Surface Soil Vapor Sampling				2008
Groundwater Sampling	X			2008-2010
			X	2012

While the ROD requires a long-term monitoring program consisting of quarterly sampling of monitoring wells for the first five years, specific wells were not identified. According to the ROD, the groundwater plume would reach SCGs within five years through natural attenuation with the main contaminant source area removed from the Site.

The SMP, which was submitted to the NYSDEC in 2008, established a sampling program that involved sampling of each of the Site's 20 monitoring wells quarterly during the first two years of the monitoring plan (2008 through 2010), and annually thereafter, rather than quarterly for the first five years. The final quarterly sampling event performed in September 2010 rather than June 2010 due to budget constraints. The first five quarter sampling event was therefore conducted in January 2012.

## 2.2.2 Confirm that Performance Standards are Being Met

### Groundwater Elevations

The most recent groundwater sampling event occurred between January 17 and 22, 2012, during which depth-to-groundwater measurements were recorded for 20 monitoring wells. Depth-to-groundwater measurements, groundwater elevations and other pertinent information can be found in **Table 1**. Groundwater contour maps for the shallow and deeper zones for the January 2012 sampling event are presented as **Figures 3** and **4**, respectively. The overall direction of groundwater flow beneath the Site and the surrounding area in both zones is predominantly to the northeast and eventually to Warner Creek.

### Groundwater Analytical Results

The groundwater sampling events at the Site occurred quarterly from 2008 to 2010, and every five quarters in 2012. **Tables 2** to **Table 6** summarize all historical and current groundwater analytical results for all sampling events.

VOCs were detected at concentrations greater than MDLs in eight monitoring wells during the January 2012 sampling event compared to seven during the September 2010 (**Figure 5**). Samples collected from six wells (MW-16D, MW-19D, MW-20, MW-30, and MW-31) reported exceedances of the NYS AWQS and GV for groundwater in January 2012. The highest exceedance of any individual VOC was acetone, detected in MW-20 at 1,400 micro grams per liter ( $\mu\text{g}/\text{L}$ ). The groundwater sample collected from MW-20 also reported the highest total VOC concentration with 1,570  $\mu\text{g}/\text{L}$ .

MW-20 is located along the northwestern Site boundary, downgradient to a veterinary clinic property. The well exhibits a strong "urine" odor and yellow coloration. In addition, the pH in the wells water continues to exceed 11. Analytical results from the March 2010 sampling event indicated that the ammonia level in MW-20 to be 40,500  $\mu\text{g}/\text{L}$ , which is indicative of groundwater affected by septic wastes or by excessive fertilizer application. Normal levels of ammonia in groundwater/surface water range between 100 to 1,000  $\mu\text{g}/\text{L}$ . The veterinary clinic is connected to the town of Glenville's sewer system; however the maintenance practices of the kennels are unknown. Leachate from the veterinary clinic is a potential source of the contamination detected in MW-20.

The analytical data from the January 2012 sampling event contained concentrations consistent with previous sampling events. Overall, the concentrations of VOCs decreased in several wells between March 2008 and January 2012, indicating a trend of attenuation of these compounds (**Figure 6**). Two samples (collected from MW-23 and MW-30) contained concentrations of VOCs at magnitudes greater than the other samples, indicating that some source material may remain at these locations (**Figure 7**).

Isoconcentration maps were generated to depict the approximate horizontal extents of the contamination based upon the network of accessible monitoring wells screened in the shallow water bearing zone. **Figure 8** and **Figure 9** displays isoconcentration contours for post-remedial concentrations of VOCs across the Site by utilizing the analytical results of the March 2008 and January 2012 groundwater sampling events, respectively. A comparison of the two figures shows that the lateral extent of the VOC plume has decreased and the natural attenuation may be occurring for site-specific contaminants.

SVOCs were detected at concentrations greater than MDLs in seven monitoring wells during the January 2012 sampling event compared to seven during the September 2010 (**Figure 10**). Samples collected from five wells (MW-15, MW-19, MW-19D, MW-20, and MW-23) reported exceedances of the NYS AWQS and GV for groundwater in January 2012. The highest exceedance of any individual SVOC was phenol, detected in MW-20 at 870 µg/L. The groundwater sample collected from MW-20 also reported the highest total SVOC concentration with 1,320 µg/L.

Groundwater samples collected during the January 2012 sampling event reported several SVOCs not detected in the September 2010 sampling event including exceedances of bis(2-ethylhexyl)phthalate, indeno(1,2,3-c,d)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and benzo(a)anthracene (**Table 3** and **Figure 11**). These compounds are included in the group of polycyclic aromatic hydrocarbons (PAHs). The increased detection of PAHs in groundwater samples collected from the network of wells at the Site may be the result of the August 2011 flooding associated with Tropical Storm Irene that flooded much of the Site. More specifically, petroleum products associated with the neighboring businesses (i.e., Mohawk Asphalt Emulsions Inc., Elmo's Auto Body, and Waters Edge Marina) may have contaminated the floodwaters and negatively impacted the shallow water bearing zone at the Site.

**Figure 12** depicts isoconcentrations of SVOCs in monitoring wells screened in the post-remedial, shallow water bearing zone in March 2008, while **Figure 13** displays isoconcentrations of SVOCs detected in the shallow water bearing zone in January 2012. A comparison of these figures highlights the new exceedances reported in the groundwater samples collected from MW-15, MW-19, MW-19D, and MW-23 in January 2012.

A Conceptual Site Model (CSM) was prepared to illustrate current site conditions, based on available data (**Figure 14**). The CSM indicates that the majority of groundwater contamination is present in the shallow water bearing zone and towards the center of the Site near MW-20 and MW-30.

### **Sub-Slab Soil Vapor Analytical Results**

The analytical results from the April 2008 sub-surface soil vapor sampling event reported VOCs in several of the vapor points at concentrations greater than MDLs (**Table 7**). A total of 60 compounds were included in the TO-15 analysis, and in the 13 samples collected, 36 compounds were detected.

Based on the NYSDOH Soil Vapor/Indoor Air Decision Matrices, Section 3.4 of the NYSDOH's Final Guidance for Evaluating Soil Vapor Intrusion in New York State (October 2006), the trichloroethylene (TCE) and tetrachloroethylene (PCE) concentrations detected in VP-4 indicate that if a building were construction on-Site near this location, mitigation would be recommended. VP-4 is located along the southeast border of the site, adjacent to the tank farm property (**Figure 2**). The analytical results of the sub-surface soil vapor sample collected from VP-16 also reported a TCE concentration (5.37 micrograms per cubic meter) requiring further investigation, monitoring, or mitigation in indoor air samples should a building be constructed at this location.

Other compounds were detected in the sub-surface soil vapor samples, but presently no NYSDOH guideline values are available. Vinyl chloride was detected in VP-12 at a concentration of 2,460 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). Toluene was detected in all of the Site vapor samples at concentrations ranging from 26.8 to 501  $\mu\text{g}/\text{m}^3$ . Other compounds detected at concentrations greater than 50  $\mu\text{g}/\text{m}^3$  include n-heptane, acetone, carbon disulfide, cyclohexane, 2-butanone, cis-1,2-dichloroethene, 2,2,4-Trimethylpentane, benzene, o- xylene, styrene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, and n-hexane.

## 3.0 Evaluate Costs

### 3.1 Summary of Costs

Total annual costs for completing the required activities associated with groundwater monitoring and evaluation of ECs are present below, by year. The number of sampling events and reports varied each year, which is represented in the varying annual costs below:

Year	#	Annual Costs
<b>2008</b>		\$17,600
Sampling events	<b>2</b>	
Reports	<b>2</b>	
<b>2009</b>		\$62,400
Sampling events	<b>4</b>	
Reports	<b>3</b>	
<b>2010</b>		\$45,800
Sampling events	<b>2</b>	
Reports	<b>2</b>	
<b>2011 *</b>		\$12,200
Sampling events		
Reports	<b>1</b>	
<b>2012 *</b>		\$36,800
Sampling events	<b>1</b>	
Reports	<b>1</b>	
PRR Report	<b>1</b>	
<b>Total (all years, 9 sampling events, 9 reports and 1 PRR):</b>		<b>\$174,800</b>
<b>Annual Average (5 Years)</b>		<b>~\$35,000</b>
<b>Sampling Event Average (9 sampling events)</b>		<b>~\$19,000</b>

\* Years when work on Periodic Review Report was being conducted.

The figures above include all costs associated with the completion of each individual task and various maintenance and evaluation of ECs.

## 4.0 Conclusions and Recommendations

The periodic review process is used for determining if the selected remedy continues to be properly managed (as set forth in the ROD), and if the remedy continues to be protective of human health and the environment.

### 4.1 Conclusions

The following conclusions discuss the effectiveness of the Site remedy in comparison to the applicable Site remedial goals derived from the ROD:

**1. Installation of trenches/wells to remove NAPL and groundwater from main source area.**

Per the Final Remediation Report (FRR) to the NYSDEC (AECOM, 2008), excavations and installation of groundwater wells for removal of NAPL and contaminated groundwater from the main source area of the Site were completed during the remedial program..

**2. Construction of temporary water treatment system to handle liquids.**

Per the FRR, construction of a temporary water treatment system to handle recovered liquids was completed during the remedial program.

**3. Excavation of contaminated soil and debris.**

Per the FRR, excavation of contaminated soil and debris was completed during the remedial program.

**4. Performing on-site low temperature thermal treatment and stabilization on contaminated soil.**

Per the FRR, stabilization of contaminated soil through on-site low temperature thermal treatment was completed during the remedial program. A portion of the site soils were sent for off-site disposal due to complications with the one thermal treatment unit.

**5. Backfill and restoration of property with treated soil, topsoil, and vegetation.**

Upon completion of all remedial activities, backfill and restoration of property with treated soil, topsoil, and vegetation was implemented.

**6. Monitoring to confirm no further potential impacts.**

In 2008, 13 new groundwater monitoring wells were installed. Nine of the 13 new wells were installed to replace wells abandoned during remedial activities. These wells were installed to provide an evaluation of overall groundwater quality and to monitor the effectiveness of the remedial actions.

In 2008, AECOM installed 13 temporary sub-surface soil vapor sampling points. These points were installed to provide an evaluation of overall soil vapor quality and to monitor the effectiveness of the remedial actions.

7. A long term monitoring program, which includes quarterly sampling of the groundwater monitoring well network (20 wells) for the first two years and subsequent annual monitoring of these wells until they achieve groundwater standards for site-specific contaminants.

Historical groundwater sampling results through January 2012 indicate that, in general, VOC concentrations in groundwater in the shallow and deep water bearing zones of the Site are decreasing. However, AWQS and GV for VOCs have not been achieved at wells MW-16D, MW-19D, MW-20, MW-30, and MW-31 (**Table 1** and **Figure 5**). AWQS and GV for SVOCs have not been achieved at wells MW-15, MW-19, MW-19D, MW-20, MW-23, and MW-33 (**Table 2** and **Figure 6**). AWQS and GV for metals have not been achieved at wells MW-15, MW-15D, MW-20, MW-20D, MW-21, MW-21D, MW-23, and MW-33 (**Table 3**). AWQS and GV for PCBs and pesticides have not been achieved at wells MW-15 and MW-30, respectively (**Table 4** and **Table 5**, respectively). The NYSDEC has changed the monitoring schedule for the site to every five quarters to account for seasonal variations in sampling.

8. Installation of institutional controls such as future groundwater use restrictions.

The 2008 SMP approved by the NYSDEC established the following institutional controls:

- Site Use Restrictions;
- Soil Management Plan;
- Groundwater Use Restrictions;
- Groundwater Monitoring;
- Notification; and
- Annual Certification Report.

## 4.2 Recommendations

The following recommendations are made for the Site:

1. Groundwater monitoring should continue to be performed at the interval established in the site-specific SMP or as directed by the NYSDEC until adequate attenuation of contamination has been achieved at the Site. The sampling should include wells all of the site groundwater monitoring wells.
2. The undocumented, waste management practices of the veterinary clinic are a potential source of contaminants detected in the groundwater samples collected from MW-20. The potential impact of the veterinary clinic on MW-20 should be investigated further.
3. MW-15D no longer has a flush mount well cover or a J-Plug protecting the polyvinyl chloride (PVC) riser. A new flush mount well cover and J-Plug should be installed at MW-15D prior to the next groundwater sampling event.
4. MW-18 was negatively impacted with a lawn tractor during mowing activities and is no longer accessible for measuring depth-to-groundwater due to damage to the riser. The measuring point elevation for MW-18 is no longer applicable and the groundwater elevation is not calculable. As a result, MW-18 is not included in the groundwater contour map for the shallow zone (**Figure 3**). However, the monitoring well can still be sampled with dedicated,

polyethylene tubing and a peristaltic pump. MW-18 should be repaired, resurveyed and included in the next depth-to-groundwater measurements.

5. There are not an acceptable amount of signs displayed on the fence surrounding most of the Site. Additional signs should be posted in the near future.
6. PRR reporting should be conducted every five years, and groundwater sampling/site inspection reports conducted every monitoring event. The remedy includes long-term monitoring, which serves as a sentinel for public or private water supplies.
7. There are currently no buildings on-site. Should any buildings be constructed on-site, depending on location, the NYSDOH's Final Guidance for Evaluating Soil Vapor Intrusion in New York State (2006) may require the installation of a remedy prior to occupancy.

## **Tables**

Table 1  
 Groundwater Elevations - January 2012  
 34 Freemans Bridge Road  
 Glenville, New York  
 Site No. 4-47-028

Well ID	Ground Elevation (ft)	Measuring Point Elevation (ft) TOP	Screened Interval (fbgs)		Screened Elevation (ft)		January 2012	
			TOS	BOS	TOS	BOS	Depth to Water (ft)	GW Elev. (ft)
MW-11	228.57	231.23	7	17	221.57	211.57	11.71	216.86
MW-11D	228.61	231.2	40	50	188.61	178.61	11.33	217.28
MW-12	228.5	230.68	5	15	223.5	213.5	10.71	217.79
MW-15	224.47	224.14	5	15	219.47	209.47	4.38	220.09
MW-15D	224.49	224.35	20	30	204.49	194.49	3.5	220.99
MW-16	226.09	228.41	6	13	220.09	213.09	9.36	216.73
MW-16D	225.81	227.49	17.5	27.5	208.31	198.31	8.48	217.33
MW-19	224.77	227.12	3	6	221.77	218.77	5.78	218.99
MW-19D	224.89	226.01	12	22	212.89	202.89	4.83	220.06
MW-20	224.8	226.89	5	10	219.8	214.8	6.35	218.45
MW-20D	224.72	227.13	20	30	204.72	194.72	6.72	218.00
MW-21	224.52	227.46	5	15	219.52	209.52	7.16	217.36
MW-21D	224.71	229.05	38	48	186.71	176.71	8.75	215.96
MW-23	221.99	224.86	3.5	13.5	218.49	208.49	4.38	217.61
MW-23D	222.36	224.32	55	65	167.36	157.36	5.06	217.30
MW-30	223.57	226.19	5	15	218.57	208.57	6.37	217.20
MW-31	223.18	225.43	5	15	218.18	208.18	5.66	217.52
MW-32	224.92	227.32	9	19	215.92	205.92	6.85	218.07
MW-33	224.18	226.99	6	11	218.18	213.18	6.01	218.17

**Note:**

TOP - top of PVC

fbgs - feet below ground surface

TOS - top of screen

BOS - bottom of screen

GW - groundwater

**Table 2**

**Groundwater Analytical Summary Through January 201  
34 Freemans Bridge Road  
Glenville, New York  
Site No. 4-47-028**

## Volatile Organic Compounds

Not

## AWQS/GV Values - New York State Ambient Water Quality Standards (TOGs 1.1.1) guidance values.

Units are micrograms per liter ( $\mu\text{g/L}$ )

NS - No standard or

NA - Not analyzed

Detected concentrations shown in **b**

Shaded cell indicates exceedances

E - Value above quantitation range

B - For organic analyses - compound detected in laboratory method blank. For inorganic analyses - indicates trace concentration below reporting limit and equal to or above the detection limit.

**H** - Compound not detected at or above the instrument method detection limit (MDL).

ND - No analytes detected above MDL

J - Estimated concentration above th

#### D - Results from a subsequent dilution

\* - LCS or LCSD exceeds the control limits

\*\* - Duplicate sample produced equivalent results

**Table 2**

**Groundwater Analytical Summary Through January 201  
34 Freemans Bridge Road  
Glenville, New York  
Site No. 4-47-028**

## Volatile Organic Compounds

Sample ID		MW-19D												MW-20												
Sampling Date				3/26/08	8/25/08	12/4/08	3/27/09	6/18/09	9/16/09	12/10/09	3/4/10	9/28/10	1/18/12	1/18/12	Duplicate	3/24/08	8/25/08	12/4/08	3/25/09	6/19/09	9/15/09	12/10/09	3/4/10	9/29/10	1/19/12	
Volatile		CAS #	AWQS/GV Values																							
ETHYLBENZENE	100-41-4	5	5	5	5	5	5	5	5	5	5	5	5	1	2	5	50	100	100	50	25	50	50	5.0	8	
METHYLCYCLOHEXANE	108-87-2	NS	5	5	5	5	5	5	5	5	5	5	5	1	2	5	50	100	100	50	25	50	50	5.0	8	
TOLUENE	108-88-3	5	5	5	5	5	5	5	5	5	5	5	5	1	2	5	50	100	100	50	25	50	50	5.1	5.0	
TETRACHLOROETHYLENE(PCE)	127-18-4	5	5	5	5	5	5	5	5	5	5	5	5	1	2	5	50	50	100	50	25	50	50	5.0	8	
CIS-1,2-DICHLOROETHYLENE	156-59-2	5	36	33	42	34	43	26	29	20	24	25	28	5	50	100	100	50	25	25	50	50	5.0	8		
TERT-BUTYL METHYL ETHER	1634-04-4	10(GV)	5	5	5	5	5	5	5	5	5	5	5	8.5	3.3	4.1	5	50	50	100	100	25	25	50	5.0	8
M,P-XYLENES	179601-23-1	5	5	5	5	5	5	5	5	5	5	5	5	2	4	5	50	50	100	50	25	25	50	5.0	16	
ACETONE	67-64-1	50 (GV)	10	10	10	10	10	10	10	10	10	10	10	10	20	720	1400	2900	1900	1300	670	1100	1100	360	1400	
BENZENE	71-43-2	1	5	5	5	5	5	5	5	5	5	5	5	5	1	2	5	50	100	100	50	25	25	50	5.0	8
CHLOROMETHANE	74-87-3	NA	5	5	10	10	10	10	10	10	10	10	10	10	1	2	5	100	100	200	200	50	50	50	100	8
VINYL CHLORIDE	75-01-4	2	5	5	10	10	10	10	10	10	10	10	10	10	1	2	5	100	200	100	100	50	50	50	100	8
METHYLENE CHLORIDE	75-09-2	5	5	5	5	5	5	5	5	5	5	5	5	5	2	5	50	120	100	100	25	25	50	5.0	8	
CARBON DISULFIDE	75-15-0	60(GV)	5	5	5	5	5	5	5	5	5	5	5	5	1	2	5	50	50	100	100	25	25	50	5.0	4.9
METHYL ETHYL KETONE	78-93-3	50(GV)	10	10	10	10	10	10	10	10	10	10	10	10	20	77	100	290	200	190	120	210	160	61	160	
TRICHLOROETHYLENE (TCE)	79-01-6	5	5	5	5	5	5	5	5	5	5	5	5	5	1	2	5	50	50	100	50	25	25	50	5.0	8
O-XYLENE	95-47-6	5	5	5	5	5	5	5	5	5	5	5	5	5	1	2	5	50	100	100	50	25	25	50	5.0	8
ISOPROPYLBENZENE	98-82-8	5	5	5	5	5	5	5	5	5	5	5	5	5	1	2	5	50	100	100	50	25	25	50	5.0	8
Total CVOC's			36	33	42	34	43	26	29	20	24.0	25	28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Total VOC's			36	33	42	34	43	26	29	20	32.5	28.3	32.1	797	1400	3310	1900	1880	847	1310	1260	426.1	1569.9			

Sample ID		MW-21D												MW-23												
Sampling Date			3/24/08	8/25/08	12/4/08	3/26/09	6/17/09	9/16/09	12/10/09	3/4/10	9/30/10*	1/20/12		3/27/08	8/25/08	12/3/08	3/25/09	6/17/09	9/15/09	12/9/09	3/3/10	9/29/10	1/18/12			
		Volatiles	CAS #	AWQS/GV Values																						
ETHYL BENZENE	100-41-4	5	5U	5U	5U	5U	5U	5U	5U	5U	5U	1U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	
METHYL CYCLOHEXANE	108-87-2	NS	5U	5U	5U	5U	5U	5U	5U	5U	5U	1U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	
TOLUENE	108-88-3	5	5U	5U	5U	5U	5U	5U	5U	5U	5U	1U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	
TETRACHLOROETHYLENE(PCE)	127-18-4	5	5U	5U	5U	5U	5U	5U	5U	5U	5U	1U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	
CIS-1,2-DICHLOROETHYLENE	156-59-2	5	5U	5U	5U	5U	5U	5U	5U	5U	5U	1U	49	68	21	61	99	33	5U	5U	24	4U	4U	4U	4U	
TERT-BUTYL METHYL ETHER	1634-04-4	10(GV)	5U	5U	5U	5U	5U	5U	5U	5U	5U	1U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	
M,P-XYLENES	179601-23-1	5	5U	5U	5U	5U	5U	5U	5U	5U	5U	2U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	8U	
ACETONE	67-64-1	50(GV)	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	40U	
BENZENE	71-43-2	1	5U	5U	5U	5U	5U	5U	5U	5U	5U	1U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	
CHLOROETHANE	75-00-3	5	5U	10U	10U	10U	10U	10U	10U	10U	10U	1U	5U	10U	34	10U	10U	10U	24	10U	10U	10U	10U	10U	4U	
VINYL CHLORIDE	75-01-4	2	5U	10U	10U	10U	10U	10U	10U	10U	10U	1U	10	10U	16	23	39	16	10U	10U	19	4U	4U	4U	4U	
METHYLENE CHLORIDE	75-09-2	5	5U	5U	5U	5U	5U	5U	5U	5U	5U	1U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	
CARBON DISULFIDE	75-15-0	60(GV)	5U	5U	5U	5U	5U	5U	5U	5U	5U	1U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	
METHYL ETHYL KETONE	78-93-3	50(GV)	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	40U	
TRICHLOROETHYLENE (TCE)	79-01-6	5	5U	5U	5U	5U	5U	5U	5U	5U	5U	1U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	
O-XYLENE	95-47-6	5	5U	5U	5U	5U	5U	5U	5U	5U	5U	1U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	
ISOPROPYLBENZENE	98-82-8	5	5U	5U	5U	5U	5U	5U	5U	5U	5U	1U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	
Total CVOC's			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	59	68	71	84	138	73	ND	ND	43.0	ND				
Total VOC's			ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	59	68	71	84	138	73	ND	ND	43	ND				

## Notes

**Notes:** AWQS/GV Values - New York State Ambient Water Quality Standards (TOGs 1.1.1) guidance values.

Units are micrograms per liter ( $\mu\text{g/L}$ )

NS - No standard

NA - Not analyzed

Detected concentrations shown in

Shaded cell indicates exceedance

E - Value above quantitation ran

B - For organic analyses - compo

U - Compound not detected at or

ND - No analytes detected above

### J - Estimated concentration above

#### D - Results from a subsequent di

\* - LCS or LCSD exceeds the cor

\*\* - Duplicate sample produced e

**Table 2**

**Groundwater Analytical Summary Through January 2012**  
**34 Freemans Bridge Road**  
**Glenville, New York**  
**Site No. 4-47-028**

## Volatile Organic Compounds

Sample ID		MW-33											
Sampling Date				3/26/08	8/26/08	12/5/08	3/26/09	6/17/09	9/17/09	12/8/09	3/4/10	9/29/10	1/19/12
Volatile		CAS #	AWQS/GV Values										
ETHYLBENZENE		100-41-4	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	8 U
METHYLCYCLOHEXANE		108-87-2	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	8 U
TOLUENE		108-88-3	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	8 U
TETRACHLOROETHYLENE(PCE)		127-18-4	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	8 U
CIS-1,2-DICHLOROETHYLENE		156-59-2	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	8 U
TERT-BUTYL METHYL ETHER		1634-04-4	10(GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	8 U
M,P-XYLENES		179601-23-1	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	16 U
ACETONE		67-64-1	50 (GV)	36	10 U	16	10 U	10 U	18.00 B	10 U	10 U	10 U	80 U
BENZENE		71-43-2	1	5 U	6	6 U	5 U	7.80	7.10	5 U	5 U	5.0 U	8 U
CHLOROETHANE		75-00-3	5	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	8 U
VINYL CHLORIDE		75-01-4	2	5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	8 U
METHYLENE CHLORIDE		75-09-2	5	5 U	5 U	5 U	5 U	5 U	11.00	5 U	5 U	5.0 U	8 U
CARBON DISULFIDE		75-15-0	60(GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	8 U
METHYL ETHYL KETONE		78-93-3	50(GV)	10 U	10 U	10 U	80 U						
TRICHLOROETHYLENE (TCE)		79-01-6	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	8 U
O-XYLENE		95-47-6	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	8 U
ISOPROPYLBENZENE		98-82-8	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.0 U	8 U
Total CVOC's				ND	ND	ND	ND	ND	11	ND	ND	ND	ND
Total VOC's				36	6	16	ND	7.8	36.11	ND	ND	ND	ND

### Note

AWQS/GV Values - New York State Ambient Water Quality Standards (TOGs 1.1.1) guidance values.

AWQS/GV values - New York State  
Units are micrograms per liter ( $\mu\text{g}/\text{L}$ )

Units are micrograms

NA - Not analyzed

Detected concentrations shown in

Detected concentrations shown in bold  
Shaded cell indicates exceedances of

E - Value above quantitation range

B - For organic analyses - compound detected in laboratory method blank. For inorganic analyses - value above quantitation range

B - For organic analyses - compound  
II - Compound not detected at or above

U - Compound not detected at or above the instrument method detection limit (MDL).  
ND - No analytes detected above MDL

J - Estimated concentration above the IDL but less than the contract required detection limits (CRDL).

D - Results from a subsequent dilution of the original sample

\* - ICS or ICSD exceeds the control limits

\*\* Duplicate sample produced equivalent results.

\*\* - Duplicate sample produced eq



**Table 3**

**undwater Analytical Summary Through January 2012**  
**34 Freemans Bridge Road**  
**Glenville, New York**  
**Site No. 4-47-028**

## **semi-Volatile Organic Compounds**

## Notes

AWQS/GV Values - New York State Ambient Water Quality Standards (TOGs 1.1.1) guidance values.

Units are micrograms per liter ( $\mu\text{g/L}$ )

NS - No standard

NA - Not analyzed

Detected concentrations shown in **bold** font.

Shaded cell indicates exceedances

E - Value above quantitation range

### B - For organic analyses - compound dete

U - Compound not detected at or above the

J - Estimated concentration above the IDL

D - Results from a subsequent dilution of

\* - LCS or LCSD exceeds the control limit

\*\* - Duplicate sample produced equivalent

Table 3

Groundwater Analytical Summary Through January 2012  
 34 Freemans Bridge Road  
 Glenville, New York  
 Site No. 4-47-028

## Semi-Volatile Organic Compounds

Sample ID	Sampling Date	AWQS/GV Values	MW-32												MW-33													
			3/27/08	8/26/08	12/5/08	3/26/09	6/19/09	9/17/09	12/8/09	3/4/10	9/30/10	1/18/12	3/26/08	8/26/08	12/5/08	3/26/09	6/17/09	12/8/09	3/4/10	9/29/10	1/19/12							
Semi-Volatiles	CAS #																											
2,4-DIMETHYLPHENOL	105-67-9	50(GV)	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	5 U	6 U	11 U	5 U	5 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U		
4-METHYLPHENOL	106-44-5	NA	5 U	5 U	5 U	5 U	6 U	5 U	5 U	5 U	5 U	6 U	10 U	5 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U		
BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	5	5 U	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1 U		
PHENOL	108-95-2	1	5 U	5 U	5 U	13	5 U	6 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U	
BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	5	5 U	5 U	6 B	5 U	6 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U	
ANTHRACENTE	120-13-7	50(GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.30 J	
PYRENE	129-00-0	50(GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.73 J	
DIBENZOFURAN	132-64-9	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
BENZO(G,H)PERYLENE	191-24-2	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U	
INDENO(1,2,3-C,D)PYRENE	193-39-5	0.002 (GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U
BENZO(B)FLUORANTHENE	205-99-2	0.002 (GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.57 J
FLUORANTHENE	206-44-0	50(GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.99 J
BENZO(K)FLUORANTHENE	207-08-9	0.002 (GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U
ACENAPHTHYLENE	208-96-8	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U
CHRYSENE	218-01-9	0.002 (GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.65 J
BENZO(A)PYRENE	50-32-8	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U
DIBENZA(H,ANTHRACENE	53-70-3	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U
BENZO(A)ANTHRACENE	56-55-3	0.002	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.54 J
ACENAPHTHENE	83-32-9	20	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U
DIETHYL PHTHALATE	84-66-2	50(GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.41 J
DI-N-BUTYL PHTHALATE	84-74-2	50(GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1.2 JB
PHENANTHRENE	85-01-8	50(GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.91 J
FLUORENE	86-73-7	50(GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U
CARBAZOLE	86-74-8	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.37 J
NAPHTHALENE	91-20-3	10(GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U
2-METHYLPHENOL	95-48-7	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6 U	6 U	11 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U
2-CHLOROPHENOL	95-57-8	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.1 U
Total SVOCs			ND	ND	19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.47	

## Notes:

AWQS/GV Values - New York State Ambient Water Quality Standards (TOGs 1.1.1) guidance values.

Units are micrograms per liter ( $\mu\text{g/L}$ )

NS - No standard or Guidance Value

NA - Not analyzed

Detected concentrations shown in bold font.

Shaded cell indicates exceedances of AWQS/GV.

E - Value above quantitation range

**Table 4**

**groundwater Analytical Summary Through January 2012**  
**34 Freemans Bridge Road**  
**Glenville, New York**  
**Site No. 4-47-028**

Metals

31

**Notes:** AWCS/QV Values = New York State Ambient Water Quality Standards (TOCs 1-1-1) guidance values.

AWQS/GV Values - New York State  
Units are micrograms per liter ( $\mu\text{g}/\text{L}$ )

Units are micrograms per liter ( $\mu\text{g/L}$ )  
NC = Not standard or Guidance Value

NS - No standard or Guidance Value  
Detected concentrations and qualifiers shown in **bold** font. Shaded cell indicates exceedances of

Detected concentrations and qualifiers shown in **bold** font. Shaded cell indicates exceedances of AWQS/GU. Compound not detected at or above the instrument detection limit (IDL).

U - Compound not detected at or above the instrument limit.

J - Estimated concentration above  
P - Results from a subsequent dilution

D - Results from a subsequent dilution of the original sample due to LGS Spike Recovery outside accepted recovery limits.

S - LCS Spike Recovery outside accepted recovery

\* - Duplicate sample with varying results given

\*\* - Metals E 200.7 and Mercury E 245.1

NA - not analyzed

Table 4

Groundwater Analytical Summary Through January 2012  
 34 Freemans Bridge Road  
 Glenville, New York  
 Site No. 4-47-028

## Metals

Sample ID	Sampling Date	Metals	MW16D												MW18												MW19											
			3/25/08	8/26/08	12/3/08	3/25/09	6/17/09	9/15/09	12/9/09	3/3/10	9/28/10	1/18/12**	3/26/08	8/26/08	12/5/08	3/27/09	6/18/09	9/16/09	12/10/09	3/3/10	10/1/10	1/19/12**	3/26/08	8/25/08	12/4/08	3/27/09	6/18/09	9/16/09	12/10/09	3/4/10	9/28/10	1/18/12**						
		CAS #	AWQS/GV Values																																			
POTASSIUM		NS	1,100 J	2,680	2,430	2,490	2,480	1,940	2,320	2,020	2,490	NA	615 J		752	822	772	899	847	523	1,100	NA	1,560 J	6,280	4,850	3,710	5,140	4,920	5,490	4,600	4,780	NA						
CYANIDE	57-12-5	200	5.1	20	10 U	10 U	750	10 U	10 U	10 U	NA	2.3		10 U	10 U	10 U	NA	2.3	10 U	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA									
ALUMINUM	7429-90-5	NS	103 J	100 U	215	100 U	100 U	NA	930	970	386	444	187	176	160	100 U	1,150	NA	458	990	1,420	415	2,940	1,500	6,260	7,380	1,890	NA										
IRON	7439-89-6	300	1,640	1,200	1,210	822	877	1,820	3,690	982	1,880	NA	2,530	2,080	712 S	730	301	432	303	188	2,440	NA	1,520	4,570	3,410	966	5,580	3,770	13,600	15,700	4,760	NA						
LEAD	7439-92-1	25	4.6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.6 U	5 U	15	5 U	11	5 U	22	NA							
MAGNESIUM	7439-95-4	35,000 (GV)	11,100	19,500	18,800	18,500	18,200	17,100	16,800	16,300	19,500	NA	9,290	20,600	9,020	11,200	9,800	11,300	7,600	8,290	NA	7,680	19,400	19,600	16,400	16,000	17,200	18,300	16,400	17,500	NA							
MANGANESE	7439-96-5	300	841	803	598	499	610	662	997	528	776	NA	62.7	218	48	79	20 U	30	20 U	24	130	NA	116	1,820	597	184	1,100	1,220	1,390	936	1,860	NA						
MERCURY	7439-97-6	0.7	0.08 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.08 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.09 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	NA									
NICKEL	7440-02-0	100	4.7 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	3.8 J	4.7 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	4.7 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	14			
SILVER	7440-22-4	50	0.7 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	3 U	0.7 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	0.7 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	3.0 U				
SODIUM	7440-23-5	20,000	35,800	42,000	53,900	47,600	40,500	42,800	55,800	41,400	66,200	NA	3,570 J	10,000	13,200	12,200	6,580	5,230	6,000	3,850	6,160	NA	8,400	15,100	12,700	1,270	7,170	10,100	8,510	7,010	8,790	NA						
THALLIUM	7440-28-0	0.5 (GV)	8 U	10 U	10 U	10 U	10 U	10 U	17	15	10 U	10 U	13	20 U	8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	19	20.0 U	8 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	20.0 U		
ANTIMONY	7440-36-0	3	6.8 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	6.8 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	6.8 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	20.0 U				
ARSENIC	7440-38-2	25	3.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	3.9 U	5 U	5 S	5 U	5 U	5 U	5 U	10 U	3.9 U	7	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10.0 U				
BARIUM	7440-39-3	1,000	35.5 J	54	54	48	48	51	58	51	60	NA	19.6 J	51	21	20	21	19	22	13	24	NA	29.1 J	109	73	46	116	79	117	112	86	NA						
BERYLLIUM	7440-41-7	3	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.51 J					
CADMUM	7440-43-9	5	1.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.39 J					
CHROMIUM	7440-47-3	50	1.37 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1.2 J	4.33 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	4.65 J	8 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	20 U			
COBALT	7440-48-4	NS	7.93 J	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA								
COPPER	7440-50-8	200	1.7 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1.7 U	5 U	7 S	6	5 U	5 U	5 U	5 U	5 U	5 U	3.0 JB	10	5 U	5 U	5 U	14	5 U	16	10	23	NA					
VANADIUM	7440-62-2	NS	3.1 U	20 U																																		

Table 4

Groundwater Analytical Summary Through January 2012  
 34 Freemans Bridge Road  
 Glenville, New York  
 Site No. 4-47-028

## Metals

Sample ID	Sampling Date	Metals	MW21												MW21D												MW23											
			3/24/08	8/25/08	12/4/08	3/26/09	6/17/09	9/16/09	12/10/09	3/4/10	9/30/10	1/20/12**	3/24/08	8/25/08	12/4/08	3/26/09	6/17/09	9/16/09	12/10/09	3/4/10	9/30/10*	1/20/12*	3/27/08	8/25/08	12/3/08	3/25/09	6/17/09	9/15/09	12/9/09	3/3/10	9/29/10	1/18/12**						
		CAS #	AWQS/GV Values																																			
POTASSIUM	NS	898 J	3,000	5,900	1,620	1,630	2,660	6,450	4,620	2,640	NA	1,640 J	3,420	3,030	3,230	2,730	2,900	2,570	2,930/2,990	NA	1,630 J	4,540	5,110	2,970	2,170	1,700	8,690	7,930	2,710	NA	NA	NA	NA					
CYANIDE	57-12-5	200	21.2	10 U	NA	2.7	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA	8.5	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NA											
ALUMINUM	7429-90-5	NS	441	3,310	2,410	347	NA	5,350	36,800	24,600	4,330	NA	45.8 U	100 U	100 U	100 U	100 U	100 U	100 U	100 U	NA	386	3,650	11,400	2,160	2,060	1,480	15,800	10,400	1,990	NA	NA	NA	NA				
IRON	7439-89-6	300	9,160	20,400	58,700	11,700	13,400	22,400	80,200	59,800	NA	1,050	1,650	1,400	1,280	1,300	1,540	1,720	1,470/1,510	NA	3,890	18,000	45,900	12,100	8,240	7,260	47,300	40,100	8,080	NA	NA	NA	NA					
LEAD	7439-92-1	25	4.6 U	5 U	58	5 U	5 U	8	58	51	4.6 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	71	30.5	130	74	72	44	643	404	46	2800	NA	NA	NA						
MAGNESIUM	7439-95-4	35,000 (GV)	28,800	50,500	58,200	46,100	45,400	39,400	55,100	42,700	40,200	NA	13,900	19,400	17,100	16,000	18,100	19,000	16,800	18,000/18,400	NA	13,800	23,100	27,200	18,700	18,800	17,600	28,500	24,600	20,000	NA	NA	NA	NA				
MANGANESE	7439-96-5	300	6,730	10,300	11,700	12,200	9,730	8,220	14,100	8,450	7,710	NA	107	163	136	122	142	144	155	138	135/137	NA	449	904	800	390	308	323	983	968	366	NA	NA	NA	NA			
MERCURY	7439-97-6	0.7	0.08 U	0.2 U	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.08 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.08 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	1.0	NA				
NICKEL	7440-02-0	100	4.7 U	20 U	54	20 U	20 U	20 U	60	47	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	19	4.7 U	20 U	26	20 U	20 U	20 U	20 U	180	NA									
SILVER	7440-22-4	50	0.7 U	10 U	10 U	10 U	10 U	10 U	10 U	NA	3.0 U	0.7 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	3 U	0.7 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	6.0 U	NA				
SODIUM	7440-23-5	20,000	12,500	19,400	27,600	26,000	21,300	24,300	24,400	18,800	21,700	NA	52,000	43,500	73,600	45,800	42,300	46,500	72,200	47,800	51,700/50,600	NA	30,900	33,900	34,100	36,900	32,100	33,000	21,500	24,900	41,400	NA	NA	NA	NA			
THALLIUM	7440-28-0	0.5 (GV)	8 U	10 U	24	20	16	37	29	10 U	12	20 U	8 U	10 U	10 U	10 U	10 U	10 U	10 U	17	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	40.0 U	NA					
ANTIMONY	7440-36-0	3	10.2 J	60	60 U	20.0 U	6.8 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	13 J	6.8 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	40.0 U	NA									
ARSENIC	7440-38-2	25	3.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	15	3.9 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	67	NA			
BARIUM	7440-39-3	1,000	67 J	153	286	110	109	160	389	285	166	NA	80.3 J	113	98	89	103	97	95	95	94/96	NA	44.1 J	132	193	77	68	61	261	250	72	NA	NA	NA	NA			
BERYLLIUM	7440-41-7	3	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1.1 J	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2 U	0.03 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6.0	NA				
CADIUM	7440-43-9	5	1.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.46 J	1.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	9.2	1.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3.4	NA			
CHROMIUM	7440-47-3	50	8.49 J	5 U	44	5 U	5 U	5 U	5 U	54	51	25	1.2 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2.5 U	1.73 J	5 U	27	5 U	8	36	28	5 U	210	NA	NA	NA	NA				
COBALT	7440-48-4	NS	6.67 J	50	50 U	50 U	NA	2.4 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA	2.4 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	NA							
COPPER	7440-50-8	200	1.7 U	5	44	5 U	5 U	5 U	10	77	62	12	36 B	1.7 U	5 U	5 U	5 U	5 U																				

Table 4

Groundwater Analytical Summary Through January 2012  
 34 Freemans Bridge Road  
 Glenville, New York  
 Site No. 4-47-028

## Metals

Sample ID	Sampling Date	Metals	MW32									
			3/27/08	8/26/08	12/5/08	3/26/09	6/19/09	9/17/09	12/8/09	3/4/10	9/30/10	1/20/12**
		CAS #	AWQS/GV Values									
POTASSIUM		NS	1,520 J	2,880	7,620	7,610	4,580	6,330	8,310	5,750	2,120	NA
CYANIDE	57-12-5	200	79.9	190	10U	21	200	190	190	120	130	NA
ALUMINUM	7429-90-5	NS	1,590	2,730	13,700	150	1,630	453	772	374	540	NA
IRON	7439-89-6	300	7,900	14,800	39,700	10,800	11,500	10,400	10,300	8,170	10,100	NA
LEAD	7439-92-1	25	5.73 J	5U	44	5U	8	5U	5U	5U	5U	3.5 J
MAGNESIUM	7439-95-4	35,000 (GV)	17,800	29,100	39,000	24,900	27,700	27,300	25,600	24,300	25,000	NA
MANGANESE	7439-96-5	300	714 J	1,530	1,830	1,410	1,560	1,490	1,450	1,280	1,220	NA
MERCURY	7439-97-6	0.7	0.08 J	0.2 U	0.2 U	0.2 J	0.2 U					
NICKEL	7440-02-0	100	4.7 J	20 U	35	20 U	3.1 J					
SILVER	7440-22-4	50	0.7 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	3.0 U
SODIUM	7440-23-5	20,000	13,900	19,400	29,500	20,200	18,200	27,600	26,100	22,100	31,000	NA
THALLIUM	7440-28-0	0.5 (GV)	8 J	10	10	10 U	10 U	39	15	10 U	10 U	20.0 U
ANTIMONY	7440-36-0	3	6.8 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	60 U	20.0 U
ARSENIC	7440-38-2	25	3.9 J	5U	10.0 U							
BARIUM	7440-39-3	1,000	89.2 J	142	214	102	126	110	117	109	104	NA
BERYLLIUM	7440-41-7	3	0.41 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	2.0 U
CADMIUM	7440-43-9	5	1.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1.0 U
CHROMIUM	7440-47-3	50	4.85 J	5 U	16	5 U	15	5 U	5 U	5 U	5 U	3.3 J
COBALT	7440-48-4	NS	3.3 J	50 U	NA							
COPPER	7440-50-8	200	1.97 J	5 U	29	5 U	9	5 U	9	5 U	9	4.4 JB
VANADIUM	7440-62-2	NS	3.4 J	20 U	43	20 U	NA					
ZINC	7440-66-6	2,000 (GV)	21.1 J	20	131	10 U	22	10 U	15	11	10 U	8.8 JB
CALCIUM	7440-70-2	NS	99,200	156,000	217,000	145,000	154,000	126,000	143,000	135,000	119,000	NA
SELENIUM	7782-49-2	10	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	15.0 U
MW33												
Sample ID	Sampling Date	Metals	3/26/08	8/26/08	12/5/08	3/26/09	6/17/09	9/17/09	12/8/09	3/4/10	9/29/10	1/19/12**
		CAS #	AWQS/GV Values									
POTASSIUM		NS	4780 J	33600	33400	33100	29200	29500	35300	23500	13,700	NA
CYANIDE	57-12-5	200	3.7	20	20	20	20	20	20	20	10 U	NA
ALUMINUM	7429-90-5	NS	45.8 J	1,780	812	439	765	2,310	630	1,180	1,090	NA
IRON	7439-89-6	300	2,480	6,190	3,000 S	1,780	3,090	8,530	2,620	4,000	3,940	NA
LEAD	7439-92-1	25	4.6 J	7	5 U	5 U	25	5 U	9	15	120	
MAGNESIUM	7439-95-4	35,000 (GV)	12,800	20,700	22,800	21,200	22,100	21,800	19,400	17,200	22,000	NA
MANGANESE	7439-96-5	300	232 J	413	298	162	307	366	274	238	459	NA
MERCURY	7439-97-6	0.7	0.08 J	0.2 U	0.2 U	0.2 J	0.2 U					
NICKEL	7440-02-0	100	4.7 J	20	20 U	31						
SILVER	7440-22-4	50	0.7 U	10 U	10 S	10 U	3 U					
SODIUM	7440-23-5	20,000	130,000	166,000	214,000	188,000	184,000	424,000	248,000	141,000	168,000	NA
THALLIUM	7440-28-0	0.5 (GV)	8 J	10 U	10 U	10 U	10 U	57	17	10 U	21	20 U
ANTIMONY	7440-36-0	3	15.1 J	60 U	8.8 J							
ARSENIC	7440-38-2	25	3.9 J	18	5 S	8	9	11	5 U	13	5 U	45
BARIUM	7440-39-3	1,000	39.8 J	98	81	54	54	66	60	56	52	NA
BERYLLIUM	7440-41-7	3	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.51 J
CADMIUM	7440-43-9	5	1.1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	0.99 J
CHROMIUM	7440-47-3	50	4.94 J	5 U	5 U	5 U	5 U	5 U	5 U	6	5 U	30
COBALT	7440-48-4	NS	5.84 J	50 U	NA							
COPPER	7440-50-8	200	1.7 J	8	5 S	8	5 U	12	5	12	5 U	44 B
VANADIUM	7440-62-2	NS	3.1 J	20 U	NA							
ZINC	7440-66-6	2,000 (GV)	14.2 J	26	22	10 U	11	31	10 U	25	16	120 B
CALCIUM	7440-70-2	NS	128,000	415,000	596,000	717,000	527,000	590,000	825,000	504,000	230,000	NA
SELENIUM	7782-49-2	10	5 U	5 U	5 S	5 U	5 U	5 U	5 U	5 U	5 U	15 U

## Notes:

AWQS/GV Values - New York State Ambient Water Quality Standards (TOGs 1.1.1) guidance values.

Units are micrograms per liter (µg/L)

NS - No standard or Guidance Value

Detected concentrations and qualifiers shown in bold font. Shaded cell indicates exceedances of AWQS/GV.

U - Compound not detected at or above the instrument detection limit (IDL).

J - Estimated concentration above the IDL but less than the contract required detection limits (CRDL).

D - Results from a subsequent dilution of the original sample due to original sample results being outside the linear range.

S - LCS Spike Recovery outside accepted recovery limits

\* - Duplicate sample with varying results given

\*\* - Metals E 200.7 and Mercury E 245.1

NA - not analyzed

R - RPD outside accepted recovery limits

B - Compound was found in the blank and sample.

Table 5

## Groundwater Analytical Summary Through January 2012

34 Freemans Bridge Road  
 Glenville, New York  
 Site No. 4-47-028

## Polychlorinated biphenyls

Sample ID		AWQS/GV Values	MW-11					MW-11D					MW-12					
			3/27/08	8/26/08	6/18/09	9/28/10	1/17/12	3/27/08	8/26/08	6/18/09	9/28/10	1/17/12	3/24/08	8/26/08	6/18/09	9/30/10	1/19/12	
PCBs	CAS #																	
AROCLOR 1260	11096-82-5	NS	0.5	U	0.065	U	0.065	U	0.065	U	0.47	U	0.5	U	0.065	U	0.064	U
AROCLOR 1254	11097-69-1	NS	0.5	U	0.065	U	0.065	U	0.065	U	0.47	U	0.5	U	0.065	U	0.064	U
AROCLOR 1268	11100-14-4	NS	0.5	U	0.065	U	0.065	U	NA		NA		0.5	U	0.065	U	0.065	U
AROCLOR 1221	11104-28-2	NS	0.5	U	0.065	U	0.065	U	0.065	U	0.47	U	0.5	U	0.065	U	0.064	U
AROCLOR 1232	11141-16-5	NS	0.5	U	0.065	U	0.065	U	0.065	U	0.47	U	0.5	U	0.065	U	0.064	U
AROCLOR 1248	12672-29-6	NS	0.5	U	0.065	U	0.065	U	0.065	U	0.47	U	0.5	U	0.065	U	0.064	U
AROCLOR 1016	12674-11-2	NS	0.5	U	0.065	U	0.065	U	0.065	U	0.47	U	0.5	U	0.065	U	0.064	U
AROCLOR 1262	37324-23-5	NS	0.5	U	0.065	U	0.065	U	NA		NA		0.5	U	0.065	U	0.065	U
AROCLOR 1242	53469-21-9	NS	0.5	U	0.065	U	0.065	U	0.065	U	0.47	U	0.5	U	0.065	U	0.066	U
Total Aroclor			0.09	0	0	0	0	0	0	0	0	0	0.53	U	0.066	U	0.065	U

Sample ID		AWQS/GV Values	MW-15					MW-15D					MW-16					
			3/26/08	8/26/08	6/19/09	9/30/10	1/17/12	3/26/08	8/26/08	6/19/09	9/30/10	1/17/12	3/25/08	8/26/08	6/17/09	9/28/10	1/18/12	
PCBs	CAS #																	
AROCLOR 1260	11096-82-5	NS	0.5	U	0.068	U	0.065	U	0.065	U	0.5	U	0.5	U	0.065	U	0.066	U
AROCLOR 1254	11097-69-1	NS	0.5	U	0.068	U	0.065	U	0.065	U	0.5	U	0.5	U	0.065	U	0.065	U
AROCLOR 1268	11100-14-4	NS	0.5	U	0.068	U	0.065	U	NA		NA		0.5	U	0.065	U	0.065	U
AROCLOR 1221	11104-28-2	NS	0.5	U	0.068	U	0.065	U	0.065	U	0.5	U	0.5	U	0.065	U	0.064	U
AROCLOR 1232	11141-16-5	NS	0.5	U	0.068	U	0.065	U	0.065	U	0.5	U	0.5	U	0.065	U	0.064	U
AROCLOR 1248	12672-29-6	NS	0.5	U	0.068	U	0.065	U	0.065	U	0.25	J	0.5	U	0.065	U	0.066	U
AROCLOR 1016	12674-11-2	NS	0.5	U	0.068	U	0.065	U	0.065	U	0.5	U	0.5	U	0.065	U	0.064	U
AROCLOR 1262	37324-23-5	NS	0.5	U	0.068	U	0.065	U	NA		NA		0.5	U	0.065	U	0.065	U
AROCLOR 1242	53469-21-9	NS	0.5	U	0.068	U	0.065	U	0.065	U	0.5	U	0.5	U	0.065	U	0.064	U
Total Aroclor			0.09	0	0	0	0	0.25	0	0	0	0	0	0	0	0.307	0	0

Sample ID		AWQS/GV Values	MW-16D					MW-18					MW-19					
			3/25/08	8/26/08	6/17/09	9/28/10	1/18/12	3/26/08	8/26/08	6/18/09	10/1/10	1/19/12	3/26/08	8/25/08	6/18/09	9/28/10	1/18/12	
PCBs	CAS #																	
AROCLOR 1260	11096-82-5	NS	0.5	U	0.066	U	0.065	U	0.066	U	0.49	U	0.5	U	0.065	U	0.064	U
AROCLOR 1254	11097-69-1	NS	0.5	U	0.066	U	0.065	U	0.066	U	0.49	U	0.5	U	0.065	U	0.064	U
AROCLOR 1268	11100-14-4	NS	0.5	U	0.066	U	0.065	U	NA		NA		0.5	U	0.065	U	0.065	U
AROCLOR 1221	11104-28-2	NS	0.5	U	0.066	U	0.065	U	0.066	U	0.49	U	0.5	U	0.065	U	0.064	U
AROCLOR 1232	11141-16-5	NS	0.5	U	0.066	U	0.065	U	0.066	U	0.49	U	0.5	U	0.065	U	0.064	U
AROCLOR 1248	12672-29-6	NS	0.5	U	0.066	U	0.065	U	0.066	U	0.49	U	0.5	U	0.065	U	0.064	U
AROCLOR 1016	12674-11-2	NS	0.5	U	0.066	U	0.065	U	0.066	U	0.49	U	0.5	U	0.065	U	0.064	U
AROCLOR 1262	37324-23-5	NS	0.5	U	0.066	U	0.065	U	NA		NA		0.5	U	0.065	U	0.065	U
AROCLOR 1242	53469-21-9	NS	0.5	U	0.066	U	0.065	U	0.066	U	0.49	U	0.5	U	0.065	U	0.064	U
Total Aroclor			0.09	0	0	0												

Table 5

## Groundwater Analytical Summary Through January 2012

34 Freemans Bridge Road  
Glenville, New York  
Site No. 4-47-028

## Polychlorinated biphenyls

Sample ID			MW-19D						MW-20						MW-20D					
			3/26/08	8/25/08	6/18/09	9/28/10	1/18/12	1/18/12	Duplicate	3/24/08	8/25/08	6/19/09	9/29/10	1/19/12	3/24/08	8/25/08	6/19/09	9/29/10	1/19/12	
PCBs	CAS #	AWQS/GV Values																		
AROCLO 1260	11096-82-5	NS	0.5 U	0.068 U	0.065 U	0.066 U	0.51 U	0.48 U	0.5 U	0.069 U	0.065 U	0.065 U	0.56 U	0.5 U	0.068 U	0.065 U	0.065 U	0.49 U		
AROCLO 1254	11097-69-1	NS	0.5 U	0.068 U	0.065 U	0.066 U	0.51 U	0.48 U	0.5 U	0.069 U	0.065 U	0.065 U	0.56 U	0.5 U	0.068 U	0.065 U	0.065 U	0.49 U		
AROCLO 1268	11100-14-4	NS	0.5 U	0.068 U	0.065 U	NA	NA	NA	0.5 U	0.069 U	0.065 U	NA	NA	0.5 U	0.068 U	0.065 U	NA	NA		
AROCLO 1221	11104-28-2	NS	0.5 U	0.068 U	0.065 U	0.066 U	0.51 U	0.48 U	0.5 U	0.069 U	0.065 U	0.065 U	0.56 U	0.5 U	0.068 U	0.065 U	0.065 U	0.49 U		
AROCLO 1232	11141-16-5	NS	0.5 U	0.068 U	0.065 U	0.066 U	0.51 U	0.48 U	0.5 U	0.069 U	0.065 U	0.065 U	0.56 U	0.5 U	0.068 U	0.065 U	0.065 U	0.49 U		
AROCLO 1248	12672-29-6	NS	0.5 U	0.068 U	0.065 U	0.066 U	0.51 U	0.48 U	0.5 U	0.069 U	0.065 U	0.065 U	0.56 U	0.5 U	0.068 U	0.065 U	0.065 U	0.49 U		
AROCLO 1016	12674-11-2	NS	0.5 U	0.068 U	0.065 U	0.066 U	0.51 U	0.48 U	0.5 U	0.069 U	0.065 U	0.065 U	0.56 U	0.5 U	0.068 U	0.065 U	0.065 U	0.49 U		
AROCLO 1262	37324-23-5	NS	0.5 U	0.068 U	0.065 U	NA	NA	NA	0.5 U	0.069 U	0.065 U	NA	NA	0.5 U	0.068 U	0.065 U	NA	NA		
AROCLO 1242	53469-21-9	NS	0.5 U	0.068 U	0.065 U	0.066 U	0.51 U	0.48 U	0.5 U	0.069 U	0.065 U	0.065 U	0.56 U	0.5 U	0.068 U	0.065 U	0.065 U	0.49 U		
Total Aroclor			0.09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

Sample ID			MW-21					MW-21D					MW-23					MW-23D				
			3/24/08	8/25/08	6/17/09	9/30/10	1/20/12	3/24/08	8/25/08	6/17/09	9/30/10*	1/20/12	3/27/08	8/25/08	6/17/09	9/29/10	1/18/12	4/4/08	8/25/08	6/17/09	9/29/10	1/18/12
PCBs	CAS #	AWQS/GV Values																				
AROCLO 1260	11096-82-5	NS	0.56 U	0.067 U	0.065 U	0.065 U	0.49 U	0.5 U	0.066 U	0.065 U	0.065 U	0.5 U	0.5 U	0.068 U	0.065 U	0.065 U	0.47 U	0.5 U	0.066 U	0.065 U	0.065 U	0.5 U
AROCLO 1254	11097-69-1	NS	0.56 U	0.067 U	0.065 U	0.065 U	0.49 U	0.5 U	0.066 U	0.065 U	0.065 U	0.5 U	0.5 U	0.068 U	0.065 U	0.065 U	0.47 U	0.5 U	0.066 U	0.065 U	0.065 U	0.5 U
AROCLO 1268	11100-14-4	NS	0.56 U	0.067 U	0.065 U	NA	NA	0.5 U	0.066 U	0.065 U	NA	NA	0.5 U	0.068 U	0.065 U	NA	NA	0.5 U	0.066 U	0.065 U	NA	NA
AROCLO 1221	11104-28-2	NS	0.56 U	0.067 U	0.065 U	0.065 U	0.49 U	0.5 U	0.066 U	0.065 U	0.065 U	0.5 U	0.5 U	0.068 U	0.065 U	0.065 U	0.47 U	0.5 U	0.066 U	0.065 U	0.065 U	0.5 U
AROCLO 1232	11141-16-5	NS	0.56 U	0.067 U	0.065 U	0.065 U	0.49 U	0.5 U	0.066 U	0.065 U	0.065 U	0.5 U	0.5 U	0.068 U	0.065 U	0.065 U	0.47 U	0.5 U	0.066 U	0.065 U	0.065 U	0.5 U
AROCLO 1248	12672-29-6	NS	0.56 U	0.067 U	0.065 U	0.065 U	0.49 U	0.5 U	0.066 U	0.065 U	0.065 U	0.5 U	0.5 U	0.068 U	0.065 U	0.065 U	0.47 U	0.5 U	0.066 U	0.065 U	0.065 U	0.5 U
AROCLO 1016	12674-11-2	NS	0.56 U	0.067 U	0.065 U	0.065 U	0.49 U	0.5 U	0.066 U	0.065 U	0.065 U	0.5 U	0.5 U	0.068 U	0.065 U	0.065 U	0.47 U	0.5 U	0.066 U	0.065 U	0.065 U	0.5 U
AROCLO 1262	37324-23-5	NS	0.56 U	0.067 U	0.065 U	NA	NA	0.5 U	0.066 U	0.065 U	NA	NA	0.5 U	0.068 U	0.065 U	NA	NA	0.5 U	0.066 U	0.065 U	NA	NA
AROCLO 1242	53469-21-9	NS	0.56 U	0.067 U	0.065 U	0.065 U	0.49 U	0.5 U	0.066 U	0.065 U	0.065 U	0.5 U	0.5 U	0.068 U	0.065 U	0.065 U	0.47 U	0.5 U	0.066 U	0.065 U	0.065 U	0.5 U
Total Aroclor			0.09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Sample ID			MW-30					MW-31					MW-32					MW-33				
			3/25/08	8/26/08	6/19/09	9/30/10</th																

Table 6

**Groundwater Analytical Summary Through January 2012**  
**34 Freemans Bridge Road**  
**Glenville, New York**  
**Site No. 4-47-028**

**Pesticides**

Sample ID			MW-11					MW-11D					MW-12					MW-15					
			3/27/08	8/26/08	6/18/09	9/28/10	1/17/12	3/27/08	8/26/08	6/18/09	9/28/10	1/17/12	3/24/08	8/26/08	6/18/09	9/30/10	1/19/12	3/26/08	8/26/08	6/19/09	9/30/10	1/17/12	
PESTICIDES	CAS #	AWQS/GV Values																					
HEPTACHLOR EPOXIDE	1024-57-3	0.03	0.010 U	0.050 U	0.050 U	0.050 U	0.047 U	0.010 U	0.050 U	0.050 U	0.050 U	0.048 U	0.010 U	0.0510 U	0.054 U	0.051 U	0.052 U	0.010 U	0.053 U	0.050 U	0.050 U	0.990 U	
ENDOSULFAN SULFATE	1031-07-8	NS	0.010 U	0.100 U	0.100 U	0.100 U	0.047 U	0.010 U	0.101 U	0.100 U	0.099 U	0.048 U	0.010 U	0.1020 U	0.108 U	0.102 U	0.052 U	0.010 U	0.105 U	0.101 U	0.100 U	0.990 U	
GAMMA-CHLORDANE	12789-03-6	0.5	0.010 U	0.050 U	0.050 U	0.050 U	0.047 U	0.010 U	0.050 U	0.050 U	0.050 U	0.048 U	0.010 U	0.0510 U	0.054 U	0.051 U	0.052 U	0.010 U	0.053 U	0.050 U	0.050 U	0.990 U	
ALDRIN	309-00-2	NS	0.010 U	0.050 U	0.050 U	0.050 U	0.047 U	0.010 U	0.050 U	0.050 U	0.050 U	0.048 U	0.010 U	0.0510 U	0.054 U	0.051 U	0.052 U	0.010 U	0.053 U	0.050 U	0.050 U	0.990 U	
ALPHA-BHC	319-84-6	0.01	0.010 U	0.050 U	0.050 U	0.050 U	0.047 U	0.010 U	0.050 U	0.050 U	0.050 U	0.048 U	0.010 U	0.0510 U	0.054 U	0.051 U	0.052 U	0.010 U	0.053 U	0.050 U	0.050 U	0.990 U	
BETA-BHC	319-85-7	0.04	0.010 U	0.050 U	0.050 U	0.050 U	0.047 U	0.010 U	0.050 U	0.050 U	0.050 U	0.048 U	0.010 U	0.0510 U	0.054 U	0.051 U	0.052 U	0.010 U	0.053 U	0.050 U	0.050 U	0.990 U	
DELTA-BHC	319-86-8	0.04	0.010 U	0.050 U	0.050 U	0.050 U	0.047 U	0.010 U	0.050 U	0.050 U	0.050 U	0.048 U	0.010 U	0.0510 U	0.054 U	0.051 U	0.052 U	0.010 U	0.053 U	0.050 U	0.050 U	0.990 U	
BETA-ENDOSULFAN	33213-65-9	NS	0.010 U	0.100 U	0.100 U	0.100 U	0.047 U	0.010 U	0.101 U	0.100 U	0.099 U	0.048 U	0.010 U	0.1020 U	0.108 U	0.102 U	0.052 U	0.010 U	0.105 U	0.101 U	0.100 U	0.990 U	
P,P'-DDT	50-29-3	0.2	0.010 U	0.100 U	0.100 U	0.100 U	0.047 U	0.010 U	0.101 U	0.100 U	0.099 U	0.048 U	0.010 U	0.1020 U	0.108 U	0.102 U	0.052 U	0.010 U	0.105 U	0.101 U	0.100 U	0.990 U	
ALPHA-CHLORDANE	5103-71-9	0.5	0.010 U	0.100 U	0.100 U	0.100 U	0.047 U	0.010 U	0.101 U	0.100 U	0.099 U	0.048 U	0.010 U	0.1020 U	0.108 U	0.102 U	0.052 U	0.010 U	0.105 U	0.101 U	0.100 U	0.990 U	
ENDRIN KETONE	53494-70-5	5	0.010 U	0.100 U	0.100 U	0.100 U	0.047 U	0.010 U	0.101 U	0.100 U	0.099 U	0.048 U	0.010 U	0.1020 U	0.108 U	0.102 U	0.052 U	0.010 U	0.105 U	0.101 U	0.100 U	0.990 U	
GAMMA-BHC	58-89-9	0.05	0.010 U	0.050 U	0.050 U	0.050 U	0.047 U	0.010 U	0.050 U	0.050 U	0.050 U	0.048 U	0.010 U	0.0510 U	0.054 U	0.051 U	0.052 U	0.010 U	0.053 U	0.050 U	0.050 U	0.990 U	
DIELDRIN	60-57-1	0.004	0.010 U	0.100 U	0.100 U	0.100 U	0.047 U	0.010 U	0.101 U	0.100 U	0.099 U	0.048 U	0.010 U	0.1020 U	0.108 U	0.102 U	0.052 U	0.010 U	0.105 U	0.101 U	0.100 U	0.990 U	
ENDRIN	72-20-8	NS	0.010 U	0.100 U	0.100 U	0.100 U	0.047 U	0.010 U	0.101 U	0.100 U	0.099 U	0.048 U	0.010 U	0.1020 U	0.108 U	0.102 U	0.052 U	0.010 U	0.105 U	0.101 U	0.100 U	0.990 U	
METHOXYCHLOR	72-43-5	35	0.010 U	0.050 U	0.050 U	0.050 U	0.047 U	0.010 U	0.050 U	0.050 U	0.050 U	0.048 U	0.010 U	0.0510 U	0.054 U	0.051 U	0.052 U	0.010 U	0.053 U	0.050 U	0.050 U	0.990 U	
P,P'-DDD	72-54-8	0.3	0.010 U	0.100 U	0.100 U	0.100 U	0.047 U	0.010 U	0.101 U	0.100 U	0.099 U	0.048 U	0.010 U	0.1020 U	0.108 U	0.102 U	0.052 U	0.010 U	0.105 U	0.101 U	0.100 U	0.990 U	
P,P'-DDE	72-55-9	0.2	0.010 U	0.100 U	0.100 U	0.100 U	0.047 U	0.010 U	0.101 U	0.100 U	0.099 U	0.048 U	0.010 U	0.1020 U	0.108 U	0.102 U	0.052 U	0.010 U	0.105 U	0.101 U	0.100 U	0.990 U	
ENDRIN ALDEHYDE	7421-93-4	5	0.010 U	0.100 U	0.100 U	0.100 U	0.047 U	0.010 U	0.102 U	0.100 U	0.099 U	0.048 U	0.010 U	0.1050 U	0.054 U	0.051 U	0.052 U	0.010 U	0.105 U	0.101 U	0.100 U	0.990 U	
HEPTACHLOR	76-44-8	0.04	0.010 U	0.050 U	0.050 U	0.050 U	0.047 U	0.010 U	0.050 U	0.050 U	0.050 U	0.048 U	0.010 U	0.0510 U	0.054 U	0.051 U	0.052 U	0.010 U	0.053 U	0.050 U	0.050 U	0.990 U	
TOXAPHENE	8001-35-2	0.06	0.010 U	0.500 U	0.500 U	0.500 U	0.470 U	0.010 U	0.500 U	0.500 U	0.495 U	0.480 U	0.010 U	0.5100 U	0.538 U	0.510 U	0.520 U	0.010 U	0.526 U	0.505 U	0.500 U	9.900 U	
ALPHA ENDOSULFAN	959-98-8	NS	0.010 U	0.050 U	0.050 U	0.050 U	0.047 U	0.010 U	0.050 U	0.050 U	0.050 U	0.048 U	0.010 U	0.0510 U	0.054 U	0.051 U	0.052 U	0.010 U	0.053 U	0.050 U	0.050 U	0.990 U	
Total Pesticides			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Sample ID			MW-15D				
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Table 6

**Groundwater Analytical Summary Through January 2012**  
**34 Freemans Bridge Road**  
**Glenville, New York**  
**Site No. 4-47-028**

**Pesticides**

Sample ID	Sampling Date	AWQS/GV Values	MW-19					MW-19D					MW-20					
			3/26/08	8/25/08	6/18/09	9/28/10	1/18/12	3/26/08	8/25/08	6/18/09	9/28/10	1/18/12	1/18/12	3/24/08	8/25/08	6/19/09	9/29/10	1/19/12
PESTICIDES	CAS #												Duplicate					
HEPTACHLOR EPOXIDE	1024-57-3	0.03	0.010	U	0.050	U	0.056	U	0.050	U	1.000	UH	0.010	U	0.053	U	0.051	U
ENDOSULFAN SULFATE	1031-07-8	NS	0.010	U	0.101	U	0.111	U	0.099	U	1.000	UH	0.010	U	0.105	U	0.102	U
GAMMA-CHLORDANE	12789-03-6	0.5	0.010	U	0.050	U	0.056	U	0.050	U	1.000	UH	0.010	U	0.053	U	0.051	U
ALDRIN	309-00-2	NS	0.010	U	0.050	U	0.056	U	0.050	U	1.000	UH	0.010	U	0.053	U	0.050	U
ALPHA-BHC	319-84-6	0.01	0.010	U	0.050	U	0.056	U	0.050	U	1.000	UH	0.010	U	0.053	U	0.050	U
BETA-BHC	319-85-7	0.04	0.010	U	0.050	U	0.056	U	0.050	U	1.000	UH	0.010	U	0.053	U	0.050	U
DELTA-BHC	319-86-8	0.04	0.010	U	0.050	U	0.056	U	0.050	U	1.000	UH	0.010	U	0.053	U	0.050	U
BETA-ENDOSULFAN	33213-65-9	NS	0.010	U	0.101	U	0.111	U	0.099	U	1.000	UH	0.010	U	0.105	U	0.102	U
P,P'-DDT	50-29-3	0.2	0.010	U	0.101	U	0.111	U	0.099	U	1.000	UH	0.010	U	0.105	U	0.102	U
ALPHA-CHLORDANE	5103-71-9	0.5	0.010	U	0.101	U	0.111	U	0.050	U	1.000	UH	0.010	U	0.105	U	0.102	U
ENDRIN KETONE	53494-70-5	5	0.010	U	0.101	U	0.111	U	0.099	U	1.000	UH	0.010	U	0.105	U	0.102	U
GAMMA-BHC	58-89-9	0.05	0.010	U	0.050	U	0.056	U	0.050	U	1.000	UH	0.010	U	0.053	U	0.050	U
DIELDRIN	60-57-1	0.004	0.010	U	0.101	U	0.111	U	0.099	U	1.000	UH	0.010	U	0.105	U	0.102	U
ENDRIN	72-20-8	NS	0.010	U	0.101	U	0.111	U	0.099	U	1.000	UH	0.010	U	0.105	U	0.102	U
METHOXYCHLOR	72-43-5	35	0.010	U	0.050	U	<b>0.298</b>	U	0.050	U	0.990	U	0.010	U	0.053	U	0.051	U
P,P'-DDD	72-54-8	0.3	0.010	U	0.101	U	0.111	U	0.099	U	1.000	UH	0.010	U	0.105	U	0.102	U
P,P'-DDE	72-55-9	0.2	0.010	U	0.101	U	0.111	U	0.099	U	1.000	UH	0.010	U	0.105	U	0.102	U
ENDRIN ALDEHYDE	7421-93-4	5	0.010	U	0.101	U	0.111	U	0.099	U	1.000	UH	0.010	U	0.105	U	0.102	U
HEPTACHLOR	76-44-8	0.04	0.010	U	0.050	U	0.056	U	0.050	U	1.000	UH	0.010	U	0.053	U	0.050	U
TOXAPHENE	8001-35-2	0.06	0.010	U	0.050	U	0.056	U	0.050	U	1.000	UH	0.010	U	0.053	U	0.050	U
ALPHA ENDOSULFAN	959-98-8	NS	0.010	U	0.050	U	0.056	U	0.050	U	1.000	UH	0.010	U	0.053	U	0.050	U
Total Pesticides			0	0	0.298	0	0	0	0	0	0	0	0	0	0	0	0	

Sample ID	Sampling Date	AWQS/GV Values	MW-20D					MW-21					MW-21D					
			3/24/08	8/25/08	6/19/09	9/29/10	1/19/12	3/24/08	8/25/08	6/17/09	9/30/10	1/20/12	3/24/08	8/25/08	6/17/09	9/30/10*	1/20/12	
PESTICIDES	CAS #																	
HEPTACHLOR EPOXIDE	1024-57-3	0.03	0.010	U	0.052	U	0.495	U	0.051	U	0.049	U	0.010	U	0.052	U	0.050	U
ENDOSULFAN SULFATE	1031-07-8	NS	0.010	U	0.104	U	0.990	U	0.102	U	0.049	U	0.010	U	0.103	U	0.105	U
GAMMA-CHLORDANE	12789-03-6	0.5	0.010	U	0.052	U	0.495	U	0.051	U	0.049	U	0.010	U	0.052	U	0.050	U
ALDRIN	309-00-2	NS	0.010	U	0.052	U	0.495	U	0.051	U	0.049	U	0.010	U	0.052	U	0.050	U
ALPHA-BHC	319-84-6	0.01	0.010	U	0.052	U	0.495	U	0.051	U	0.049	U	0.010	U	0.052	U	0.050	U
BETA-BHC	319-85-7	0.04	0.010	U	0.052	U	0.495	U	0.051	U	0.049	U	0.010	U	0.052	U	0.050	U
DELTA-BHC	319-86-8	0.04	0.010	U	0.052	U	0.495	U	0.051	U	0.049	U	0.010	U	0.052	U	0.050	U
BETA-ENDOSULFAN	33213-65-9	NS	0.010	U	0.104	U	0.990	U	0.102	U	0.049	U	0.010	U	0.103	U	0.105	U
P,P'-DDT	50-29-3	0.2	0.010	U	0.104	U	0.990	U	0.102	U	0.049	U	0.010	U	0.103	U	0.105	U
ALPHA-CHLORDANE	5103-71-9	0.5	0.010	U	0.104	U	0.990	U	0.051	U	0.049	U	0.010	U	0.103	U	0.105	U
ENDRIN KETONE	53494-70-5	5	0.010	U	0.104	U	0.990	U	0.102	U	0.049	U	0.010	U	0.103	U	0.105	U
GAMMA-BHC	58-89-9	0.05	0.010	U	0.052	U	0.495	U	0.051	U	0.049	U	0.010	U	0.052	U	0.050	U
DIELDRIN	60-57-1																	

Table 6

**Groundwater Analytical Summary Through January 2012**  
**34 Freemans Bridge Road**  
**Glenville, New York**  
**Site No. 4-47-028**

**Pesticides**

Sample ID			MW-23					MW-23D					MW-30																			
			3/27/08	8/25/08	6/17/09	9/29/10	1/18/12	4/4/08	8/25/08	6/17/09	9/29/10	1/18/12	3/25/08	8/26/08	6/19/09	9/30/10	1/20/12															
PESTICIDES	CAS #	AWQS/GV Values																														
HEPTACHLOR EPOXIDE	1024-57-3	0.03	0.010	U	0.052	U	0.056	U	0.050	U	0.051	UH	0.010	U	0.051	U	0.050	U	0.052	U												
ENDOSULFAN SULFATE	1031-07-8	NS	0.010	U	0.104	U	0.111	U	0.100	U	0.051	UH	0.010	U	0.102	U	0.106	U	0.105	U	0.100	U	0.100	U	0.052	U						
GAMMA-CHLORDANE	12789-03-6	0.5	0.010	U	0.052	U	0.056	U	0.050	U	0.051	UH	0.010	U	0.051	U	0.053	U	0.050	U	0.052	UH	0.010	U	0.053	U	0.050	U	0.052	U		
ALDRIN	309-00-2	NS	0.010	U	0.052	U	0.056	U	0.050	U	0.051	UH	0.010	U	0.051	U	0.053	U	0.050	U	0.052	UH	0.010	U	0.053	U	0.050	U	0.050	U	0.052	U
ALPHA-BHC	319-84-6	0.01	0.010	U	0.052	U	0.056	U	0.050	U	0.051	UH	0.010	U	0.051	U	0.053	U	0.050	U	0.052	UH	0.010	U	0.053	U	0.050	U	0.050	U	0.031	J
BETA-BHC	319-85-7	0.04	0.010	U	0.052	U	0.056	U	0.050	U	0.051	UH	0.010	U	0.051	U	0.053	U	0.050	U	0.052	UH	0.010	U	0.053	U	0.050	U	0.050	U	0.052	U
DELTA-BHC	319-86-8	0.04	0.010	U	0.052	U	0.056	U	0.050	U	0.051	UH	0.010	U	0.051	U	0.053	U	0.050	U	0.052	UH	0.010	U	0.053	U	0.050	U	0.050	U	0.052	U
BETA-ENDOSULFAN	33213-65-9	NS	0.010	U	0.104	U	0.111	U	0.100	U	0.051	UH	0.010	U	0.102	U	0.106	U	0.100	U	0.052	UH	0.010	U	0.105	U	0.100	U	0.100	U	0.052	U
P,P'-DDT	50-29-3	0.2	0.010	U	0.104	U	0.111	U	0.100	U	0.051	UH	0.010	U	0.102	U	0.106	U	0.100	U	0.052	UH	0.010	U	0.105	U	0.100	U	0.100	U	0.052	U
ALPHA-CHLORDANE	5103-71-9	0.5	0.010	U	0.104	U	0.111	U	0.050	U	0.051	UH	0.010	U	0.102	U	0.106	U	0.050	U	0.052	UH	0.010	U	0.105	U	0.100	U	0.050	U	0.052	U
ENDRIN KETONE	53494-70-5	5	0.010	U	0.104	U	0.111	U	0.100	U	0.051	UH	0.010	U	0.102	U	0.106	U	0.100	U	0.052	UH	0.010	U	0.105	U	0.100	U	0.052	U	0.052	U
GAMMA-BHC	58-89-9	0.05	0.010	U	0.052	U	0.056	U	0.050	U	0.051	UH	0.010	U	0.051	U	0.053	U	0.050	U	0.052	UH	0.010	U	0.055	U	0.050	U	0.050	U	0.052	U
DIELDRIN	60-57-1	0.004	0.010	U	0.104	U	0.111	U	0.100	U	0.051	UH	0.010	U	0.102	U	0.106	U	0.100	U	0.052	UH	0.010	U	0.105	U	0.100	U	0.100	U	0.052	U
ENDRIN	72-20-8	NS	0.010	U	0.104	U	0.111	U	0.100	U	0.051	UH	0.010	U	0.102	U	0.106	U	0.100	U	0.052	UH	0.010	U	0.105	U	0.100	U	0.100	U	0.052	U
METHOXYCHLOR	72-43-5	35	0.010	U	0.052	U	0.056	U	0.050	U	0.051	UH	0.010	U	0.051	U	0.053	U	0.050	U	0.052	UH	0.010	U	0.053	U	0.050	U	0.050	U	0.052	U
P,P'-DDD	72-54-8	0.3	0.010	U	0.104	U	0.111	U	0.100	U	<b>0.018</b>	JH	0.010	U	0.102	U	0.106	U	0.100	U	0.052	UH	0.010	U	0.105	U	0.100	U	0.100	U	0.052	U
P,P'-DDE	72-55-9	0.2	0.010	U	0.104	U	0.111	U	0.100	U	0.051	UH	0.010	U	0.102	U	0.106	U	0.100	U	0.052	UH	0.010	U	0.105	U	0.100	U	0.100	U	0.052	U
ENDRIN ALDEHYDE	7421-93-4	5	0.010	U	0.104	U	0.111	U	0.100	U	0.051	UH	0.010	U	0.102	U	0.106	U	0.100	U	0.052	UH	0.010	U	0.105	U	0.100	U	0.100	U	0.052	U
HEPTACHLOR	76-44-8	0.04	0.010	U	0.052	U	0.056	U	0.050	U	0.051	UH	0.010	U	0.051	U	0.053	U	0.050	U	0.052	UH	0.010	U	0.053	U	0.050	U	0.050	U	0.052	U
TOXAPHENE	8001-35-2	0.06	0.010	U	0.521	U	0.556	U	0.500	U	0.510	UH	0.010	U	0.510	U	0.532	U	0.500	U	0.520	UH	0.010	U	0.526	U	0.500	U	0.520	U	0.520	U
ALPHA ENDOSULFAN	959-98-8	NS	0.010	U	0.052	U	0.056	U	0.050	U	0.051	UH	0.010	U	0.051	U	0.053	U	0.050	U	0.052	UH	0.010	U	0.053	U	0.050	U	0.050	U	0.052	U
Total Pesticides													0	0	0	0	0.018	0	0	0	0	0	0	0	0	0	0	0	0	0	0.031	

Sample ID			MW-31					
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**Table 7**  
**Sub-Surface Soil Vapor Analytical Summary - May 2008**  
**34 Freemans Bridge Road**  
**Glenville, New York**  
**Site No. 4-47-028**

Sample ID Sampling Date	VP-0 05/01/08	VP-3 05/01/08	VP-4 05/01/08	VP-6 05/01/08	VP-7 05/01/08	VP-8 05/01/08	VP-9 05/01/08	VP-11 05/01/08	VP-12 05/02/08	VP-16 05/02/08	VP-17 05/02/08	VP-19 05/02/08	VP-20 05/02/08	
Chemical	Results in µg/m³													
Dichlorodifluoromethane	0.84	2.23	0.84	2.42	2.18	14.34	0.84	2.23	0.84	0.84	7.42	22.00	9.89	
tert-butyl alcohol	<b>7.58</b>	0.24	2.39	<b>1.82</b>	<b>3.33</b>	2.39	2.39	0.24	2.39	2.39	2.39	1.82	2.39	
Chloromethane (Methyl chloride)	0.52	<b>0.29</b>	0.52	<b>1.14</b>	<b>1.20</b>	0.52	0.52	0.81	0.52	0.52	0.52	0.25	<b>35.73</b>	
Vinyl chloride	0.61	0.06	<b>7.67</b>	0.06	0.06	0.61	0.61	0.06	<b>2464.21 D</b>	0.61	0.61	0.31	0.61	
Chloroethane	0.45	0.04	0.45	<b>0.29</b>	0.04	0.45	0.45	0.04	0.45	0.45	0.45	0.22	0.45	
Trichlorofluoromethane (Freon 11)	1.57	<b>24.39</b>	1.57	<b>1.46</b>	<b>1.24</b>	<b>8.99</b>	1.57	<b>1.29</b>	1.57	1.57	1.57	<b>5.90</b>	1.57	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon TF)	1.99	0.20	1.99	<b>0.84</b>	0.20	1.99	1.99	0.20	1.99	1.99	1.99	1.00	1.99	
Bromomethane (Methyl bromide)	0.93	0.09	0.93	0.09	0.09	0.93	0.93	0.09	0.93	0.93	0.93	0.47	<b>4.66</b>	
n-Heptane	<b>22.54</b>	<b>2.99</b>	<b>60.65</b>	<b>2.87</b>	<b>3.24</b>	<b>22.13</b>	<b>9.43</b>	<b>1.27</b>	<b>16.80</b>	<b>61.06</b>	<b>9.84</b>	<b>2.66</b>	0.98	
Acetone (2-propanone)	<b>280.30 B</b>	<b>44.66 B</b>	<b>26.13 B</b>	<b>16.72 B</b>	<b>29.46 B</b>	1.92	<b>170.32 B</b>	<b>14.92 B</b>	<b>717.39 D</b>	1.92	<b>117.82 B</b>	<b>43.95 B</b>	<b>89.08 B</b>	
Carbon disulfide	<b>175.01</b>	<b>4.86</b>	<b>58.23</b>	<b>3.05</b>	<b>5.98</b>	0.47	<b>54.19</b>	<b>1.34</b>	0.47	<b>50.14</b>	<b>10.90</b>	0.24	<b>8.41</b>	
Methylene chloride	0.52	<b>8.30</b>	<b>7.99</b>	<b>3.16</b>	<b>16.26</b>	<b>11.81</b>	<b>10.07</b>	<b>0.94</b>	0.52	0.52	<b>7.64</b>	<b>5.56</b>	<b>5.56</b>	
1,1-Dichloroethane	0.97	<b>1.17</b>	0.97	0.10	0.10	0.97	0.97	0.10	0.97	0.97	0.97	0.49	0.97	
Cyclohexane	0.41	<b>1.38</b>	<b>79.17</b>	<b>1.34</b>	<b>2.24</b>	0.41	0.41	0.04	0.41	<b>29.60</b>	0.41	0.21	0.41	
2-Butanone (Methyl ethyl ketone)	<b>120.33 B</b>	<b>9.76 B</b>	<b>19.17 B</b>	<b>4.78 B</b>	<b>24.33 B</b>	<b>14.75 B</b>	<b>33.33 B</b>	<b>1.53 B</b>	<b>81.70 B</b>	<b>26.25 B</b>	<b>19.47 B</b>	<b>10.91 B</b>	<b>20.35 B</b>	
Carbon tetrachloride	1.07	<b>0.31</b>	1.07	<b>0.57</b>	<b>0.44</b>	1.07	1.07	<b>0.50</b>	1.07	1.07	1.07	0.53	1.07	
1,2-Dichloroethene (cis)	1.39	0.14	<b>211.72</b>	0.14	0.14	1.39	1.39	0.14	<b>84.85</b>	1.39	1.39	0.71	1.39	
Chloroform	1.51	<b>3.13</b>	1.51	0.15	0.15	1.51	1.51	0.15	1.51	1.51	1.51	0.73	1.51	
1,1,1-Trichloroethane	1.20	<b>0.44 J</b>	1.20	0.12	0.12	1.20	1.20	0.12	1.20	1.20	1.20	0.60	1.20	
Tetrahydrofuran	2.47	0.25	2.47	<b>1.03</b>	<b>1.77</b>	2.47	2.47	<b>1.24</b>	<b>30.63</b>	2.47	<b>18.55</b>	1.24	2.47	
2,2,4-Trimethylpentane	<b>7.01</b>	<b>0.75</b>	<b>7.01</b>	<b>1.87</b>	<b>1.49</b>	1.17	<b>4.67 J</b>	0.12	<b>287.72</b>	<b>4.20 J</b>	<b>2.34 J</b>	0.56	<b>5.14</b>	
Benzene	<b>194.56</b>	<b>10.00</b>	<b>5.43</b>	<b>2.88</b>	<b>15.59</b>	<b>34.50</b>	<b>27.79</b>	<b>0.83</b>	<b>4.47</b>	<b>13.74</b>	<b>9.90</b>	0.70	<b>3.51</b>	
Trichloroethene (TCE)	2.20	<b>1.40</b>	<b>51.59</b>	<b>0.59</b>	<b>0.27</b>	2.20	2.20	0.22	2.20	<b>5.37</b>	<b>2.69</b>	1.07	2.20	
4-Methyl-2-pentanone (MIBK)	2.05	<b>1.07</b>	2.05	<b>0.61</b>	<b>2.17</b>	2.05	2.05	0.20	2.05	2.05	2.05	1.02	2.05	
Toluene	<b>195.96</b>	<b>54.64</b>	<b>96.47</b>	<b>27.89</b>	<b>35.05</b>	<b>230.63</b>	<b>72.36</b>	<b>39.57 D</b>	<b>91.20</b>	<b>501.21</b>	<b>463.53</b>	<b>26.76</b>	<b>53.51</b>	
Tetrachloroethene (PCE)	3.25	<b>1.49</b>	<b>1356.24 B</b>	<b>4.41</b>	<b>1.15</b>	3.25	3.25	<b>2.17</b>	3.25	<b>13.56</b>	3.25	<b>35.26</b>	<b>3.39</b>	
Chlorobenzene	1.20	0.12	1.20	0.12	<b>0.60</b>	1.20	1.20	0.12	1.20	1.20	1.20	0.60	1.20	
Ethylbenzene	<b>12.16</b>	<b>2.08</b>	<b>9.12</b>	<b>2.00</b>	<b>2.30</b>	<b>7.82</b>	<b>6.95</b>	<b>5.08</b>	<b>7.38</b>	<b>43.87</b>	<b>44.30</b>	0.39	0.78	
Xylenes (m&p)	<b>32.14</b>	<b>4.56</b>	<b>27.36</b>	<b>22.50</b>	<b>4.95</b>	<b>9.12</b>	<b>6.52</b>	<b>10.86</b>	<b>15.20</b>	<b>37.35</b>	<b>149.42</b>	<b>3.04</b>	<b>7.38</b>	
Xylenes (o)	<b>13.03</b>	<b>1.39</b>	<b>7.82</b>	<b>5.65</b>	<b>2.00</b>	1.04	1.04	<b>2.56</b>	<b>5.65</b>	<b>11.73</b>	<b>55.60</b>	0.52	1.04	
Styrene	2.64	0.26	2.64	<b>1.06</b>	0.26	2.64	2.64	<b>1.15</b>	<b>4.26 J</b>	2.64	<b>9.37</b>	1.32	2.64	
1,3,5-Trimethylbenzene	<b>26.55</b>	<b>0.59</b>	1.72	<b>3.98</b>	<b>0.59</b>	1.72	1.72	0.17	1.72	1.72	<b>68.83</b>	0.88	1.72	
1,2,4-Trimethylbenzene	1.18	<b>4.87</b>	1.18	<b>12.73</b>	<b>1.82</b>	1.18	1.18	0.12	1.18	<b>24.09</b>	<b>204.02</b>	<b>13.27</b>	1.18	
4-Ethyltoluene (p-Ethyltoluene)	<b>6.39</b>	<b>0.64</b>	1.28	<b>3.05</b>	0.54	1.28	1.28	0.13	1.28	1.28	<b>30.97</b>	0.64	1.28	
1,3-Dichlorobenzene	1.02	0.10	1.02	0.10	0.10	1.02	1.02	0.10	1.02	1.02	1.02	0.51	1.02	
1,4-Dichlorobenzene	1.50	<b>4.51</b>	1.50	0.15	<b>0.78</b>	1.50	1.50	0.15	1.50	1.50	1.50	0.72	1.50	
n-Hexane	0.92	<b>3.84</b>	<b>380.63</b>	<b>5.57</b>	<b>8.32</b>	0.92	0.92	0.09	0.92	<b>334.46</b>	<b>11.28</b>	0.46	<b>16.92</b>	

Unbold values - laboratory detection limits

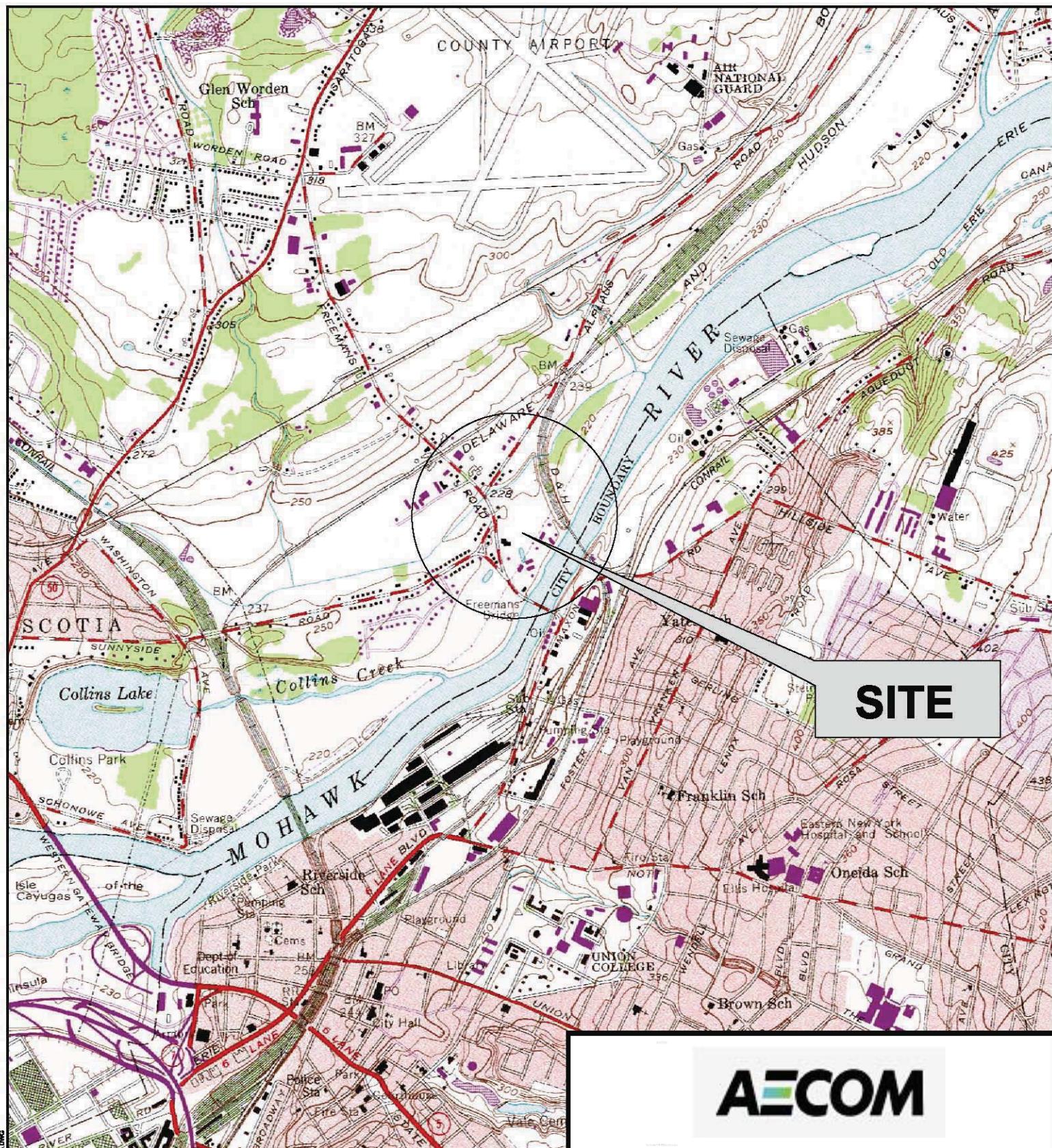
Bold values - concentrations above detection limits

D - dilution value

B - Analyte Found in Associated Method Blank

J - Estimated Value

## **Figures**



**AECOM**

**FIGURE 1  
SITE LOCATION MAP**

**PERIODIC REVIEW REPORT**

**34 Freeman's Bridge Road Site  
Site # 4-47-028**

Town of Glenville

Schenectady County, New York

DATE: APRIL 2012

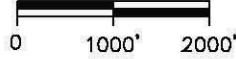
SCALE: 1"-2000'

PROJECT NO.: 60133947

FIGURE 1

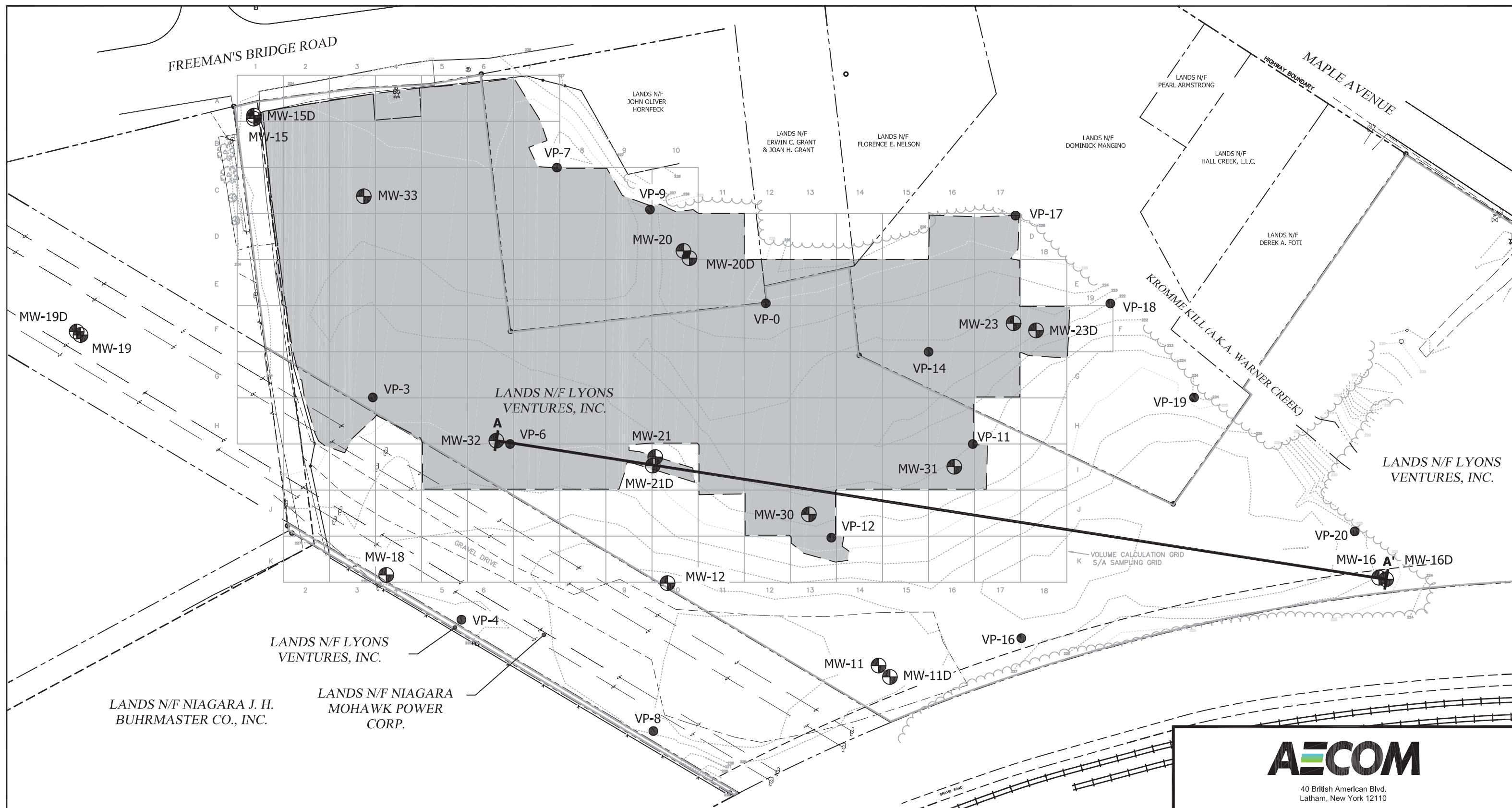
**PLAN**

Scale in Feet



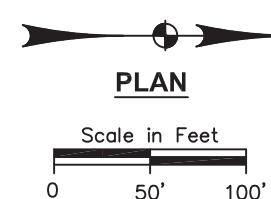
MAP REFERENCES:

IMAGE FROM USGS 7.5 MIN. QUADRANGLE, SCHENECTADY SERIES.



MAPPING REFERENCES:  
 1) MAPPING SHOWN TAKEN FROM THE FINAL REMEDIATION REPORT  
 DRAWINGS NO. V8 "GRID SAMPLE LOCATIONS MAP" AND NO. V9 "AS-BUILT  
 TOPOGRAPHIC MAP" BY CLARK ENGINEERING & SURVEYING, P.C., DATED  
 10/19/2007 AND ALL REFERENCES AND NOTES THEREIN.  
 2) MONITORING WELL AND SOIL VAPOR POINT LOCATIONS BY A SURVEY  
 PERFORMED BY EARTH TECH, MAY 8, 2008

- LEGEND**
- A — A'** CONCEPTUAL SITE MODEL TRANSECT
  - EXCAVATED AREA
  - MW-19D** MONITORING WELL LOCATION
  - VP-3** SOIL VAPOR POINT LOCATION



**AECOM**

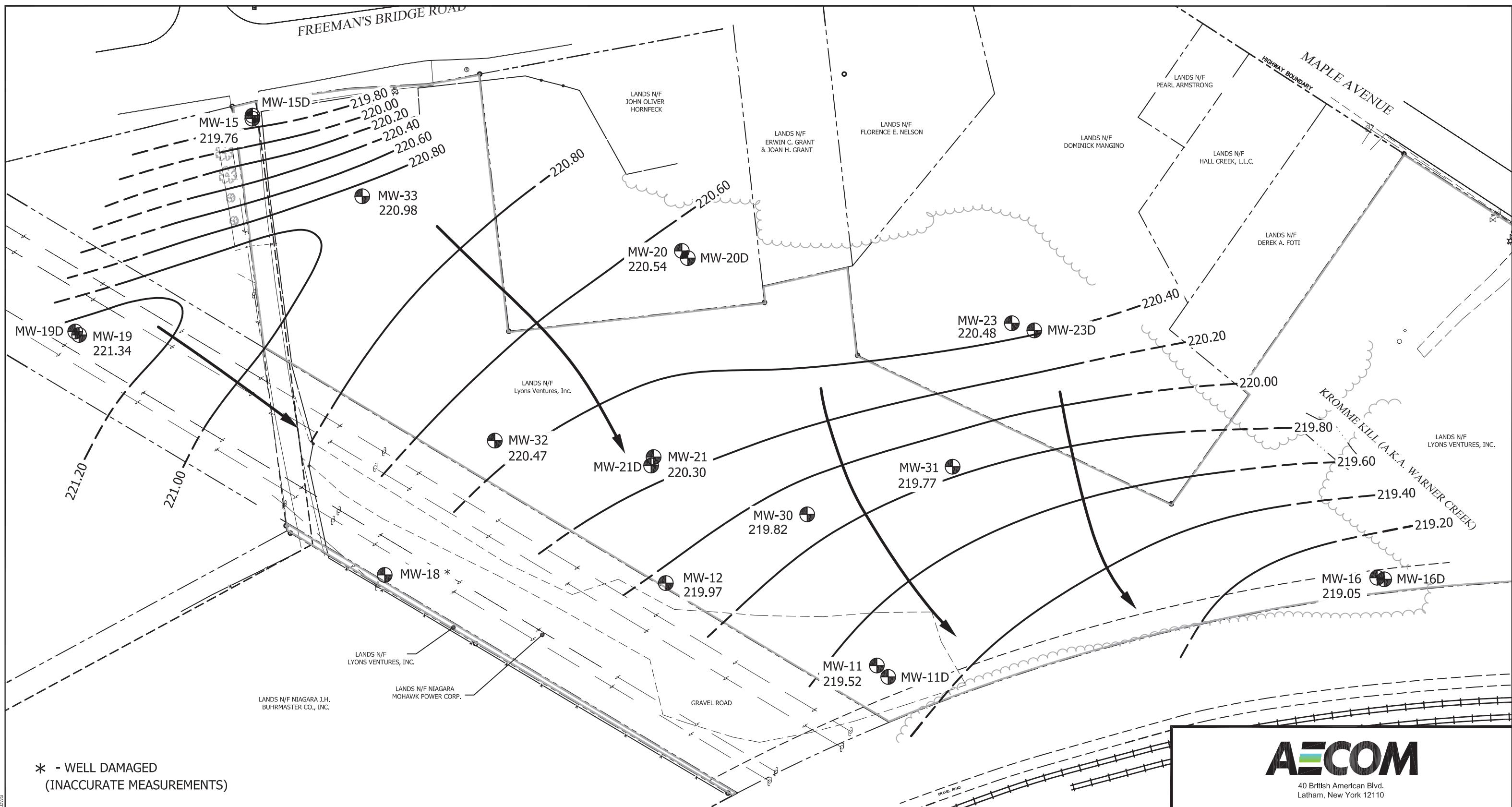
40 British American Blvd.  
 Latham, New York 12110

#### FIGURE 2 - SITE DETAILS

#### PERIODIC REVIEW REPORT

34 Freeman's Bridge Road Site  
 Site # 4-47-028

Town of Glenville	Schenectady County, New York
DATE: APRIL, 2012	SCALE: 1"=100'
PROJECT NO.: 60133947	FIGURE 2



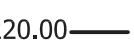
MAPPING REFERENCES:  
 1) MAPPING SHOWN TAKEN FROM THE FINAL REMEDIATION REPORT  
 DRAWINGS NO. V8 "GRID SAMPLE LOCATIONS MAP" AND NO. V9 "AS-BUILT  
 TOPOGRAPHIC MAP" BY CLARK ENGINEERING & SURVEYING, P.C., DATED  
 10/19/2007 AND ALL REFERENCES AND NOTES THEREIN.  
 2) MONITORING WELL AND SOIL VAPOR POINT LOCATIONS BY A SURVEY  
 PERFORMED BY EARTH TECH, MAY 8, 2008

#### LEGEND



MW-19D

MONITORING WELL LOCATION



220.00

GROUNDWATER CONTOUR  
WITH ELEVATIONS (FEET  
ABOVE MEAN SEA LEVEL)

#### PLAN



**FIGURE 3 - SHALLOW GROUNDWATER FLOW**  
January 2012

**PERIODIC REVIEW REPORT**  
**34 Freeman's Bridge Road Site**  
**NYSDEC Site # 4-47-028**

Town of Glenville

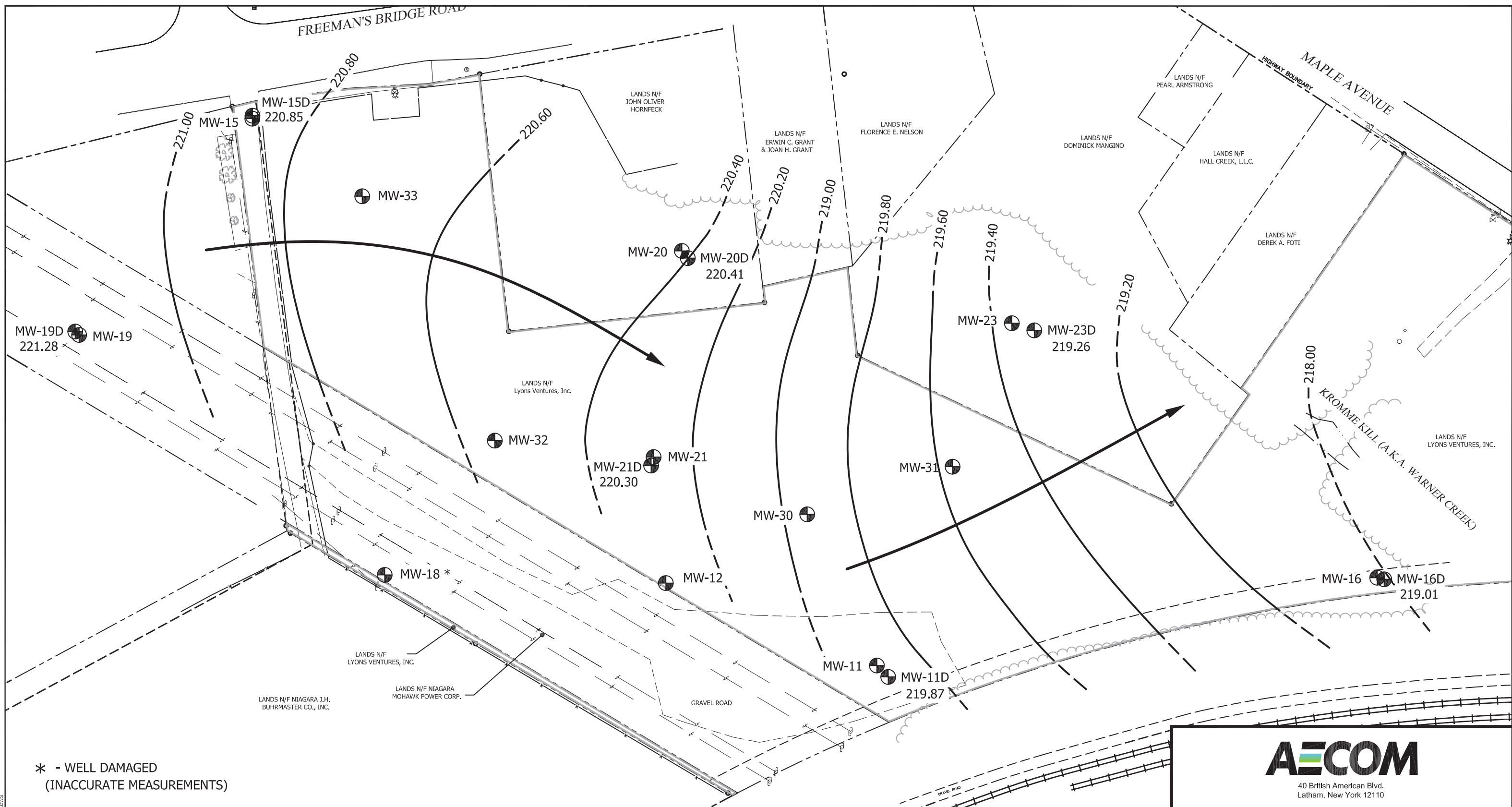
Schenectady County, New York

DATE: APRIL 2012

SCALE: 1"=100'

PROJECT NO.: 60133947

FIGURE 3



**AECOM**

40 British American Blvd.  
Latham, New York 12110

**FIGURE 4 - DEEP GROUNDWATER FLOW**  
January 2012

**PERIODIC REVIEW REPORT**  
**34 Freeman's Bridge Road Site**  
**NYSDEC Site # 4-47-028**

Town of Glenville	Schenectady County, New York
DATE: APRIL 2012	SCALE: 1"=100'
PROJECT NO.: 60133947	FIGURE 4

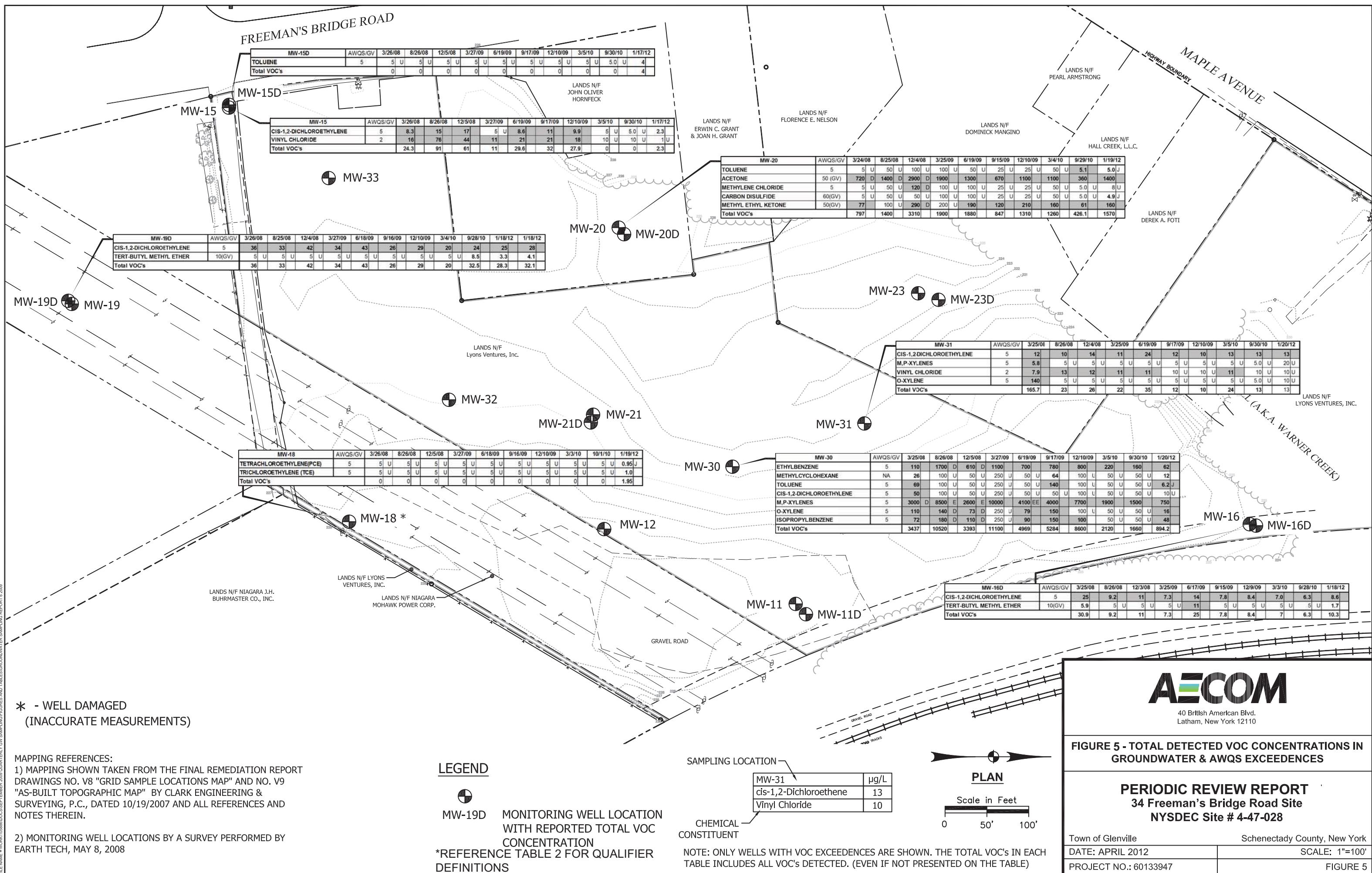


Figure 6  
 VOC Concentrations Trends  
 34 Freeman's Bridge Road  
 Glenville, New York  
 Site No. 4-47-028

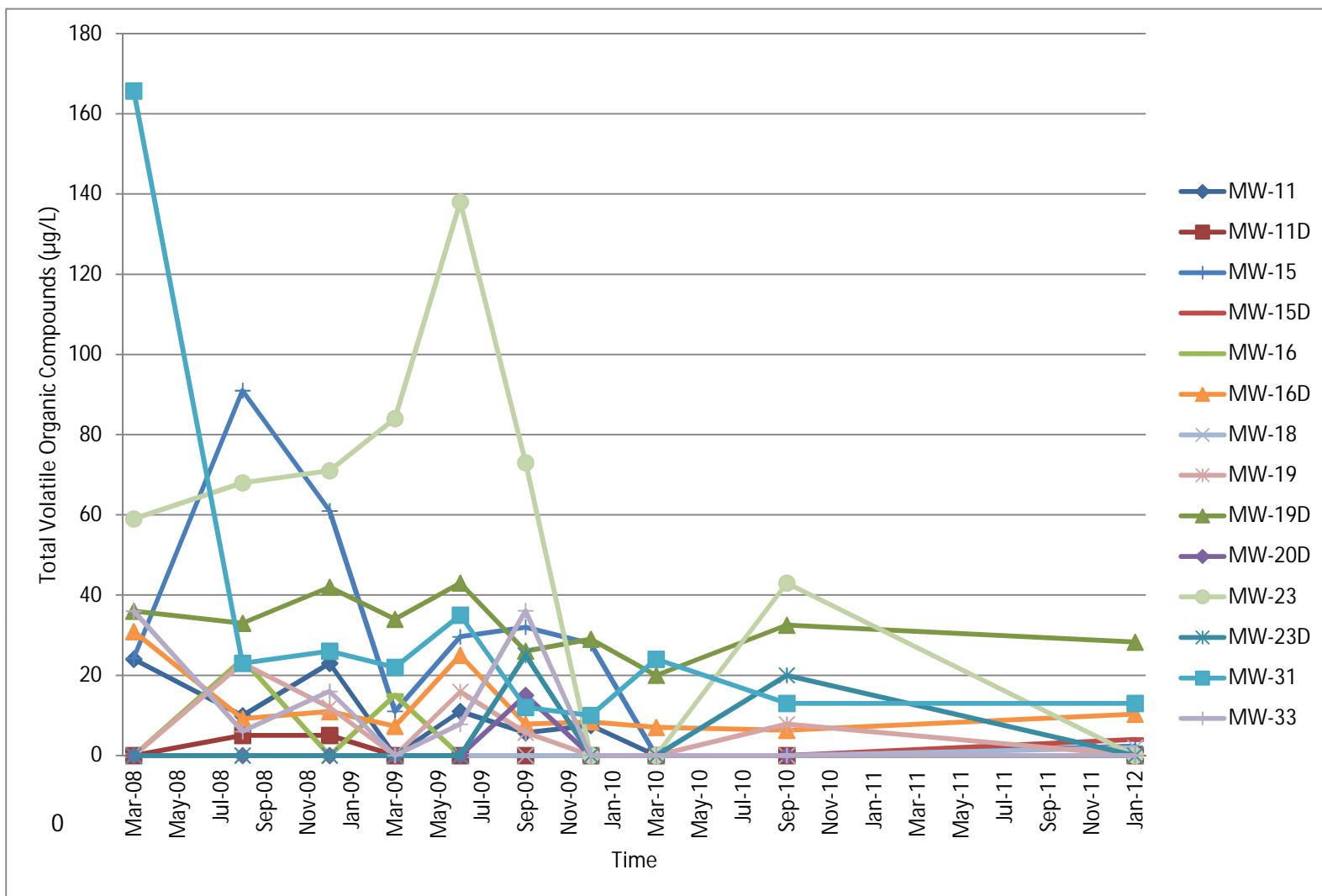
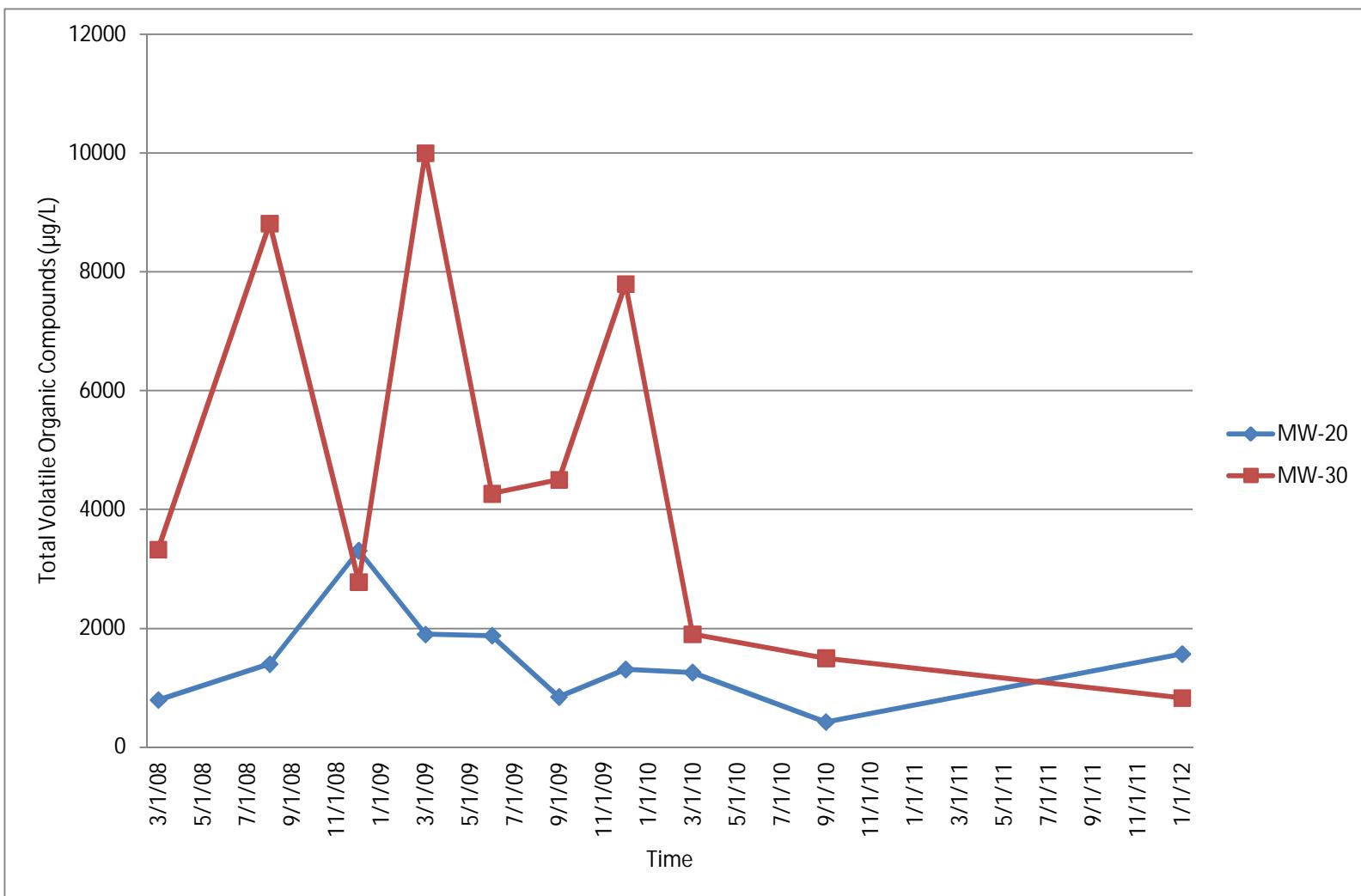
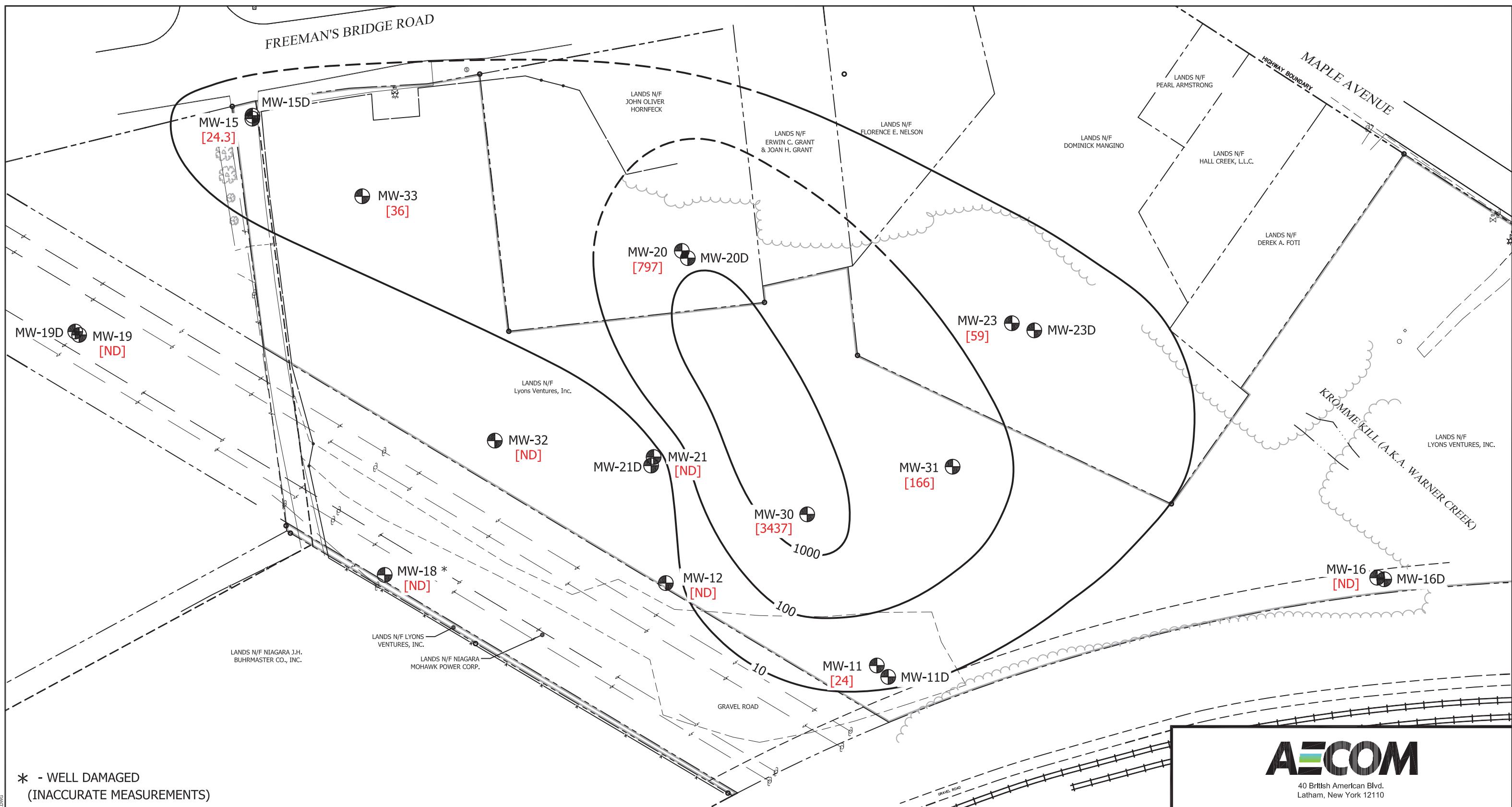


Figure 7  
VOC Concentration Trends - MW-20 and MW-30  
34 Freeman's Bridge Road  
Glenville, New York  
Site No. 4-47-028





\* - WELL DAMAGED  
(INACCURATE MEASUREMENTS)

MAPPING REFERENCES:  
1) MAPPING SHOWN TAKEN FROM THE FINAL REMEDIATION REPORT DRAWINGS NO. V8 "GRID SAMPLE LOCATIONS MAP" AND NO. V9 "AS-BUILT TOPOGRAPHIC MAP" BY CLARK ENGINEERING & SURVEYING, P.C., DATED 10/19/2007 AND ALL REFERENCES AND NOTES THEREIN.

2) MONITORING WELL AND SOIL VAPOR POINT LOCATIONS BY A SURVEY PERFORMED BY EARTH TECH, MAY 8, 2008

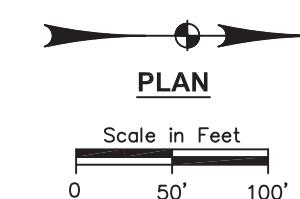
#### LEGEND

MW-30 ● MONITORING WELL LOCATION

[3437] TOTAL VOC CONCENTRATION ( $\mu\text{g}/\text{L}$ )

10 — TOTAL VOC CONTOUR ( $\mu\text{g}/\text{L}$ )

ND NON DETECT



**AECOM**

40 British American Blvd.  
Latham, New York 12110

**FIGURE 8 - TOTAL VOC CONTOUR MAP  
2008 - SHALLOW ZONE**

**PERIODIC REVIEW REPORT  
34 Freeman's Bridge Road Site  
NYSDEC Site # 4-47-028**

Town of Glenville

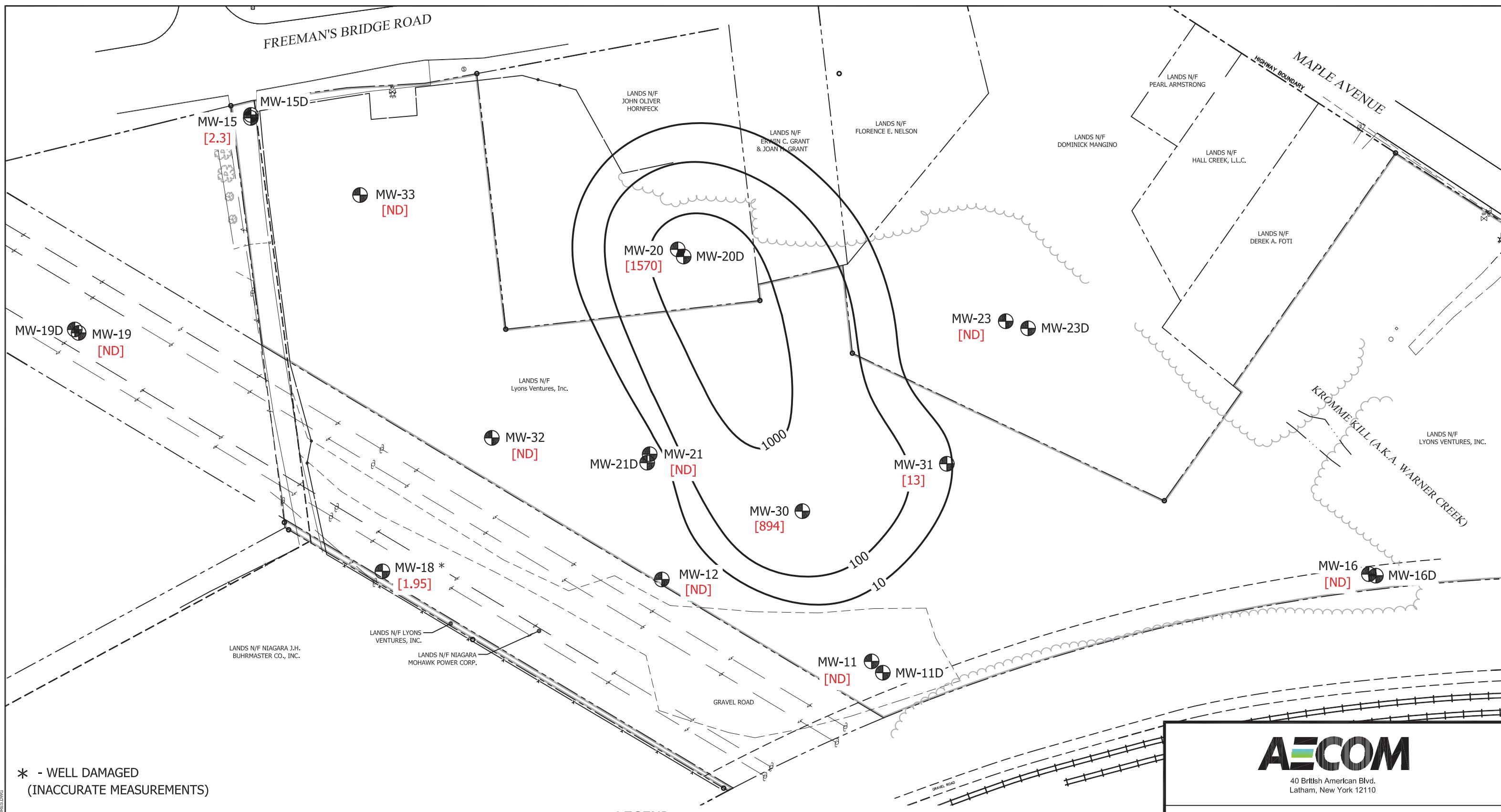
DATE: APRIL 2012

PROJECT NO.: 60133947

Schenectady County, New York

SCALE: 1"=100'

FIGURE 8

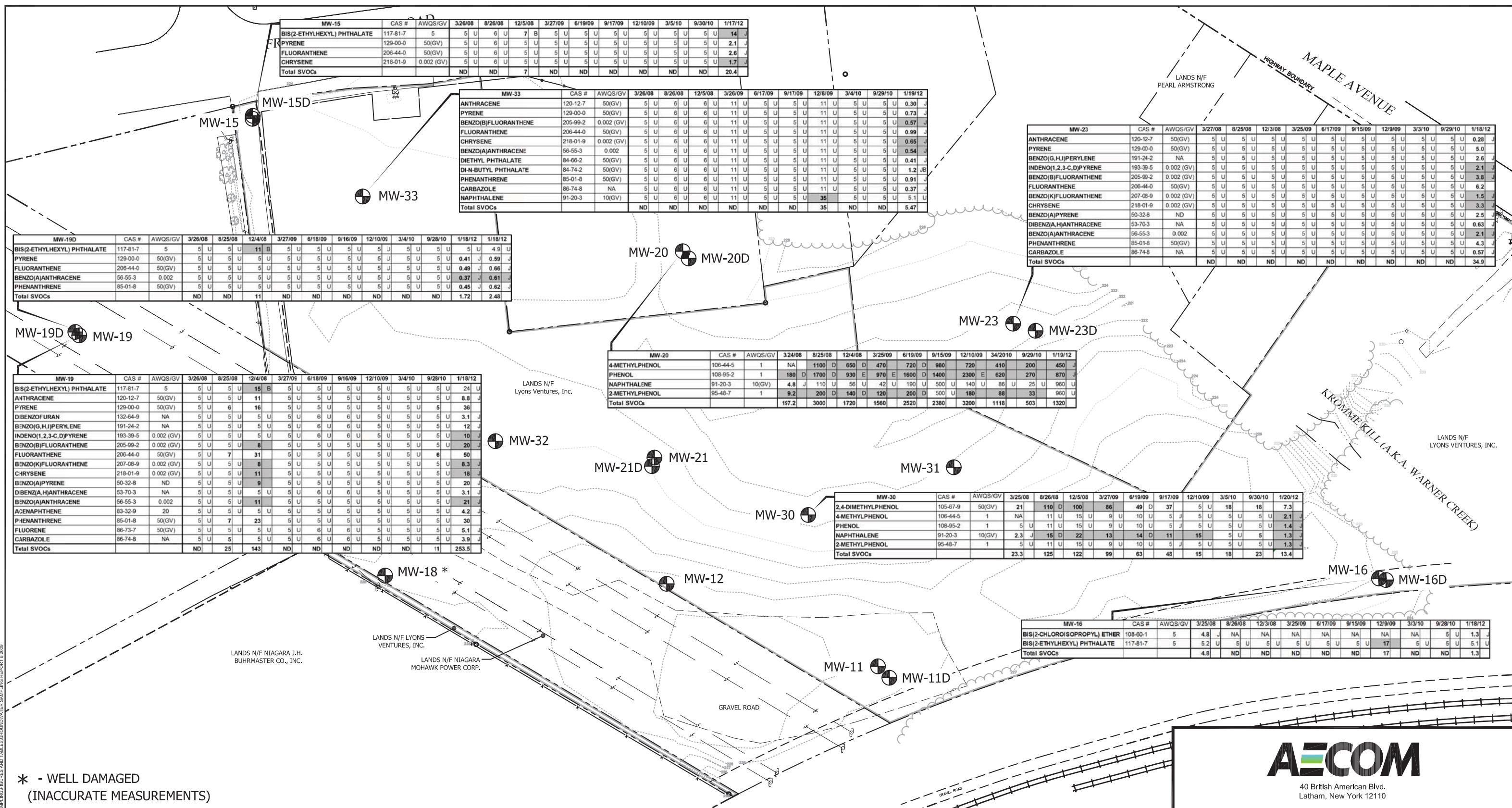


FILE NAME: 5WORK03893/CAD SITE MANAGEMENT/PLANS/FIGURES.DWG

MAPPING REFERENCES:  
1) MAPPING SHOWN TAKEN FROM THE FINAL REMEDIATION REPORT DRAWINGS NO. V8 "GRID SAMPLE LOCATIONS MAP" AND NO. V9 "AS-BUILT TOPOGRAPHIC MAP" BY CLARK ENGINEERING & SURVEYING, P.C., DATED 10/19/2007 AND ALL REFERENCES AND NOTES THEREIN.

2) MONITORING WELL AND SOIL VAPOR POINT LOCATIONS BY A SURVEY PERFORMED BY EARTH TECH, MAY 8, 2008

<b>AECOM</b> 40 British American Blvd. Latham, New York 12110	
<b>FIGURE 9 - TOTAL VOC CONTOUR MAP 2012 - SHALLOW ZONE</b>	
<b>PERIODIC REVIEW REPORT</b> <b>34 Freeman's Bridge Road Site</b> <b>NYSDEC Site # 4-47-028</b>	
Town of Glenville	Schenectady County, New York
DATE: APRIL 2012	SCALE: 1"=100'
PROJECT NO.: 60133947	FIGURE 9



\* - WELL DAMAGED  
(INACCURATE MEASUREMENTS)

**MAPPING REFERENCES:**  
1) MAPPING SHOWN TAKEN FROM THE FINAL REMEDIATION REPORT DRAWINGS NO. V8 "GRID SAMPLE LOCATIONS MAP" AND NO. V9 "AS-BUILT TOPOGRAPHIC MAP" BY CLARK ENGINEERING & SURVEYING, P.C., DATED 10/19/2007 AND ALL REFERENCES AND NOTES THEREIN.

2) MONITORING WELL LOCATIONS BY A SURVEY PERFORMED BY EARTH TECH, MAY 8, 2008

**AECOM**

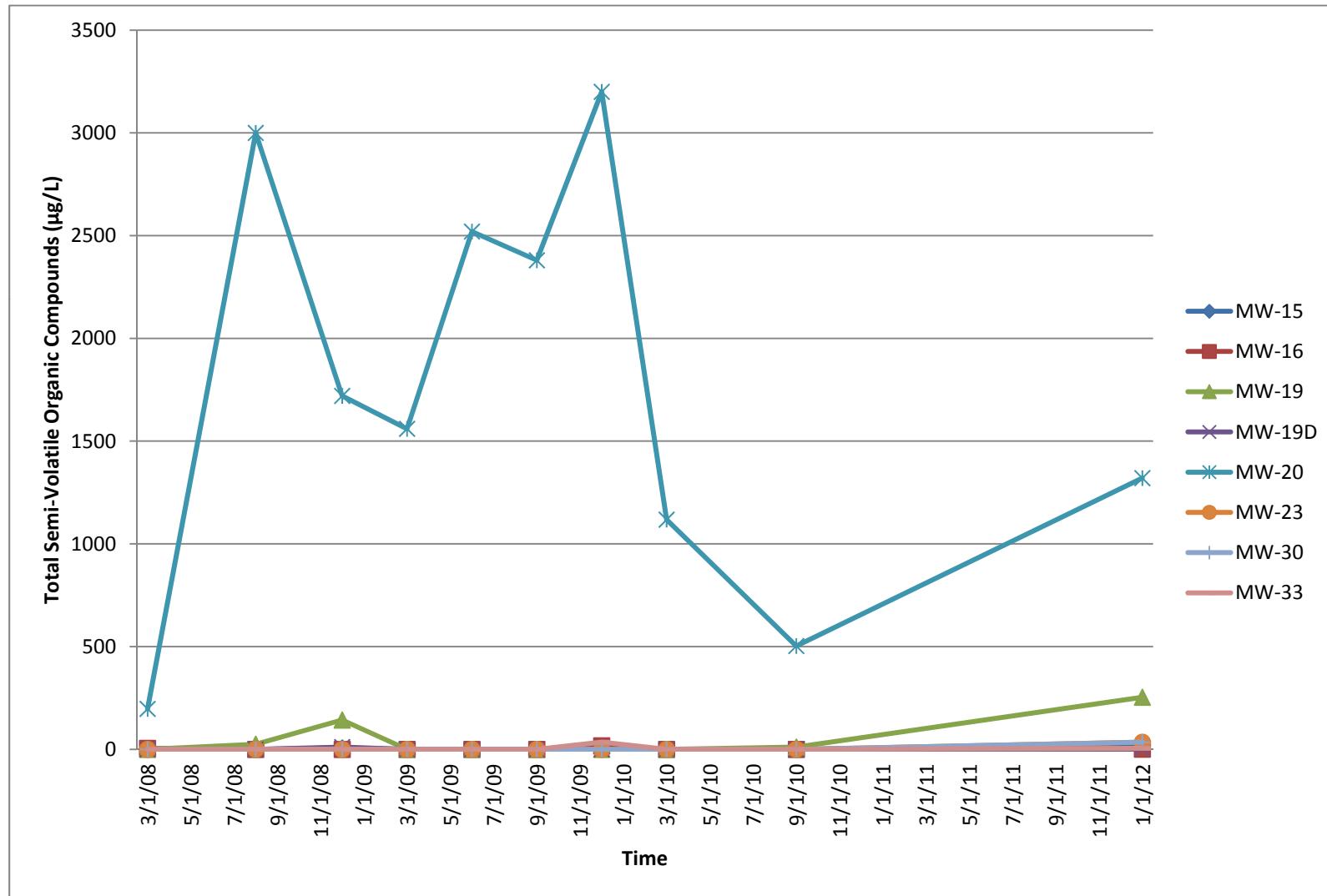
40 British American Blvd.  
Latham, New York 12110

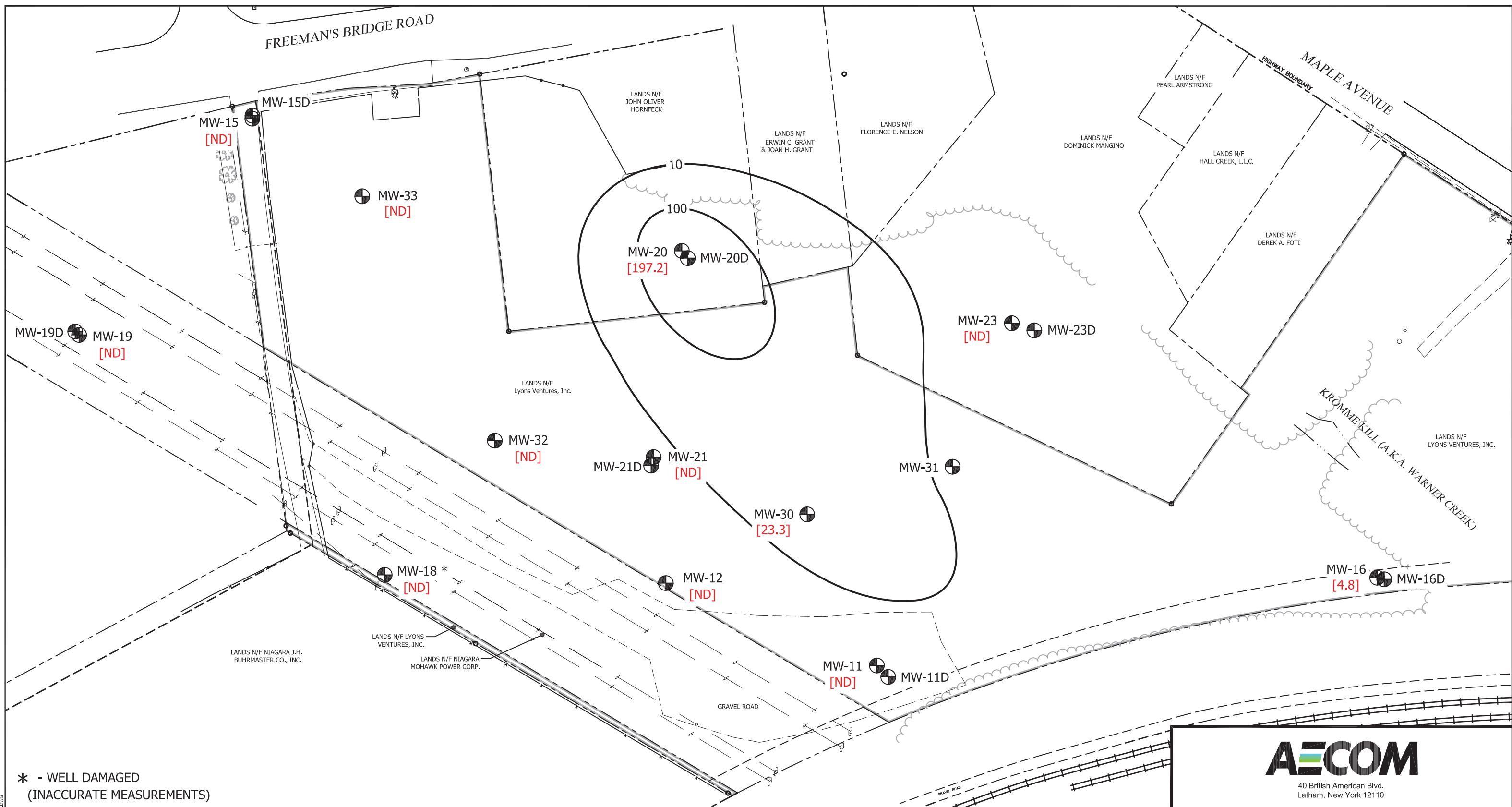
**FIGURE 10 TOTAL DETECTED SVOC CONCENTRATIONS IN GROUNDWATER & AWQS EXCEEDENCES**

**PERIODIC REVIEW REPORT**  
**34 Freeman's Bridge Road Site**  
**NYSDEC Site # 4-47-028**

Town of Glenville	Schenectady County, New York
DATE: APRIL 2012	SCALE: 1"=100'
PROJECT NO.: 60133947	FIGURE10

Figure 11  
SVOC Concentrations Trends  
34 Freeman's Bridge Road  
Glenville, New York  
Site No. 4-47-028





\* - WELL DAMAGED  
(INACCURATE MEASUREMENTS)

MAPPING REFERENCES:  
1) MAPPING SHOWN TAKEN FROM THE FINAL REMEDIATION REPORT DRAWINGS NO. V8 "GRID SAMPLE LOCATIONS MAP" AND NO. V9 "AS-BUILT TOPOGRAPHIC MAP" BY CLARK ENGINEERING & SURVEYING, P.C., DATED 10/19/2007 AND ALL REFERENCES AND NOTES THEREIN.

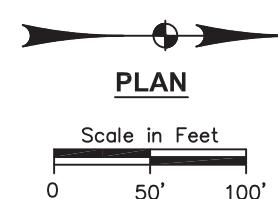
2) MONITORING WELL AND SOIL VAPOR POINT LOCATIONS BY A SURVEY PERFORMED BY EARTH TECH, MAY 8, 2008

MW-30 ● MONITORING WELL LOCATION

[23.3] TOTAL SVOC CONCENTRATION ( $\mu\text{g}/\text{L}$ )

10 — TOTAL SVOC CONTOUR ( $\mu\text{g}/\text{L}$ )

ND NON DETECT



**AECOM**

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Latham, New York 12110

**FIGURE 12 - TOTAL SVOC CONTOUR MAP  
2008 - SHALLOW ZONE**

**PERIODIC REVIEW REPORT  
34 Freeman's Bridge Road Site  
NYSDEC Site # 4-47-028**

Town of Glenville

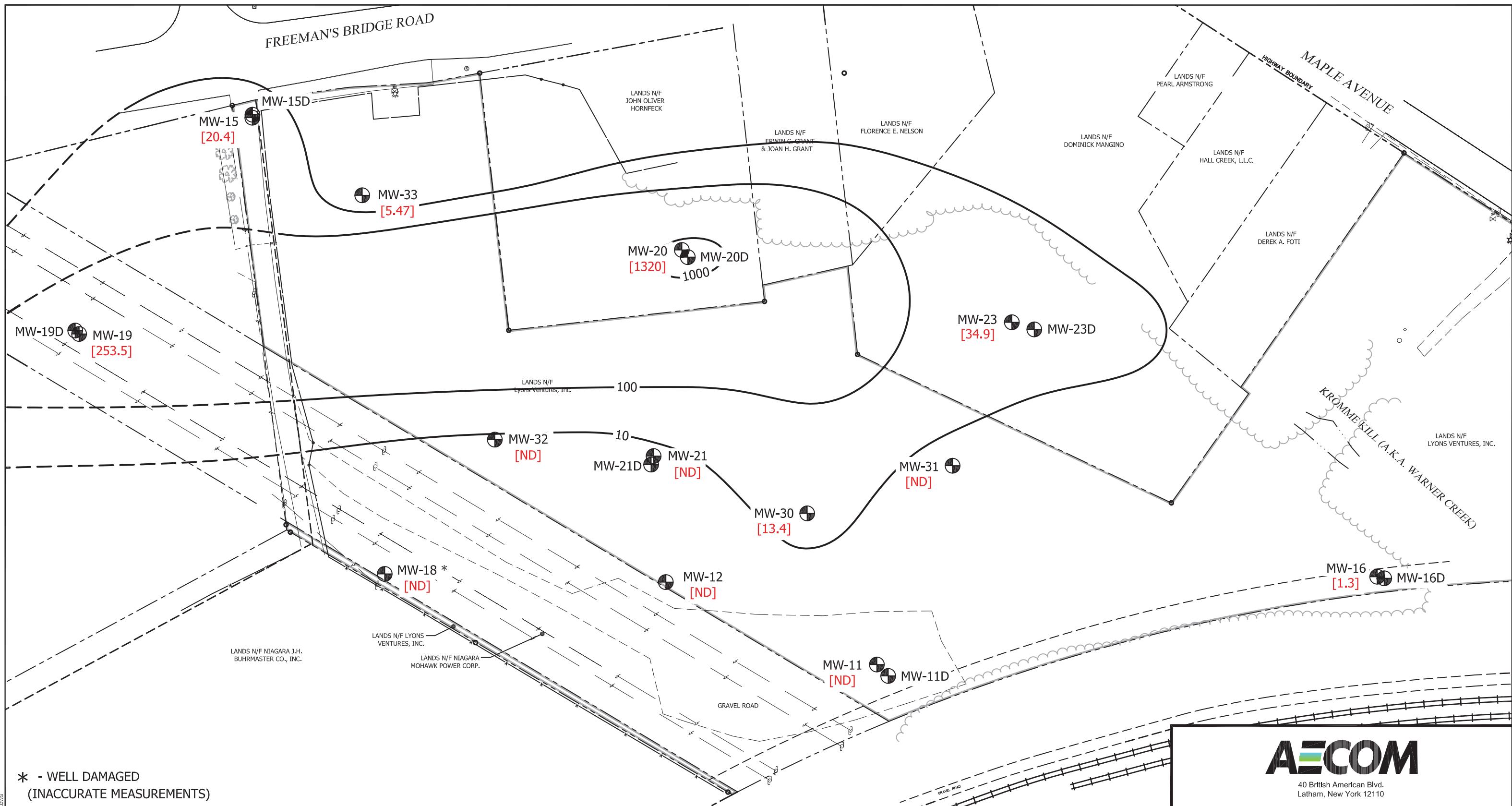
Schenectady County, New York

DATE: APRIL 2012

SCALE: 1"=100'

PROJECT NO.: 60133947

FIGURE 12



**AECOM**

40 British American Blvd.  
Latham, New York 12110

**FIGURE 13 - SHALLOW GROUNDWATER FLOW  
2012 - SHALLOW ZONE**

**PERIODIC REVIEW REPORT  
34 Freeman's Bridge Road Site  
NYSDEC Site # 4-47-028**

Town of Glenville

DATE: APRIL 2012

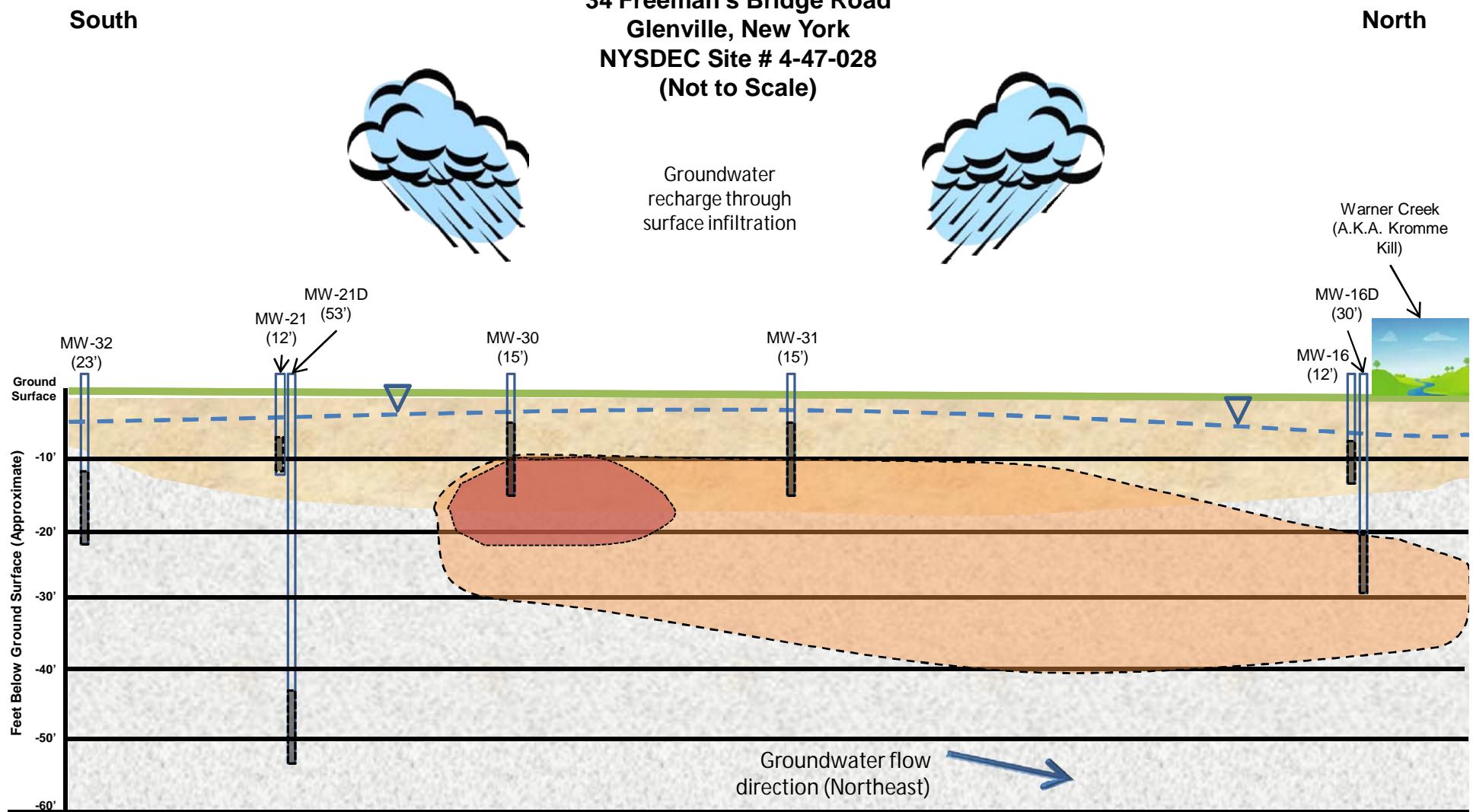
PROJECT NO.: 60133947

Schenectady County, New York

SCALE: 1"=100'

FIGURE 13

**Figure 14 - Conceptual Site Model  
34 Freeman's Bridge Road  
Glenville, New York  
NYSDEC Site # 4-47-028  
(Not to Scale)**



## Notes:

1. Developed from information collected during the January 2012 groundwater sampling event and the Remedial Investigation and Feasibility Study (AECOM, January 2004).
  2. (53') – Indicates original boring completion depth (feet).
  3. Well screen depths and lengths are approximate.

AECOM

-  Approximate Water Table Level
  -  Clay and Silt
  -  Sand and Gravel
  -  Total VOC concentration of groundwater > 100 µg/L
  -  Total VOC concentration of groundwater > 10 and <100 µg/L