

ACTIVE INDUSTRIAL UNIFORM SITE GROUNDWATER EXTRACTION AND TREATMENT SYSTEM

Latitude 40.677°, Longitude -73.365°

REPORT TITLE

Site Management Quarterly
Report No. 28

REPORTING PERIOD

October 1, 2011 through
December 31, 2011

CLIENT

New York State Department of
Environmental Conservation

David Gardner, Project Manager
email: drgardne@gw.dec.state.ny.us

CONSULTANT

Dvirka and Bartilucci
Consulting Engineers

Stephen Tauss, Project Manager
email: stauss@db-eng.com



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation

625 Broadway, 12th Floor, Albany, New York 12233

Site

NYSDEC Site No. 152125, Active Industrial Uniform Site Groundwater Extraction and Treatment System, Village of Lindenhurst, Town of Babylon, Suffolk County, New York.



Project Background and Site Description

The Active Industrial Uniform (the Site) groundwater extraction and treatment system (GWE&TS) was designed to recover and treat a chlorinated solvent-contaminated groundwater plume emanating from the Site, a former dry cleaning and laundry facility. Dry cleaning activities were conducted at the Site from the 1980's to 1987. The GWE&TS has been in operation since December 2001; however, D&B assumed site management duties for the Site in February 2005. Refer to [Figure 1](#) for a Site location map depicting the GWE&TS location.

Groundwater Extraction and Treatment System Overview



The GWE&TS consists of two, 8-inch diameter extraction wells, with one located on-site in the southwest portion of the Site (RW-1), and one located off-site, approximately 1,500 feet southwest of the Site (RW-2). However, as per NYSDEC direction, extraction well RW-2 was shut-down in April 2010 due to low historic VOC concentrations. Note that this well is now being monitored on a quarterly basis. Extracted groundwater is conveyed to the GWE&TS building via underground piping to two series-configured packed-tower air strippers. However, based on an evaluation of each of the packed-tower air stripper's performance over the last several years of operation and in order to reduce the electrical consumption of the overall GWE&TS, one of the two air stripper towers was taken out of service in May 2011. Treated groundwater is pumped via underground piping to a storm water basin located approximately 1,000 feet west of the Site, which subsequently discharges into Little Neck Creek, in accordance with all applicable discharge standards. Exhaust gas from each air stripper tower was treated utilizing two granular activated carbon (GAC) vessels in series. However, based on low historic contaminant concentrations detected in the air stripper exhaust gas, the air stripper exhaust piping was reconfigured to bypass the GAC vessels and discharge directly to the atmosphere in June 2011, per the direction of the NYSDEC. The GWE&TS is equipped with instrumentation and controls which allow for automated start-up and operation, and an autodial alarm notification system. Refer to [Figure 2](#) for an "as-built" system layout diagram.

Regulatory Requirements/Cleanup Goals

Site-specific remedial goals have been established through the remedy selection process and are documented in the Record of Decision (ROD), dated March 1997. The overall goal is to meet all appropriate Standards, Criteria, and Guidance (SCGs) and to be protective of human health and the environment. Implementation of the GWE&TS is specifically focused on the following goals:

- Reduce, control, or eliminate contaminated media to the extent practicable;



- Eliminate the threat to surface waters by remediating groundwater to the extent practicable;
- Mitigate the impacts of contaminated groundwater to the environment;
- Prevent, to the extent possible, migration of contaminants;
- Provide for attainment of SCGs for groundwater, soil and indoor air within the limits of the affected area, to the extent practical; and
- Reduce the threat to homes from high groundwater.

Treatment System Performance Summary

The GWE&TS performance during the current reporting period and since D&B assumed O&M duties in February 2005 is summarized below.

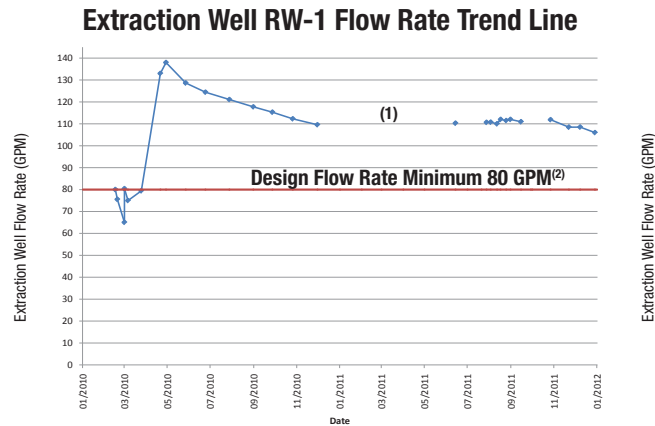
System Extraction Rates and Total Flow Volumes			
	<i>RW-1</i>	<i>RW-2 ⁽¹⁾</i>	<i>System Effluent</i>
Average Pumping Rate - Current Reporting Period	109 gpm	NA	110 gpm
Average Pumping Rate - Previous Reporting Period	111 gpm	NA	111 gpm
Average Pumping Rate to Date	73 gpm	80 gpm	105 gpm
Total Flow Volume - Current Reporting Period	10,325,064 gal.	NA	10,352,780 gal.
Total Flow Volume to Date	297,019,484 gal.	129,900,729 gal.	424,767,150 gal.

NA: Not applicable

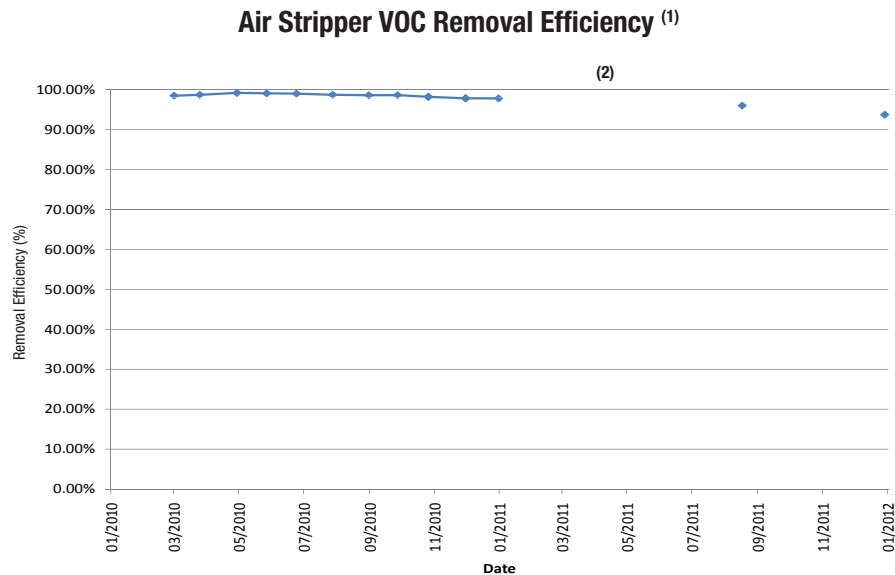
1. As described above, extraction well RW-2 was shut down in April 2010 based on low historic VOC concentrations, as per NYSDEC direction.

The GWE&TS was not operational during a portion of this reporting period due to the following system malfunctions and activities:

- As detailed in Quarterly Report No. 27, the GWE&TS was shut-down during the previous reporting period due to several noise complaints pertaining to a loud exhaust resonance. A silencer was installed within the exhaust piping on October 25, 2011 eliminating the loud noise, and the GWE&TS was restarted.



1. The GWE&TS did not operate the majority of the time from December 2010 through July 2011 and September 2011 through October 2011 due to a carbon vessel bed screen failure and residential neighbor complaints pertaining to a loud noise being emitted by the GWE&TS exhaust piping.
2. Based on design information presented in the Active Industrial design documents, containment of the Active Industrial chlorinated plume could be achieved with on-site extraction well RW-1 operating at a minimum of 80% of the design flow rate of 100 GPM (80 GPM).



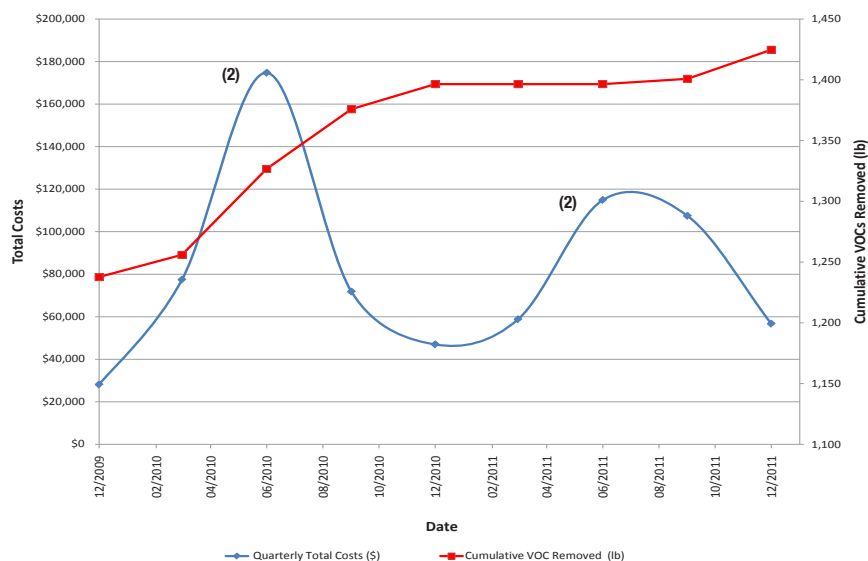
1. The packed-tower air strippers have operated at an approximate efficiency ranging from 92.65% to 99.47% since D&B assumed O&M duties in February 2005.
2. The GWE&TS did not operate the majority of the time from December 2010 through July 2011 and September 2011 through October 2011 due to a shut down related to a carbon vessel bed screen failure and residential neighbor complaints pertaining to a loud noise being emitted by the GWE&TS exhaust piping.



VOC Removal Assessment ⁽¹⁾		VOC Removal Costs ⁽¹⁾	
VOC Removal - Current Reporting Period ⁽²⁾	23.96 lbs.	VOC Removal Cost - Current Reporting Period ⁽²⁾	\$2,366 per lb.
VOC Removal - Previous Reporting Period ⁽²⁾	4.30 lbs.	VOC Removal Cost - Previous Reporting Period ⁽²⁾	\$24,968 per lb.
Average VOC Removal to Date	25.63 lbs.	Average VOC Removal Cost to Date ⁽³⁾	\$2,017 per lb.
Total VOC Removal to Date	1,425 lbs.		

1. The VOC removal costs include monthly utility charges, maintenance costs and engineering costs. Capital construction costs and NYSDEC project management effort are not included in this evaluation.
2. The GWE&TS did not operate a portion of this reporting period due to residential neighbor complaints regarding a loud noise emitted by the GWE&TS exhaust piping. Note, an exhaust silencer was installed on October 25, 2011, eliminating the loud noise.
3. Average calculated from when D&B assumed O&M duties in February 2005 through this reporting period.

VOC Removal/Operational Cost Trend Line ⁽¹⁾



1. The VOC removal costs include monthly utility charges, maintenance costs and engineering costs. Capital construction costs and NYSDEC project management effort are not included in this evaluation.
2. Costs reflected for these reporting periods are primarily the result of contaminated soil excavation activities and NYSDEC-approved system modifications completed by the NYSDEC "call-out" contractor, per the approval of the NYSDEC.

System Operation and Maintenance

Routine and non-routine maintenance completed during this reporting period and a summary of the alarm conditions and associated GWE&TS runtime/downtime for this reporting period are summarized below. Refer to [Attachment A](#) for operation and maintenance logs, as prepared by the NYSDEC "call-out" contractor for this reporting period.



Routine Equipment Maintenance Schedule Summary

Major System Component	Manufacturer	Model Number	Maintenance Frequency	Maintenance Summary					
				Current Reporting Period			Next Reporting Period		
				Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12
Extraction Well Pump RW-1	Grundfos Pump Corp.	150550-2	As needed based on flow trends						
Extraction Well Pump RW-2	Grundfos Pump Corp.	1505100-5	As needed based on flow trends						
Pressure Blower ⁽¹⁾	Cincinnati Fan	PB-18	Bi-Monthly						
Vapor Carbon Vessels	Cameron Great Lake	VS7.2x6.7x8.6-5000-DUAL	As needed based on analytical results						
Air Strippers	Branch Environmental	48T-25H	As needed based on contaminant concentrations						
Air Stripper Transfer Pumps	Magnatex Pumps, Inc.	MTA-A10-P-F20-2-FE	Quarterly						

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Activity Completed

Planned Activity

- Note that the pressure blower maintenance was not completed during this reporting period, nor the previous reporting period.

Non-Routine System Maintenance:

- Installation of an exhaust silencer within the GWE&TS exhaust piping on October 25, 2011 to eliminate a loud exhaust resonance;
- Pumped system water stored in the HCl containment tank into the GWE&TS on December 1, 2011; and
- On December 30, 2011 the sump pump plumbing was repaired and a malfunction of the float switch for the knock-out tank was investigated.

System Runtime/Downtime Summary

Runtime - Current Reporting Period ⁽¹⁾	1,591 hours	72.1%
Downtime - Current Reporting Period ⁽¹⁾	617 hours ⁽²⁾	28.0%
Total Runtime to Date ⁽³⁾	45,123 hours	76.5%
Total Downtime to Date ⁽³⁾	13,840 hours	23.5%

- Total elapsed runtime for current reporting period is 2,208 hours (October 1, 2011 through December 31, 2011).
- The GWE&TS did not operate the majority of the time from December 2010 through July 2011 and September 2011 through October 2011 due to a carbon vessel bed screen failure and residential neighbor complaints pertaining to a loud noise being emitted by the GWE&TS exhaust piping. Note, an exhaust silencer was installed on October 25, 2011, eliminating the loud noise.
- Based on the start of D&B's O&M duties in February 2005.

Alarm Conditions

No alarm conditions occurred during this reporting period. However, upon arrival at the Site for a routine system monitoring event on October 27, 2011, the NYSDEC "call-out" contractor noted the GWE&TS was not operating. It was determined that the transfer pump variable frequency drive (VFD) had tripped without triggering an alarm condition. The VFD was reset and the GWE&TS was restarted.



IRM Activities

As detailed in the past several Quarterly Reports, an area of contaminated soil was delineated and excavated from the Site in June and July 2011 as part of an Interim Remedial Measure (IRM). In order to limit waste disposal costs, the NYSDEC decided to remediate the excavated soil on-site utilizing an ex-situ SVE system. The following bullets summarize the IRM activities completed during this reporting period:

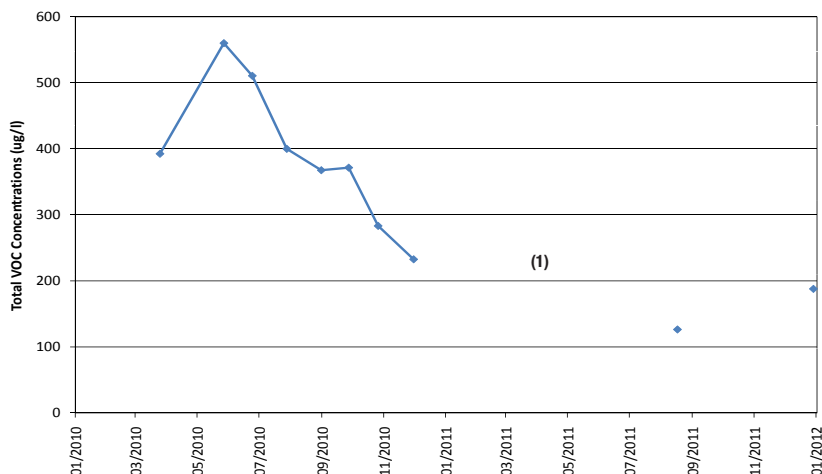
- Ex-situ SVE system knock-out tank was pumped into the GWE&TS on October 6, 12, 20, 27, November 11, 17, 22, December 1, 15, 23 and 29, 2011;
- The SVE system was monitored on October 12, 20, 27, November 22, December 1, 15 and 29, 2011;
- Soil samples were collected from the ex-situ soil pile on December 21, 2011; and
- The float switch for the SVE knock-out tank was investigated and adjusted on December 30, 2011.

Following remediation, the SVE system will be dismantled and the excavated soil will be utilized to backfill the excavation area and regrade areas of the Site to the west of the GWE&TS building. Further details, including a figure depicting the excavation area and all associated sample locations and a summary of all endpoint and sidewall sample results, are provided in the Final Engineering Report for the Active Industrial Uniform Site, dated January 2012.

System Monitoring and Sampling Results

A summary of the pertinent routine treatment system monitoring and sampling results are provided below.

Extraction Well RW-1 Total VOC Concentration Trend Line



1. The GWE&TS did not operate during the majority of the time from December 2010 through July 2011 and September 2011 through October 2011 due to a carbon vessel bed screen failure and a continuous loud noise emitted by the GWE&TS exhaust piping.



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CONSULTING ENGINEERS

A DIVISION OF D&B ENGINEERS AND ARCHITECTS, P.C.



Extraction Well RW-1 - System Influent Contaminant Concentration Ranges/Averages ⁽¹⁾

Contaminant ⁽³⁾	Current Reporting Period ⁽²⁾	Previous Reporting Period	Average to Date	Class GA Groundwater Standard
Tetrachloroethene (PCE)	46 ug/l	53 ug/l	226 ug/l	5.0 ug/l
Trichloroethene (TCE)	140 ug/l	18 ug/l	65 ug/l	5.0 ug/l
cis-1,2-Dichloroethene (cis-1,2-DCE)	ND	53 ug/l	99 ug/l	5.0 ug/l
trans-1,2-Dichloroethene (trans-1,2-DCE)	1.1 ug/l	0.36 ug/l	0.11 ug/l	5.0 ug/l
Vinyl chloride (VC)	0.79 ug/l	1.9 ug/l	0.70 ug/l	2.0 ug/l
1,1,1-Trichloroethane (1,1,1-TCA)	ND	ND	0.14 ug/l	5.0 ug/l
Iron	186 ug/l	154 ug/l	164 ug/l	300 ug/l
Manganese	935 ug/l	3,650 ug/l	1,226 ug/l	300 ug/l
Sodium	25,200 ug/l	29,500 ug/l	25,257 ug/l	20,000 ug/l
pH	--	6.2	6.2	6.5-8.5

-- : Not analyzed.

Red font denotes an exceedance of the applicable standard.

1. Only includes constituents historically detected in exceedance of their respective Class GA Groundwater Standard.
2. Note only one round of samples was collected during this monitoring period (December 29, 2011).
3. Click on the blue-colored contaminants for graphs of VOC concentrations over the last 2 years. These graphs were developed for VOCs detected in extraction well RW-1 above the Class GA Groundwater Standards for this and/or the previous reporting periods.

Aqueous-Phase Air Stripper Effluent Concentration Ranges ⁽¹⁾

Discharge Permit Parameters	Current Reporting Period ⁽²⁾	Previous Reporting Period	Site-Specific Effluent Limit
PCE	0.83 ug/l	0.45 ug/l	4.0 ug/l
TCE	2.3 ug/l	ND	10.0 ug/l
cis-1,2-DCE	8.6 ug/l ⁽³⁾	1.9 ug/l	10.0 ug/l
trans-1,2-DCE	ND	ND	10.0 ug/l
VC	ND	ND	10.0 ug/l
1,1,1-TCA	ND	ND	5.0 ug/l
Iron	1,500 ug/l	85.2 ug/l	4,000 ug/l
Manganese	1,070 ug/l	861 ug/l	2,000 ug/l
Sodium	25,500 ug/l	29,600 ug/l	NA
pH	7.83	7.83	6-9

NA: Not applicable.

Red font denotes an exceedance of the applicable standard.

1. Only includes constituents historically detected in exceedance of their respective Class GA Groundwater Standard.
2. Only one round of samples was collected during this monitoring period (December 29, 2011), due to system downtime.
3. Note that this cis-1,2-dichloroethene was not detected in the influent water sample collected this reporting period.



Vapor-Phase Air Stripper Effluent Concentrations ⁽¹⁾⁽²⁾			
	System Effluent	System Effluent	Site-Specific Limits
PCE	316 ug/m ³	0.00139 lbs/hr	0.007 lbs/hr
TCE	82.0 ug/m ³	0.00036 lbs/hr	0.006 lbs/hr
Xylene	ND	ND	0.001 lbs/hr
1,2-DCE (total)	444 ug/m ³	0.00195 lbs/hr	0.003 lbs/hr
VC	ND	ND	0.014 lbs/hr
1,1,1-TCA	ND	ND	0.001 lbs/hr
Maximum Total VOC Emissions	853 ug/m ³	0.00375 lbs/hr	0.5 lbs/hr ⁽³⁾

- - : Not analyzed. NA: Not applicable.

1. Vapor-phase effluent samples for laboratory analysis were collected on December 29, 2011.
2. Table only includes compounds typically detected in system vapor-phase effluent. In addition to the above compounds, typical laboratory contaminants such as acetone, ethanol and isopropyl alcohol were also detected during this reporting period.
3. The site-specific effluent limit of 0.5 lbs/hr was developed in consultation with the NYSDEC and is utilized as a means to monitor total vapor-phase VOCs emitted by the GWE&TS.

Quarterly Groundwater Monitoring Summary

The network of groundwater monitoring wells was sampled to determine groundwater quality at, and in the vicinity of, the Site. Samples were collected from nine on-site groundwater monitoring wells (MW-101 through MW-108 and MW-5S) and three off-site groundwater monitoring wells (MW-109, MW-111 and MW-2S). The locations of the on-site groundwater monitoring wells are depicted in [Figure 3](#), and the locations of the off-site groundwater monitoring wells are depicted on [Figure 4](#).

Groundwater Monitoring Well Condition Summary:

All twelve groundwater monitoring wells were found to be accessible during the groundwater monitoring sampling event conducted on December 27 and 28, 2011. Although all groundwater monitoring wells were located as indicated on the Site map, none had visible well IDs. All groundwater monitoring well concrete well pads (where applicable), protective casings, surface seals, PVC well risers, well plugs and locks were observed to be present and in good condition, with the following exceptions:

- As final restoration/grading had not been completed in the vicinity of monitoring well locations MW-104 and MW-5S at the time of the groundwater sampling event, these wells do not have concrete well pads.

A summary of the field inspection logs for all groundwater monitoring wells assessed during this reporting period are provided in [Attachment B](#).

Groundwater Monitoring Results Summary:

A headspace reading was collected utilizing a PID at each groundwater monitoring well immediately after the removal of the well caps and plugs. VOCs were not detected in the headspace of any on-site or off-site monitoring wells.

Below is a detailed summary of the site-specific contaminant of concern concentrations in on-site and off-site groundwater. Refer to [Attachment C](#) for analytical data results.



Site-Specific Contaminant of Concern Concentrations									
Monitoring Well ⁽¹⁾	PCE		TCE		cis-1,2-DCE		Vinyl Chloride		Site-Specific 2-Year Contaminant Trend Analysis
	Current Reporting Period	Previous Reporting Period	Current Reporting Period	Previous Reporting Period	Current Reporting Period	Previous Reporting Period	Current Reporting Period	Previous Reporting Period	
On-Site Monitoring Wells									
MW-101	1.0 ug/l	1.5 ug/l	0.57 ug/l	0.52 ug/l	ND	ND	ND	ND	Stable
MW-102	1.0 ug/l	2.2 ug/l	ND	0.72 ug/l	ND	ND	ND	ND	Stable
MW-103	ND	1.1 ug/l	ND	ND	ND	0.37 ug/l	ND	ND	Decreasing
MW-104	ND	79 ug/l	ND	5.1 ug/l	ND	0.29 ug/l	ND	ND	Decreasing
MW-105	0.76 ug/l	0.49 ug/l	ND	ND	ND	0.57 ug/l	ND	ND	Increasing
MW-106	6.4 ug/l	9.0 ug/l	7.3 ug/l	5.9 ug/l	51 ug/l	120 ug/l	27 ug/l	43 ug/l	Decreasing
MW-107	3.0 ug/l	8.7 ug/l	1.1 ug/l	1.3 ug/l	0.70 ug/l	1.3 ug/l	ND	0.15 ug/l	Decreasing
MW-108	1.8 ug/l	1.4 ug/l	ND	ND	ND	ND	ND	ND	Decreasing
MW-5S	59 ug/l	ND	4.6 ug/l	ND	1.6 ug/l	ND	ND	ND	Increasing
Off-Site Monitoring Wells									
MW-109	0.75 ug/l	1.1 ug/l	2.1 ug/l	1.3 ug/l	2.0 ug/l	1.8 ug/l	ND	ND	Decreasing
MW-111	ND	0.56 ug/l	ND	ND	ND	ND	ND	ND	Stable
MW-2S	9.4 ug/l	460 ug/l	5.7 ug/l	93.0 ug/l	370 ug/l	300 ug/l	ND	6.3 ug/l	Decreasing
RW-2 ⁽²⁾	ND	0.87 ug/l	0.61 ug/l	ND	1.4 ug/l	0.27 ug/l	ND	ND	Stable

ND: Constituent concentration below the analytical detection limit.

Red font denotes an exceedance of the constituents Class GA Groundwater Standard (5.0 ug/l for PCE, TCE and cis-1,2-DCE, and 2.0 ug/l for VC). In addition, 1,1-dichloroethane and trans-1,2-dichloroethene were detected in off-site monitoring wells MW-109 and MW-2S, respectively, well below their Class GA Groundwater Standards.

1. Click on monitoring well IDs for graphs depicting contaminant concentrations over the last 2 years in wells exhibiting exceedances of the Class GA Groundwater Standards for this and the previous reporting period.

2. Extraction well RW-2 is now sampled on a quarterly basis in order to better monitor off-site contaminant concentrations.

The majority of the groundwater monitoring wells exhibit overall decreasing or stable concentrations of the site-specific contaminants over the past 2-year period. A figure depicting total VOC concentrations in on-site and off-site wells is provided as [Figure 5](#). In comparison to the previous reporting period, total VOC concentrations have decreased in the majority of the monitoring wells, with the exception of slight increases within monitoring wells MW-108, MW-109 and RW-2.

Data Validation:

All sample results have been reviewed by D&B and deemed valid and usable for environmental assessment purposes. Data Validation Checklists are presented in [Attachment D](#). Based on D&B's review, qualification of the data was necessary for the following analysis: cis-1,2-dichloroethene exhibited a concentration greater than the linear range of the instrument and was qualified in sample MW-2S.

Findings and Recommendations

Findings:

- General: The GWE&TS was not operational for for the majority of the time from December 2010 through July 2011 and September 2011 through October 2011 due to a "loud noise" emitted by the GWE&TS. An exhaust silencer was installed on October 25, 2011, eliminating the loud noise and the system was restarted;



- SVE System: Several SVE system monitoring events and knock-out tank drainage events were completed during this reporting period;
- Aqueous-phase Effluent cis-1,2-Dichloroethene Detection: An anomalously high cis-1,2-dichloroethene detection was noted in the aqueous-phase effluent during this reporting period;
- Monitoring Well Conditions: All groundwater monitoring wells were observed to be in good condition, with the following exceptions:
 - No monitoring wells had visible well IDs; and
 - As final restoration/grading had not been completed in the vicinity of monitoring wells MW-104 and MW-5S at the time of the groundwater sampling event, these wells do not have concrete well pads;
- Monitoring Well Headspace: VOCs were not detected in the headspace of any on-site or off-site monitoring wells; and
- Monitoring Well Contaminant Concentrations: Two on-site groundwater monitoring wells (MW-106 and MW-5S) and one off-site monitoring well (MW-2S) exhibited one or more of the site-specific VOCs at concentrations exceeding their respective Class GA Groundwater Standards during this reporting period. However, contaminant concentrations in these monitoring wells have generally decreased compared to the previous reporting period.

Recommendations:

- General GWE&TS: Continued operation of GWE&TS and the timely repair and update any GWE&TS components in order to reduce GWE&TS downtime and increase overall efficiency;
- GWE&TS Routine Maintenance: As it appears that the transfer pump and pressure blower maintenance has not been completed during this or the previous reporting periods, D&B recommends these maintenance items be completed during the first week of the following reporting period. D&B further recommends that the NYSDEC “call-out” contractor adhere to the routine maintenance schedule;
- Auto-dialer: It appears as if the technicians have not been properly notified of system alarm conditions during this and the previous monitoring periods. D&B recommends the “call-out” contractor ensure that the auto-dialer is properly set prior to leaving the Site while performing O&M activities. In addition, if these situations persist, D&B recommends the auto-dialer be evaluated and replaced, if necessary.
- Aqueous-phase Effluent cis-1,2-Dichloroethene Detection: Based on the anomalously high cis-1,2-dichloroethene concentration detected in the aqueous-phase system effluent, D&B will continue to monitor future cis-1,2-dichloroethene concentrations in system influent and effluent. However, note that cis-1,2-dichloroethene was not detected in the system influent during this reporting period;
- Vapor-phase Discharge Monitoring: Monitor vapor-phase discharge utilizing a PID on a routine basis in order to monitor instantaneous VOC concentrations within the vapor-phase effluent;
- Monitoring Well Measuring Points: Well IDs should be permanently fixed and clearly marked on each groundwater monitoring well for identification purposes; and
- Monitoring Well Casings: Repair the well casing eyelets at monitoring wells MW-109 and MW-111 and repair the well casing at monitoring well MW-2S in order to maintain the security of the monitoring wells;
- RSO Evaluation: Based on the identification of several below grade structures and contaminated soil to the west of the GWE&TS in 2010 and 2011 and consistently elevated contaminant concentrations detected in several monitoring wells, D&B recommends performing a Remedial Site Optimization (RSO) evaluation to further investigate residual on-site soil contamination, areal plume extents, GWE&TS equipment efficiency and operation, and possibly consider alternative remedial technologies, such as monitored natural alternation (MNA) and/or in-situ chemical injections. It is further recommended that the RSO include the following:
 - Extraction Well ROI Analysis: In order to ensure on-site extraction RW-1 well is operating at an optimal and efficient flow rate, D&B recommends performing an annual radius of influence (ROI) analysis for the extraction well.



- Temporary Geoprobe Wells: Based on the elevated contaminant concentrations detected in on-site monitoring well MW-106 and off-site monitoring well MW-2S, it may be warranted to install and sample several temporary geoprobe wells in the southeastern area of the Site and downgradient of the Site to more accurately define the current location of the groundwater plume in these areas. Based on the results of the temporary well sampling, it may be warranted to install additional permanent monitoring wells in these areas and/or modify the current extraction well configuration in order to optimize and accelerate the recovery and treatment of the entire groundwater plume.

• **Reclassification/Delisting Evaluation**

The Site was originally listed as a Class 2 Inactive Hazardous Waste Site by the NYSDEC in November 1990. Since this time, completion of the following project phases has occurred, as summarized below:

Project Phases and Completion Dates	
Project Phase	Completion Date
Remedial Investigation	04/1994
Phase II Remedial Design Investigation	12/1998
Remedial Design	06/2000
Groundwater Extraction and Treatment System Construction	12/2001 ⁽¹⁾
UST Removal and Phase I Contaminated Soil Removal	06/2010
Phase II Contaminated Soil Removal	07/2011


1. Construction of the GWE&TS was completed in December 2001. The GWE&TS was placed into routine operation in December 2001 and D&B assumed O&M duties in February 2005.

Given the above, it does not appear that the Active Industrial Uniform Site can be reclassified at this time, pursuant to the requirements identified in 6 NYCRR §375-2.7, as site-related contamination has not been fully remediated and continues to constitute a significant threat to public health and the environment. As such, Site delisting is not recommended at this time, as all remediation and post-remediation activities have not been satisfactorily completed. However, as detailed in several previous Quarterly Reports, several USTs, below-grade drainage structures and contaminated soil have been identified and were removed from the Site, which will likely expedite overall remediation and Site closure.

Report Certification:


I have personally examined and am familiar with the information submitted in the referenced Report. To the best of my knowledge and belief, and based upon my inquiry of those individuals immediately responsible for obtaining the information reported therein, I certify that the submitted information is true, accurate, and complete.

Project Director:


Richard M. Walka
Senior Vice President

6.6.12
Date

Project Manager:


Stephen E. Tauss
Geologist II

6/5/12
Date