JANUARY 2012

New York State Department of Environmental Conservation

Division of Environmental Remediation

Active Industrial Uniform Site

63 West Montauk Highway, Lindenhurst, New York

Site No. 1-52-125

Final Engineering Report

DVIRKA AND BARTILUCCI CONSULTING ENGINEERS

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

DVIRKA AND BARTILUCCI CONSULTING ENGINEERS

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

330 Crossways Park Drive, Woodbury, New York 11797-2015

516-364-9890 • 718-460-3634 • Fax: 516-364-9045 • www.dvirkaandbartilucci.com

January 10, 2012

David Gardner, P.E.
Environmental Engineer 2
Division of Environmental Remediation,
Remedial Bureau E, Section D
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, NY 12233-7016

Re: Active Industrial Uniform
Site Registry No. 1-52-125
Final Engineering Report
Work Assignment No. D004446-1.2
D&B No. 2578

Dear Mr. Gardner:

Enclosed please find one electronic copy of the Final Report entitled:

"Final Engineering Report
for the
Active Industrial Uniform Site
(Site No. 1-52-125)"

Please do not hesitate to contact me at (516) 364-9890, Ext. 3094 if you have any questions or comments.

Very truly yours,

Stephen Tauss
Project Manager

SET/jmy,lf
cc: R. Walka (D&B)
F. DeVita (D&B)
♦2578\SET12Ltr.doc-01(R01)

FINAL ENGINEERING REPORT

ACTIVE INDUSTRIAL UNIFORM SITE
63 WEST MONTAUK HIGHWAY
LINDENHURST, NEW YORK

Site No. 1-52-125

Prepared for:

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Prepared by:

DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
WOODBURY, NEW YORK

JANUARY 2012

CERTIFICATIONS

I, Brian Veith, certify that I am currently a New York State registered professional engineer, a person under my direct supervision had primary direct responsibility for the implementation of the subject construction program, and I certify that the New York State Department of Environmental Conservation (NYSDEC)-approved scope of work was implemented and that all construction activities were completed in substantial conformance with the NYSDEC-approved scope of work.

071687	1/10/12	Brian Veith
NYS Professional Engineer #	Date	Signature

FINAL ENGINEERING REPORT
ACTIVE INDUSTRIAL UNIFORM SITE
63 WEST MONTAUK HIGHWAY
LINDENHURST, NEW YORK

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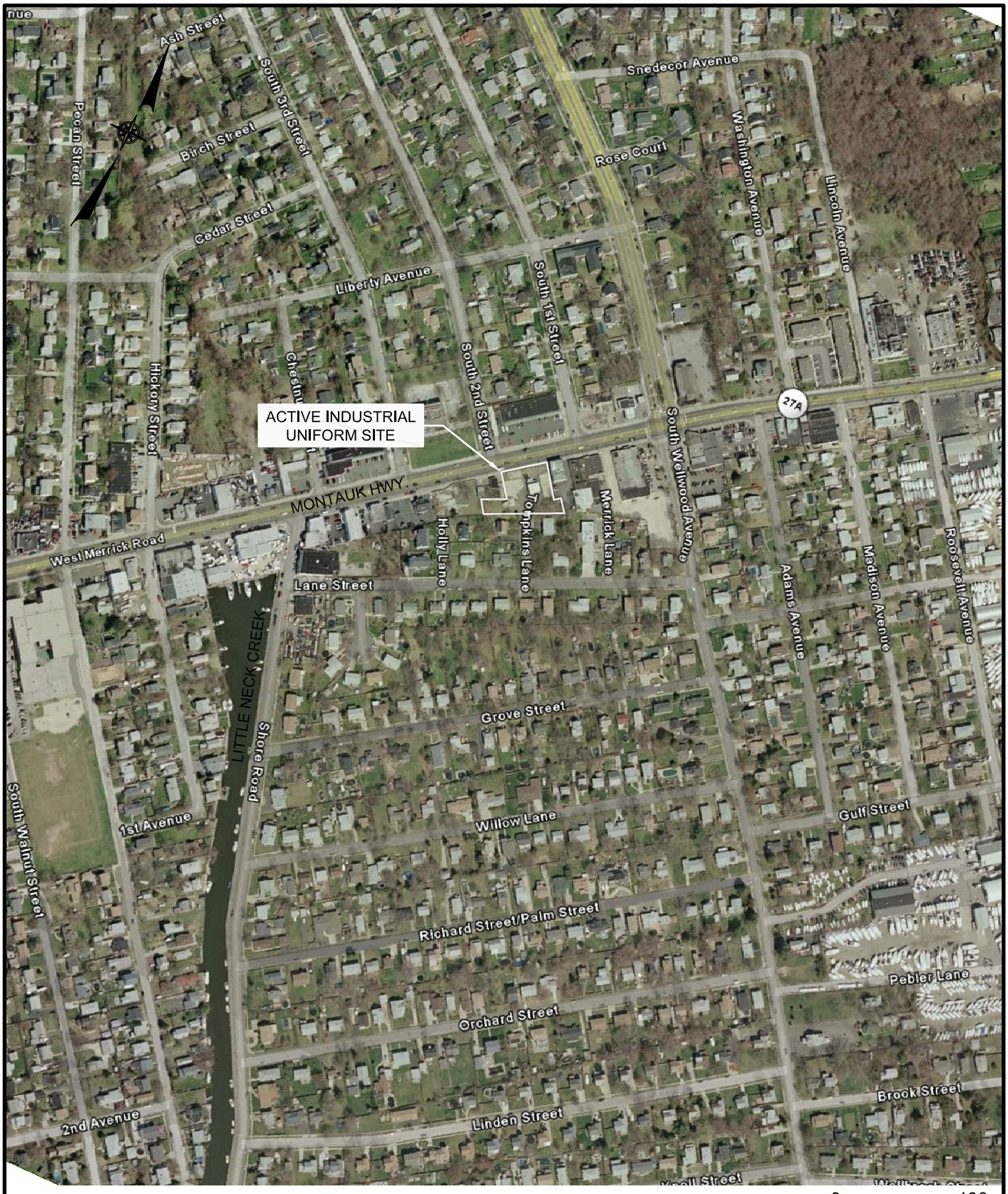
1.0 INTRODUCTION

This Final Engineering Report (FER) provides background information and details the activities undertaken in order to complete an Interim Remedial Measure (IRM) conducted in June and July 2011 at the Active Industrial Uniform site (the Site) (Site No. 1-52-125), located in Lindenhurst, New York. A Site location map is provided as Figure 1-1. As described below, this IRM was completed based on recommendations provided in the New York State Department of Environmental Conservation (NYSDEC)-approved May 2011 Underground Storage Tank Removal and Limited Site Soil and Groundwater Investigation Report, appended to the Active Industrial Uniform Site Quarterly Report No. 22.

All IRM engineering and analytical data evaluation activities were completed by Dvirka and Bartilucci Consulting Engineers (D&B). The collection and analysis of all soil samples and implementation of IRM fieldwork activities were completed in June and July 2011 by a NYSDEC "call-out" contractor (the contractor). D&B performed several "spot-checks" throughout completion of the IRM field activities, typically on a weekly basis (June 27 and 28, and July 1 and 7, 2011).

1.1 Site Description

The Site is approximately 1/2 acre in size. A one-story concrete facility building was formerly located at the Site, which was demolished in 1994. The groundwater extraction and treatment building and various exterior system components such as two packed-tower air strippers, granular activated carbon (GAC) vessels and associated piping and gauges currently exist in the center of the Site. The surrounding properties are primarily commercial, with the exception of a residential area on Tompkins Lane, located immediately south of the Site. Access to the Site is from Tompkins Lane.



SOURCE: GOOGLE EARTH 2005

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ACTIVE INDUSTRIAL UNIFORM SITE
FINAL ENGINEERING REPORT

SITE LOCATION MAP

FIGURE 1-1

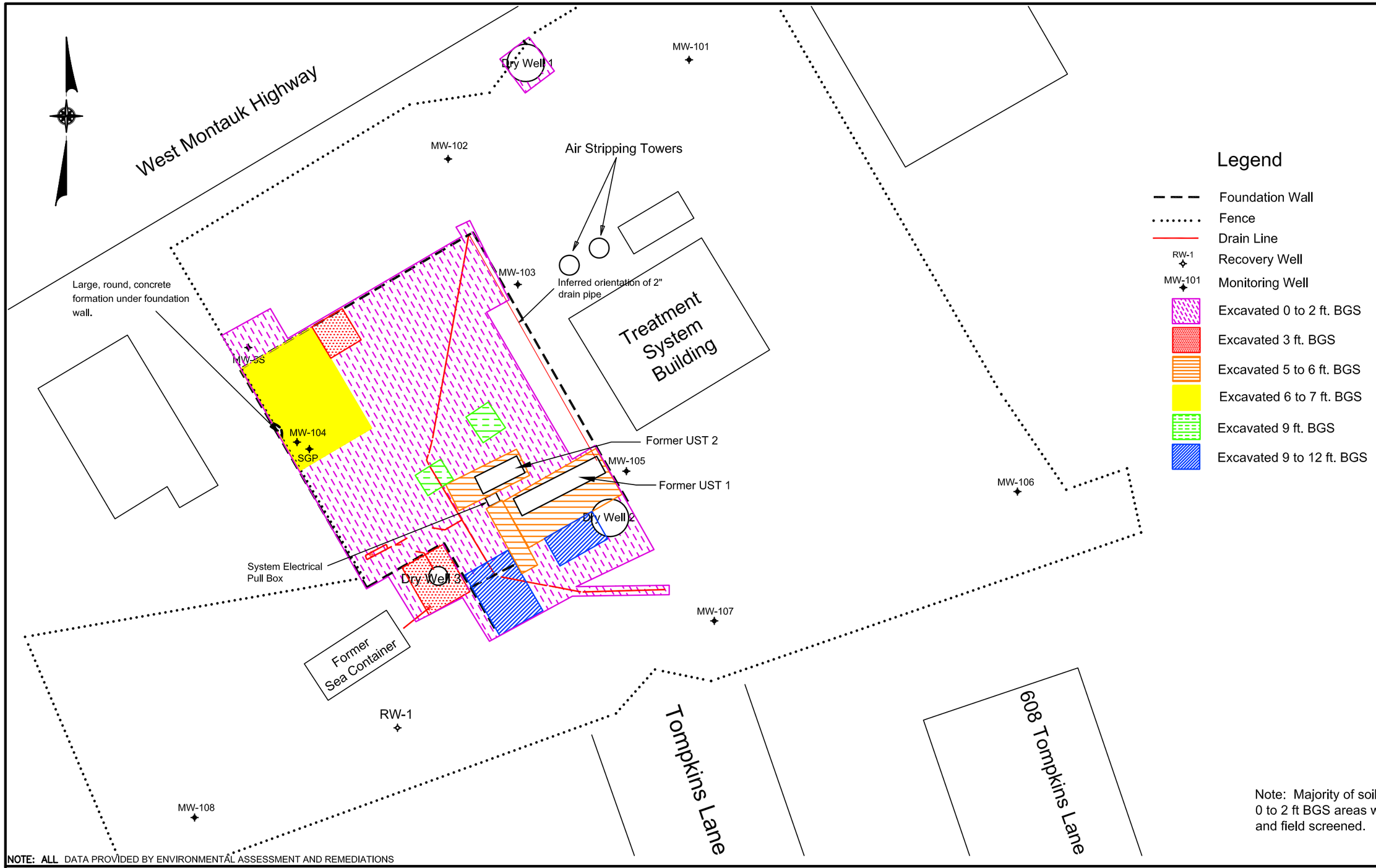
1.2 Background

The Site is a former dry cleaning and laundry facility. Laundering operations began at the Site in 1945 and continued until 1993. In addition, dry cleaning activities were conducted at the Site for a 17-year period between 1970 and 1987.

Several soil and groundwater investigations were conducted at the Site between 1985 and 1998, during which chlorinated volatile organic compound (VOC)-contaminated soil and groundwater were identified in on-site and off-site areas. Several underground storage tanks (USTs) were reported to have been removed from the Site between 1985 and 1987. In addition, several dry wells and associated chlorinated VOC-contaminated soil were excavated from the Site and disposed of in 2000. The current on-site groundwater extraction and treatment system was installed in 2001 and has been actively pumping and treating on-site and off-site chlorinated VOC-contaminated groundwater since this time.

The Site was operated by others from inception in 2001 to February 2005, at which time Dvirka and Bartilucci Consulting Engineers (D&B) assumed site management, engineering service and reporting duties for the Site.

As documented in the May 2011 Underground Storage Tank Removal and Limited Site Soil and Groundwater Investigation Report appended to the Active Industrial Uniform Site Quarterly Report No. 22, two USTs, three dry wells and several below grade drainage structures were identified at the Site in April 2010. Following identification of these structures, an excavation consisting of the removal of the two USTs, several below grade drainage structures and associated contaminated soil was completed at the Site from April through June 2010. Note that the three identified dry wells were left in-place for subsequent characterization and removal, if warranted. The completed excavation limits and former below grade structure locations are depicted on Figure 1-2. In order to limit waste disposal costs, the NYSDEC decided to remediate the excavated soil on-site utilizing an ex-situ soil vapor extraction (SVE) system, through which soil vapor extracted from the contaminated soil was routed into the treatment system exhaust piping.



NOTE: ALL DATA PROVIDED BY ENVIRONMENTAL ASSESSMENT AND REMEDIATIONS

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ACTIVE INDUSTRIAL UNIFORM SITE
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SCALE: 1" = 20'

COMPLETED EXCAVATION BOUNDARIES AND DEPTHS

FIGURE 1-2

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Immediately following these excavation activities, a limited soil and groundwater investigation was completed in June 2010 in order to assess contaminant concentrations associated with the three identified dry wells left in-place and to "pre-characterize" an area to the southwest of the excavation area, pursuant to additional soil and below grade structure removals in these areas.

Based on the results of the limited soil and groundwater investigation program, the following recommendations were provided in the May 2011 Underground Storage Tank Removal and Limited Site Soil and Groundwater Investigation Report:

- Excavate soil to an approximate depth of 4 feet below grade in a targeted area located in the southwest portion of the Site. Collect sidewall samples on the western and southern walls of the excavation for VOC analysis and compare the sample results to the NYSDEC Part 375 Residential soil cleanup objectives (SCOs) in order to determine the actual limits of additional soil excavation in this area;

- Remove the dry well identified to the north of the treatment system building (Dry Well 1) and two dry wells identified to the west of the treatment system building (Dry Well 2 and Dry Well 3); and

- Investigate and remove, if warranted, a suspected fourth dry well structure underlying the western property fence.

The following sections document the completed IRM activities.

2.0 COMPLETED REMEDIAL ACTIVITIES

All IRM activities were completed in general accordance with the recommendations provided in the May 2011 Underground Storage Tank Removal and Limited Site Soil and Groundwater Investigation Report. However, as directed by the NYSDEC, the IRM scope of work was modified, as follows:

- Subsurface soil borings were advanced on the western and southern sides of the proposed IRM excavation area in order to delineate these areas prior to initiating excavation activities;
- Results of the analysis of soil samples were compared to the NYSDEC Part 375 Unrestricted SCOs, rather than the Residential SCOs;
- Dry Well 1 was left in-place; and
- Based on NYSDEC request and due to the fact that the suspected fourth dry well structure underlies the western property fence and abutting property, further investigation of this structure was not performed.

Photographs of the IRM activities are provided in Appendix A.

Based on recommendations provided by D&B following a site inspection on the first day of the IRM excavation, the "call-out" contractor implemented full-time air monitoring for VOCs utilizing a photoionization detector (PID) and for particulates utilizing a Data-Ram aerosol monitor upwind and downwind of the IRM excavation area. Water was utilized as a dust suppressant during the completion of the IRM excavation and stockpiling of the excavated soil. In addition, the contractor monitored the breathing zone/work zone at the excavation utilizing a PID.

The completed IRM activities are summarized in the following sections:

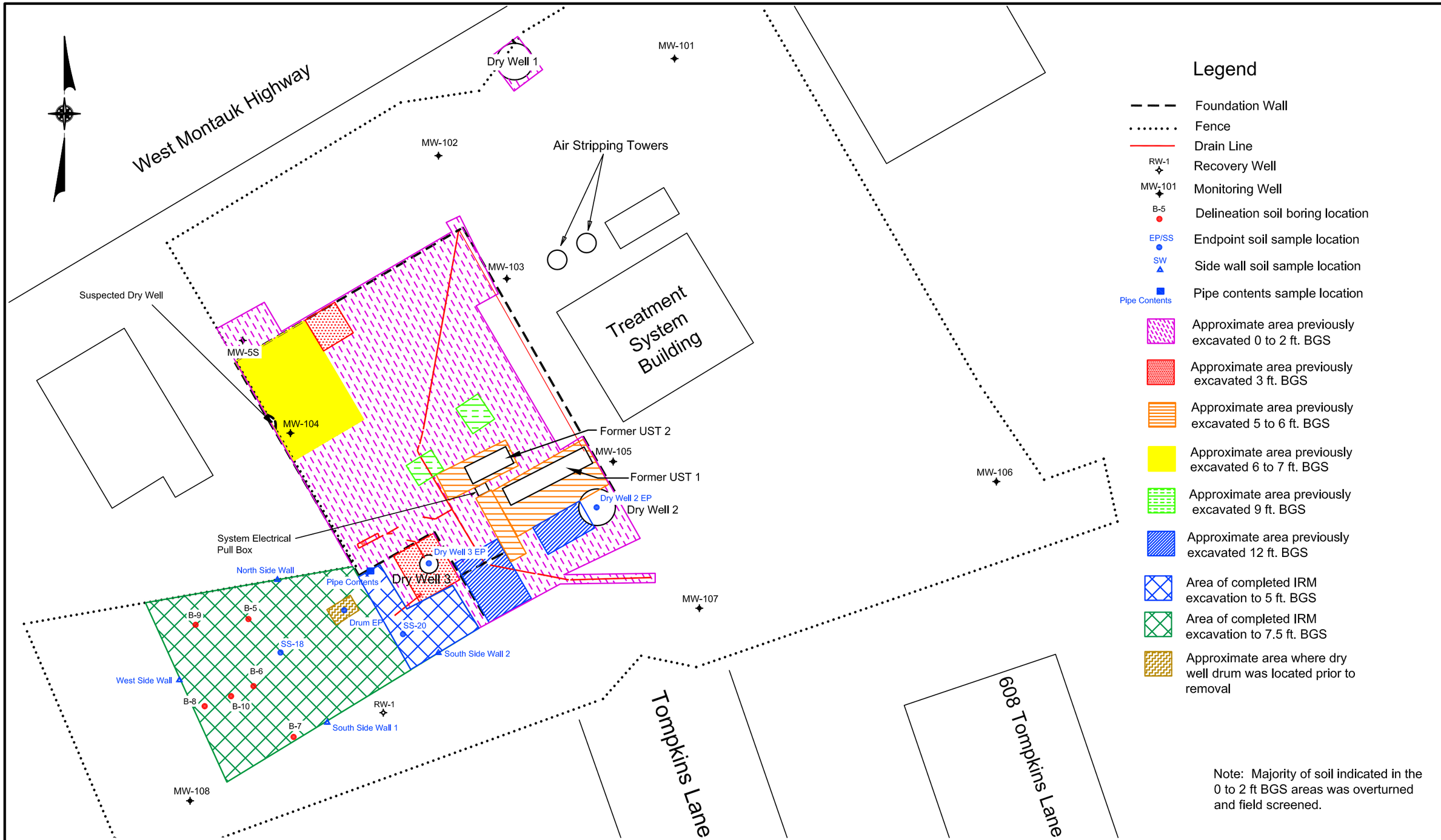
2.1 Additional Delineation

In order to delineate VOC concentrations in the proposed excavation area prior to initiating excavation activities, one subsurface soil boring (B-5) was advanced by the NYSDEC "call-out contractor" to a depth of 6 feet below grade and five subsurface soil borings (B-6 through B-10) were advanced by the NYSDEC "call-out contractor" to depths of 8 feet below grade utilizing Geoprobe direct-push technology in the western portion of the proposed IRM excavation area. Sample locations are depicted on Figure 2-1 and boring logs prepared by the contractor are provided in Appendix B. At each soil boring location, soil samples were geologically logged and collected for laboratory analysis continuously from ground surface to the terminal depths indicated above, generally in 2-foot intervals. In order to expedite the delineation of the IRM excavation area and as requested by the NYSDEC, all 24 soil samples were analyzed for VOCs via Method 8260 utilizing a mobile gas chromatograph (GC) unit operated by the contractor. Delineation sample analytical results are summarized on Table 1, provided in Appendix C.

The greater concentrations of VOCs were generally detected in the soil samples collected in the eastern portion of the proposed excavation area from grade to 4 feet below grade. Specifically, cis-1,2-dichloroethene (cis-1,2-DCE), tetrachloroethene (PCE), trans-1,2-dichloroethene (trans-1,2-DCE), 1,2,4-trimethylbenzene, trichloroethene (TCE) and o-xylene were detected in exceedance of their respective Unrestricted SCOs in one or more delineation sample. Based on the results of the soil sample analysis, the IRM excavation area extended slightly beyond the limits of where these soil samples were collected. In addition, VOCs were not detected in exceedance of their respective Unrestricted SCOs in any 6 to 8-foot soil sample collected.

2.2 Soil Excavation

As described above, the proposed excavation limits were defined by the results of the delineation soil sampling, while final excavation limits were verified by endpoint and side wall



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SCALE: 1" = 20'

EXCAVATION LIMITS AND SAMPLE LOCATION MAP

FIGURE 2-1

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soil sampling. The final IRM excavation area and associated endpoint and side wall soil sample locations are depicted on Figure 2-1. Endpoint and side wall sample results are summarized on Tables 2 and 3, provided in Appendix C.

Based on information obtained from the NYSDEC "call-out" contractor, the completed IRM excavation was approximately 1,460 square feet with depths ranging from approximately 5 feet (eastern portion of the IRM excavation area) to 7.5 feet (central and western portions of the IRM excavation area) below grade. The IRM excavation required the removal of approximately 380 cubic yards of soil. Soil encountered throughout the IRM excavation was generally a brown to tan, fine to medium sand with some fine to medium gravel. Evidence of black staining, elevated PID readings and a slight to strong solvent-like odor was observed in several areas throughout the IRM excavation. Note, a drum/dry well structure was identified in the central portion of the excavation and a perforated pipe, appearing to extend from the property abutting the northern sidewall of the excavation, was identified in the central portion of the excavation. This pipe exhibited a strong solvent-like odor and black stained soil in its immediate vicinity. In addition, evidence of historical filling activities, such as the presence of anthropogenic materials consisting of brick, metal, concrete and plastic fragments, and clothing was noted in several areas throughout the IRM excavation area.

Three endpoint samples (SS-18 [5 feet], SS-18 [7.5 feet], and SS-20 [7.5 feet]) and four side wall samples (North Side Wall, South Side Wall 1, South Side Wall 2 and West Side Wall) were collected for VOC analysis via Method 8260. Note, that since the initial endpoint soil sample collected at location SS-18 exhibited elevated concentrations of cis-1,2-DCE and PCE, the western portion of the excavation was extended to 7.5 feet below grade. All final endpoint and sidewall samples exhibited VOC concentrations below the Unrestricted SCOs, with the following exceptions:

- Endpoint sample SS-20 exhibited acetone at a concentration of 81 ug/kg and cis-1,2-DCE at concentration of 1,700 ug/kg, exceeding their respective Unrestricted SCOs of 50 ug/kg and 250 ug/kg in the eastern portion of the IRM excavation area. However, note that acetone is a typical laboratory contaminant, and is not a site-specific contaminant of concern; and

- The North Side Wall sample exhibited a PCE concentration of 2,100 ug/kg, exceeding its Unrestricted SCO of 1,300 ug/kg on the northern side wall of the IRM excavation. However, this PCE concentration is well below the Part 375 Residential and Commercial Use SCOs of 5,500 ug/kg and 19,000 ug/kg, respectively. Note that the property abutting the northern sidewall of the IRM excavation is a commercial property.

One sample of the pipe contents (Pipe Contents) was collected for VOC analysis via Method 8260, and the analytical results are summarized on Table 4, provided in Appendix C. The pipe contents sample exhibited concentrations of several chlorinated solvents in exceedance of their respective Unrestricted Use SCOs, most notably a PCE concentration of 25,000 ug/kg, exceeding its Unrestricted SCO of 1,300 ug/kg. The pipe and associated contaminated soil were removed as part of the IRM excavation activities. As this pipe appeared to extend from the adjacent property, the NYSDEC directed that no further action regarding this pipe be taken at this time.

All excavated soil was stockpiled for on-site remediation and subsequent reuse as backfill for the IRM excavation area, as described below. All concrete and metal debris was stockpiled on poly-sheeting on-site, while the NYSDEC reviews waste characterization and disposal options for this material.

2.3 Dry Well Excavations

As described above, a dry well which was constructed of a perforated 30 gallon drum was encountered in the central portion of the IRM excavation. The drum/dry well and associated piping was removed. Black stained and odiferous soil was observed below the drum/dry well structure. As such, this area was excavated to the water table (approximately 7.5 feet below grade), where one endpoint soil sample (Drum EP) was collected from beneath the drum/dry well structure for VOC analysis via Method 8260. Drum EP sample analytical results are summarized on Table 5, provided in Appendix C. PCE, at a concentration of 30,000 ug/kg, was detected in exceedance of its Unrestricted SCO of 1,300 ug/kg in the Drum EP sample.

Based on elevated concentrations of VOCs detected in soil associated with Dry Wells 2 and 3 during the pre-characterization of these structures in 2010, the dry well covers and ring structures were excavated and disposed of off-site. The dry well contents and any associated contaminated soil were excavated and stockpiled with the other excavated soil for on-site remediation, as described below. One post excavation soil sample was collected from below Dry Wells 2 and 3 (Dry Well 2 EP and Dry Well 3 EP, respectively) for VOC analysis via Method 8260 to document VOC concentrations following the removal of the dry wells and associated contaminated soil. Dry Well 2 EP and Dry Well 3 EP sample analytical results are summarized on Table 5, provided in Appendix C. VOCs were not detected at concentrations exceeding their respective Unrestricted SCOs in either dry well endpoint soil sample.

2.4 Ex-Situ Soil Remediation and Backfilling

All excavated soil is currently being remediated on-site utilizing an ex-situ SVE system constructed of poly-sheeting, PVC piping and a pressure blower. Soil vapor generated from the SVE system was initially routed through two series-configured 55-gallon GAC units prior to discharge; however, based on declining and low VOC concentrations detected in the SVE system effluent and based on direction from the NYSDEC, the two GAC units were removed from the system in June 2011. It is planned that the ex-situ SVE system will operate until VOC concentrations in the soil pile meet or exceed the requirements of the Unrestricted SCOs, as determined by future composite soil sampling.

The soil excavated as part of the April through June 2011 UST and below grade structure removal excavation was remediated utilizing a similar ex-situ SVE system. As confirmatory soil sampling of the remediated soil demonstrated that VOC concentrations following remediation were non-detect, this soil was utilized to backfill a portion of the IRM excavation area.

Upon meeting the above-defined analytical objectives and as approved by the NYSDEC, the soil excavated as part of the IRM excavation will be utilized to backfill the remaining portion of the IRM excavation area and also re-grade the western portion of the Site.

2.5 Data Usability Summary Report (DUSR)

Additional delineation, endpoint and side wall soil samples were collected from June 28 through July 7, 2011 as part of the IRM at the Site. As the additional delineation soil samples were analyzed utilizing a mobile GC unit and as the excavation was ultimately defined by the endpoint and side wall soil sampling, this DUSR only summarizes the IRM excavation endpoint and side wall samples. The endpoint and side wall samples were analyzed for VOCs by Method SW 8260.

The endpoint and side wall samples were collected by the contractor and analyzed by H2M Laboratories, Inc. (H2M) located in Melville, New York. The data packages submitted by H2M have been reviewed by Ms. Donna M. Brown, D&B's Quality Assurance/Quality Control (QA/QC) Officer. A copy of D&B's data validator resume is provided in Appendix D.

The data packages have been reviewed for completeness and compliance with NYSDEC QA/QC requirements, as well as the requirements for development of DUSRs, as listed in Appendix 2B of the DER-10 Technical Guidance for Site Investigations and Remediation, dated June 2010. Each data package was reviewed for the following:

- Was a NYSDEC Category B deliverable data package submitted?
- Have all holding times been met?
- Does all QA/QC data fall within QA/QC limits and specifications?
- Were appropriate methods followed?
- Does the raw data conform to that reported on the data summary sheets?
- Have the correct data qualifiers been utilized?

NYSDEC ASP Category B deliverable data packages have been submitted for five sample delivery groups (SDGs) DECO3050, DECO3052, DECO3054, DECO3058 and DECO3061. The findings of the data review process are summarized below.

All samples were analyzed within the method-specified holding times. Initial and continuing calibrations were analyzed at the method specified frequency. The QA/QC data was determined to be within QC limits except when noted below.

- The percent recoveries (%Rs) were below QC limits in the laboratory control sample for chlorodifluoromethane and 1,3,5-trimethylbenzene associated with side wall sample North Sidewall and endpoint sample SS-18 (5 feet). The above VOCs were qualified as estimated (J or UJ) for these samples.

- Acetone, methylene chloride and naphthalene were detected in the method blanks and qualified as non-detect (U), as follows:

  - Acetone in endpoint sample SS-18 (5 feet), endpoint sample SS-18 (7.5 feet), side wall sample North Side Wall, side wall sample West Side Wall, the Pipe Contents sample, endpoint sample Drum EP and endpoint sample Dry Well 2 EP;

  - Methylene chloride in endpoint sample SS-18 (5 feet), endpoint sample SS-18 (7.5 feet), endpoint sample SS-20 (7.5 feet), side wall sample North Side Wall, side wall sample South Side Wall 2, side wall sample West Side Wall, the Pipe Contents sample, endpoint sample Drum EP, endpoint sample Dry Well 2 EP and endpoint sample Dry Well 3 EP; and

  - Naphthalene in endpoint sample Drum EP.

- Numerous VOCs were detected at concentrations above the calibration range and were reanalyzed at secondary dilutions, as follows:

  - Side wall sample North Side Wall and the Pipe Contents sample: results were reported from the initial analysis except PCE, which was reported from the secondary dilution (D);

  - Endpoint sample SS-18 (5 feet): cis-1,2-DCE was qualified as estimated and exceed calibration range (J and E, respectively) and PCE was reported from the secondary dilution (D);

  - Endpoint sample Drum EP: cis-1,2-DCE and TCE were qualified as estimated and exceed calibration range (J and E, respectively) and PCE was reported from the secondary dilution (D); and

  - Endpoint sample SS-20 (7.5 feet): results were reported from the initial analysis except cis-1,2-DCE and TCE, which were reported from the secondary dilution (D).

All results have been deemed valid and usable, as qualified above, for environmental assessment purposes.

3.0 CONCLUSIONS AND RECOMMENDATIONS

The remedial activities described in this report were undertaken and completed in accordance with the recommendations provided in the May 2011 Underground Storage Tank Removal and Limited Site Soil and Groundwater Investigation Report, and in accordance with the NYSDEC-required scope of work modifications described in Section 2.0. Approximately 380 cubic yards of soil were excavated for on-site ex-situ SVE remediation and reuse as backfill and re-grading at the Site.

Based on the final endpoint and side wall samples generally exhibiting VOC concentrations below the Unrestricted SCOs, further excavation activities are not warranted in this portion of the Site at this time. In addition, due to the close proximity to recovery well RW-1 and based on direction from the NYSDEC, it is anticipated that any residual contamination detected in the IRM excavation area will be addressed by the continued operation of the groundwater extraction and treatment system, as the IRM excavation was extended to the water table. However, based on the presence of the perforated pipe and associated contaminated soil which appeared to extend from the western abutting property, it may be warranted to investigate the historic usage of this property with regard to its possible contribution to contamination in the western portion of the Site.

Note that further soil excavation in this area of the Site is not planned or expected at this time. However, a Site Management Plan (SMP) is currently being developed for the Site in order to, among several other items, manage any potential future excavation activities that may be required to maintain Site operations. In addition groundwater and land use restrictions for the Site should be filed with Suffolk County in order to further protect the community and future Site workers.

APPENDIX A

PHOTOGRAPHIC DOCUMENTATION

IRM excavation area in the southwest portion of the Site, prior to soil excavation.

Air monitoring station located downgradient of the IRM excavation area and upgradient of the residential properties located immediately south of the Site.

Initiation of IRM excavation in the northern portion of the IRM excavation area.

Black staining in soil in the northern portion of the IRM excavation area.

Drum/Drywell structure encountered in central portion of the IRM excavation area.

Loading of excavated soil at the soil staging area/ex-situ SVE system to the east of the treatment system building.

Removal of a below grade foundation wall from the eastern portion of the IRM excavation area.

Removal of a Dry Well 3 structure to the east of the IRM excavation area.

Completed ex-situ soil pile arrangement.

APPENDIX B

BORING LOGS

225 Atlantic Avenue
Patchogue, New York 11772
Tel (631) 447-6400
Fax (631) 447-6497
Email Info@Enviro-Asmnt.com
www.Enviro-Asmnt.com

Installation Date 05/12/11

DRILLING LOG - Direct Push Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME: DEC-LIINDENHURST63
SITE ADDRESS: 63 West Montauk Highway, Lindenhurst, NY
SITE ID NUMBER: 152125
BORING I.D.: B-5
PURPOSE: Investigation
DRILLING METHOD: Direct Push (Earthprobe)
DRILLING COMPANY: Clearwater Drilling, Inc.
HEAD DRILLER: D. Vigliotta
LOGGED BY: K. Sanford
BOREHOLE DIAMETER: 4"
DEPTH-TO-WATER: 6'
TOTAL BORING DEPTH: 6'

SOIL SAMPLING METHOD
Type: Macro Cores (Macro)

GROUNDWATER SAMPLING METHOD
Type: N/A

BACKFILL: Native Soil
FINISH: Native Soil

COMMENTS: B-5 is located in the SW area of the site 7.8' S of fence, 35' NW of RW-1

Depth Below Grade	Soil Lithology/Field Observations: Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
0'-4'	1.0' Brown silt and fine sand, organic material, leaves, twigs, moist, no odor.	Macro	0'-2'	20.0 ppm	100
	0.9' Light brown silt and fine sand, trace medium sand, moist, no odor.		2'-4'	61.7 ppm	
	0.7' Dark brown silt and fine sand, trace medium sand, moist, no odor.				
	1.4' Light brown silt and fine sand, trace medium sand, trace gravel, moist, no odor.				
4'-6'	0.2' Brown silt and fine sand, moist, no odor.	Macro	4'-6'	13.9 ppm	100
	1.8' Tan fine and medium sand, some coarse sand, little gravel, damp, no odor.		6'-8'	0.0 ppm	
	Soil samples were collected at 2' intervals and were analyzed onsite by EAR's Mobile Environmental Laboratory				

"Trace", 1 - 10% "Some", 20 - 30%
"Little", 10 - 20% "And", 30 - 50%

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Installation Date 05/12/11

DRILLING LOG - Direct Push Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME: DEC-LIINDENHURST63
SITE ADDRESS: 63 West Montauk Highway, Lindenhurst, NY
SITE ID NUMBER: 152125
BORING I.D.: B-6
PURPOSE: Investigation
DRILLING METHOD: Direct Push (Earthprobe)
DRILLING COMPANY: Clearwater Drilling, Inc.
HEAD DRILLER: D. Vigliotta
LOGGED BY: K. Sanford
BOREHOLE DIAMETER: 4"
DEPTH-TO-WATER: 6'
TOTAL BORING DEPTH: 8'

SOIL SAMPLING METHOD
Type: Macro Cores (Macro)

GROUNDWATER SAMPLING METHOD
Type: N/A

BACKFILL: Native Soil
FINISH: Native Soil

COMMENTS: B-6 is located in the SW area of the site
28' N of S fence, 28' W of RW-1
12' E of B-8

Depth Below Grade	Soil Lithology/Field Observations: Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
0'-4'	2.0' Brown silt and fine sand, organic material, tree debris, moist, no odor.	Macro	0'-2'	15.8 ppm	100
	1.6' Grey-black silt and fine sand, moist, strong odor.		2'-4'	2557 ppm	
	0.2' Black clay, tree roots, moist, strong odor.				
	0.2' Tan fine and medium sand, little coarse sand, moist, strong odor.				
4'-8'	0.9' Tan fine and coarse sand, moist, slight odor.	Macro	4'-6'	130.2 ppm	100
	1.1' Tan fine and medium sand, trace coarse sand, moist, slight odor.		6'-8'	10.3 ppm	100
	2.0' Tan fine and medium sand, some coarse sand, wet, no odor.				
	Soil samples were collected at 2' intervals and were analyzed onsite by EAR's Mobile Environmental Laboratory				

"Trace", 1 - 10% "Some", 20 - 30%
"Little", 10 - 20% "And", 30 - 50%

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Installation Date 05/12/11

DRILLING LOG - Direct Push Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME: DEC-LIINDENHURST63
SITE ADDRESS: 63 West Montauk Highway, Lindenhurst, NY
SITE ID NUMBER: 152125
BORING I.D.: B-7
PURPOSE: Investigation
DRILLING METHOD: Direct Push (Earthprobe)
DRILLING COMPANY: Clearwater Drilling, Inc.
HEAD DRILLER: D. Vigliotta
LOGGED BY: K. Sanford
BOREHOLE DIAMETER: 4"
DEPTH-TO-WATER: 6'
TOTAL BORING DEPTH: 8'

SOIL SAMPLING METHOD
Type: Macro Cores (Macro)

GROUNDWATER SAMPLING METHOD
Type: N/A

BACKFILL: Native Soil
FINISH: Native Soil

COMMENTS: B-7 is located in the SW area of the site 15' N of S fence, 19.6' W of RW-1

Depth Below Grade	Soil Lithology/Field Observations: Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
0'-4'	2.0' Brown silt and fine sand, trace medium sand, moist, no odor.	Macro	0'-2'	13.5 ppm	100
	1.0' Tan silt and fine sand, trace coase sand, trace gravel, moist, no odor.		2'-4'	4.6 ppm	
	1.0' Tan fine and medium sand, little coarse sand, trace gravel, moist, no odor.				
4'-8'	2.0' Fine sand, little medium sand, trace coarse sand, moist, no odor.	Macro	4'-6'	0.0 ppm	100
	2.0' Orange-tan fine and medium sand, some coarse sand, little gravel, wet, no odor.		6'-8'	25.7 ppm	
	Soil samples were collected in 2' intervals and were analyzed onsite by EAR's Mobile Environmental Laboratory				

"Trace", 1 - 10% "Some", 20 - 30%
"Little", 10 - 20% "And", 30 - 50%

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Installation Date 05/12/11

DRILLING LOG - Direct Push Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME: DEC-LIINDENHURST63
SITE ADDRESS: 63 West Montauk Highway
Lindenhurst, NY
SITE ID NUMBER: 152125
BORING I.D.: B-8
PURPOSE: Investigation
DRILLING METHOD: Direct Push (Earthprobe)
DRILLING COMPANY: Clearwater Drilling, Inc.
HEAD DRILLER: D. Vigliotta
LOGGED BY: K. Sanford
BOREHOLE DIAMETER: 4"
DEPTH-TO-WATER: 6'
TOTAL BORING DEPTH: 8'

SOIL SAMPLING METHOD
Type: Macro Cores (Macro)

GROUNDWATER SAMPLING METHOD
Type: N/A

BACKFILL: Native Soil
FINISH: Native Soil

COMMENTS: B-8 is located in the SW area of the site
25' N of S fence, 35' W of RW-1

Depth Below Grade	Soil Lithology/Field Observations: Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
0'-4'	4.0' Brown silt and fine sand, little medium sand, organic material, moist,	Macro	0'-2'	0.0 ppm	100
	no odor.		2'-4'	4.0 ppm	
4'-8'	1.0' Brown silt and fine sand, little medium sand, trace gravel, moist, no odor.	Macro	4'-6'	2.9 ppm	78
	0.2' Light tan fine sand, moist, no odor.		6'-8'	2.4 ppm	
	0.5' Tan fine sand, moist, no odor.				
	0.35' Orange-tan fine sand, little medium sand, moist, no odor.				
	0.05" Light grey clay, moist, no odor.				
	1.0' Tan fine and medium sand, trace coarse sand, wet, no odor.				
	Soil samples were collected in 2' intervals and were analyzed onsite by EAR's Mobile Environmental Laboratory				

"Trace", 1 - 10% "Some", 20 - 30%
"Little", 10 - 20% "And", 30 - 50%

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Installation Date 05/12/11

DRILLING LOG - Direct Push Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME: DEC-LIINDENHURST63
SITE ADDRESS: 63 West Montauk Highway, Lindenhurst, NY
SITE ID NUMBER: 152125
BORING I.D.: B-9
PURPOSE: Investigation
DRILLING METHOD: Direct Push (Earthprobe)
DRILLING COMPANY: Clearwater Drilling, Inc.
HEAD DRILLER: D. Vigliotta
LOGGED BY: K. Sanford
BOREHOLE DIAMETER: 4"
DEPTH-TO-WATER: 6'
TOTAL BORING DEPTH: 8'

SOIL SAMPLING METHOD
Type: Macro Cores (Macro)

GROUNDWATER SAMPLING METHOD
Type: N/A

BACKFILL: Native Soil
FINISH: Native Soil

COMMENTS: B-9 is located in the SW area of the site 6' S of N fence, 45' NW of RW-1 11' W of B-3

Depth Below Grade	Soil Lithology/Field Observations: Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
0'-4'	1.0' Brown silt and fine sand, trace gravel, trace cobble, moist, no odor.	Macro	0'-2'	0.0 ppm	75
	1.2' Brown silt and fine sand, trace coarse sand, moist, no odor.		2'-4'	33.8 ppm	
	0.8' Tan silt and fine sand, moist, no odor.				
4'-8'	1.0' Brown silt and fine sand, moist, no odor.	Macro	4'-6'	7.1 ppm	75
	1.2' Orange-tan silt and fine sand, trace coarse sand, trace gravel, moist, no odor.		6'-8'	1.9 ppm	
	0.8' Light grey clay, low plasticity, damp, no odor.				
	Soil samples were collected in 2' intervals and were analyzed onsite by EAR's Mobile Environmental Laboratory				

"Trace", 1 - 10% "Some", 20 - 30%
"Little", 10 - 20% "And", 30 - 50%

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Installation Date 05/12/11

DRILLING LOG - Direct Push Temporary Borehole Installation

DRILLING DETAILS

PROJECT/SITE NAME: DEC-LIINDENHURST63
SITE ADDRESS: 63 West Montauk Highway, Lindenhurst, NY
SITE ID NUMBER: 152125
BORING I.D.: B-10
PURPOSE: Investigation
DRILLING METHOD: Direct Push (Earthprobe)
DRILLING COMPANY: Clearwater Drilling, Inc.
HEAD DRILLER: D. Vigliotta
LOGGED BY: K. Sanford
BOREHOLE DIAMETER: 4"
DEPTH-TO-WATER: 6'
TOTAL BORING DEPTH: 8'

SOIL SAMPLING METHOD
Type: Macro Cores (Macro)

GROUNDWATER SAMPLING METHOD
Type: N/A

BACKFILL: Native Soil
FINISH: Native Soil

COMMENTS: B-10 is located in the SW area of the site
27.7' N of S fence, 33' W of RW-1
7' E of B-8

Depth Below Grade	Soil Lithology/Field Observations				
	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
0'-4'	2.1' Brown silt and fine sand, little medium sand, trace coarse sand, trace gravel, moist, no odor.	Macro	0'-2'	1.9 ppm	58
			2'-4'	64.1 ppm	
	0.2' Brown silt and fine sand, some medium sand, moist, no odor.				
4'-8'	1.8' Tan fine and medium sand, trace coarse sand, moist, no odor.	Macro	4'-6'	7.1 ppm	58
	0.5' Light grey clay, low plasticity, damp, no odor.		6'-8'	1.9 ppm	
	Soil samples were collected in 2' intervals and were analyzed onsite by EAR's Mobile Environmental Laboratory				

"Trace", 1 - 10% "Some", 20 - 30%
"Little", 10 - 20% "And", 30 - 50%

APPENDIX C

SAMPLE ANALYTICAL RESULTS

Table 1
Active Industrial Uniform Site
IRM Excavation
Additional Delineation Subsurface Soil Sample Results
Volatile Organic Compounds

CONSTITUENT in ug/kg	B-5 0 to 2 feet 6/23/2011	B-5 2 to 4 feet 6/23/2011	B-5 4 to 4.2 feet 6/23/2011	B-5 4.2 to 6 feet 6/23/2011	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective
Vinyl chloride	U	U	U	U	20
Chloroethane	U	U	U	U	--
Ethenol	U	3,440 B	3,340 B	1,610 B	--
1,1-Dichloroethene	U	U	U	U	330
tert-Buty alcohol	U	U	U	U	--
trans-1,2-Dichloroethene	U	U	U	U	190
1,1-Dichloroethane	U	U	U	U	270
Methyltert-butylether	U	U	U	U	930
cis-1,2-Dichloroethene	U	U	U	U	250
Diispropyl ether	U	U	U	U	--
Ethyl tert-butyl ether	U	U	U	U	--
1,2-Dichloroethane	U	U	U	U	20
tert-Amyl alcohol	U	U	U	U	--
1,1,1-Trichloroethane	U	U	U	U	680
Benzene	U	U	U	U	60
tert-Amyl methyl ether	U	U	U	U	--
Dibromomethane	U	U	U	U	--
Trichloroethene	143	293	227	U	470
1,1,2-Trichloroethane	U	U	U	U	--
Toluene	U	U	U	U	700
1,2-Dibromoethane	U	U	U	U	--
Tetrachloroethene	**3,620**	**7,080**	**5,320**	36.9 J	1,300
1,1,1,2-Tetrachloroethane	U	U	U	U	--
Ethylbenzene	U	U	U	U	1,000
m,p-Xylene	U	U	U	U	260
o-Xylene	U	U	U	U	260
1,1,2,2-Tetrachloroethane	U	U	U	U	--
Isopropylbenzene	U	U	U	U	--
n-Propylbenzene	U	U	U	U	3,900
1,3,5-Trimethylbenzene	U	U	U	U	8,400
1,2,4-Trimethylbenzene	U	U	U	U	3,600
sec-Butylbenzene	U	U	U	U	11,000
4-Isopropyltoluene	U	U	U	U	--
n-Butylbenzene	U	U	U	U	--
Naphthalene	U	U	U	U	--

Notes:
ug/kg: Micrograms per kilogram
Na: Not applicable
--: Not established
B: Compound also detected in the associated method blank
E: Concentration exceeds the calibration range
D: Analysis at a secondary dilution factor
J: Estimated value
U: Compound concentration below the method detection limit
143: Exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective

Table 1
Active Industrial Uniform Site
IRM Excavation
Additional Delineation Subsurface Soil Sample Results
Volatile Organic Compounds

CONSTITUENT in ug/kg	B-6 0 to 2 feet 6/23/2011	B-6 2 to 4 feet 6/23/2011	B-6 4 to 6 feet 6/23/2011	B-6 6 to 8 feet 6/23/2011	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective
Vinyl chloride	U	U	U	U	20
Chloroethane	U	U	U	U	--
Ethenol	3,970 B	1,350 B	1,700 B	2,130 B	--
1,1-Dichloroethene	U	63.1	U	U	330
tert-Buty alcohol	U	U	U	U	--
trans-1,2-Dichloroethene	U	**217**	U	U	190
1,1-Dichloroethane	U	U	U	U	270
Methyltert-butylether	U	U	U	U	930
cis-1,2-Dichloroethene	**330**	**78,400 E**	33.6 J	U	250
Diispropyl ether	U	U	U	U	--
Ethyl tert-butyl ether	U	U	U	U	--
1,2-Dichloroethane	U	U	U	U	20
tert-Amyl alcohol	U	U	U	U	--
1,1,1-Trichloroethane	U	U	U	U	680
Benzene	U	U	U	U	60
tert-Amyl methyl ether	U	U	U	U	--
Dibromomethane	U	U	U	U	--
Trichloroethene	54.8 J	**39,300 E**	31.7 J	U	470
1,1,2-Trichloroethane	U	U	U	U	--
Toluene	U	24.9	U	U	700
1,2-Dibromoethane	U	U	U	U	--
Tetrachloroethene	270	**144,000 E**	685	41.7 J	1,300
1,1,1,2-Tetrachloroethane	U	U	U	U	--
Ethylbenzene	U	20.7 J	U	U	1,000
m,p-Xylene	U	105	U	U	260
o-Xylene	U	**872**	U	U	260
1,1,2,2-Tetrachloroethane	U	U	U	U	--
Isopropylbenzene	U	536	U	U	--
n-Propylbenzene	U	1,580	U	U	3,900
1,3,5-Trimethylbenzene	U	4,170	U	U	8,400
1,2,4-Trimethylbenzene	U	**9,620**	U	U	3,600
sec-Butylbenzene	U	235	U	U	11,000
4-Isopropyltoluene	U	457	U	U	--
n-Butylbenzene	U	838	U	U	--
Naphthalene	U	1,220	U	U	--

Notes:
ug/kg: Micrograms per kilogram
Na: Not applicable
--: Not established
B: Compound also detected in the associated method blank
E: Concentration exceeds the calibration range
D: Analysis at a secondary dilution factor
J: Estimated value
U: Compound concentration below the method detection limit
330: Exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective

Table 1
Active Industrial Uniform Site
IRM Excavation
Additional Delineation Subsurface Soil Sample Results
Volatile Organic Compounds

CONSTITUENT in ug/kg	B-7 0 to 2 feet 6/23/2011	B-7 2 to 4 feet 6/23/2011	B-7 4 to 6 feet 6/23/2011	B-7 6 to 8 feet 6/23/2011	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective
Vinyl chloride	U	U	U	U	20
Chloroethane	U	U	U	U	--
Ethenol	3,040 B	2,670 B	3,170 B	1,900 B	--
1,1-Dichloroethene	U	U	U	U	330
tert-Buty alcohol	U	U	U	U	--
trans-1,2-Dichloroethene	U	U	U	U	190
1,1-Dichloroethane	U	U	U	U	270
Methyltert-butylether	U	U	U	U	930
cis-1,2-Dichloroethene	70.4 J	U	U	U	250
Diispropyl ether	U	U	U	U	--
Ethyl tert-butyl ether	U	U	U	U	--
1,2-Dichloroethane	U	U	U	U	20
tert-Amyl alcohol	U	U	U	U	--
1,1,1-Trichloroethane	U	U	U	U	680
Benzene	U	U	U	U	60
tert-Amyl methyl ether	U	U	U	U	--
Dibromomethane	U	U	U	U	--
Trichloroethene	80.4 J	U	U	U	470
1,1,2-Trichloroethane	U	U	U	U	--
Toluene	48.9 J	35.8 J	33.2 J	U	700
1,2-Dibromoethane	U	U	U	U	--
Tetrachloroethene	**1,740**	249	82.3 J	U	1,300
1,1,1,2-Tetrachloroethane	U	U	U	U	--
Ethylbenzene	U	U	U	U	1,000
m,p-Xylene	U	U	U	U	260
o-Xylene	U	U	U	U	260
1,1,2,2-Tetrachloroethane	U	U	U	U	--
Isopropylbenzene	U	U	U	U	--
n-Propylbenzene	U	U	U	U	3,900
1,3,5-Trimethylbenzene	U	U	U	U	8,400
1,2,4-Trimethylbenzene	U	U	U	U	3,600
sec-Butylbenzene	U	U	U	U	11,000
4-Isopropyltoluene	U	U	U	U	--
n-Butylbenzene	U	U	U	U	--
Naphthalene	U	U	U	U	--

Notes:
ug/kg: Micrograms per kilogram
Na: Not applicable
--: Not established
B: Compound also detected in the associated method blank
E: Concentration exceeds the calibration range
D: Analysis at a secondary dilution factor
J: Estimated value
U: Compound concentration below the method detection limit
1,740: Exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective

Table 1
Active Industrial Uniform Site
IRM Excavation
Additional Delineation Subsurface Soil Sample Results
Volatile Organic Compounds

CONSTITUENT in ug/kg	B-8 0 to 2 feet 6/23/2011	B-8 2 to 4 feet 6/23/2011	B-8 4 to 6 feet 6/23/2011	B-8 6 to 8 feet 6/23/2011	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective
Vinyl chloride	U	U	U	U	20
Chloroethane	U	U	U	U	--
Ethenol	1,520 B	1,970 B	1,860 B	2,060 B	--
1,1-Dichloroethene	U	U	U	U	330
tert-Buty alcohol	U	U	U	U	--
trans-1,2-Dichloroethene	U	U	U	U	190
1,1-Dichloroethane	U	U	U	U	270
Methyltert-butylether	U	U	U	U	930
cis-1,2-Dichloroethene	U	17.6 J	88.6	U	250
Diispropyl ether	U	U	U	U	--
Ethyl tert-butyl ether	U	U	U	U	--
1,2-Dichloroethane	U	U	U	U	20
tert-Amyl alcohol	U	U	U	U	--
1,1,1-Trichloroethane	U	U	U	U	680
Benzene	U	U	U	U	60
tert-Amyl methyl ether	U	U	U	U	--
Dibromomethane	U	U	U	U	--
Trichloroethene	U	19.8 J	93.6	U	470
1,1,2-Trichloroethane	U	U	U	U	--
Toluene	15.3 J	15.3 J	14.6 J	U	700
1,2-Dibromoethane	U	U	U	U	--
Tetrachloroethene	90.7	216	**2,160**	U	1,300
1,1,1,2-Tetrachloroethane	U	U	U	U	--
Ethylbenzene	U	U	U	U	1,000
m,p-Xylene	U	U	U	U	260
o-Xylene	U	U	U	U	260
1,1,2,2-Tetrachloroethane	U	U	U	U	--
Isopropylbenzene	U	U	U	U	--
n-Propylbenzene	U	U	U	U	3,900
1,3,5-Trimethylbenzene	U	U	U	U	8,400
1,2,4-Trimethylbenzene	U	U	U	U	3,600
sec-Butylbenzene	U	U	U	U	11,000
4-Isopropyltoluene	U	U	U	U	--
n-Butylbenzene	U	U	U	U	--
Naphthalene	U	U	U	U	--

Notes:
ug/kg: Micrograms per kilogram
Na: Not applicable
--: Not established
B: Compound also detected in the associated method blank
E: Concentration exceeds the calibration range
D: Analysis at a secondary dilution factor
J: Estimated value
U: Compound concentration below the method detection limit
2,160: Exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective

Table 1
Active Industrial Uniform Site
IRM Excavation
Additional Delineation Subsurface Soil Sample Results
Volatile Organic Compounds

CONSTITUENT in ug/kg	B-9 0 to 2 feet 6/23/2011	B-9 2 to 4 feet 6/23/2011	B-9 4 to 6 feet 6/23/2011	B-9 6 to 8 feet 6/23/2011	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective
Vinyl chloride	U	U	U	U	20
Chloroethane	U	U	U	U	--
Ethenol	1,440 B	2,270 B	1,290 B	1,620 B	--
1,1-Dichloroethene	U	U	U	U	330
tert-Buty alcohol	U	U	U	U	--
trans-1,2-Dichloroethene	U	U	U	U	190
1,1-Dichloroethane	U	U	U	U	270
Methyltert-butylether	U	U	U	U	930
cis-1,2-Dichloroethene	U	60.7	U	U	250
Diispropyl ether	U	U	U	U	--
Ethyl tert-butyl ether	U	U	U	U	--
1,2-Dichloroethane	U	U	U	U	20
tert-Amyl alcohol	U	U	U	U	--
1,1,1-Trichloroethane	U	U	U	U	680
Benzene	U	U	U	U	60
tert-Amyl methyl ether	U	U	U	U	--
Dibromomethane	U	U	U	U	--
Trichloroethene	U	174	U	U	470
1,1,2-Trichloroethane	U	U	U	U	--
Toluene	12.1 J	14.6 J	13.7 J	U	700
1,2-Dibromoethane	U	U	U	U	--
Tetrachloroethene	83.7	**3,860**	63.7	50.9	1,300
1,1,1,2-Tetrachloroethane	U	U	U	U	--
Ethylbenzene	U	U	U	U	1,000
m,p-Xylene	U	U	U	U	260
o-Xylene	U	U	U	U	260
1,1,2,2-Tetrachloroethane	U	U	U	U	--
Isopropylbenzene	U	U	U	U	--
n-Propylbenzene	U	U	U	U	3,900
1,3,5-Trimethylbenzene	U	U	U	U	8,400
1,2,4-Trimethylbenzene	U	U	U	U	3,600
sec-Butylbenzene	U	U	U	U	11,000
4-Isopropyltoluene	U	U	U	U	--
n-Butylbenzene	U	U	U	U	--
Naphthalene	U	U	U	U	--

Notes:
ug/kg: Micrograms per kilogram
Na: Not applicable
--: Not established
B: Compound also detected in the associated method blank
E: Concentration exceeds the calibration range
D: Analysis at a secondary dilution factor
J: Estimated value
U: Compound concentration below the method detection limit
3,860: Exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective

Table 1
Active Industrial Uniform Site
IRM Excavation
Additional Delineation Subsurface Soil Sample Results
Volatile Organic Compounds

CONSTITUENT in ug/kg	B-10 0 to 2 feet 6/23/2011	B-10 2 to 4 feet 6/23/2011	B-10 4 to 6 feet 6/23/2011	B-10 6 to 8 feet 6/23/2011	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective
Vinyl chloride	U	U	U	U	20
Chloroethane	U	U	U	U	--
Ethenol	1,780 B	1,780 B	1,870 B	1,480 B	--
1,1-Dichloroethene	U	U	U	U	330
tert-Buty alcohol	U	U	U	U	--
trans-1,2-Dichloroethene	U	U	U	U	190
1,1-Dichloroethane	U	U	U	U	270
Methyltert-butylether	U	U	U	U	930
cis-1,2-Dichloroethene	34.6 J	**388**	U	U	250
Diispropyl ether	U	U	U	U	--
Ethyl tert-butyl ether	U	U	U	U	--
1,2-Dichloroethane	U	U	U	U	20
tert-Amyl alcohol	U	U	U	U	--
1,1,1-Trichloroethane	U	U	U	U	680
Benzene	U	U	U	U	60
tert-Amyl methyl ether	U	U	U	U	--
Dibromomethane	U	U	U	U	--
Trichloroethene	21.6 J	175	U	U	470
1,1,2-Trichloroethane	U	U	U	U	--
Toluene	10.6 J	10.9 J	U	U	700
1,2-Dibromoethane	U	U	U	U	--
Tetrachloroethene	192	**2,410**	U	U	1,300
1,1,1,2-Tetrachloroethane	U	U	U	U	--
Ethylbenzene	U	U	U	U	1,000
m,p-Xylene	U	U	U	U	260
o-Xylene	U	U	U	U	260
1,1,2,2-Tetrachloroethane	U	U	U	U	--
Isopropylbenzene	U	U	U	U	--
n-Propylbenzene	U	U	U	U	3,900
1,3,5-Trimethylbenzene	U	U	U	U	8,400
1,2,4-Trimethylbenzene	U	U	U	U	3,600
sec-Butylbenzene	U	U	U	U	11,000
4-Isopropyltoluene	U	U	U	U	--
n-Butylbenzene	U	U	U	U	--
Naphthalene	U	U	U	U	--

Notes:
ug/kg: Micrograms per kilogram
Na: Not applicable
--: Not established
B: Compound also detected in the associated method blank
E: Concentration exceeds the calibration range
D: Analysis at a secondary dilution factor
J: Estimated value
U: Compound concentration below the method detection limit
388: Exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective

Table 2
Active Industrial Uniform Site
IRM Excavation
Endpoint Soil Sample Results
Volatile Organic Compounds

CONSTITUENT in ug/kg	SS-18 5 feet 6/27/2011	SS-18 7.5 feet 6/29/2011	SS-20 7.5 feet 6/29/2011	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective
1,1,1,2-Tetrachloroethane	U	U	U	--
1,1,1-Trichloroethane	U	U	U	680
1,1,2,2-Tetrachloroethane	U	U	U	--
1,1,2-Trichloro-1,2,-trichloroethane	U	U	U	--
1,1,2-Trichloroethane	U	U	U	--
1,1-Dichloroethane	U	U	U	270
1,1-Dichloroethene	U	U	3 J	330
1,1-Dichloropropene	U	U	U	--
1,2,3-Trichlorobenzene	U	U	4 J	--
1,2,3-Trichloropropane	U	U	U	--
1,2,4,5-Tetramethylbenzene	6 J	U	U	--
1,2,4-Trichlorobenzene	U	U	U	--
1,2,4-Trimethylbenzene	70	U	5 J	3,600
1,2-Dibromo-3-chloropropene	U	U	U	--
1,2-Dibromoethane	U	U	U	--
1,2-Dichlorobenzene	U	U	14	1,100
1,2-Dichloroethane	U	U	U	20
1,2-Dichloropropane	U	U	U	--
1,3,5-trimethylbenzene	47 J	U	31	8,400
1,3-Dichlorobenzene	U	U	4 J	2,400
1,3-Dichloropropane	U	U	U	--
1,4-Dichlorobenzene	U	U	12	1,800
1,4-Diethylbenzene	34	U	40	--
2,2-Dichloropropane	U	U	U	--
2-chlorotoluene/4-chlorotoluene	U	U	U	--
Acetone	U	U	**81**	50
Benzene	U	U	U	60
Bromobenzene	U	U	U	--
Bromodichloromethane	U	U	U	--
Bromomethane	U	U	U	--
Carbon tetrachloride	U	U	U	760
Chlorobenzene	U	U	1 J	1,100
Chlorodifluoromethane	UJ	U	U	--
Chloroethane	U	U	U	--
Chloroform	U	U	U	370
cis-1,2-Dichloroethene	**280 EJ**	U	**1,700 D**	250
cis-1,3-Dichloropropene	U	U	U	--
CYMENE	U	U	19	--
Dibromomethane	U	U	U	--
Dichlorodifluoromethane	U	U	U	--
Ethylbenzene	U	U	U	1,000
Hexachlorobutadiene	U	U	4 J	--
Isopropylbenzene	2 J	U	1 J	--
m,p-Xylenes	U	U	U	260
Methyl ethyl ketone	U	U	U	120
Methyl isobutylketone (MIBK)	U	U	U	--
Methylene chloride	U	U	U	50
n-Butylbenzene	4 J	U	15	12,000
n-Propylbenzene	8 J	U	4 J	3,900
Naphthalene	10 J	U	3 J	--
o-Xylene	5 J	U	U	260
sec-Butylbenzene	U	U	4 J	11,000
Styrene	U	U	U	--
t-Butylbenzene	U	U	U	5,900
Tert-butyl methyl ether	U	U	U	--
Tetrachloroethene	**6,900 D**	65	120	1,300
Toluene	U	U	U	700
trans-1,2-Dichloroethene	U	U	140	190
trans-1,3-Dichloropropene	U	U	U	--
Trichloroethene	220	U	360 DJ	470
Trichlorofluoromethane	U	U	U	--
Vinyl chloride	U	U	27	20
Xylene (total)	6 J	U	U	260

Notes:
ug/kg: Micrograms per kilogram
Na: Not applicable
--: Not established
B: Compound also detected in the associated method blank
E: Concentration exceeds the calibration range
D: Analysis at a secondary dilution factor
J: Estimated value
U: Compound concentration below the method detection limit
30,000: Exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective

Table 3
Active Industrial Uniform Site
IRM Excavation
Side Wall Soil Sample Results
Volatile Organic Compounds

CONSTITUENT in ug/kg	North Side Wall 6/29/2011	South Side Wall 1 7/6/2011	South Side Wall 2 7/6/2011	West Side Wall 6/29/2011	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective
1,1,1,2-Tetrachloroethane	U	U	U	U	--
1,1,1-Trichloroethane	U	U	U	U	680
1,1,2,2-Tetrachloroethane	U	U	U	U	--
1,1,2-Trichloro-1,2,-trichloroethane	U	U	U	U	--
1,1,2-Trichloroethane	U	U	U	U	--
1,1-Dichloroethane	U	U	U	U	270
1,1-Dichloroethene	U	U	U	U	330
1,1-Dichloropropene	U	U	U	U	--
1,2,3-Trichlorobenzene	U	U	U	U	--
1,2,3-Trichloropropane	U	U	U	U	--
1,2,4,5-Tetramethylbenzene	U	U	U	U	--
1,2,4-Trichlorobenzene	U	U	U	U	--
1,2,4-Trimethylbenzene	U	U	U	U	3,600
1,2-Dibromo-3-chloropropene	U	U	U	U	--
1,2-Dibromoethane	U	U	U	U	--
1,2-Dichlorobenzene	U	U	U	U	1,100
1,2-Dichloroethane	U	U	U	U	20
1,2-Dichloropropane	U	U	U	U	--
1,3,5-trimethylbenzene	UJ	U	U	U	8,400
1,3-Dichlorobenzene	U	U	U	U	2,400
1,3-Dichloropropane	U	U	U	U	--
1,4-Dichlorobenzene	U	U	U	U	1,800
1,4-Diethylbenzene	U	U	U	U	--
2,2-Dichloropropane	U	U	U	U	--
2-chlorotoluene/4-chlorotoluene	U	U	U	U	--
Acetone	U	U	U	U	50
Benzene	U	U	U	U	60
Bromobenzene	U	U	U	U	--
Bromodichloromethane	U	U	U	U	--
Bromomethane	U	U	U	U	--
Carbon tetrachloride	U	U	U	U	760
Chlorobenzene	U	U	U	U	1,100
Chlorodifluoromethane	UJ	U	U	U	--
Chloroethane	U	U	U	U	--
Chloroform	U	U	U	U	370
cis-1,2-Dichloroethene	33	2 J	1 J	9 J	250
cis-1,3-Dichloropropene	U	U	U	U	--
CYMENE	U	U	U	U	--
Dibromomethane	U	U	U	U	--
Dichlorodifluoromethane	U	U	U	U	--
Ethylbenzene	U	U	U	U	1,000
Hexachlorobutadiene	U	U	U	U	--
Isopropylbenzene	U	U	U	U	--
m,p-Xylenes	U	U	U	U	260
Methyl ethyl ketone	U	U	U	U	120
Methyl isobutylketone (MIBK)	U	U	U	U	--
Methylene chloride	U	U	U	U	50
n-Butylbenzene	U	U	U	U	12,000
n-Propylbenzene	U	U	U	U	3,900
Naphthalene	2 J	U	U	U	--
o-Xylene	U	U	U	U	260
sec-Butylbenzene	U	U	U	U	11,000
Styrene	U	U	U	U	--
t-Butylbenzene	U	U	U	U	5,900
Tert-butyl methyl ether	U	U	U	U	--
Tetrachloroethene	**2,100 D**	60	25	21	1,300
Toluene	U	U	U	U	700
trans-1,2-Dichloroethene	U	U	U	U	190
trans-1,3-Dichloropropene	U	U	U	U	--
Trichloroethene	63	2 J	2 J	2 J	470
Trichlorofluoromethane	U	U	U	U	--
Vinyl chloride	U	U	U	U	20
Xylene (total)	U	U	U	U	260

Notes:
ug/kg: Micrograms per kilogram
Na: Not applicable
--: Not established
B: Compound also detected in the associated method blank
E: Concentration exceeds the calibration range
D: Analysis at a secondary dilution factor
J: Estimated value
U: Compound concentration below the method detection limit
2,100: Exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective

Table 4
Active Industrial Uniform Site
IRM Excavation
Pipe Contents Sample Results
Volatile Organic Compounds

CONSTITUENT in ug/kg	Pipe Contents 7/6/2011	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective
1,1,1,2-Tetrachloroethane	U	--
1,1,1-Trichloroethane	U	680
1,1,2,2-Tetrachloroethane	U	--
1,1,2-Trichloro-1,2,-trichloroethane	U	--
1,1,2-Trichloroethane	U	--
1,1-Dichloroethane	U	270
1,1-Dichloroethene	U	330
1,1-Dichloropropene	U	--
1,2,3-Trichlorobenzene	U	--
1,2,3-Trichloropropane	U	--
1,2,4,5-Tetramethylbenzene	U	--
1,2,4-Trichlorobenzene	U	--
1,2,4-Trimethylbenzene	U	3,600
1,2-Dibromo-3-chloropropene	U	--
1,2-Dibromoethane	U	--
1,2-Dichlorobenzene	U	1,100
1,2-Dichloroethane	U	20
1,2-Dichloropropane	U	--
1,3,5-trimethylbenzene	U	8,400
1,3-Dichlorobenzene	U	2,400
1,3-Dichloropropane	U	--
1,4-Dichlorobenzene	U	1,800
1,4-Diethylbenzene	U	--
2,2-Dichloropropane	U	--
2-chlorotoluene/4-chlorotoluene	U	--
Acetone	U	50
Benzene	U	60
Bromobenzene	U	--
Bromodichloromethane	U	--
Bromomethane	U	--
Carbon tetrachloride	U	760
Chlorobenzene	U	1,100
Chlorodifluoromethane	U	--
Chloroethane	U	--
Chloroform	U	370
cis-1,2-Dichloroethene	**450**	250
cis-1,3-Dichloropropene	U	--
CYMENE	U	--
Dibromomethane	U	--
Dichlorodifluoromethane	U	--
Ethylbenzene	U	1,000
Hexachlorobutadiene	U	--
Isopropylbenzene	U	--
m,p-Xylenes	U	260
Methyl ethyl ketone	U	120
Methyl isobutylketone (MIBK)	U	--
Methylene chloride	U	50
n-Butylbenzene	U	12,000
n-Propylbenzene	U	3,900
Naphthalene	U	--
o-Xylene	U	260
sec-Butylbenzene	U	11,000
Styrene	U	--
t-Butylbenzene	U	5,900
Tert-butyl methyl ether	U	--
Tetrachloroethene	**25,000 D**	1,300
Toluene	U	700
trans-1,2-Dichloroethene	U	190
trans-1,3-Dichloropropene	U	--
Trichloroethene	**1,100**	470
Trichlorofluoromethane	U	--
Vinyl chloride	U	20
Xylene (total)	U	260

Notes:
ug/kg: Micrograms per kilogram
Na: Not applicable
--: Not established
B: Compound also detected in the associated method blank
E: Concentration exceeds the calibration range
D: Analysis at a secondary dilution factor
J: Estimated value
U: Compound concentration below the method detection limit
143: Exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objec

Table 5
Active Industrial Uniform Site
IRM Excavation
Endpoint Soil Sample Results
Volatile Organic Compounds

CONSTITUENT in ug/kg	Drum EP 7.5 feet 6/28/2011	Drywell 2 EP 7/7/2011	Drywell 3 EP 7/6/2011	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective
1,1,1,2-Tetrachloroethane	U	U	U	--
1,1,1-Trichloroethane	U	U	U	680
1,1,2,2-Tetrachloroethane	U	U	U	--
1,1,2-Trichloro-1,2,-trichloroethane	U	U	U	--
1,1,2-Trichloroethane	U	U	U	--
1,1-Dichloroethane	U	U	U	270
1,1-Dichloroethene	U	U	U	330
1,1-Dichloropropene	U	U	U	--
1,2,3-Trichlorobenzene	U	U	U	--
1,2,3-Trichloropropane	U	U	U	--
1,2,4,5-Tetramethylbenzene	3 J	U	U	--
1,2,4-Trichlorobenzene	U	U	U	--
1,2,4-Trimethylbenzene	7 J	U	U	3,600
1,2-Dibromo-3-chloropropene	U	U	U	--
1,2-Dibromoethane	U	U	U	--
1,2-Dichlorobenzene	U	U	U	1,100
1,2-Dichloroethane	U	U	U	20
1,2-Dichloropropane	U	U	U	--
1,3,5-trimethylbenzene	5 J	U	U	8,400
1,3-Dichlorobenzene	U	U	U	2,400
1,3-Dichloropropane	U	U	U	--
1,4-Dichlorobenzene	U	U	U	1,800
1,4-Diethylbenzene	5 J	U	U	--
2,2-Dichloropropane	U	U	U	--
2-chlorotoluene/4-chlorotoluene	U	U	U	--
Acetone	U	U	U	50
Benzene	U	U	U	60
Bromobenzene	U	U	U	--
Bromodichloromethane	U	U	U	--
Bromomethane	U	U	U	--
Carbon tetrachloride	U	U	U	760
Chlorobenzene	U	U	U	1,100
Chlorodifluoromethane	U	U	U	--
Chloroethane	U	U	U	--
Chloroform	U	4.1 J	U	370
cis-1,2-Dichloroethene	**290 EJ**	U	U	250
cis-1,3-Dichloropropene	U	U	U	--
CYMENE	U	U	U	--
Dibromomethane	U	U	U	--
Dichlorodifluoromethane	U	U	U	--
Ethylbenzene	U	U	U	1,000
Hexachlorobutadiene	U	U	U	--
Isopropylbenzene	U	U	U	--
m,p-Xylenes	U	U	U	260
Methyl ethyl ketone	U	1.7 J	U	120
Methyl isobutylketone (MIBK)	U	U	U	--
Methylene chloride	U	U	U	50
n-Butylbenzene	U	U	U	12,000
n-Propylbenzene	U	U	U	3,900
Naphthalene	U	U	U	--
o-Xylene	U	U	U	260
sec-Butylbenzene	U	U	U	11,000
Styrene	U	U	U	--
t-Butylbenzene	U	U	U	5,900
Tert-butyl methyl ether	U	U	U	--
Tetrachloroethene	**30,000 D**	73	69	1,300
Toluene	U	U	U	700
trans-1,2-Dichloroethene	U	U	U	190
trans-1,3-Dichloropropene	U	U	U	--
Trichloroethene	310 EJ	8.8	U	470
Trichlorofluoromethane	U	U	U	--
Vinyl chloride	U	U	U	20
Xylene (total)	U	U	U	260

Notes:
ug/kg: Micrograms per kilogram
Na: Not applicable
--: Not established
B: Compound also detected in the associated method blank
E: Concentration exceeds the calibration range
D: Analysis at a secondary dilution factor
J: Estimated value
U: Compound concentration below the method detection limit
30,000: Exceeds NYSDEC Part 375 Unrestricted Use Soil Cleanup Objective

APPENDIX D

DATA VALIDATOR RESUME

DONNA M. BROWN

Professional Experience

Ms. Brown has over 17 years of experience in project management, data validation, data management and field geology. As part of a broad spectrum of environmental remediation assignments she has worked as the site geologist at a variety of commercial and industrial sites undergoing remedial/site investigations, as well as conducted Phase I and Phase II Environmental Site Assessments in accordance with the American Society for Testing and Materials Standards, federal, state and local agencies, in addition to guidelines established by various lending institutions. Her experience with field activities include supervision of the installation of groundwater monitoring wells, temporary well points, and soil borings in support of subsurface investigations; groundwater and soil sampling for quantitative analysis; obtaining water level measurements; and utilizing portable field instruments.

Ms. Brown developed and managed the Data Validation and Data Management Group for the northeast region of a worldwide environmental consulting firm and was responsible for coordination of validation work load for over 40 projects. In addition, she was responsible for training data validators, providing cost estimates for validation work, preparation of Quality Assurance Project Plans (QAPPs) and Sampling and Analysis Plans (SAPs), validation of data in accordance with the USEPA National Functional Guidelines, USEPA Region II and III, New York State Department of Environmental Conservation (NYSDEC) ASP, New Jersey Department of Environmental Protection, and USEPA Hazardous Waste Support. Ms. Brown also managed and maintained over 20 projects in the GIS/Key database system, interfaced with the analytical laboratories to ensure the successful transfer of electronic laboratory data into the database system; and manipulation of geologic, laboratory, and hydrogeologic data within the Fox Pro, GIS/Key, MS Access, Grapher, Surfer, and AutoCAD programs .

In addition, Ms. Brown is trained in and utilized Environmental Visualization System (EVS) software. EVS software enables the user to provide three-dimensional animations to illustrate subsurface technical issues.

Ms. Brown was responsible for performing data validation of chemical data collected on and offsite at a clean fill demolition debris site and at several aerospace industrial client sites on Long Island utilizing the following protocols:

- USEPA Contract Laboratory Program National Functional Guidelines Organic and Inorganic;
- USEPA Hazardous Waste Support Branch, Validating Air Samples; and
- USEPA Region II, Volatile Organics Analysis of Ambient Air in Canisters By Method TO-15.

In addition, she updated GIS/Key database for chemistry and water level data, proved tables, graphs, and figures associated with project reports; conducted water level and water quality sampling; and prepared quarterly groundwater quality monitoring reports.

She also was responsible for performing data validation of chemical data collected at automotive industry owned sites in New Jersey using New Jersey Department of Environmental Protection Quality Assurance Data Validation of Analytical Deliverables TCL-Organics and TAL-Inorganics, and USEPA Hazardous Waste Support Branch, Validating Air Samples, Volatile Organics Analysis of Ambient Air in Canisters By Method TO-15.

DVIRKA and BARTILUCCI
YEARS OF EXCELLENCE
1965 - 2010

Corporate Title
Senior Geologist III

Education
N.Y. Institute of Technology, Westbury, New York, M.S. (Environmental Technology) - 2000

State University of New York at Stony Brook, B.S. (Geology) - 1992

Years Experience
17+

Office Location
Woodbury, NY

Contact
dbrown@db-eng.com

As a Project Manager she was responsible for client communications, coordination of field sampling, reviewed and interpreted geologic, hydrogeologic, and chemistry data, report preparation, maintained the database, and data validation for former chemical site in upstate New York.

Ms. Brown was responsible for maintaining the database which contains information from over 20 years of quarterly groundwater monitoring wells and four recovery well; performed data validation of chemical data using USEPA Contract Laboratory Program National Functional Guidelines Organic and Inorganic; proved tables, graphs, and figures associated with project reports, and updated GIS/Key database for chemistry and water level data at a chemical manufacturing site in Albuquerque, New Mexico.

Since joining D&B, Ms. Brown has supported the following activities:

- She is a Quality Assurance/Quality Control officer for the firm and reports to the Quality Assurance/Quality Control Program Manager (Ms. Petrella). Ms. Brown's responsibilities include reviewing all work relating to Quality Assurance/Quality Control for hazardous waste, hazardous substance, manufactured gas plant and solid waste projects undertaken by the firm.

- Ms. Brown is responsible for the data validation and data management (importing data into GIS/Key database and reporting results) of all data packages from ongoing hydrogeologic investigation and landfill closure investigations in Brookhaven and Hauppauge, New York.

- She is responsible for maintaining and updating twelve ongoing projects that use GIS/Key database system.

- For the Former Kings Park Psychiatric Center Project, Ms. Brown is responsible for reviewing all laboratory invoices, confirmation of chemical analysis with the laboratory, conducting data validation and importing all chemistry data and gps site locations into GIS/Key database system, in addition to providing tables, graphs, and AutoCAD figures.

- Ms. Brown has prepared data validation/usability reports for remedial investigation and feasibility studies conducted at numerous New York State Registry Sites, including Active Industrial, LIRR sites, Franklin Cleaners, Petro Oil, and Vanbro. These tasks involved evaluation of the laboratory data to determine compliance with NYSDEC Analytical Services Protocols (ASP), as well as to determine the usability of the data particularly if it was not consistent with ASP requirements.