FORMER BAUMAN BUS SITE
GABRESKI AIRPORT
WESTHAMPTON BEACH, NEW YORK
NYSDEC VCP ID: V00576

SUPPLEMENTAL INVESTIGATION REPORT

Submitted To:

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PROJECT No. AVB0801

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TABLE OF CONTENTS **PAGE**

1.0 INTRODUCTION 1

1.1 Site Description 1
1.2 Site History 1
1.3 Previous Investigations 2
1.2.1 Site Investigation Report 2
1.2.2 Remedial Action Work Plan 2
1.2.3 Recent Site Activities 3
1.2.4 Underground Injection Control Structure Characterization 3

2.0 HYDROGEOLOGIC ASSESSMENT AND PHYSICAL SETTING 4

2.1 Site Topography 4
2.2 Surrounding Land Use 4
2.3 Regional Geology/Hydrogeology 4
2.4 Site Geology/Hydrogeology 5

3.0 INVESTIGATION 6

3.1 Field Investigation and Technical Approach 6
3.2 Delineation of Soil Impact 6
3.2.1 Vertical Delineation 6
3.2.2 Horizontal Delineation 6
3.3 Delineation of LNAPL/Groundwater Impact 7
3.4 Evaluation of Soil Vapor Quality 8
3.5 Oil-Water Separator Evaluation 8
3.5.1 Soil Sampling 8
3.5.2 Groundwater Sampling 9
3.6 Data Analysis 9

4.0 NATURE AND EXTENT OF CONTAMINATION 11

4.2 Soil Impacts 11
4.2.1 Vertical Extent of Impact 11
4.2.2 Horizontal Delineation 12
4.2.3 Oil-Water Separator 12
4.2.4 Restricted Residential Use 13
4.3 Groundwater Impacts 13
4.3.1 LNAPL/VOC Plume 14
4.3.2 Oil-Water Separator 14
4.4 Soil-Vapor Impacts 14
4.5 Quality Assurance/Quality Control 15
4.5.1 QA/QC Samples 15
4.5.2 Data Usability and Validation 15

5.0 CONCLUSIONS AND RECOMMENDATIONS 18

5.1 Conclusions 18
5.2 Recommendations 19

6.0 REFERENCES 20

FIGURES

Figure 1	Vicinity Map
Figure 2	Site Plan
Figure 3	Surrounding Land Use
Figure 4	Public Drinking Water Supply Wells
Figure 5	Groundwater Contour Map
Figure 6	Soil Boring Locations
Figure 7	Groundwater Sample Locations
Figure 8	Soil-vapor Sampling Locations
Figure 9	Vertical Extent of Soil Impact
Figure 10	Horizontal Extent of Soil Impact
Figure 11	Vertical Extent of Groundwater Impact
Figure 12	Horizontal Extent of Groundwater impact

TABLES

Table 1	Soil Sample Analytical Data Summary
Table 2	Groundwater Sample Analytical Data Summary
Table 3	Soil-vapor Sample Analytical Data Summary
Table 4	QA/QC Sample Analytical Data Summary

APPENDICES

Appendix A	Underground Injection Control Structure Characterization Report
Appendix B	Soil Boring Logs
Appendix C	Monitoring Well Sampling Logs
Appendix D	Laboratory Analytical Reports
Appendix E	NYSDEC Correspondence
Appendix F	Data Validation Report

1.0 INTRODUCTION

The former Baumann Bus site is located within the Airport Development District (ADD) at the Francis S. Gabreski Airport in Westhampton Beach, New York (Suffolk County Tax Map Number 900-312-1-1). The property is owned by Suffolk County and managed by the Department of Economic Development and Workforce Housing.

The purpose of this Supplemental Investigation Report (SIR) is to detail the results of the supplemental investigation performed at the site. The investigation is intended to determine the vertical and horizontal extent of soil and groundwater impacted with volatile organic compounds (VOCs) and/or Light Non-Aqueous Phase Liquids (LNAPL), evaluate soil-vapor impact and delineate soil contamination associated with a former oil/water separator in the vicinity of the former Baumann Bus site (former Building 140) as required in the Remedial Action Work Plan (RAWP) prepared by O'Brian & Gere Engineers, Inc. for Rebuild NOW-NY.

The RAWP also called for evaluation of Underground Injection Control (UIC) structures present at the site; evaluation of UIC structures was handled separately from delineation of the LNAPL/VOC plume (see Section 1.2.4).

1.1 Site Description

The Francis S. Gabreski Airport is located on County Road 31 in the Town of Southampton, New York and is owned by Suffolk County. The airport is located within the Long Island Pine Barrens which are characterized by open, sunlit woodlands dominated by pitch pine interspersed with white and scarlet oak. The nearby Quogue Wildlife Refuge is characterized by dwarf pitch pines ranging from 3 to 6 ft tall. The airport itself is characterized by surrounding wooded areas consisting of 25 ft pitch pines and scattered scrub oak. The Airport has no commercially scheduled service, but does support private planes and presently is the home of the 106th Rescue Wing of the New York Air National Guard (NYANG).

The Airport Development District (ADD) encompasses 58.6 acres of the Airport. The ADD is bounded to the north by the Airport service road, to the south by Cook Street, to the east by Sheldon Avenue and to the west by County Road 31. The area of concern within the ADD is the former Baumann Bus site, located at the former location of Building 140 at the northwest corner of Avenue B and Cook Street.

A Vicinity Map is included as **Figure 1**; a Site Plan is included as **Figure 2**.

1.2 Site History

In 1943, the Federal government built the airport for use as an Air Force base during World War II. After the war, it was returned to Suffolk County. In 1951 it was reclaimed for the Korean War National Emergency. In 1960, it was leased by the US Air Force for an Air Defense Command Base, deactivated in 1969, then released back to Suffolk County in 1970.

The ADD portion of the Airport was occupied by housing for base personnel, a theater, church and PX, as wells as buildings for training and support services, including a photo lab, vehicle repair areas, flight simulator and

armament and electronics storage facility. Several storage tanks, used to store fuel-oil, gasoline and diesel, were located at the site. One tank was reportedly used for the temporary storage of jet fuel while aircraft were undergoing repair. Storage tanks at the site were reportedly removed prior to 1990.

1.3 Previous Investigations

Suffolk County conducted investigations in the vicinity of the southern part of the ADD parcel (between Smith and Avenue B) in connection with discovery of a plume containing a light non-aqueous phase liquid (LNAPL). A groundwater monitoring program was subsequently initiated to define the extent of impacted ground water. LNAPL was observed to be present on the groundwater table in several wells installed in the area between February and September 1986. Two recovery wells were subsequently installed at the leading edge of the plume and an air-stripping tower was constructed. The groundwater extraction and treatment system reportedly operated for several years and little LNAPL was recovered. Operation of the treatment system was terminated in 1990.

The investigation of the ADD and the development of a Remedial Action Work Plan (RAWP) were completed under the Empire State Development's (ESD) "ReBuild - Now New York" program. This collaborative effort between ESD and the NYSDEC was created to identify, prepare, and market parcels of land throughout New York State that are well-suited for economic development. The project was carried out under the requirements of the New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Program. Under the ReBuild program, more extensive sampling of the ADD was conducted from June to July 2002 and during September 2002. The findings of these studies are presented in the Site Investigation Report prepared by O'Brien & Gere Engineers, Inc. (O&BG) dated February 2004. A Remedial Action Work Plan (RAWP) was completed by O&BG in June 2004.

1.2.1 Site Investigation Report

The Site Investigation Report identified various volatile and semi-volatile organic compounds (VOCS and SVOCs) in subsurface soils and groundwater in the vicinity of the former Baumann Bus site. The LNAPLS/VOC plume appears to be limited to an approximately 70 foot by 170 foot area within the ADD; dissolved VOCs appear to have migrated onto the adjacent NYANG property.

The Site Investigation Report also identified one manhole (MH-1) located in the northern portion of the site which was found to contain a minor amount of residual solids impacted with SVOCs. Other subsurface structures used for discharge of stormwater and/or sanitary water were not sampled as part of the SIR.

1.2.2 Remedial Action Work Plan

A RAWP was completed for the site in June 2004. The RAWP established "*guidelines for management of materials removed form the LNAPL/VOC plume area and the subsurface structures including manholes and cesspools prior to and during remedial activities*".

The selected remedy detailed in the RAWP includes:

- Closure of unused subsurface sanitary structures in accordance with Article 12 of the Suffolk County Sanitary Code, Standard Operating Procedure 9-95 - Pumpout and Soil Cleanup Criteria, and Suffolk County "*Guidelines for Equipment and Procedures for the Remediation of Contaminated Leaching Pools*", and
- Removal of petroleum impacted soil by excavation.

1.2.3 Recent Site Activities

Suffolk County has completed demolition of the majority of the buildings located in the ADD. During demolition of Building 140 in August 2007, an oil/water separator was discovered within the building. The SCDHS described the oil/water separator as an upside down septic tank with open manhole covers on the bottom allowing for discharge directly to the subsurface. Based on the prior usage of the building as an automotive repair facility, the oil/water separator may have been a source of subsurface soil and/or groundwater impact. Cesspools and storm drains associated with the Building 140 at the former Baumann Bus site were sampled by the SCDHS and found to be uncontaminated.

1.2.4 Underground Injection Control Structure Characterization

Existing storm water drainage structures and sanitary systems were characterized in accordance with the RAWP. Characterization of these structures is documented in PWGC's Underground Injection Control (UIC) Structure Characterization Report dated September 2009.

Based on initial characterization sampling, it was determined that fourteen storm drains, four catch basins, four septic tanks and seven cesspools would require remediation in accordance with the RAWP and Suffolk County Department of Health Services (SCDHS) SOP 9-95, Pumpout and Soil Cleanup Criteria. PWGC recommended that an Interim Remedial Measure (IRM) be implemented at the site to address UIC structures requiring remediation. As of the date of this report, an IRM is tentatively scheduled to begin sometime in the Fall of 2009.

A copy of the UIC Structure Characterization Report is included as **Appendix A**.

2.0 HYDROGEOLOGIC ASSESSMENT AND PHYSICAL SETTING

2.1 Site Topography

The site is located approximately 65 feet above mean sea level. The topography of the site is generally level except for a recharge basin to the west of the former location of Bldg. 140. This recharge basin received discharge from a groundwater treatment system formerly present at the site. The ground surface at the site is approximately evenly split between paved roadway/parking areas and unpaved areas. Precipitation at the southern end of the site and in paved areas flows into storm drains located along Cook Street and Avenue B.

The nearest surface water body is Beaverdam Pond, located approximately 1.25 mile southwest of the site.

The area surrounding the property is illustrated in **Figure 3**.

2.2 Surrounding Land Use

The ADD is bordered to the north by undeveloped Pine Barrens, to the south by the NYANG base and to the west by County Road 31, along which are several light industrial and commercial properties. Airport runways are located adjacent to the ADD to the east. Beyond the runways to the east is the Quogue Wildlife Refuge, which is separated from the Airport by a small wooded buffer area.

The nearest residential properties are located approximately 1 mile west and south of the site. Residential areas in the vicinity of the site are connected to the municipal water supply provided by the Suffolk County Water Authority (SCWA). Several SCWA municipal supply wells are located in the vicinity of the airport. The area surrounding the site is illustrated in **Figure 3**; municipal water supply well field locations are illustrated in **Figure 4**.

2.3 Regional Geology/Hydrogeology

The geologic setting of Long Island is well documented and consists of crystalline bedrock composed of schist and gneiss overlain by layers of unconsolidated deposits. Immediately overlying the bedrock is the Raritan Formation, consisting of the Lloyd sand confined by the Raritan clay Member. The Lloyd sand is an aquifer and consists of discontinuous layers of gravel, sand, sandy and silty clay, and solid clay. The Raritan clay is a solid and silty clay with that is gray, red or white in color with few lenses of sand and gravel and abundant lignite and pyrite.

Above the Raritan Clay lies the Magothy Formation. The Magothy aquifer consists of layers of fine to coarse sand of moderate to high permeability, with inter-bedded lenses of silt and clay of low permeability resulting in areas of preferential horizontal flow. Therefore, this aquifer generally becomes more confined with depth. The Magothy Formation is overlain by the Upper Glacial deposits which contains the Upper Glacial aquifer. The Upper Glacial aquifer is the water-table aquifer at this location and is comprised of medium to coarse sand and gravel with occasional thin lenses of fine sand and brown clay. This aquifer extends from the water table to the top of the Magothy and, therefore, is hydraulically connected to the Magothy aquifer.

2.4 Site Geology/Hydrogeology

The aquifer of concern at the former Bauman Bus site is the Upper Glacial aquifer which is an unconsolidated mixture of sand and gravel. The Upper Glacial aquifer is approximately 100 feet at the site, and has an estimated average horizontal hydraulic conductivity (permeability) of 270 feet/day and a vertical hydraulic conductivity of 27 feet/day (Franke & Cohen, 1972).

Clay layers, such as the Gardiners clay and the "20-Foot-clay," where present, may act as local confining units, separating the Upper Glacial aquifer from the underlying Magothy aquifer which is the principal source of drinking water in Suffolk County.

Based on data collected during groundwater sampling, depth to groundwater at the site is approximately 30 feet bgs. During sampling program performed by OB&G depth to groundwater ranged from 32 to 46 feet below ground surface. No confining unit (clay) was observed in soil borings installed at the site. Regional groundwater flow at the site is to the southeast. Based upon the groundwater measurements obtained from the site monitoring wells on June 10, 2009, local groundwater flow direction was determined to be to the east-southeast (**Figure 5**).

As detailed in the SIWP, historically, groundwater elevations have fluctuated from approximately 30 to 36 feet bgs. In monitoring wells from which measurable quantities of LNAPL have historically been present, LNAPL generally is present at times when the depth to groundwater approaches 35 feet, indicating LNAPL is trapped, in saturated pore space, beneath the groundwater table for extended periods of time. During the monitoring event conducted on January 18, 2008, one monitoring well showed measurable quantities of LNAPL, 0.16 feet in PZ-08.

3.0 INVESTIGATION

The purpose of the SIR was to collect data of sufficient quality and quantity to augment the February 2004 Site Investigation Report and adequately characterize the vertical and horizontal extent of soil and groundwater impacted with volatile organic compounds (VOCs) and/or Light Non-Aqueous Phase Liquids (LNAPL) in the vicinity of the former Bauman Bus site. The SIR was also intended to evaluate UIC structures at the site; UIC structure characterization was addressed separately from the LNAPL/VOC plume and is documented in the UIC Structure Characterization Report included as **Appendix A**. Work was performed in accordance with the approved RAWP and NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation, December 2002.

3.1 Field Investigation and Technical Approach

The scope of work included the following tasks:

- Delineation of soil impact.
- Delineation of LNAPL and/or dissolved groundwater impact.
- Evaluation of soil vapor quality.
- Evaluation of soil and groundwater quality related to the former oil-water separator.

3.2 Delineation of Soil Impact

3.2.1 Vertical Delineation

To delineate the vertical extent of soil impact, four soil borings (VD-1 through VD-3 and HD-11) were installed through the centerline of the plume area. Although the SIWP called for only three vertical delineation borings, because the areal extent of the plume was found to be larger than anticipated, an additional vertical delineation boring was added. Soil boring locations are illustrated on **Figure 6**; soil boring logs are included in **Appendix B**.

Soil borings were installed utilizing a Geoprobe® direct-push drill rig outfitted with a macro-core sampler and dedicated acetate liners. Soils were collected continuously from ground surface to at least 5 feet below the deepest impacted interval (as determined by field observations). Soils were field screened for the presence of VOCs using a photo-ionization detector (PID). Non-dedicated sampling equipment was decontaminated prior to the collection of each sample.

At each boring location, one soil sample was collected from the interval exhibiting the highest PID response and two additional samples were collected from intervals below the deepest impacted interval.

Groundwater samples were also collected at each boring location (see Section 2.3).

3.2.2 Horizontal Delineation

To assess the horizontal extent of LNAPL/VOC impact, a total of 30 soil borings were installed around the approximate perimeter of the plume to evaluate the current extent of the plume. Soil boring locations are illustrated on **Figure 6**; soil boring logs are included in **Appendix B**.

Soil borings were installed utilizing a Geoprobe® direct-push drill rig outfitted with a macro-core sampler and dedicated acetate sample liners. Soils were collected continuously from ground surface to at least 5 feet below the deepest impacted interval (as determined by field observations) but not less than 36 feet below ground surface (bgs). Soils were field screened for the presence of VOCs using a PID. Non-dedicated sampling equipment was decontaminated prior to the collection of each sample.

At minimum, a soil sample was collected at each boring location from the interval exhibiting the highest PID response. At locations where no PID response above background concentrations was observed, a sample was collected from the interval immediately above the water table.

At boring locations where field observations (visual and olfactory observations, as well as PID responses during soil sample screening) and/or laboratory analytical data identified the presence of impacted soil, step-out borings were installed approximately 20 feet outward (with respect to the approximate plume location) from the boring in which impacted soil was identified. Additional step-out borings were installed, as necessary, until field observations and/or laboratory analytical data indicated that the horizontal extent of soil impact was adequately delineated. Where appropriate (i.e., downgradient locations) step-out borings were pre-probed to 25 feet bgs with soils collected continuously from 25 feet to the terminal depth.

Groundwater samples were also collected at each boring location (see Section 2.3).

3.3 Delineation of LNAPL/Groundwater Impact

Groundwater samples were collected at each soil boring location (see Section 2.2) and selected pre-existing piezometers previously installed at the site. Samples were collected from piezometers: PZ-02, 03, 06, 08, 17, 27, and 28. Groundwater sample locations are illustrated on **Figure 7**; monitoring well sampling logs are included in **Appendix C**.

Samples collected from piezometers were collected using a stainless-steel submersible pump fitted with dedicated polyethylene tubing in accordance with the low-flow purging and sampling procedure detailed in the SIWP. Depth to water and LNAPL measurements were collected at each piezometer. Measuring equipment and non-dedicated sampling equipment were decontaminated between wells using a laboratory-grade detergent and water solution and reagent grade water rinse.

Temporary groundwater sampling points were installed utilizing a Geoprobe® direct-push drill rig outfitted with a four-foot, stainless-steel screen point sampler. Groundwater samples were collected from the water table interface (approximately 30 ft bgs) and, at four boring locations intended for vertical delineation, groundwater samples were also be collected from approximately ten feet below the water table interface. Samples were collected using dedicated polyethylene tubing fitted with a stainless steel check valve oscillated by hand. Prior to sampling, one to two gallons of water was purged to reduce sample turbidity. Non-dedicated sampling

equipment was decontaminated between wells using a laboratory-grade detergent and water solution and reagent grade water rinse.

3.4 Evaluation of Soil Vapor Quality

Soil gas samples were collected to evaluate the presence of petroleum related VOC vapors in the vadose zone soils. Soil vapor sampling locations are illustrated in **Figure 8.**

Five temporary soil vapor sampling points were installed utilizing a Geoprobe® direct-push drill-rig. At each location, a shallow soil vapor sampling point, constructed of a dedicated stainless-steel sampling screen and polyethylene tubing, was installed five feet below grade. An ambient air sample was collected from a location upwind of the soil vapor sampling points.

Soil-vapor samples were collected in summa vacuum canisters fitted with one-hour regulators (certified clean by the laboratory). Soil-vapor sampling points were sealed with bentonite to prevent cross-contamination of soil gas with outdoor air infiltration. In accordance with New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in New York State, prior to sampling, the integrity of each bentonite seal was tested using tracer gas analysis. At each location, the environment surrounding the seals enclosed in an airtight container which was then enriched with the tracer gas (helium). Tracer gas readings were collected through the sampling probe with a portable helium detector; tracer gas readings were acceptable for each sample (less than 5% helium detected). After initial tracer gas readings were recorded, one to three volumes of the implant (i.e., the volume of the sample probe and tube) were purged prior to collecting samples. Flow rates for both purging and sample collection did not exceed 0.2 liters per minute to minimize potential outdoor air infiltration during sampling. Upon completion of sample collection, bentonite seals around soil-vapor sampling points were reassessed for evidence of leaks (using the tracer gas method detailed above). No evidence of leaking seals was detected (helium readings less than 5%) during post-sampling re-assessment.

3.5 Oil-Water Separator Evaluation

3.5.1 Soil Sampling

Five soil borings were installed in the vicinity of the former oil-water separator/leaching pit location to determine whether the use of the structure has contributed to subsurface impact at the site. The former oil-water separator location is currently lined with plastic sheeting and partially backfilled. The center of this excavation is assumed to be the center of the former oil-water separator location. Soil boring locations are illustrated in **Figure 6**; soil boring logs are included in **Appendix B**.

One boring was installed at the approximate center of the former location of the structure; four borings were installed around the approximate perimeter of the structure. Soil borings were installed utilizing a Geoprobe® direct-push drill rig outfitted with a macro-core sampler and dedicated acetate sample liners. Soils were collected continuously from grade to at least 5 feet below the deepest impacted interval (as determined by field observations) but not less than 36 feet bgs. Soils were field screened for the presence of VOCs using a PID. Non-

dedicated sampling equipment was decontaminated between wells using a laboratory-grade detergent and water solution and reagent grade water rinse.

One soil sample was collected at each boring location from the interval exhibiting the highest PID response. If no PID response above background concentrations was observed, a sample was collected from the interval immediately above the water table. At location OWS-Center, a second soil sample was collected from the 7 to 9 foot bgs interval (the approximate bottom depth of the oil-water separator) based on a slightly elevated PID response (105 ppm).

The SIWP detailed provisions for installation of step-out borings in the event that that field observations identify the presence of impacted soil in perimeter borings, it was determined that no step-out borings were required. Although evidence of impact was identified in three perimeter borings (OWS-North, OWS-South and OWS-East), impact appeared to be consistent with impact identified in the LNAPL/VOC plume area. Based on the proximity of these oil-water separator borings to LNAPL/VOC plume horizontal delineation step-out borings, the installation of additional step-out borings was deemed unnecessary since it appears that the LNAPL/VOC plume extends into the former oil-water separator area.

3.5.2 Groundwater Sampling

One temporary groundwater sampling point (OWS-Center) was installed at the approximate center of the former location of the structure. The SIWP called for two additional temporary groundwater sampling points to be installed down-gradient (with respect to groundwater flow) of the former location of the structure in the event that field observations identify impacted soil at perimeter boring locations. Because horizontal plume delineation borings were more widespread than was initially expected and extended into the LNAPL/VOC plume area, it was unnecessary to install additional groundwater sampling points solely related to the former oil-water separator as boring locations HD-27 and HD-22 are located downgradient of the former location of the structure. Groundwater sample locations are illustrated in **Figure 7**.

Temporary groundwater sampling points were installed utilizing a Geoprobe® direct-push drill rig outfitted with a four-foot, stainless-steel screen point sampler. Groundwater samples were collected from the water table interface (approximately 30 ft bgs). Samples were collected using dedicated polyethylene tubing fitted with a stainless steel check valve oscillated by hand. Prior to sampling, one to two gallons of water was purged to reduce sample turbidity. Non-dedicated sampling equipment was decontaminated between wells using a laboratory-grade detergent and water solution and reagent grade water rinse.

3.6 Data Analysis

Soil, groundwater and soil-vapor samples were delivered to Chemtech of Mountainside, New Jersey for analysis. Analytical services provided by Chemtech were performed in accordance with NYSDEC Analytical Sampling Protocol (ASP) with Category B deliverables (ASP-B). Analytical services included analysis of:

- Soil and groundwater samples for STARS analyte list VOCs by USEPA Method 8260.

- Soil and groundwater samples for STARS analyte list SVOCs by USEPA Method 8270.
- Soil-vapor samples for VOCs by USEPA method TO-15 + additional VOCs specified in the SIWP.

Laboratory analytical reports are included as **Appendix D** (results only); electronic copies of full data packages are included on the enclosed CD-ROM.

4.0 NATURE AND EXTENT OF CONTAMINATION

This section details the Site Investigation findings and analytical data. Analytical data is compared to appropriate NYSDEC standards, cleanup objectives and guidance values, as appropriate. Regulatory standards and guidance values used to evaluate analytical data are detailed below.

Soil sample analytical data are compared to NYSDEC Recommended Soil Cleanup Objectives (RSCO) specified in Technical and Administrative Guidance Memorandum (TAGM) 4046, Determination Of Soil Cleanup Objectives and Cleanup Levels (January 1994).

Groundwater sample analytical data are compared to the NYSDEC Class GA Ambient Water Quality Standards (AWQS) as specified in Technical Operation and Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998, with January 1999 Errata Sheet and April 2000 and June 2004 Addendums).

Soil-vapor analytical results were compared to the Target Shallow Soil Gas Concentrations specified in USEPA Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soil (Subsurface Vapor Intrusion Guidance) Table 2b Risk = 1×10^{-5}.

Soil, groundwater and soil-vapor sample locations are illustrated in **Figure 6** through **Figure 8**; analytical data are summarized in **Table 1** and **Table 2**. Laboratory analytical reports are included as **Appendix D**.

4.2 Soil Impacts

4.2.1 Vertical Extent of Impact

At each vertical delineation boring location (VD-1, VD-2, VD-3 and HD-11), one soil sample was collected from the interval exhibiting the highest PID response and two additional samples were collected from intervals below the deepest impacted interval. Elevated PID responses were not detected in the vadose zone at each of the four vertical delineation boring locations. Soil boring locations are illustrated in **Figure 6**; a geologic cross section illustrating total VOC concentrations is included as **Figure 9**. Analytical data are summarized in **Table 1**.

VOCs were detected at concentrations exceeding their respective RSCOs in samples collected from soil boring VD-1, VD-2, VD-3 and HD-11. Impacted samples were collected from the 32.5-35 foot bgs interval at each boring location. SVOCs were not detected at concentrations exceeding their respective RSCOs in soil samples collected from vertical delineation borings.

At each vertical delineation boring location, the highest total VOC concentrations were detected in the sample collected from the approximate depth of the water table interface (approximately 30 feet bgs). Deeper samples collected for analysis at these boring locations contained significantly lower total VOC concentrations, indicating that VOC impact in soil is generally limited to the area between 30 and 35 feet bgs.

4.2.2 Horizontal Delineation

At minimum, one soil sample was collected at each horizontal delineation boring location (HD-1 through HD-30) from the interval exhibiting the highest PID response. At locations where PID responses above background concentrations were not detected, a sample was collected from the interval immediately above the water table. Elevated PID responses were not detected in the vadose zone at each of the thirty horizontal delineation boring locations. Soil boring locations are illustrated on **Figure 6**; total VOC concentrations in soil are illustrated in **Figure 10**. Analytical data are summarized in **Table 1**.

VOCs were detected at concentrations exceeding their respective RSCOs in samples collected from horizontal delineation soil borings HD-1, HD-2, HD-4, HD-6, HD-7, HD-8, HD-9, HD-11, HD-14, HD-15, HD-16 and HD-30. Although VOCs were detected in samples collected from additional horizontal delineation borings, concentrations detected did not exceed their respective RSCOs. SVOCs were not detected at concentrations exceeding their respective RSCOs in soil samples collected from horizontal delineation borings.

Although VOCs were detected in soil samples collected throughout the plume area, the highest total VOC concentration were generally detected in the areas east and north of former Building 140. Based on sample data, the area of soil impacted with VOCs exceeding their respective RSCOs extends from the area northeast of former Building 140 southward onto the ANG base and measures approximately 21,000 square feet (see **Figure 10**).

Due to the lack of SVOCs detected in samples collected from horizontal delineation borings HD-1 through HD-15, SVOC analysis was not performed on samples collected from horizontal delineation borings HD-16 through HD-30. Removal of SVOC analysis from subsequent samples was approved by NYSDEC (see **Appendix E**, NYSDEC Correspondence).

4.2.3 Oil-Water Separator

One soil sample was collected at each boring location associated with the former oil-water separator from the interval exhibiting the highest PID response. Where no PID response above background concentrations was observed, a sample was collected from the interval immediately above the water table. In general, elevated PID responses were not detected through the vadose zone; however, at location OWS-Center, a second soil sample was collected from the 7 to 9 foot bgs interval (the approximate bottom depth of the oil-water separator) based on a slightly elevated PID response (105 ppm). Soil boring locations are illustrated in **Figure 6**; total VOC concentrations in soil are illustrated in **Figure 10**. Analytical data are summarized in **Table 1**.

VOCs were detected at concentrations exceeding their respective RSCOs in soil samples collected from boring locations OWS-Center (32.5-35 feet bgs) and OWS-East. The VOCs detected were at these boring locations are the same as those detected throughout the plume area; however, concentrations detected in the vicinity of the former oil-water separator are significantly lower than those detected in the areas north and east of former Building 140.

SVOCs were not detected at concentrations exceeding their respective RSCOs in soil samples collected from the former oil-water separator location. VOCs and SVOCs were not detected above the laboratory method detection limit (MDL) in the shallow sample collected from the approximate bottom depth of the oil-water separator (OWS-Center at 7-10 feet bgs).

Based on the lack of shallow impact identified through the vadose zone at the former oil-water separator location and the nature of impact identified (i.e., consistent with impact identified in the plume area), it appears that impact identified in borings OWS-Center and OWS-East is likely related to the LNAPL/VOC plume rather than the former presence/use of the oil-water separator.

4.2.4 Restricted Residential Use

At the time the RAWP for the site was prepared (June 2004), RSCOs were the soil cleanup guidelines most commonly accepted by NYSDEC and, as such, were identified as the appropriate chemical specific standards, criteria and guidelines (SCGs) for the site by OBG. In December 2006, NYSDEC released 6 NYCRR Part 375, Environmental Remediation Programs, which specified (in Subpart 375-6) new soil cleanup objectives (SCOs). Part 375-6 SCOs are divided into Unrestricted and Restricted Use categories; Restricted Use SCOs are further subdivided by the usage of the property (i.e., residential, commercial, industrial). As of the date of this report, Part 375 SCOs are the accepted chemical specific SCGs at NYSDEC Remedial Program sites.

Given the properties current zoning and intended use (office space and hotel), the Part 375 commercial standard could be applied. However, to add an additional degree of protection, and to allow for a wider range of future uses (such as day care facilities), PWGC believes it may be more appropriate to apply the more restrictive restricted residential SCO. The use of Part 375 restricted residential SCOs would be appropriate at this site based upon the following:

- The restricted residential SCOs are more restrictive than any current or planned use for the property;
- No site impacts were identified shallower than 30 feet bgs;
- Based upon the planned site use, the site will largely be capped by buildings and asphalt / concrete paving;
- The site will receive potable water from a municipal source, therefore site groundwater will not be used as a potable water source;
- The adjoining down gradient property is still operated as a National Guard Base / Airport. There is no indication that this use will change in the foreseeable future.

When compared to Restricted Residential SCOs, VOCs were detected at concentrations exceeding their respective standards in samples collected from horizontal delineation soil borings VD-1, HD-4, HD-6 and HD-7. VOCs detected in samples collected from remaining soil borings did not exceed Restricted Residential SCOs.

The total areal extent of impacted soils appears to be reduced significantly (50% or more) when soil data are compared to Restricted Residential SCOs in place of RSCO (see **Figure 10**).

4.3 Groundwater Impacts

4.3.1 LNAPL/VOC Plume

Groundwater samples were collected at each soil boring location and selected pre-existing piezometers (PZ-02, 03, 06, 08, 17, 27, and 28). Groundwater sample locations are illustrated in **Figure 7**; vertical and horizontal extents of groundwater impact are illustrated in **Figures 11 and 12**, respectively. Analytical data are summarized in **Table 2**.

VOCs were detected at concentrations exceeding NYSDEC AWQS in multiple groundwater samples collected throughout the plume area. The highest total VOC concentrations were detected in samples collected beneath and immediately east of former Building 140 extending southward toward the ANG base, specifically at sample locations HD-6, HD-7, HD-8, HD-9, VD-2, PZ-06 and PZ-27 (see **Figure 11**). The horizontal and vertical extent of groundwater impact appears to be consistent with that of soil impact.

SVOCs were not detected at concentrations exceeding NYSDEC AWQS in groundwater samples collected from the plume area. Due to the lack of SVOCs detected in groundwater samples collected from boring locations HD-1 through HD-15, SVOC analysis was not performed on samples collected from boring locations HD-16 through HD-30. Removal of SVOC analysis from subsequent samples was approved by NYSDEC (see **Appendix E**, NYSDEC Correspondence).

Measurable LNAPL was not detected at temporary groundwater sampling points or piezometer locations.

4.3.2 Oil-Water Separator

Groundwater sample locations are illustrated in **Figure 7**; total VOC concentrations contours are illustrated in **Figure 11**. Analytical data are summarized in **Table 2**.

VOCs were detected at concentrations exceeding their respective NYSDEC AWQS in samples collected from boring locations OWS-Center and HD-22. VOCs were not detected at concentrations exceeding their respective NYSDEC AWQS in the sample collected from boring location HD-27. SVOCs were not detected at concentrations exceeding their respective NYSDEC AWQS in the sample collected from boring location OWS-Center; groundwater samples collected from boring locations HD-22 and HD-27 were not analyzed for SVOCs.

Based on the lack of evidence of impact identified in vadose zone soils in the vicinity of the former oil-water separator (i.e., lack of a source area), it appears likely that impact identified in groundwater samples collected from borings OWS-Center and HD-22 is related to the LNAPL/VOC plume rather than the former oil-water separator.

4.4 Soil-Vapor Impacts

Soil gas samples were collected to evaluate the presence of petroleum related VOC vapors in the vadose zone soils. Soil-vapor samples were collected in summa vacuum canisters fitted with one-hour regulators (certified clean by the laboratory). Soil vapor sampling locations are illustrated in **Figure 8**; soil-vapor analytical data are summarized in **Table 3**.

VOCs were not detected at concentrations exceeding USEPA Target Shallow Soil Gas Concentrations in collected soil-vapor samples, indicating that subsurface soil/groundwater impact present at the site has not impacted shallow soil-vapor.

4.5 Quality Assurance/Quality Control

The overall quality assurance/quality control (QA/QC) objective for the field investigation was to develop and implement procedures that provide data of known and documented quality. QA/QC characteristics for data include precision, accuracy, representativeness, completeness, and comparability. The purpose of the QA/QC activities developed for this site were to verify the integrity of the work performed and data collected is of the appropriate type and quality for the intended use.

4.5.1 QA/QC Samples

To assess the adequacy of the sample collection and decontamination procedures performed in the field, QA/QC samples were collected and analyzed throughout the field sampling program. QA/QC samples included trip blanks, field blanks, blind duplicates, matrix spike (MS), and matrix spike duplicates (MSD). Types and frequencies of field QA/QC samples are listed below.

Type	Frequency
Trip Blank	One per cooler (when VOC samples collected)
Field Blank	One per day per matrix sampled
Blind Duplicate	One per 20 samples per matrix
Matrix Spike/Matrix Spike Duplicate	One per 20 samples per matrix

During the project, a total of twelve trip blanks were submitted and analyzed. Trip blanks accompanied environmental samples whenever VOCs were collected.

In general, QA/QC samples confirmed that the procedures performed in the field were consistent and acceptable. Targeted analytes were not detected above the laboratory MDL in field blank or trip blank samples submitted for analysis, indicating that sample collection procedures and/or ambient conditions are unlikely to have impacted environmental samples collected from the site during implementation of the Supplemental Site Investigation.

QA/QC sample analytical data are summarized in **Table 4**.

4.5.2 Data Usability and Validation

A Data Validation Report and a Data Usability Summary Report (DUSR) were prepared by Stone Environmental, Inc. (Stone) of Montpelier, Vermont. A copy of the DUSR (with the Data Validation Report included as an attachment) is included as **Appendix F**.

Data Validation

In accordance with the approved SIWP, full data validation was performed on 5% of the data generated or one sample per Sample Delivery Group (SDG), whichever was greater. Remaining data received a summary validation as detailed in the DUSR. The findings and recommendations of the Data Validation Report (included as Attachment C to the DUSR) are summarized as follows:

- Since the concentration reported with a "U" on all reports is not supported concentration of the low standard which provides precision and bias during these analyses for identification and quantitation, results for all non-detects in all VOA samples in SDG Nos. A2925, A2972, A2992, A3034, A3107, A3108, A3109, and A3498, and all SVOA samples in all SDG Nos. were qualified as estimated (UJ).
- Based on unacceptable %D values in the associated calibration standards, the following results were qualified as estimated (J, UJ):
    - The result for methyl tert-butyl ether in VD-3(GW)-29-33.
    - The result for o-xylene in OWS-CENTER(7.5-10).
    - Results for benzo(g,h,i)perylene in HD-13(25-30), DUP-06, HD-13(GW)-29-33, 11(40-42.5), and HD-11(GW)-40-44.
- Therefore, based on the low surrogate recovery the result for toluene in DUP-03 qualified as estimated (UJ). DUP-03RE also warrants qualification as estimated these results were dropped from consideration and only the DUP-03 was used reporting.
- Based on the low IS recovery, results for methyl tert-butyl ether, benzene, toluene tert-butylbenzene in HD-30(32.5-35) were qualified as estimated (UJ).
- Based on poor reproducibility in the field duplicate pair, results for m/p-xylene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, and naphthalene in VD-2(40-42.5) were qualified as estimated (J).
- In samples VD-3(32.5-35), VD-3(GW)-29-33, HD-3(GW)30-34, PZ-17, DUP-05, 30(32.5-35), results for 1,2,4-trimethylbenzene; in samples VD-3(GW)-29-33, 30(32.5-35), results for m/p-xylene, o-xylene; in sample SV-5, results for acetone and butanone; in sample HD-30(32.5-35), results for ethylbenzene, isopropylbenzene, npropylbenzene, 1,3,5-trimethylbenzene, sec-butylbenzene, p-isopropylbenzene, nbutylbenzene, naphthalene were detected outside the calibration range of instrument. As a result, these samples were analyzed at a subsequent dilution in order to quantify these target analytes within the calibration range. Results for the compounds listed above in the low-level analysis (outside the calibration range and qualified with "E") were rejected (R) in samples VD-3(32.5-35), VD-3(GW)-29-33, HD-3(GW)30-PZ-17, DUP-05, HD-30(32.5-35), and SV-5. Results for these compounds were taken from the more concentrated analysis and replaced with the appropriate concentration from the dilution analysis. The laboratory appropriately applied the "E" and "D" qualifiers to the sample results. These qualifiers have been removed by the validator.
- Results from the dilution analysis in VD-3(32.5-35)DL, VD-3(GW)-29-33DL, HD-3(GW)30-34DL, PZ-17DL, DUP-05DL, HD-30(32.5-35)DL, and SV-5DL that did not replace the result in the more concentrated analyses were dropped from consideration or rejected (R) unless otherwise noted in samples.
- The laboratory appropriately applied "B" qualifiers to sample results that were associated with MB contamination. All laboratory-applied "B" qualifiers were removed by the validator from the sample Form Is.

- The validator recommends caution in the use of acetone (reported as a TIC) in Sample HD-19(GW)29-33 since this compound is typically a lab contaminant and may not be a true sample component. The validator recommends caution in the use of specific compound names reported the laboratory for tentatively identified compounds in these samples, and recommends the use more general classifications such as "unknown naphthalene isomer" and/or "unknown C3 benzene" since the identification of specific compounds was not supported with standard analyses.

Data Usability

The DUSR was prepared in accordance with USEPA Region II SOPs for validating organic and inorganic analyses and was based on a review of each SDG case narrative and full Data Validation Report (detailed above). The findings and recommendations of the DUSR are summarized as follows:

- Overall quality control data provided in the laboratory reports, and the case narrative, the data are representative of adequate method accuracy and precision with regard to project objectives.
- Although a few data points were rejected as noted above based on the dilutions, and no SVOA results were available for sample HD-6(GW) 30-34, the majority of the data were deemed usable by the data validator. Exceptions to this were due to sample matrix effects, dilutions, and reanalysis.
- Data deemed usable or rejected were noted above so to avoid confusion when a more quantitatively accurate result was available.
- As noted in the full data validation report, results for several compounds in several samples were qualified as estimated (J, UJ) due to laboratory quality control outliers and reporting non-detects to the detection limit rather than the quantitation limit.
- The completeness level attained for the analysis of the field samples was greater than 95%. For all data, the overall quality of the data was acceptable and all results as qualified are considered usable.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

PWGC performed a Supplemental Investigation at the former Bauman Bus site located at Gabreski Airport, Westhampton Beach, New York. The investigation consisted of the collection and analysis of soil, groundwater and soil-vapor samples to delineate the horizontal and vertical extent of the LNAPL/VOC plume identified during the 2002 Site Investigation.

Based on soil sampling data, it appears that soil impacted with VOCs at concentrations exceeding RSCOs extends from the area northeast of former Building 140 southward onto the ANG base. The impacted area measures approximately 210 feet by 100 feet. Throughout the plume area, the greatest degree of soil impact appears to be present from 30 to 35 feet bgs which is at or below the water table.

PWGC also evaluated the site with respect to the Part 375 SCOs. Based upon the following, it is PWGC's opinion that the Part 375 restricted residential SCOs provide sufficient protection to the site based upon the following:

- The restrictive residential SCOs are more protective than any current or planned commercial / industrial use for the property.
- No exposure pathways were identified given that: no site impacts were identified shallower than 30' bgs., groundwater will not be used as a potable water source, and soil gas sampling results were below USEPA target soil gas concentrations for the compounds analyzed for.
- The adjoining downgradient property is still operated as an Air National Guard Base / airport.
- The nearest residential property is located ¾ of a mile downgradient from the investigation area.

When soil sample data are compared to restricted residential SCOs rather than RSCOs, the extent of impact exceeding standards is limited to the areas immediately east and north of former Building 140, specifically, in the vicinity of boring locations VD-1, HD-4, HD-6 and HD-7, and the impacted area measures approximately 90 feet by 100 feet.

Based on groundwater sample data, it appears that the highest total VOC concentrations are present beneath and immediately east of former Building 140. The plume of impacted groundwater appears to extend south from the area north of former Building 140 onto the Air National Guard property. Laterally, the plume appears to extend from beneath former Building 140 eastward beneath Avenue B.

Measurable LNAPL was not detected at temporary groundwater sampling points or piezometer locations. However, as detailed in the SIWP, historically LNAPL has generally been detected at the site when the groundwater table drops below 35 feet bgs. During implementation of the Supplemental Investigation, groundwater levels were generally between 29 and 31 feet bgs.

VOCs were not detected at concentrations exceeding USEPA Target Soil-Gas Concentrations in soil-vapor samples collected from within the LNAPL/VOC plume area, indicating that, despite the presence of dissolved VOCs in groundwater beneath the site, shallow soil vapor has not been impacted.

Based on the lack of shallow soil impact identified at the former location of the oil-water separator and the nature of groundwater impact identified (i.e., consistent with impact identified in the LNAPL/VOC plume area), it does not appear that the structure has acted as a source of groundwater impact at the site.

5.2 Recommendations

Based upon the findings of this investigation, PWGC recommends that:

- Remediation of UIC structures be implemented as detailed in the UIC Structure Characterization Report (Appendix A) as an Interim Remedial Measure (IRM) in accordance with the approved RAWP. As of the date of this report, the UIC IRM is underway.
- Based upon an evaluation of the findings of this Supplemental IR report and a review of 6 NYCRR Part 375, PWGC believes that the Part 375 restricted residential SCOs will be sufficiently protective at this site to define the extent of soils which require remediation. Therefore, it is PWGC's recommendation that the approved remedial measure, which is to consist of the excavation of impacted soils, should be revised to consist of the excavation of soils which exceed the Part 375 restrictive residential SCOs.

6.0 REFERENCES

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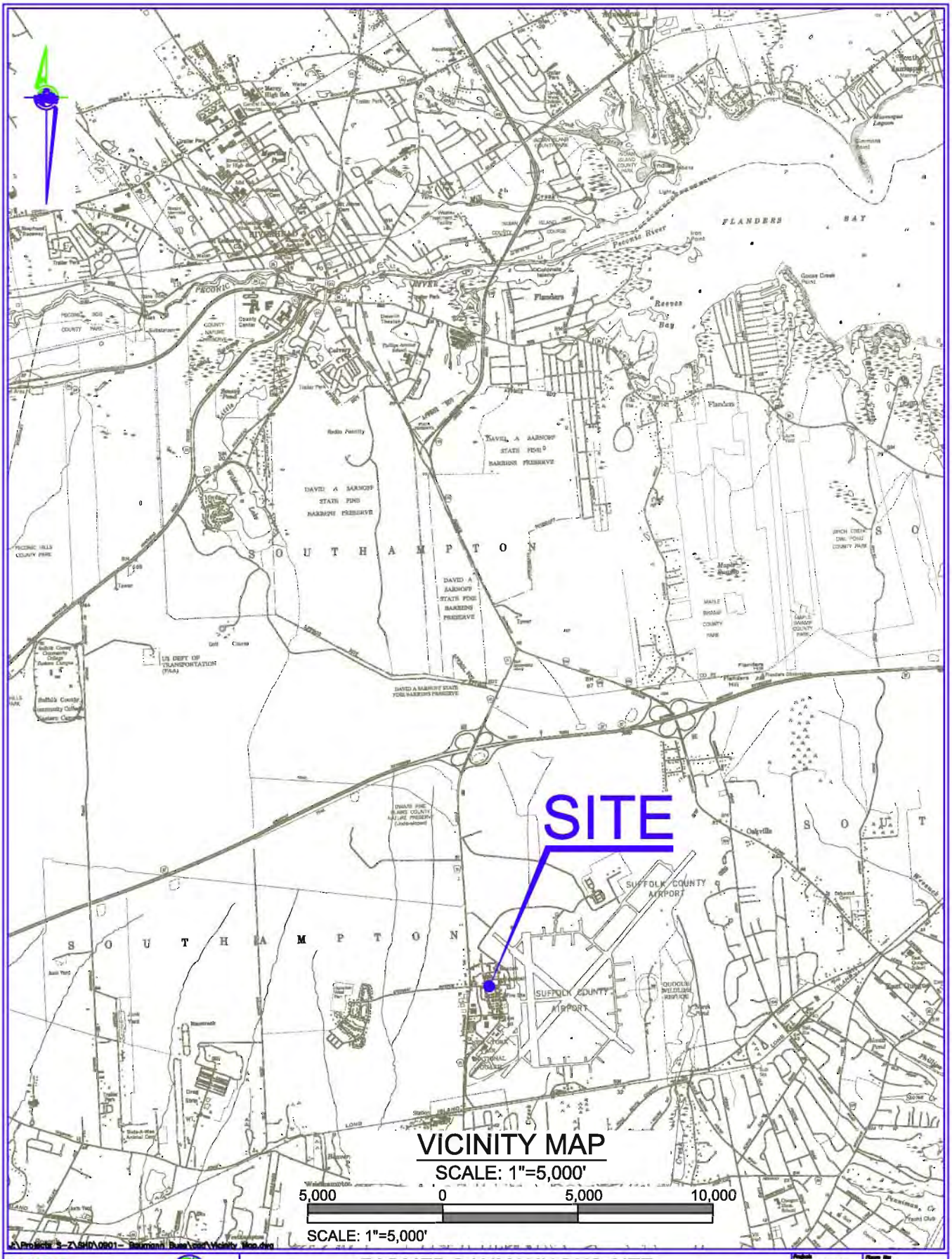
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P.W. Grosser Consulting, Inc., Underground Injection Control Structure Characterization Report, September 2009

Suffolk County Department of Health Services, Demolition Assessment for Building 140, August 2007

FIGURES



VICINITY MAP

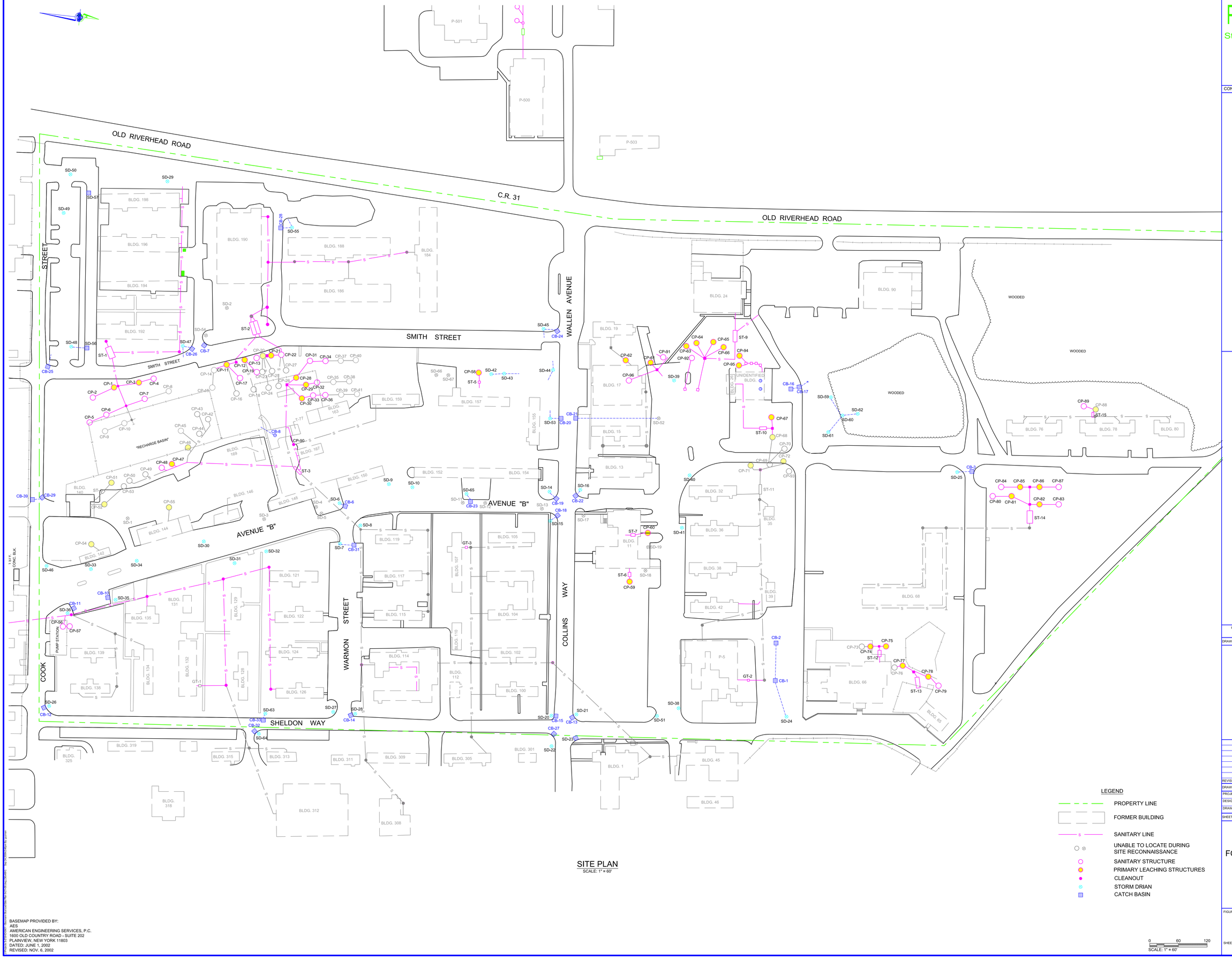
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FORMER BAUMANN BUS SITE
GABRESKI AIRPORT
WEST HAMPTON, NY

Project	SHD0901
Designed by	TM
Approved by	PWG
Drawn by	TC\LLG
Figure No.	1
Date	9/24/09



SITE PLAN
SCALE: 1" = 60'

LEGEND

- PROPERTY LINE
- FORMER BUILDING
- SANITARY LINE
- UNABLE TO LOCATE DURING SITE RECONNAISSANCE
- SANITARY STRUCTURE
- PRIMARY LEACHING STRUCTURES
- CLEANOUT
- STORM DRIAN
- CATCH BASIN

0 60 120
SCALE: 1" = 60'

BASEMAP PROVIDED BY:
AES
AMERICAN ENGINEERING SERVICES, P.C.
1600 OLD COUNTRY ROAD - SUITE 202
PLAINVIEW, NEW YORK 11803
DATED: JUNE 1, 2002
REVISED: NOV. 6, 2002

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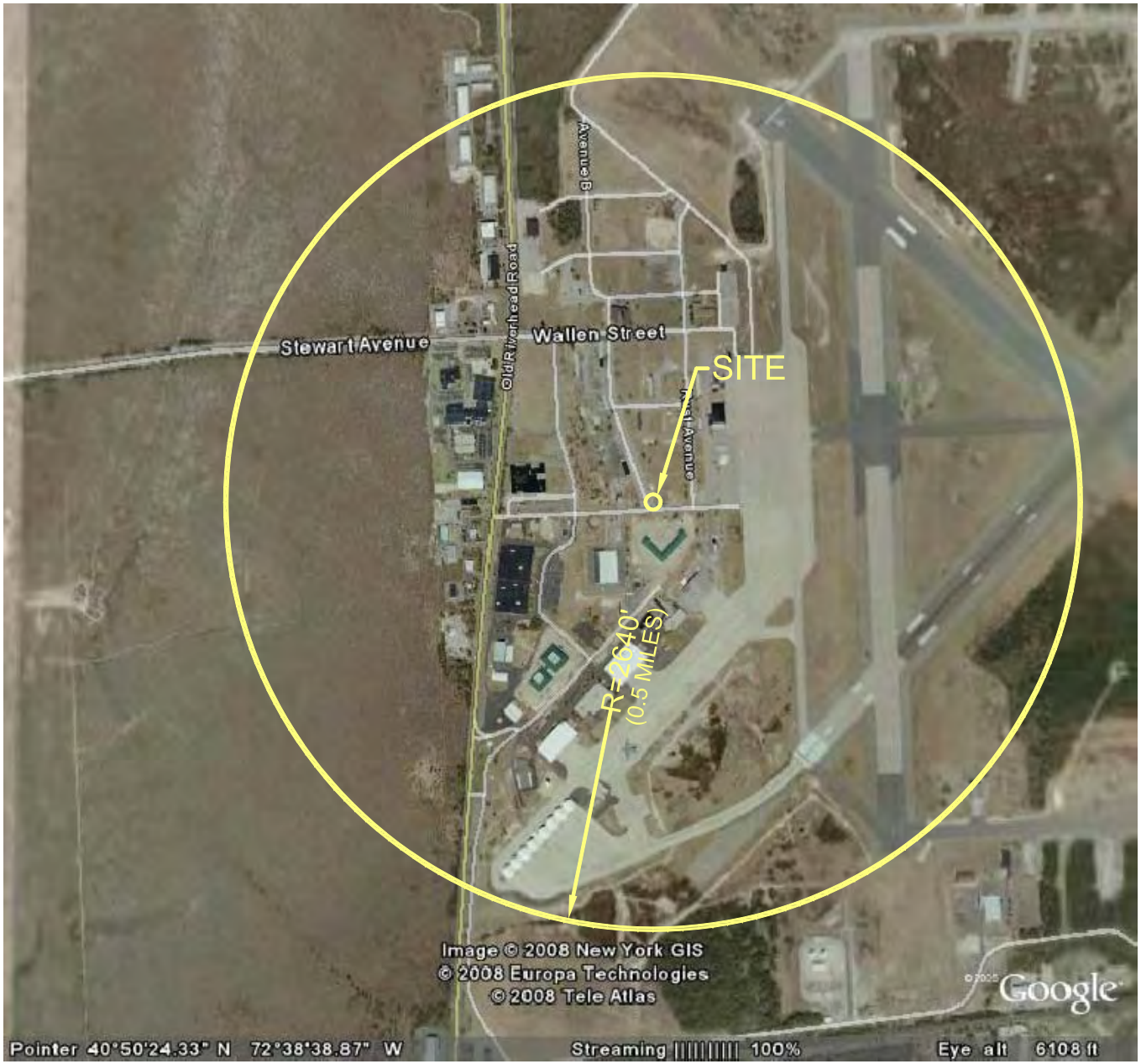
SHEET TITLE

SITE PLAN
FORMER BAUMAN BUS SITE
GABRESKI AIRPORT
WEST HAMPTON, NY

FIGURE NO
2

SHEET - OF -

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SURROUNDING LAND USE

SCALE: 1" = 1000'

0 1,000 2,000

SCALE: 1" = 1,000'

SURROUNDING LAND USE
FORMER BAUMAN BUS SITE
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WEST HAMPTON, NY

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J:\Projects S-Z\SHD\0901 - Baumann Bus\cad\Fig 3 .5 radius.dwg (FIGURE3) Sep 24,2009-2:55pm By: guzman



AREA PLAN

SCALE: 1" = 3,000'

PUBLIC DRINKING WATER SUPPLY
WELL LOCATIONS
FORMER BAUNMAN BUS SITE
GABRESKI AIRPORT
WEST HAMPTON, NY

BASE MAP BY:
PEER CONSULTANTS, P.C.
78 MITCHELL ROAD
OAK RIDGE, TENNESSEE
DATED: DECEMBER 2004

0 3,000 6,000

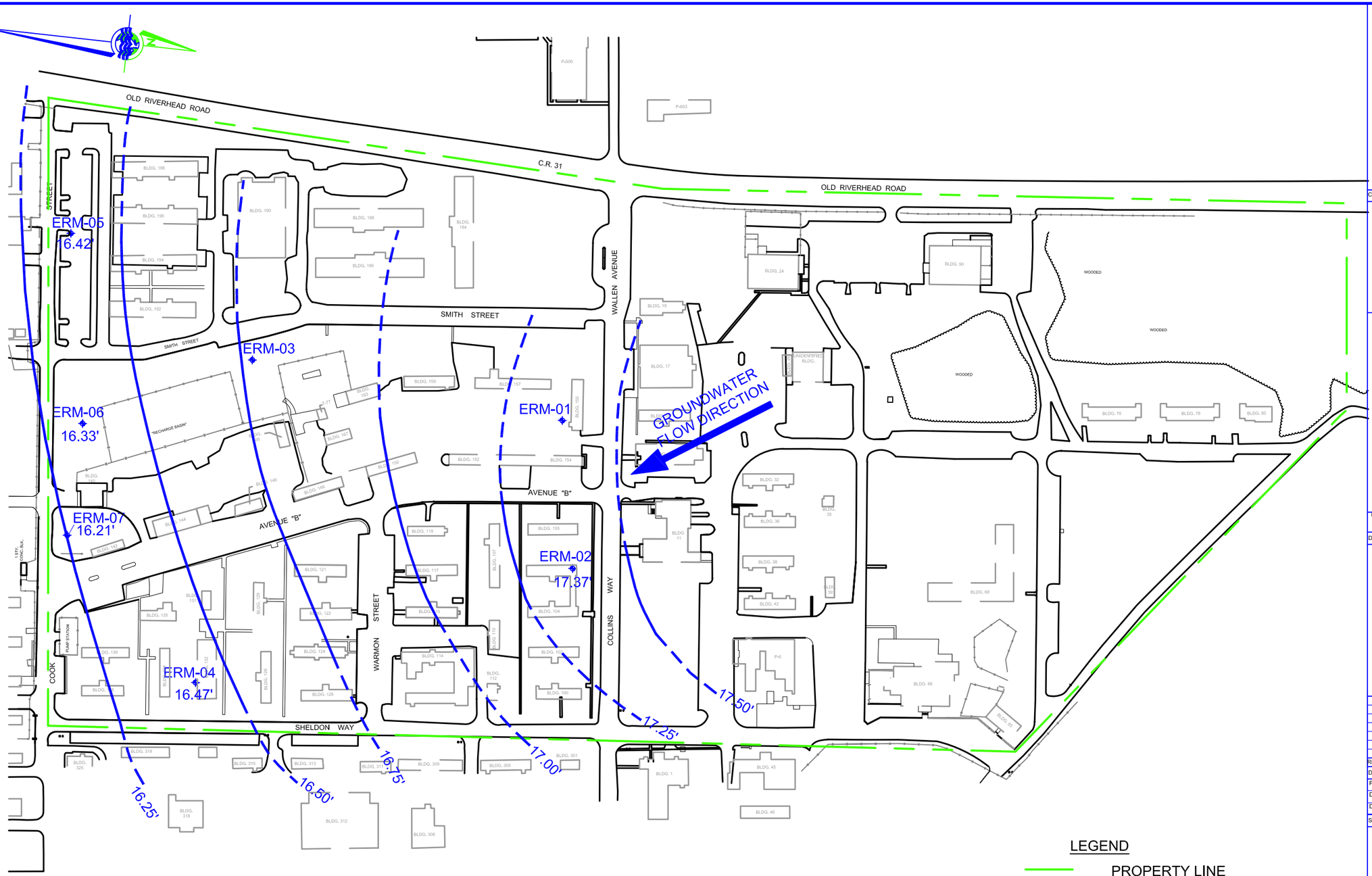
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J:\Projects S-Z\SHD\0901 - Baumann Bus\cad\Area Plan.dwg (FIGURE 4) Sep 24,2009-3:01pm By: guzman



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1600 OLD COUNTRY ROAD - SUITE 202
PLAINVIEW, NEW YORK 11803
DATED: JUNE 1, 2002
REVISED: NOV. 6, 2002

GROUNDWATER CONTOUR MAP

SCALE: 1" = 200'

LEGEND

- PROPERTY LINE
- FORMER BUILDING
- GROUNDWATER CONTOUR
- INFERRED GROUNDWATER CONTOUR
- 17.50' GROUNDWATER ELEVATION

0 200 400

SCALE: 1" = 200'

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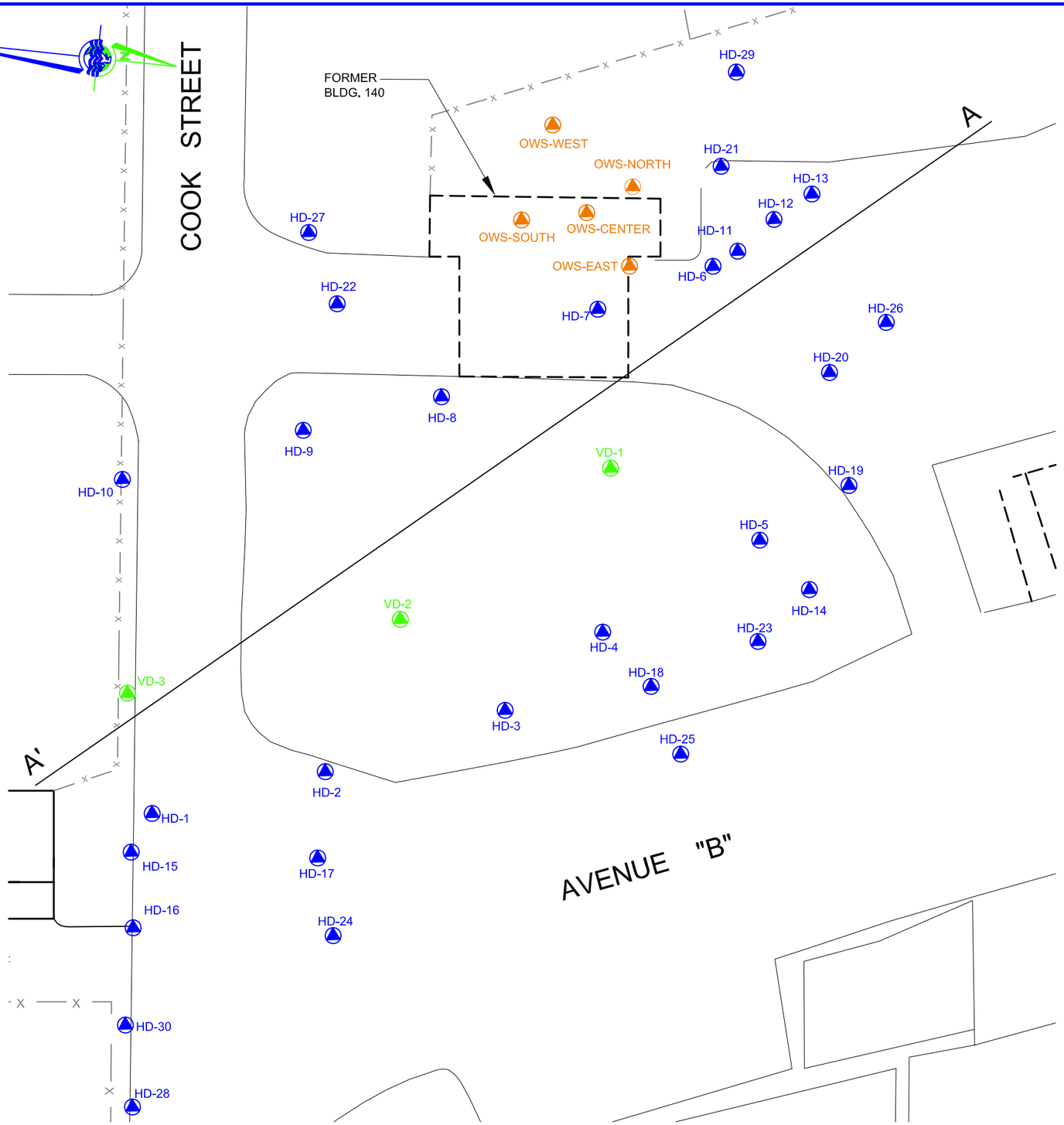
GROUNDWATER CONTOUR MAP

FORMER BAUMAN BUS SITE
GABRESKI AIRPORT
WEST HAMPTON, NY

FIGURE NO 5

SHEET - OF -

J:\Projects S-Z\SHD\0901 - Baumann Bus\cad\GW contours.dwg (11x17H) Sep 25,2009-10:38am By: guzman



LEGEND

- BORING LOCATION (OIL WATER SEPARATOR)
- BORING LOCATION (VERTICAL DELINEATION)
- BORING LOCATION (HORIZONTAL DELINEATION)

BASE MAP PROVIDED BY:
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ENGINEERS INC.

SOIL BORING LOCATIONS

SCALE: 1" = 30'

0 30 60

SCALE: 1" = 30'

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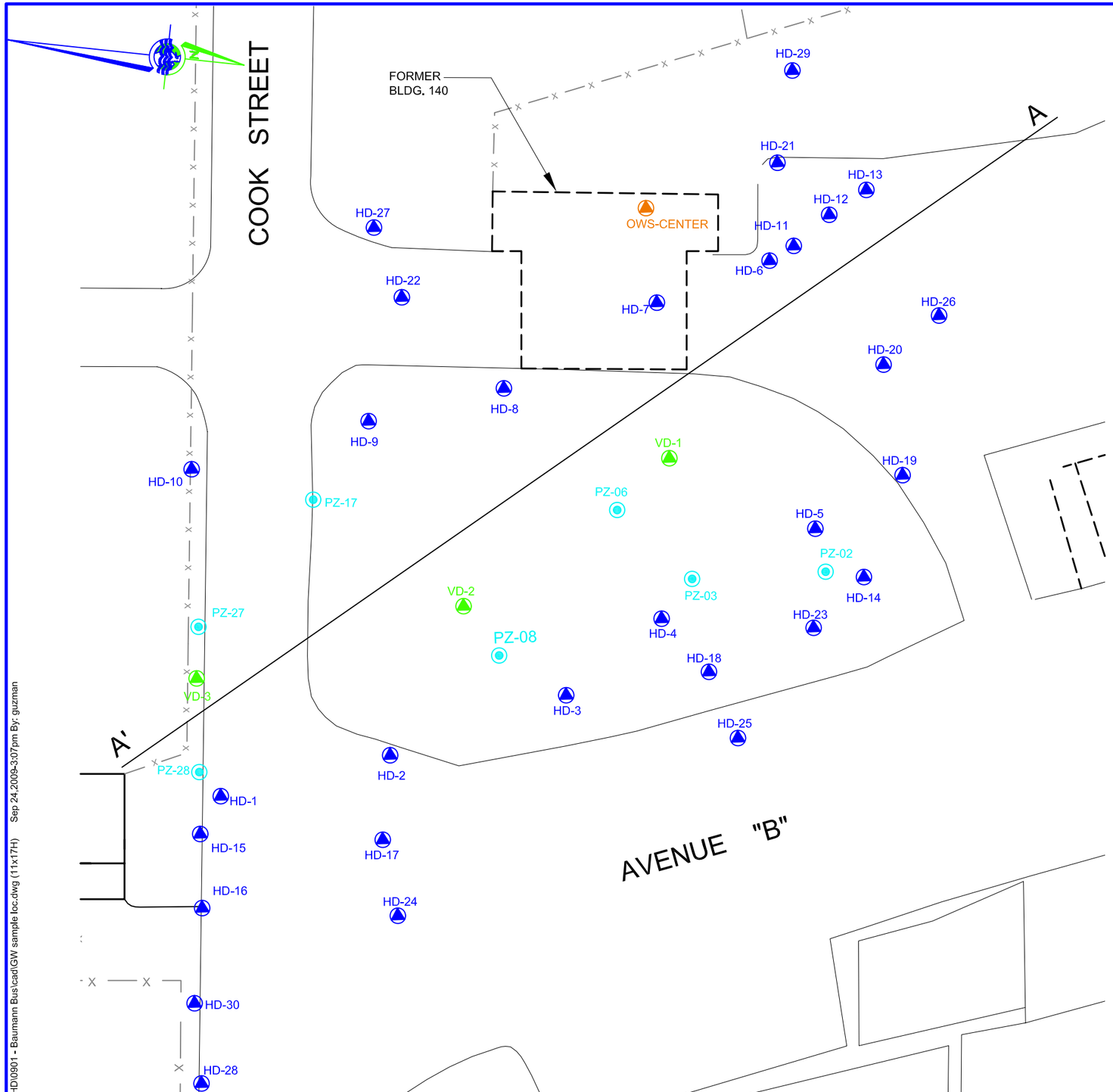
SOIL BORING LOCATIONS

FORMER BAUMAN BUS SITE
GABRESKI AIRPORT
WEST HAMPTON, NY

FIGURE NO 6

SHEET - OF -

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LEGEND

- PIEZOMETER LOCATION
- BORING LOCATION (OIL WATER SEPARATOR)
- BORING LOCATION (VERTICAL DELINEATION)
- BORING LOCATION (HORIZONTAL DELINEATION)

BASE MAP PROVIDED BY:
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GROUNDWATER SAMPLE LOCATIONS

SCALE: 1" = 30'

0 30 60

SCALE: 1" = 30'

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DRAWN BY:	LLG	SCALE:	AS SHOWN

SHEET TITLE

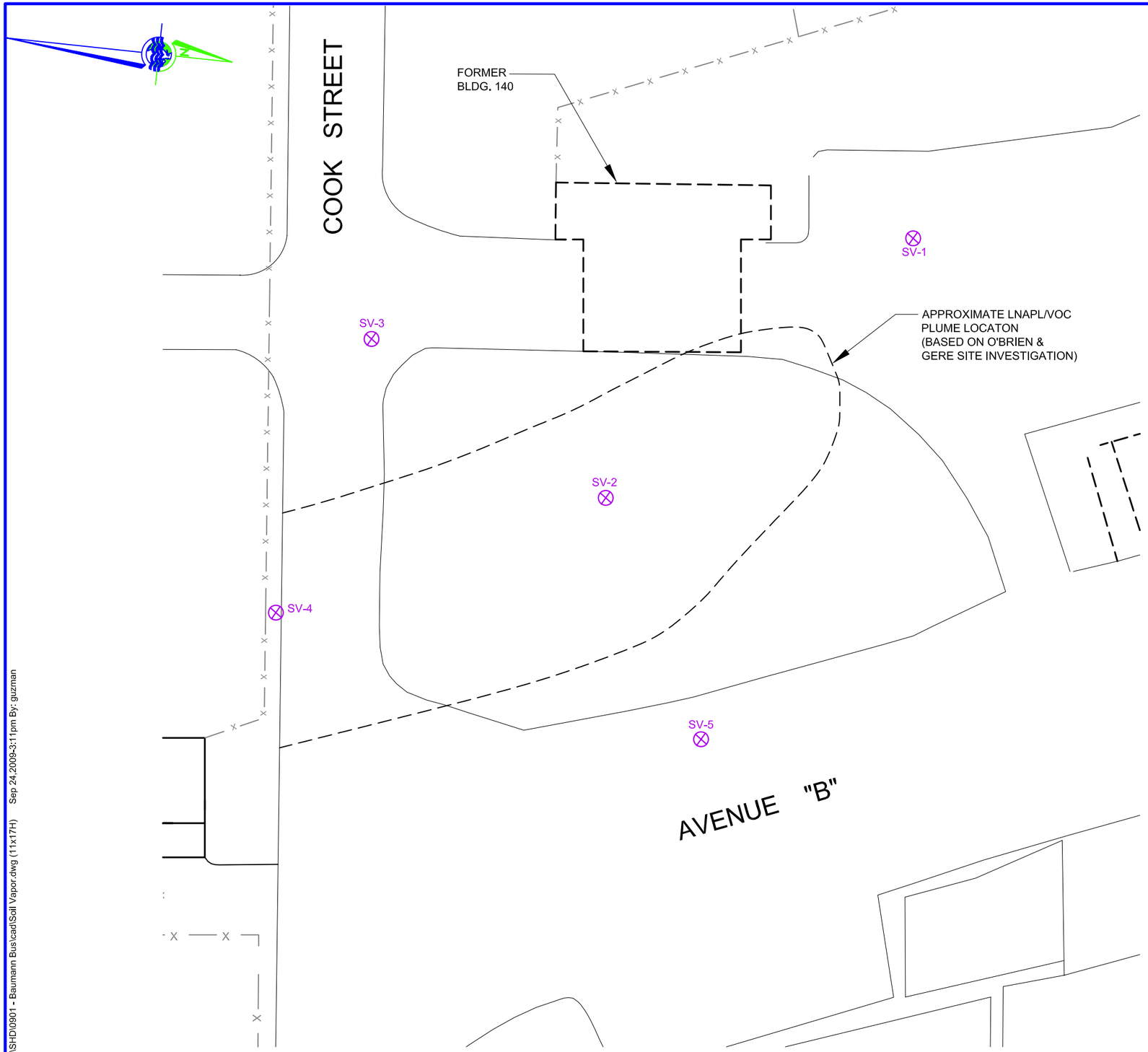
GROUNDWATER SAMPLE LOCATIONS

FORMER BAUMAN BUS SITE
GABRESKI AIRPORT
WEST HAMPTON, NY

FIGURE NO 7

SHEET - OF -

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LEGEND

⊗ SOIL GAS SAMPLING LOCATIONS

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SOIL VAPOR SAMPLE LOCATIONS

SCALE: 1" = 30'

0 30 60

SCALE: 1" = 30'

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DESIGNED BY:	TM	DATE:	9/24/09
DRAWN BY:	LLG	SCALE:	AS SHOWN

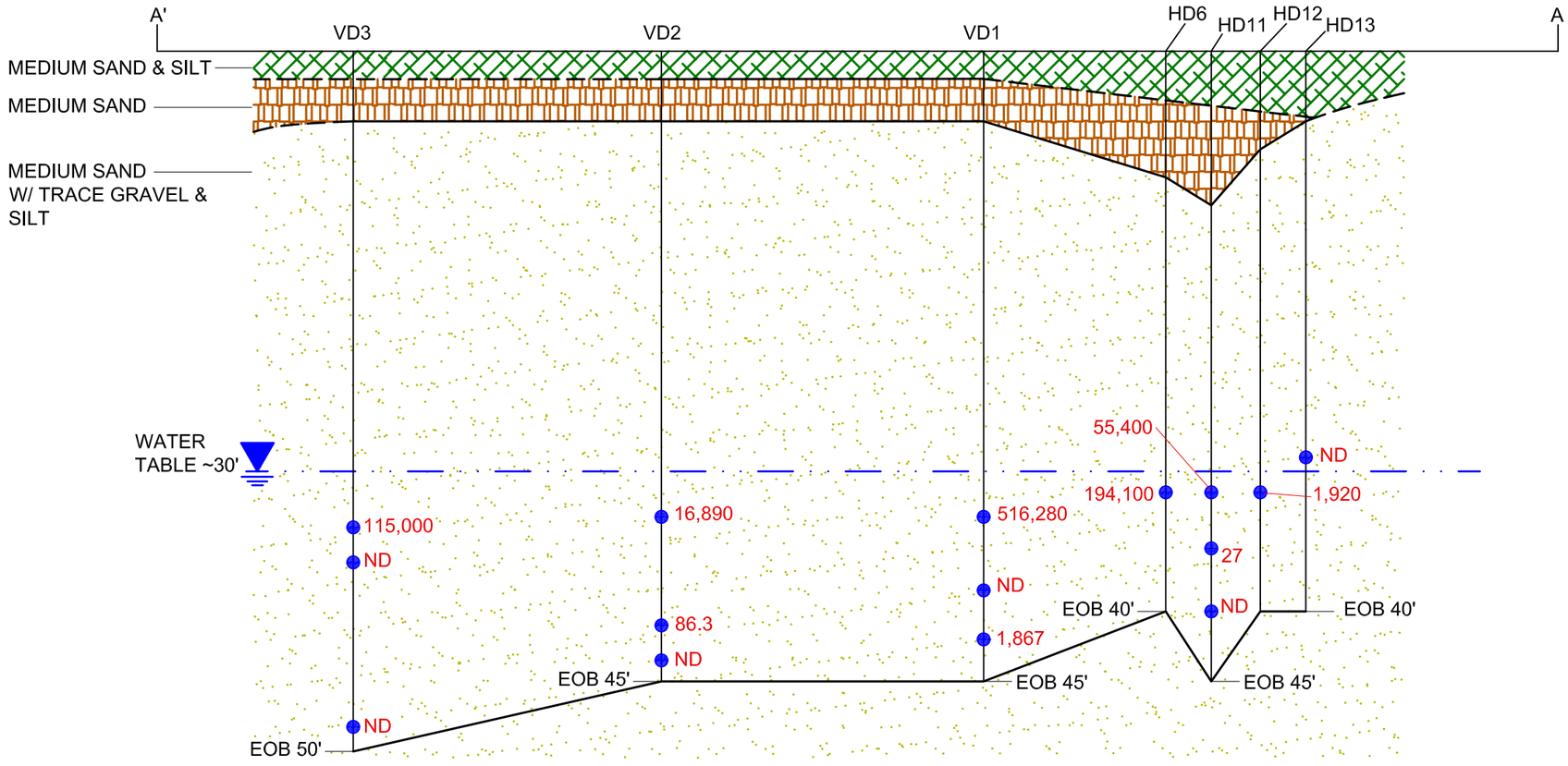
SHEET TITLE

SOIL VAPOR SAMPLE LOACTIONS

FORMER BAUMAN BUS SITE
GABRESKI AIRPORT
WEST HAMPTON, NY

FIGURE NO
8

SHEET - OF -



LEGEND

- SAMPLING POINT
- 1,867 TOTAL VOC CONCENTRATIONS (ppb)

VERTICAL EXTENT OF SOIL IMPACT

NOT TO SCALE

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DRAWN BY:	LLG	SCALE:	AS SHOWN

SHEET TITLE

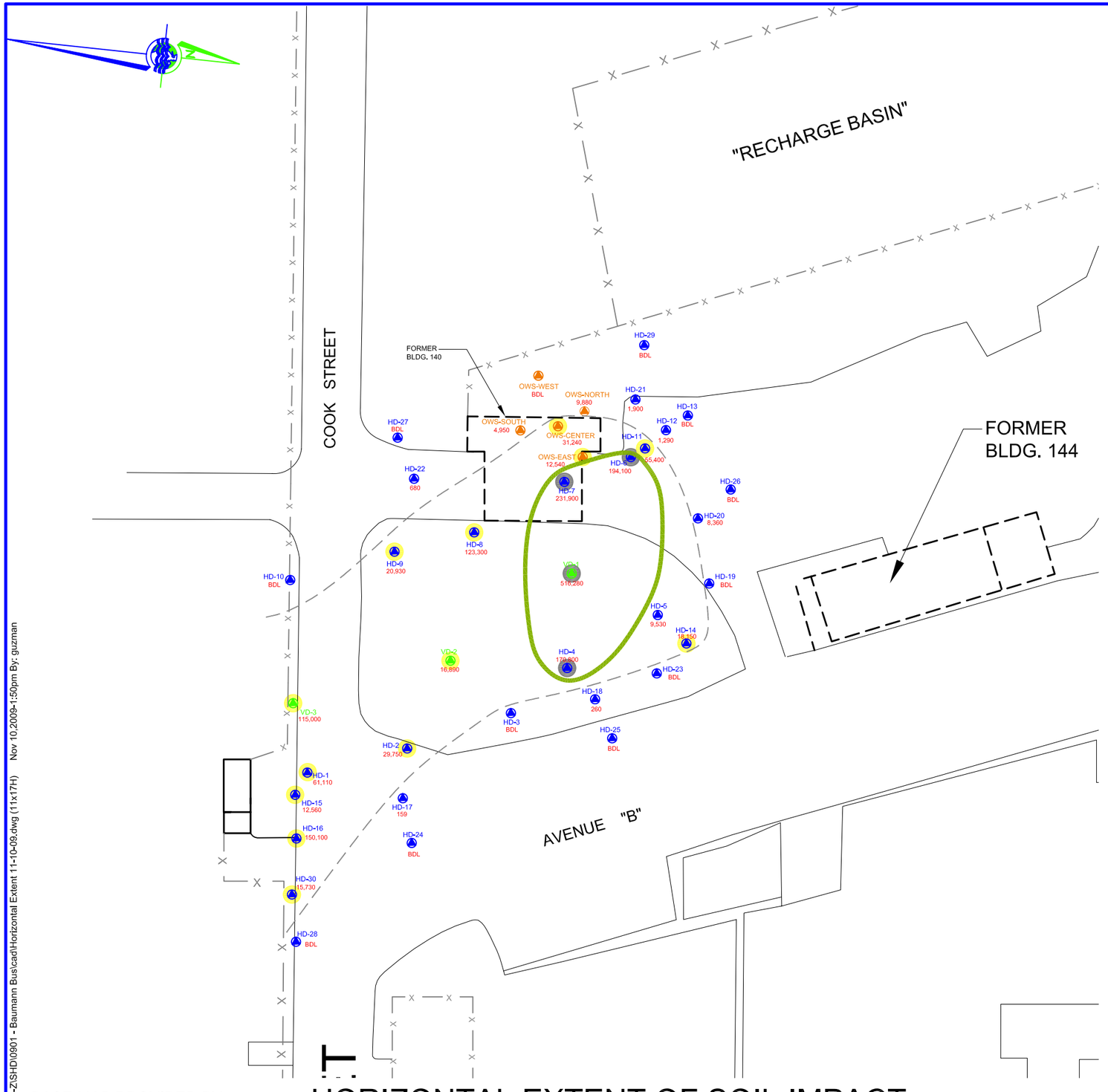
VERTICAL EXTENT OF SOIL IMPACT

FORMER BAUMAN BUS SITE
GABRESKI AIRPORT
WEST HAMPTON, NY

FIGURE NO 9

SHEET - OF -

J:\Projects S-Z\SHD\0901 - Baumann Bus\cad\cross section Soil.dwg (11x17H) Sep 24,2009-3:13pm By: guzman



LEGEND

- BORING LOCATION (OIL WATER SEPARATOR)
- BORING LOCATION (VERTICAL DELINEATION)
- BORING LOCATION (HORIZONTAL DELINEATION)
- 8,360 — SOIL TOTAL VOCs (ppb)
- BDL — BELOW LABORATORY DETECTION LIMITS
- BORING WITH VOC CONCENTRATIONS EXCEEDING TAGM RSCO
- BORING WITH VOC CONCENTRATIONS EXCEEDING PART 375 RESTRICTED RESIDENTIAL SCO
- APPROXIMATE EXTENT OF SOIL IMPACT WITH COMPOUNDS EXCEEDING RSCO'S (TAGM)
- APPROXIMATE EXTENT OF SOIL IMPACTED WITH COMPOUNDS EXCEEDING RESTRICTED RESIDENTIAL SCO'S (PART 375)

BASE MAP PROVIDED BY:
O'BRIEN & GERE
ENGINEERS INC.

HORIZONTAL EXTENT OF SOIL IMPACT

SCALE: 1" = 50'

0 50 100

SCALE: 1" = 50'

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DRAWN BY:	LLG	SCALE:	AS SHOWN

SHEET TITLE

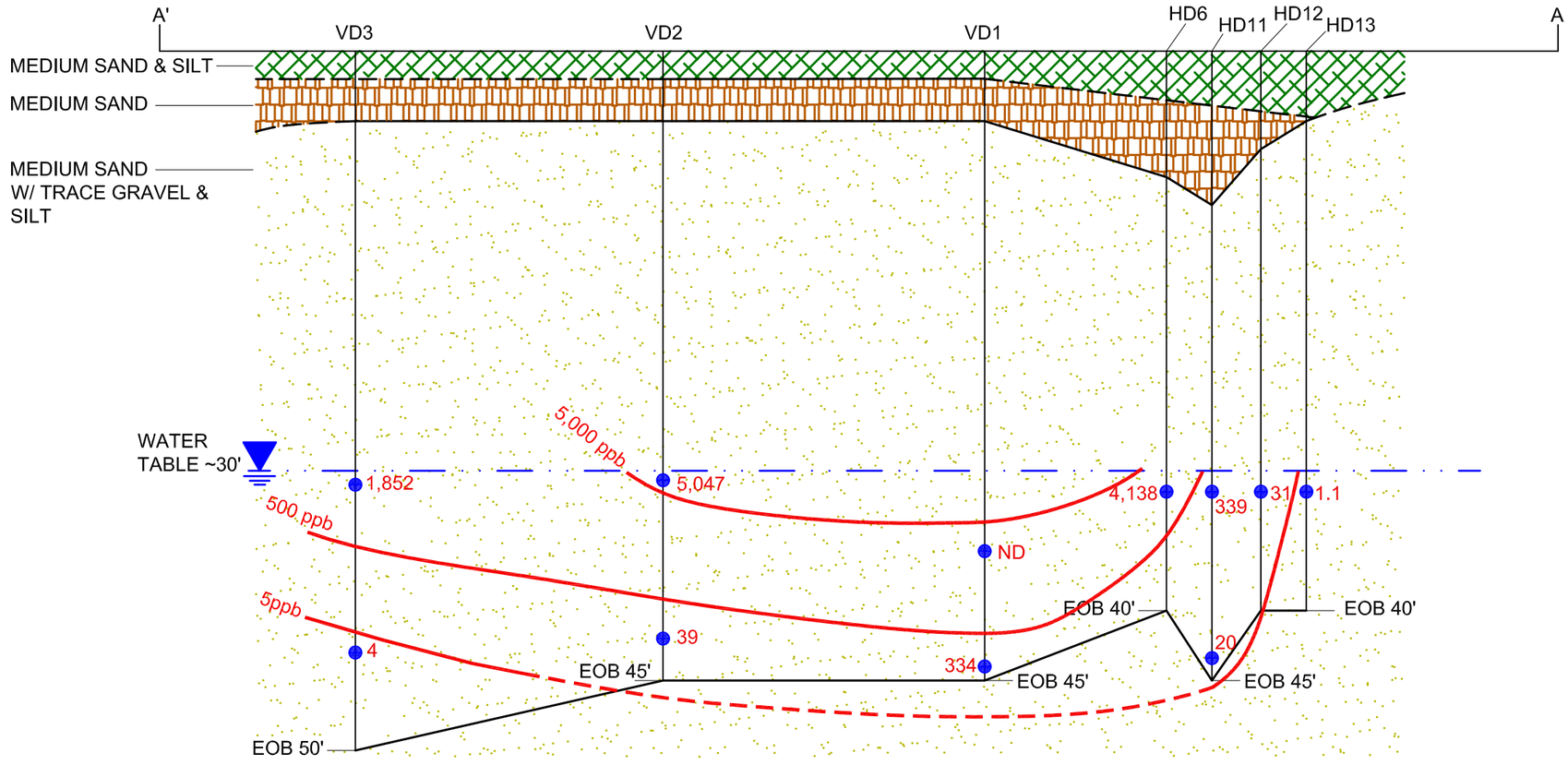
HORIZONTAL EXTENT OF SOIL IMPACT

FORMER BAUMAN BUS SITE
GABRESKI AIRPORT
WEST HAMPTON, NY

FIGURE NO 10

SHEET - OF -

J:\Projects S-Z\SHD\0901 - Baumann Bus\cad\Horizontal Extent 11-10-09.dwg (11x17H) Nov 10,2009-1:50pm By: guzman



VERTICAL EXTENT OF GROUNDWATER IMPACT

SCALE: 1" = 10'

LEGEND

- SAMPLING POINT
- 1,867 TOTAL VOC CONCENTRATIONS (ppb)
- TOTAL VOC CONTOUR
- INFERRED TOTAL VOC CONTOUR

0 10 20

SCALE: 1" = 10'

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DESIGNED BY:	TM	DATE:	8/31/09
DRAWN BY:	LLG	SCALE:	AS SHOWN

SHEET TITLE

VERTICAL EXTENT OF GROUNDWATER IMPACT

FORMER BAUMAN BUS SITE
GABRESKI AIRPORT
WEST HAMPTON, NY

FIGURE NO 11

SHEET - OF -

J:\Projects S-Z\SHD\0901 - Baumann Bus\cad\cross section Groundwater.dwg (11x17H) Sep 24,2009-3:18pm By: guzman

COOK STREET

FORMER BLDG. 140

AVENUE "B"

HD-29 11
OWS-WEST
OWS-NORTH
HD-21 192
HD-13 101
HD-12 31
HD-27 3.8
OWS-SOUTH
OWS-CENTER 866
HD-11 339
OWS-EAST
HD-6 4,138
HD-22 781
HD-7 6,435
HD-26 2.4
HD-20 91.4
5ppb
500ppb
HD-8 6,463
HD-9 7,615
HD-10 760
VD-1
HD-19 BDL
PZ-17 691
PZ-06 4,664
HD-5 396
HD-14 119
5,000ppb
VD-2 5,047
PZ-02 0.75
PZ-03 2,324
PZ-27 6,548
PZ-08 82
HD-4 6,291
HD-23 BDL
HD-18 20
VD-3 1,852
HD-3 927
HD-25 2.3
HD-2 1,119
PZ-28 2,496
HD-1 1,915
HD-15 783
HD-17 39.9
HD-16 982
HD-24 2
HD-30 290
HD-28 6.2

LEGEND

- PIEZOMETER LOCATION
- BORING LOCATION (OIL WATER SEPARATOR)
- BORING LOCATION (VERTICAL DELINEATION)
- BORING LOCATION (HORIZONTAL DELINEATION)
- 781 — GROUNDWATER TOTAL VOCs (ppb) (WATER TABLE INTERVAL)
- BDL — BELOW LABORATORY DETECTION LIMITS
- TOTAL VOC CONTOUR
- INFERRED TOTAL VOC CONTOUR

BASE MAP PROVIDED BY:
O'BRIEN & GERE
ENGINEERS INC.

HORIZONTAL EXTENT OF GROUNDWATER IMPACT

SCALE: 1" = 30'

0 30 60

SCALE: 1" = 30'

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DRAWING INFORMATION

PROJECT:	SHD0901	APPROVED BY:	PWG
DESIGNED BY:	TM	DATE:	9/24/09
DRAWN BY:	LLG	SCALE:	AS SHOWN

SHEET TITLE

HORIZONTAL EXTENT OF GROUNDWATER IMPACT

FORMER BAUMAN BUS SITE
GABRESKI AIRPORT
WEST HAMPTON, NY

FIGURE NO 12

SHEET - OF -

J:\Projects S-Z\SHD\0901 - Baumann Bus\cad\GW Horiz impact.dwg (11x17H) Sep 24,2009-3:20pm By: guzman

TABLES

Table 1
Soil Sample Analytical Data Summary
Volatile Semi-Volatile Organic Compounds

Client Sample ID:				VD-1	VD-1	VD-1	VD-2	VD-2	VD-2	VD-3	VD-3	VD-3	HD-1	HD-1	HD-2	HD-3	HD-4	HD-5	HD-6	HD-7	HD-8	HD-9	HD-10	HD-11	HD-11	HD-11	HD-12
Sample Depth:	Rec. Soil Cleanup Objective[1]	Restricted Residential SCO[2]	Restricted Commercial SCO[2]	(32.5-35')	(37.5-40')	(40-45')	(32.5-35')	(40-42.5')	(42.5-45')	(32.5-35')	(35-37.5')	(47.5-50')	(32.5-35')	(40-45')	(32.5-35')	(32.5-35')	(32.5-35')	(32.5-35')	(30-32.5')	(32.5-35')	(30-32.5')	(32.5-35')	(32.5-35')	30-32.5'	35-40'	40-42.5'	(30-32.5)
Laboratory ID:				A2925-01	A2925-02	A2925-03	A2925-04	A2925-05	A2925-06	A2972-01	A2972-02	A2972-03	A2972-06	A2972-07	A2992-01	A2992-03	A2992-07	A2992-09	A2992-12	A3034-02	A3034-04	A3034-08	A3034-10	A3109-05	A3109-08	A3109-09	A3107-02
Sampling Date:				5/28/2009	5/28/2009	5/28/2009	5/28/2009	5/28/2009	5/28/2009	5/29/2009	5/29/2009	5/29/2009	5/29/2009	5/29/2009	6/1/2009	6/1/2009	6/2/2009	6/2/2009	6/2/2009	6/3/2009	6/3/2009	6/4/2009	6/4/2009	6/9/2009	6/9/2009	6/9/2009	6/10/2009
Volatile Organic Compounds:																											
1,2,4-Trimethylbenzene	10,000	52,000	190,000	120,000 D	0.62 UJ	300 JD	5,200 JD	22	0.62 UJ	48,000 D	0.62 UJ	0.62 UJ	26,000 D	0.57 UJ	8,300	0.61 UJ	56,000 D	1,300	59,000 D	82,000 D	36,000 D	5,300	0.61 UJ	18,000	13	0.62 UJ	180 J
1,3,5-Trimethylbenzene	3,300	52,000	190,000	46,000 D	0.56 UJ	120 JD	1,900 JD	6.8	0.56 UJ	17,000	0.56 UJ	0.56 UJ	9,800	0.51 UJ	4,000	0.55 UJ	18,000	580 J	21,000	32,000 D	12,000	2,000	0.55 UJ	6,600	5.4 J	0.56 UJ	66 UJ
Benzene	60 or MDL	4,800	44,000	47 UJ	0.48 UJ	0.49 UJ	0.48 UJ	0.48 UJ	0.48 UJ	45 UJ	0.47 UJ	0.47 UJ	49 UJ	0.43 UJ	46 UJ	0.46 UJ	48 UJ	48 UJ	46 UJ	47 UJ	47 UJ	51 UJ	0.46 UJ	47 UJ	0.45 UJ	0.47 UJ	46 UJ
Ethyl Benzene	5,500	41,000	390,000	33,000 D	0.78 UJ	140	550 JD	1.6 J	0.78 UJ	1,900	0.77 UJ	0.77 UJ	310 J	0.7 UJ	76 UJ	0.76 UJ	3,800	79 UJ	9,300	7,900	7,200	1,400	0.76 UJ	1,900	0.74 UJ	0.77 UJ	76 UJ
Cumene (Isopropylbenzene)	2,300	NS	NS	12,000	0.6 UJ	79	480 JD	1.6 J	0.6 UJ	4,100	0.59 UJ	0.59 UJ	2,500	0.55 UJ	850	0.59 UJ	2,900	67 UJ	6,900	7,400	3,800	590 J	0.59 UJ	2,200	1.2 J	0.59 UJ	65 UJ
m + p Xylene	1,200[b]	100,000[a]	500,000[b]	160,000 D	0.9 UJ	230 JD	3,500 JD	18	0.9 UJ	11,000	0.89 UJ	0.89 UJ	2,500	0.82 UJ	140 UJ	0.88 UJ	52,000 D	140 UJ	43,000 D	36,000	29,000	6,000	0.88 UJ	11,000	3 J	0.89 UJ	140 UJ
ter.ButylMethylEther	120	100,000[a]	500,000[b]	51 UJ	1.2 UJ	1.2 UJ	1.2 UJ	1.2 UJ	1.2 UJ	50 UJ	1.2 UJ	1.2 UJ	53 UJ	1.1 UJ	50 UJ	1.20 UJ	52 UJ	52 UJ	50 UJ	51 UJ	51 UJ	56 UJ	1.2 UJ	51 UJ	1.1 UJ	1.2 UJ	50 UJ
Naphthalene(v)	13,000	100,000[a]	500,000[b]	17,000	0.56 UJ	150	1,300 JD	24	0.56 UJ	3,300	0.56 UJ	0.56 UJ	1,600	0.51 UJ	96 UJ	0.55 UJ	4,500	100 UJ	6,100	7,100	5,200	1,100	0.55 UJ	1,900	2.2 J	0.56 UJ	260 J
n-Butylbenzene	10,000	NS	500,000[b]	17,000	0.57 UJ	160	800 D	4 J	0.57 UJ	6,200	0.57 UJ	0.57 UJ	4,400	0.52 UJ	4,800	0.56 UJ	6,500	3,900	9,100	12,000	3,900	66 UJ	0.56 UJ	2,400	0.55 UJ	0.57 UJ	650 J
n-Propylbenzene	3,700	100,000[a]	500,000[b]	19,000	0.45 UJ	150	880 D	3.2 J	0.45 UJ	7,600	0.44 UJ	0.44 UJ	4,800	0.41 UJ	2,100	0.44 UJ	8,700	750	11,000	13,000	5,900	860	0.44 UJ	3,500	2.1 J	0.44 UJ	65 UJ
o Xylene	1,200[b]	100,000[a]	500,000[b]	50,000 D	0.85 UJ	240	800 D	5.1 J	0.85 UJ	2,700	0.84 UJ	0.84 UJ	66 UJ	0.77 UJ	62 UJ	0.83 UJ	13,000	64 UJ	12,000	9,700	11,000	2,200	0.83 UJ	3,000	0.81 UJ	0.84 UJ	62 UJ
p-Isopropyltoluene	10,000	NS	NS	25,000 D	0.36 UJ	170	1,100 D	0.37 UJ	0.36 UJ	9,900	0.36 UJ	0.36 UJ	6,800	0.33 UJ	7,200	0.35 UJ	3,700	2,000	12,000	18,000	6,700	1,100	0.35 UJ	3,500	0.35 UJ	0.36 UJ	520 J
sec-Butylbenzene	10,000	100,000[a]	500,000[b]	11,000	0.65 UJ	70	380 JD	0.66 UJ	0.65 UJ	3,300	0.64 UJ	0.64 UJ	2,400	0.59 UJ	2,500	0.63 UJ	1,700	1,000	4,700	6,300	2,600	400 J	0.63 UJ	1,400	0.62 UJ	0.64 UJ	310 J
tert-Butylbenzene	10,000	100,000[a]	500,000[b]	680 J	0.74 UJ	0.76 UJ	0.75 UJ	0.75 UJ	0.74 UJ	62 UJ	0.73 UJ	0.73 UJ	67 UJ	0.67 UJ	63 UJ	0.72 UJ	65 UJ	65 UJ	63 UJ	65 UJ	64 UJ	71 UJ	0.72 UJ	65 UJ	0.7 UJ	0.73 UJ	63 UJ
Toluene	1,500	100,000[a]	500,000[b]	5,600	0.8 UJ	58	0.81 UJ	0.81 UJ	0.8 UJ	53 UJ	0.79 UJ	0.79 UJ	56 UJ	0.73 UJ	53 UJ	0.78 UJ	55 UJ	55 UJ	53 UJ	54 UJ	54 UJ	59 UJ	0.78 UJ	54 UJ	0.76 UJ	0.79 UJ	53 UJ
Total VOCs	NS	NS		516,280	ND	1867	16,890	86.3	ND	115,000	ND	ND	61,110	ND	29,750	ND	170,800	9,530	194,100	231,400	123,300	20,950	ND	55,400	27	ND	1,920
Semi-Volatile Organic Compounds:																											
Acenaphthene	50,000	100,000[a]	500,000[b]	69 UJ	12 UJ	12 UJ	12 UJ	12 UJ	12 UJ	210 J	12 UJ	12 UJ	47 J	11 UJ	11 UJ	11 UJ	11 UJ	57 J	150 J	11 UJ	11 UJ	12 UJ	11 UJ	11 UJ	11 UJ	12 UJ	11 UJ
Anthracene	50,000	100,000[a]	500,000[b]	140 J	8.5 UJ	8.7 UJ	8.6 UJ	8.6 UJ	8.5 UJ	64 J	8.4 UJ	8.4 UJ	8.3 UJ	7.7 UJ	7.8 UJ	8.3 UJ	8.1 UJ	43 J	7.8 UJ	8 UJ	7.9 UJ	8.7 UJ	8.3 UJ	8 UJ	8.1 UJ	8.4 UJ	7.8 UJ
Benzo(a)anthracene	224 or MDL	1,000[f]	5,600	54 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	18 UJ	20 UJ	20 UJ	19 UJ	18 UJ	18 UJ	19 UJ	19 UJ	19 UJ	18 UJ	19 UJ	18 UJ	20 UJ	19 UJ	19 UJ	19 UJ	20 UJ	18 UJ
Benzo(a)pyrene	61 or MDL	1,000[f]	1,000[f]	62 UJ	9 UJ	9.2 UJ	9.1 UJ	9.1 UJ	9 UJ	8.2 UJ	8.9 UJ	8.9 UJ	8.7 UJ	8.2 UJ	8.3 UJ	8.7 UJ	8.6 UJ	8.5 UJ	8.3 UJ	8.5 UJ	8.3 UJ	9.2 UJ	8.7 UJ	8.5 UJ	8.5 UJ	8.9 UJ	8.3 UJ
Benzo(b)fluoranthene	220 or MDL	1,000[f]	5,600	43 UJ	14 UJ	14 UJ	14 UJ	14 UJ	14 UJ	12 UJ	13 UJ	13 UJ	13 UJ	12 UJ	13 UJ	13 UJ	13 UJ	13 UJ	13 UJ	13 UJ	13 UJ	14 UJ	13 UJ	13 UJ	13 UJ	13 UJ	12 UJ
Benzo(g,h,i)perylene	50,000	100,000[a]	500,000[b]	64 UJ	17 UJ	17 UJ	17 UJ	17 UJ	17 UJ	15 UJ	17 UJ	17 UJ	16 UJ	15 UJ	15 UJ	16 UJ	16 UJ	16 UJ	15 UJ	16 UJ	16 UJ	17 UJ	16 UJ	16 UJ	16 UJ	17 UJ	15 UJ
Benzo(k)fluoranthene	220 or MDL	3,900	56,000	86 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	18 UJ	19 UJ	19 UJ	19 UJ	18 UJ	18 UJ	19 UJ	19 UJ	19 UJ	18 UJ	18 UJ	18 UJ	20 UJ	19 UJ	18 UJ	19 UJ	19 UJ	18 UJ
Chrysene	400	3,900	56,000	70 UJ	19 UJ	19 UJ	19 UJ	19 UJ	19 UJ	17 UJ	19 UJ	19 UJ	18 UJ	17 UJ	17 UJ	18 UJ	18 UJ	18 UJ	17 UJ	18 UJ	18 UJ	19 UJ	18 UJ	18 UJ	18 UJ	19 UJ	17 UJ
Dibenzo(a,h)anthracene	14.3 or MDL	330[f]	560	49 UJ	12 UJ	12 UJ	12 UJ	12 UJ	12 UJ	11 UJ	12 UJ	12 UJ	12 UJ	11 UJ	11 UJ	12 UJ	11 UJ	11 UJ	11 UJ	11 UJ	11 UJ	12 UJ	12 UJ	11 UJ	11 UJ	12 UJ	11 UJ
Fluoranthene	50,000	100,000[a]	500,000[b]	58 UJ	8.4 UJ	8.6 UJ	8.5 UJ	8.5 UJ	8.3 UJ	7.6 UJ	8.2 UJ	8.3 UJ	8.1 UJ	7.6 UJ	7.7 UJ	8.1 UJ	8 UJ	95 J	7.7 UJ	7.9 UJ	7.8 UJ	8.6 UJ	8.1 UJ	7.9 UJ	8 UJ	8.2 UJ	7.7 UJ
Fluorene	50,000	100,000[a]	500,000[b]	940	16 UJ	16 UJ	16 UJ	16 UJ	16 UJ	460	15 UJ	16 UJ	98 J	14 UJ	250 J	15 UJ	15 UJ	82 J	280 J	260 J	82 J	16 UJ	15 UJ	95 J	15 UJ	16 UJ	44 J
Indeno(1,2,3-cd)pyrene	3,200	500[f]	5,600	49 UJ	14 UJ	14 UJ	14 UJ	14 UJ	14 UJ	13 UJ	14 UJ	14 UJ	13 UJ	13 UJ	13 UJ	13 UJ	13 UJ	13 UJ	13 UJ	13 UJ	13 UJ	14 UJ	13 UJ	13 UJ	13 UJ	14 UJ	13 UJ
Phenanthrene	50,000	100,000[a]	500,000[b]	1,300	11 UJ	12 UJ	46 J	11 UJ	11 UJ	500	11 UJ	11 UJ	110 J	10 UJ	210 J	11 UJ	11 UJ	190 J	330 J	280 J	78 J	12 UJ	11 UJ	120 J	11 UJ	11 UJ	86 J
Pyrene	50,000	100,000[a]	500,000[b]	94 J	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	9.1 UJ	9.8 UJ	9.9 UJ	9.7 UJ	9.1 UJ	9.2 UJ	9.7 UJ	9.5 UJ	63 J	9.2 UJ	9.4 UJ	9.3 UJ	10 UJ	9.7 UJ	9.4 UJ	9.5 UJ	9.9 UJ	9.2 UJ

Client Sample ID:				HD-13	HD-14	HD-15	HD-16	HD-17	HD-18	HD-19	HD-20	HD-21	HD-22	HD-23	HD-24	HD-25	HD-26	HD-27	HD-28	HD-29	HD-30	OWS-Center	OWS-Center	OWS-WEST	OWS-SOUTH	OWS-EAST	OWS-NORTH
Sample Depth:	Rec. Soil Cleanup Objective[1]	Restricted Residential SCO[2]	Restricted Commercial SCO[2]	(25-30)	(32.5-35)	(32.5-35)	(32.5-35')	(32.5-35')	(32.5-35')	(27.5-30')	(30-32.5')	(30-32.5')	(32.5-35')	(27.5-30')	(27.5-30)	(27.5-30)	(27.5-30)	(27.5-30)	(27.5-30)	(30-32.5)	(32.5-35)	(7.5-10')	(32.5-35')	(27.5-30)	(32.5-35)	(32.5-35)	(32.5-35)
Laboratory ID:				A3107-07	A3107-11	A3107-13	A3690-13	A3690-10	A3690-07	A3519-01	A3690-01	A3519-03	A3690-15	A3690-04	A3811-05	A3811-07	A3811-15	A3811-20	A3811-22	A3811-27	A3811-02DL	A3034-13	A3034-14	A3075-01	A3075-02	A3075-03	A3075-06
Sampling Date:				6/10/2009	6/10/2009	6/10/2009	7/23/2009	7/23/2009	7/23/2009	7/10/2009	7/22/2009	7/10/2009	7/23/2009	7/22/2009	8/3/2009	8/3/2009	8/4/2009	8/4/2009	8/4/2009	8/4/2009	8/3/2009	6/4/2009	6/4/2009	6/5/2009	6/5/2009	6/5/2009	6/8/2009
Volatile Organic Compounds:																											
1,2,4-Trimethylbenzene	10,000	52,000	190,000	0.53 UJ	510 J	5,000 D	47,000 D	45	740 U	5.4 U	730 U	750	360 J	5.3 U	6 U	6 U	5.5 U	5.6 U	5.4 U	6.2 U	6,300 D	0.53 UJ	9,100	0.52 U	59 U	5,400	4,500
1,3,5-Trimethylbenzene	3,300	52,000	190,000	0.47 UJ	180 J	2,000 D	19,000 D	29	740 U	5.4 U	730 U	330 J	160 J	5.3 U	6 U	6 U	5.5 U	5.6 U	5.4 U	6.2 U	2,200 D	0.48 UJ	3,100	0.47 U	71 U	2,000	1,800
Benzene	60 or MDL	4,800	44,000	0.4 UJ	48 UJ	46 UJ	720 U	5.8 U	740 U	5.4 U	730 U	750 U	740 U	5.3 U	6 U	6 U	5.5 U	5.6 U	5.4 U	6.2 U	770 UJ	0.4 UJ	47 UJ	0.4 U	49 U	48 U	50 U
Ethyl Benzene	5,500	41,000	390,000	0.65 UJ	79 UJ	220 JD	3,900	5.8 U	740 U	5.4 U	730 U	750 U	740 U	5.3 U	6 U	6 U	5.5 U	5.6 U	5.4 U	6.2 U	240 JD	0.66 UJ	940	0.65 U	82 U	80 U	83 U
Cumene (Isopropylbenzene)	2,300	NS	NS	0.51 UJ	67 UJ	570 JD	6,700	5.8 U	740 U	5.4 U	350 J	750 U	740 U	5.3 U	6 U	6 U	5.5 U	5.6 U	5.4 U	6.2 U	630 JD	0.51 UJ	1,400	0.5 U	620 J	520 J	370 J
m + p Xylene	1,200[b]	100,000[a]	500,000[b]	0.76 UJ	140 UJ	1,500 D	22,000	12 U	1,500 U	11 U	1,500 U	1500 U	1,500 U	11 U	12 U	12 U	11 U	11 U	11 U	12 U	1,200 JD	0.77 UJ	4,800	0.75 U	150 U	1,300 J	330 J
ter.ButylMethylEther	120	100,000[a]	500,000[b]	1 UJ	52 UJ	50 UJ	720 U	5.8 U	740 U	5.4 U	730 U	750 U	740 U	5.3 U	6 U	6 U	5.5 U	5.6 U	5.4 U	6.2 U	770 UJ	1 UJ	51 UJ	1 U	54 U	53 U	55 U
Naphthalene(v)	13,000	100,000[a]	500,000[b]	0.47 UJ	100 UJ	570 JD	6,600	5.8 U	740 U	5.4 U	730 U	750 U	160 J	5.3 U	6 U	6 U	5.5 U	5.6 U	5.4 U	6.2 U	800 D	0.48 UJ	1,600	0.47 U	100 U	500 J	680 J
n-Butylbenzene	10,000	NS	500,000[b]	0.48 UJ	11,000	59 UJ	14,000	5.8 U	260 J	5.4 U	2,300	310 J	740 U	5.3 U	6 U	6 U	5.5 U	5.6 U	5.4 U	6.2 U	1,400 D	0.49 UJ	2,100	0.48 U	63 U	62 U	64 U
n-Propylbenzene	3,700	100,000[a]	500,000[b]	0.38 UJ	760	1,000 D	12,000	9.2	740 U	5.4 U	710 J	750 U	740 U	5.3 U	6 U	6 U	5.5 U	5.6 U	5.4 U	6.2 U	1,100 D	0.38 UJ	2,400	0.38 U	940	960	810
o Xylene	1,200[b]	100,000[a]	500,000[b]	0.72 UJ	64 UJ	160 JD	3,300	5.8 U	740 U	5.4 U	730 U	750 U	740 U	5.3 U	6 U	6 U	5.5 U	5.6 U	5.4 U	6.2 U	220 JD	0.72 UJ	1,200	0.71 U	66 U	65 U	67 U
p-Isopropyltoluene	10,000	NS	NS	0.31 UJ	3,300	1,100 D	8,100	56	740 U	5.4 U	2,700	360 J	740 U	5.3 U	6 U	6 U	5.5 U	5.6 U	5.4 U	6.2 U	830 D	0.31 UJ	3,200	0.3 U	1,600	1,000	1,000
sec-Butylbenzene	10,000	100,000[a]	500,000[b]	0.55 UJ	2,400	440 JD	7,500	20	740 U	5.4 U	2,300	150 J	740 U	5.3 U	6 U	6 U	5.5 U	5.6 U	5.4 U	6.2 U	810 D	0.55 UJ	1,400	0.55 U	990	360 J	390 J
tert-Butylbenzene	10,000	100,000[a]	500,000[b]	0.62 UJ	65 UJ	63 UJ	720 U	5.8 U	740 U	5.4 U	730 U	750 U	740 U	5.3 U	6 U	6 U	5.5 U	5.6 U	5.4 U	6.2 U	770 UJ	0.63 UJ	64 UJ	0.62 U	68 U	66 U	69 U
Toluene	1,500	100,000[a]	500,000[b]	0.67 UJ	55 UJ	53 UJ	720 U	5.8 U	740 U	5.4 U	730 U	750 U	740 U	5.3 U	6 U	6 U	5.5 U	5.6 U	5.4 U	6.2 U	770 UJ	0.68 UJ	54 UJ	0.67 U	57 U	56 U	58 U
Total VOCs	NS	NS		ND	18,150	12,560	150,100	159	260	ND	8,360	1,900	680	ND	ND	ND	ND	ND	ND	ND	15,730	ND	31,240	ND	4,150	12,040	9,880
Semi-Volatile Organic Compounds:																											
Acenaphthene	50,000	100,000[a]	500,000[b]	9.9 UJ	11 UJ	110 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 UJ	65 J	7.1 UJ	8.4 UJ	8.2 UJ	8.5 UJ
Anthracene	50,000	100,000[a]	500,000[b]	7.1 UJ	8.1 UJ	78 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.2 UJ	7.9 UJ	8.4 UJ	9.9 UJ	9.6 UJ	10 UJ
Benzo(a)anthracene	224 or MDL	1,000[f]	5,600	17 UJ	19 UJ	180 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17 UJ	18 UJ	14 UJ	17 UJ	16 UJ	17 UJ
Benzo(a)pyrene	61 or MDL	1,000[f]	1,000[f]	7.6 UJ	8.5 UJ	83 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.6 UJ	8.4 UJ	12 UJ	14 UJ	13 UJ	14 UJ
Benzo(b)fluoranthene	220 or MDL	1,000[f]	5,600	11 UJ	13 UJ	120 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12 UJ	13 UJ	11 UJ	13 UJ	13 UJ	14 UJ
Benzo(g,h,i)perylene	50,000	100,000[a]	500,000[b]	14 UJ	16 UJ	150 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14 UJ	16 UJ	7 UJ	8.2 UJ	8.1 UJ	8.3 UJ
Benzo(k)fluoranthene	220 or MDL	3,900	56,000	16 UJ	16 UJ	180 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17 UJ	18 UJ	16 UJ	19 UJ	19 UJ	20 UJ
Chrysene	400	3,900	56,000	16 UJ	18 UJ	170 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16 UJ	18 UJ	16 UJ	19 UJ	18 UJ	19 UJ
Dibenzo(a,h)anthracene	14.3 or MDL	330[f]	560	10 UJ	11 UJ	110 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10 UJ	11 UJ	7.6 UJ	8.9 UJ	8.7 UJ	9 UJ
Fluoranthene	50,000	100,000[a]	500,000[b]	7 UJ	110 J	77 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.1 UJ	7.8 UJ	10 UJ	12 UJ	12 UJ	12 UJ
Fluorene	50,000	100,000[a]	500,000[b]	13 UJ	15 UJ	480 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13 UJ	97 J	17 UJ	20 UJ	19 UJ	20 UJ
Indeno(1,2,3-cd)pyrene	3,200	500[f]	5,600	12 UJ	13 UJ	130 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12 UJ	13 UJ	9.9 UJ	12 UJ	11 UJ	12 UJ
Phenanthrene	50,000	100,000[a]	500,000[b]	9.4 UJ	160 J	570 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.5 UJ	170 J	9.4 UJ	57 J	160 J	120 J
Pyrene	50,000	100,000[a]	500,000[b]	8.4 UJ	93 J	92 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.5 UJ	9.3 UJ	13 UJ	49 J	130 J	86 J

Notes:
All concentrations are ug/kg (ppb)
(1) NYSDEC Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels 4046
(2) NYSDEC 6 NYCRR Environmental Remediation Programs Part Restriced Use of Soil Cleanup Objective Table 375-6.8b 12/06
a - The SCO for residential, restricted residential and ecological resources use were capped at a maximum value of 100,000 ppb.
b - The Rec. Soil Cleanup Objective represents total Xylenes
f - For constituents where the calculated SCO was lower than the rural soil background concentration, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.
U - Indicates that the analyte was not detected above the laboratory MDL
J - Indicates an estimated value
B - Indicates the analyte was detected in the method blank
D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
NS - Not Specified

Table 2
Groundwater\ Sample Analytical Data Summary
Volatile Semi-Volatile Organic Compounds

Client Sample ID:	NYSDEC	VD-1(GW)	VD-1(GW)	VD-2(GW)	VD-2(GW)	VD-3(GW)	VD-3(GW)	HD-1(GW)	HD-2(GW)	HD-3(GW)	HD-4(GW)	HD-5(GW)	HD-6(GW)	HD-7(GW)	HD-8(GW)	HD-9(GW)	HD-10(GW)	HD-11(GW)	HD-11(GW)	HD-12(GW)	HD-13(GW)	HD-14(GW)	HD-15(GW)
Sample Depth:	AWQS[1]	34-38'	42-46'	28-32'	40-44'	29-33'	41-45'	30-34'	30-34'	30-34'	30-34'	30-34'	30-34'	30-34'	30-34'	29-33'	29-33'	29-33'	40-44'	29-33	29-33	29-33	29-33
Laboratory ID:		A2925-08	A2925-09	A2925-10	A2925-11	A2972-08	A2972-09	A2972-10	A2992-02	A2992-04	A2992-08	A2992-10	A3034-01	A3034-03	A3034-05	A3034-09	A3034-12	A3109-10	A3109-11	A3107-04	A3107-09	A3107-12	A3107-14DL
Sampling Date:		5/28/2009	5/28/2009	5/28/2009	5/28/2009	5/29/2009	5/29/2009	5/29/2009	6/1/2009	6/1/2009	6/2/2009	6/2/2009	6/3/2009	6/3/2009	6/3/2009	6/4/2009	6/4/2009	6/9/2009	6/9/2009	6/10/2009	6/10/2009	6/10/2009	6/10/2009
Volatile Organic Compounds:																							
124-Trimethylbenzene	5	0.38 UJ	53	670 D	8.6	410 D	2.1	770	610 D	530 D	1,200 D	74	920	1,500	970	1,000	150	65	1.6	0.38 UJ	0.38 UJ	7	360 D
1,3,5-Trimethylbenzene	5	0.46 UJ	10	140	1.1	120	0.46 UJ	270	190	99	340 D	30	330	550	330	340	40	11	0.46 UJ	0.46 UJ	0.46 UJ	1.7	140 D
Benzene	1	0.32 UJ	0.32 UJ	0.32 UJ	0.32 UJ	0.32 UJ	0.32 UJ	16 UJ	0.32 UJ	0.32 UJ	0.32 UJ	0.32 UJ	3.2 UJ	3.2 UJ	3.2 UJ	3.2 UJ	3.2 UJ	0.32 UJ	0.32 UJ	0.32 UJ	0.32 UJ	0.32 UJ	1.6 UJ
Ethyl Benzene	5	0.53 UJ	36	670 D	2.5	140	0.53 UJ	39 J	3.8	19	240 D	0.53 UJ	360	640	900	960	70	29	0.53 UJ	0.53 UJ	0.53 UJ	0.53 UJ	29 D
Cumene (Isopropylbenzene)	5	0.45 UJ	10	16	1.3	64	0.45 UJ	87	61	32	190	8.6	120	190	160	140	28	37	0.45 UJ	0.45 UJ	0.45 UJ	1.4	42 D
m + p Xylene	5	0.95 UJ	86	2,100 D	8.4	580 D	1.1 J	290	28	110	2,800 D	1.2 J	1,500	2,200	2,400	2,900	250	62	9.1	0.95 UJ	0.95 UJ	0.95 UJ	170 D
ter.ButylMethylEther	10	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ	18 UJ	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	3.5 UJ	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ	0.35 UJ	1.8 UJ
Naphthalene(v)	5	0.67 UJ	25	65	7.2	110	0.95 J	110	16	29	270 D	0.67 UJ	180	310	270	330	60	32	2.9	0.67 UJ	1.1	0.67 UJ	43 D
n-Propylbenzene	5	0.45 UJ	14	5	1.8	18	0.41 UJ	52	100	80	150 D	60	160	270	190	160	37	12	5.2	13	0.41 UJ	59	25 D
n-Butylbenzene	10	0.41 UJ	7	9	1 J	84	0.45 UJ	110	0.41 UJ	0.41 UJ	110	120	4.1 UJ	110	34	44	9.8 J	44	1	1.3	0.45 UJ	12	64 D
o Xylene	5	0.43 UJ	46	880 D	4.2	190 D	0.43 UJ	55	1.3	3.6	910 D	0.43 UJ	450	420	1,100	1,400	79	21	0.43 UJ	0.43 UJ	0.43 UJ	0.43 UJ	21 D
p-Isopropyltoluene	5	0.43 UJ	11	30	1.6	40	0.43 UJ	100	78	13	81	67	82	190	77	84	22	15	0.43 UJ	8.8	0.43 UJ	23	42 D
sec-Butylbenzene	5	0.46 UJ	5	0.46 UJ	0.69 J	14	0.46 UJ	32 J	31	11	0.46 UJ	35	36	73	32	37	14	10	0.46 UJ	7.4	0.46 UJ	15	17 D
tert-Butylbenzene	5	0.44 UJ	0.44 UJ	2	0.44 UJ	1.6	0.44 UJ	22 UJ	0.44 UJ	0.44 UJ	0.44 UJ	0.44 UJ	4.4 UJ	4.4 UJ	4.4 UJ	4.4 UJ	4.4 UJ	1	0.44 UJ	0.44 UJ	0.44 UJ	0.44 UJ	2.2 UJ
Toluene	5	0.37 UJ	31	460 D	0.78 J	80	0.37 UJ	18 UJ	0.37 UJ	0.37 UJ	0.37 UJ	0.37 UJ	3.7 UJ	7.3 J	130	220	3.7 UJ	0.37 UJ	0.37 UJ	0.37 UJ	0.37 UJ	0.37 UJ	1.8 UJ
Total VOCs	NS	BDL	334	5,047	39	1,852	4	1,915	1,119	927	6,291	396	4,138	6,453	6,463	7,615	760	339	20	30.5	1.1	119	783
Semi-Volatile Organic Compounds:																							
Acenaphthene	20	0.21 UJ	0.24 UJ	0.21 UJ	0.21 UJ	0.22 UJ	0.21 UJ	0.21 UJ	0.26 UJ	0.25 UJ	0.26 UJ	1.7 J	0.21 UJ	0.23 UJ	0.23 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ
Anthracene	50	0.16 UJ	0.18 UJ	0.16 UJ	0.16 UJ	0.17 UJ	0.16 UJ	0.16 UJ	0.2 UJ	0.19 UJ	0.2 UJ	0.19 UJ	0.16 UJ	0.18 UJ	0.17 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.21 UJ	0.2 UJ	0.21 UJ	0.21 UJ
Benzo(a)anthracene	0.002	0.16 UJ	0.18 UJ	0.16 UJ	0.16 UJ	0.17 UJ	0.16 UJ	0.16 UJ	0.2 UJ	0.19 UJ	0.2 UJ	0.19 UJ	0.16 UJ	0.18 UJ	0.17 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.3 UJ	0.3 UJ	0.3 UJ	0.3 UJ
Benzo(a)pyrene	0.002	0.14 UJ	0.16 UJ	0.14 UJ	0.14 UJ	0.15 UJ	0.14 UJ	0.14 UJ	0.17 UJ	0.17 UJ	0.17 UJ	0.16 UJ	0.14 UJ	0.16 UJ	0.15 UJ	0.14 UJ	0.14 UJ	0.14 UJ	0.14 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ
Benzo(b)fluoranthene	0.002	0.29 UJ	0.33 UJ	0.29 UJ	0.3 UJ	0.3 UJ	0.29 UJ	0.29 UJ	0.35 UJ	0.35 UJ	0.35 UJ	0.34 UJ	0.3 UJ	0.32 UJ	0.31 UJ	0.3 UJ	0.3 UJ	0.3 UJ	0.29 UJ	0.3 UJ	0.3 UJ	0.3 UJ	0.3 UJ
Benzo(g,h,i)perylene	5	0.29 UJ	0.33 UJ	0.29 UJ	0.3 UJ	0.3 UJ	0.29 UJ	0.29 UJ	0.35 UJ	0.35 UJ	0.35 UJ	0.34 UJ	0.3 UJ	0.32 UJ	0.31 UJ	0.3 UJ	0.3 UJ	0.3 UJ	0.29 UJ	0.41 UJ	0.41 UJ	0.41 UJ	0.41 UJ
Benzo(k)fluoranthene	0.002	0.18 UJ	0.21 UJ	0.18 UJ	0.18 UJ	0.19 UJ	0.18 UJ	0.18 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.21 UJ	0.18 UJ	0.2 UJ	0.19 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.19 UJ	0.18 UJ	0.19 UJ	0.19 UJ
Chrysene	0.002	0.18 UJ	0.21 UJ	0.18 UJ	0.18 UJ	0.19 UJ	0.18 UJ	0.18 UJ	0.22 UJ	0.22 UJ	0.22 UJ	0.21 UJ	0.18 UJ	0.2 UJ	0.19 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.19 UJ	0.18 UJ	0.19 UJ	0.19 UJ
Dibenzo(a,h)anthracene	50	0.42 UJ	0.48 UJ	0.42 UJ	0.43 UJ	0.44 UJ	0.42 UJ	0.42 UJ	0.51 UJ	0.51 UJ	0.51 UJ	0.49 UJ	0.43 UJ	0.47 UJ	0.45 UJ	0.43 UJ	0.43 UJ	0.43 UJ	0.42 UJ	0.14 UJ	0.14 UJ	0.14 UJ	0.14 UJ
Fluoranthene	50	0.4 UJ	0.46 UJ	0.4 UJ	0.41 UJ	0.42 UJ	0.4 UJ	0.4 UJ	0.49 UJ	0.48 UJ	0.49 UJ	1.4 J	0.41 UJ	0.44 UJ	0.43 UJ	0.41 UJ	0.41 UJ	0.41 UJ	0.4 UJ	0.43 UJ	0.43 UJ	0.43 UJ	0.43 UJ
Fluorene	50	0.31 UJ	0.36 UJ	1 J	0.32 UJ	0.32 UJ	0.31 UJ	1.8 J	0.38 UJ	0.37 UJ	0.38 UJ	2 J	2.1 J	0.34 UJ	0.33 UJ	0.32 UJ	0.32 UJ	0.32 UJ	0.31 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ
Indeno(1,2,3-cd)pyrene	0.002	0.15 UJ	0.17 UJ	0.15 UJ	0.15 UJ	0.16 UJ	0.15 UJ	0.15 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.15 UJ	0.17 UJ	0.16 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.22 UJ	0.21 UJ	0.22 UJ	0.22 UJ
Phenanthrene	50	0.26 UJ	0.3 UJ	1.1 J	0.27 UJ	0.27 UJ	0.26 UJ	1.4 J	0.32 UJ	0.31 UJ	0.32 UJ	3.9 J	2.3 J	0.29 UJ	0.28 UJ	0.27 UJ	0.27 UJ	0.27 UJ	0.26 UJ	0.27 UJ	0.27 UJ	2.2 J	0.27 UJ
Pyrene	50	0.2 UJ	0.23 UJ	0.2 UJ	0.2 UJ	0.21 UJ	0.2 UJ	0.2 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.24 UJ	0.2 UJ	0.22 UJ	0.22 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.32 UJ	0.32 UJ	0.32 UJ	0.32 UJ

Client Sample ID:	NYSDEC	HD-17(GW)	HD-18(GW)	HD-19(GW)	HD-20(GW)	HD-21(GW)	HD-22(GW)	HD-23(GW)	HD-24(GW)	HD-25(GW)	HD-26(GW)	HD-27(GW)	HD-28(GW)	HD-29(GW)	HD-30(GW)	OWS-Center(GW)	PZ-02	PZ-03	PZ-06	PZ-08	PZ-17	PZ-27	PZ-28
Sample Depth:	AWQS[1]	29-33	29-33	29-33	29-33	29-33	29-33	29-33	29-33	29-33	29-33	29-33	29-33	29-33	29-33	29-33'							
Laboratory ID:		A3690-11	A3690-08	A3519-02	A3690-02	A3519-04	A3690-16	A3690-05	A3811-06	A3811-10	A3811-18	A3811-21	A3811-26	A3811-28	A3811-03	A3034-15	A3108-11	A3108-10	A3108-09	A3108-08	A3108-06	A3108-02	A3108-01
Sampling Date:		7/23/2009	7/23/2009	7/10/2009	7/22/2009	7/10/2009	7/23/2009	7/22/2009	8/3/2009	8/3/2009	8/4/2009	8/4/2009	8/4/2009	8/4/2009	8/3/2009	6/4/2009	6/10/2009	6/10/2009	6/10/2009	6/10/2009	6/10/2009	6/10/2009	6/10/2009
Volatile Organic Compounds:																							
124-Trimethylbenzene	5	16	1 U	1 U	2.3	80	180 D	1 U	1 U	1 U	1 U	1 U	1 U	0.52 J	120	180	0.53 UJ	61 D	510 D	6.1	26 D	800 D	270 D
1,3,5-Trimethylbenzene	5	7.4	1 U	1 U	1 U	37	130	1 U	1 U	1 U	1 U	1 U	1 U	0.51 J	42	44	0.45 UJ	140 D	82 D	3.8	72 D	110 D	67 D
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3.2 UJ	0.41 UJ	20 D	8.2 UJ	0.41 UJ	2 UJ	19 JD	12 D
Ethyl Benzene	5	1 U	1 U	1 U	1 U	1 U	97	1 U	1 U	1 U	1 U	1 U	1 U	1 U	8.3	78	0.46 UJ	270 D	150 D	6.5	120 D	250 D	130 D
Cumene (Isopropylbenzene)	5	1.4	1 U	1 U	16	6.4	51	1 U	1 U	1 U	1 U	1 U	1 U	1 U	15	34	0.37 UJ	3.7 UJ	310 D	6	3.8 JD	730 D	34 D
m + p Xylene	5	2 U	2 U	2 U	2 U	2 U	120	2 U	2 U	2 U	2 U	2 U	2 U	1.2 J	40	280	0.46 UJ	10 D	11 JD	0.83 J	15 D	9.2 UJ	4.6 UJ
ter.ButylMethylEther	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3.5 UJ	0.35 UJ	3.5 UJ	7 UJ	0.35 UJ	1.8 UJ	7 UJ	3.5 UJ
Naphthalene(v)	5	1 U	1 U	1 U	1.7	2	110	1 U	1 U	2.3	1 U	1 U	1 U	1 U	14	62	0.95 UJ	730 D	2,000 D	22	79 D	2,700 D	1,000 D
n-Propylbenzene	5	4.7	1 U	1 U	19	15	66	1 U	1 U	1 U	1 U	1 U	1 U	1 U	23	44	0.32 UJ	3.2 UJ	6.4 UJ	0.32 UJ	1.6 UJ	6.4 UJ	3.2 UJ
n-Butylbenzene	10	3.7	16	1 U	11	18	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	13	0.67 UJ	78 D	190 D	5.8	13 D	290 D	120 D
o Xylene	5	1 U	1 U	1 U	1 U	1 U	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	7.1	88	0.43 UJ	27 D	810 D	4.7	30 D	790 D	340 D
p-Isopropyltoluene	5	3.4	1 U	1 U	21	23	12	1 U	1 U	1 U	1 U	1 U	1 U	1 U	19	27	0.75 J	890 D	500 D	21	250 D	710 D	430 D
sec-Butylbenzene	5	3.3	4	1 U	19	8.4	13	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	16	0.44 UJ	4.4 UJ	8.8 UJ	0.44 UJ	2.2 UJ	8.8 UJ	4.4 UJ
tert-Butylbenzene	5	1 U	1 U	1 U	1.4	1.3	1.3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4.4 UJ	0.45 UJ	74 D	72 D	2.9	35 D	100 D	58 D
Toluene	5	1 U	1 U	1 U	1 U	0.63 J	1 U	1 U	2	1 U	2.4	3.8	6.2	9.1	2	3.7 UJ	0.43 UJ	24 D	29 D	2.1	47 D	49 D	35 D
Total VOCs	NS	39.9	20	ND	91.4	191.73	781.3	ND	2	2.3	2.4	3.8	6.2	11.33	290.4	866	0.75	2,324	4,664	82	691	6,548	2,496
Semi-Volatile Organic Compounds:																							
Acenaphthene	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.22 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ
Anthracene	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.16 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
Benzo(a)anthracene	0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.16 UJ	0.29 UJ	0.3 UJ	0.29 UJ	0.29 UJ	0.29 UJ	0.29 UJ	0.29 UJ
Benzo(a)pyrene	0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.14 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ
Benzo(b)fluoranthene	0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.3 UJ	0.29 UJ	0.3 UJ	0.29 UJ	0.29 UJ	0.29 UJ	0.29 UJ	0.29 UJ
Benzo(g,h,i)perylene	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.3 UJ	0.4 UJ	0.41 UJ	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ	0.4 UJ
Benzo(k)fluoranthene	0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.19 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ
Chrysene	0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.19 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ
Dibenzo(a,h)anthracene	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.43 UJ	0.14 UJ	0.14 UJ	0.14 UJ	0.14 UJ	0.14 UJ	0.14 UJ	0.14 UJ
Fluoranthene	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.41 UJ	0.42 UJ	0.43 UJ	0.42 UJ	0.42 UJ	0.42 UJ	0.42 UJ	0.42 UJ
Fluorene	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.32 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ	0.16 UJ
Indeno(1,2,3-cd)pyrene	0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ	0.21 UJ
Phenanthrene	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.27 UJ	0.26 UJ	0.27 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ	0.26 UJ
Pyrene	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21 UJ	0.31 UJ	0.32 UJ	0.31 UJ	0.31 UJ	0.31 UJ	0.31 UJ	0.31 UJ

Notes:
All concentrations are ug/L (ppb)
(1) Class GA Ambient Water Quality Standard (AWQS), NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998
U - Indicates that the analyte was not detected above the laboratory MDL
J - Indicates an estimated value
B - Indicates the analyte was detected in the method blank
D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
NS - Not Specified
NA- Not Analyzed
Highlighted values indicate exceedance of AWQS

Table 3
Soil-Vapor Sample Analytical Data Summary
Volatile Organic Compounds

Client Sample ID:	Target Soil Gas	AMBIENTAIR		SV-1		SV-2		SV-3		SV-4		SV-5	
Laboratory ID:	Concentration[1]	A3498-01		A3498-02		A3498-03		A3498-04		A3498-05		A3498-06	
Sampling Date:		7/10/2009		7/10/2009		7/10/2009		7/10/2009		7/10/2009		7/10/2009	
Volatile Organic Compounds:													
1,1,1-Trichloroethane	22,000	0.22	UJ	0.22	UJ	0.22	UJ	0.22	UJ	0.22	UJ	0.22	UJ
1,1,2,2-Tetrachloroethane	4.2	0.69	UJ	0.69	UJ	0.69	UJ	0.69	UJ	0.69	UJ	0.69	UJ
1,1,2-Trichloroethane	15	0.44	UJ	0.44	UJ	0.44	UJ	0.44	UJ	0.44	UJ	0.44	UJ
1,1,2-Trichlorotrifluoroethane	30,000	0.31	UJ	0.31	UJ	0.31	UJ	0.31	UJ	0.31	UJ	0.31	UJ
1,1-Dichloroethane	5,000	0.16	UJ	0.16	UJ	0.16	UJ	0.16	UJ	0.16	UJ	0.16	UJ
1,1-Dichloroethene	NS	0.2	UJ	0.2	UJ	0.2	UJ	0.2	UJ	0.2	UJ	0.2	UJ
1,2,4-Trichlorobenzene	2,000	0.3	UJ	0.3	UJ	0.3	UJ	0.3	UJ	0.3	UJ	0.3	UJ
1,2,4-Trimethylbenzene	60	0.49	UJ	4.97		0.49	UJ	2.7		0.49	UJ	0.49	UJ
1,2-Dibromoethane	1.1	0.54	UJ	0.54	UJ	0.54	UJ	0.54	UJ	0.54	UJ	0.54	UJ
1,2-Dichlorobenzene	2,000	0.42	UJ	0.42	UJ	0.42	UJ	0.42	UJ	0.42	UJ	0.42	UJ
1,2-Dichloroethane	9.4	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ
1,2-Dichloropropane	40	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ
1,3,5-Trimethylbenzene	60	0.44	UJ	0.44	UJ	0.44	UJ	0.44	UJ	0.44	UJ	0.44	UJ
1,3-Butadiene	0.87	0.2	UJ	0.2	UJ	0.2	UJ	0.2	UJ	0.2	UJ	0.2	UJ
1,3-Dichlorobenzene	1,100	0.48	UJ	0.48	UJ	0.48	UJ	0.48	UJ	5.65		5.29	
1,4-Dichlorobenzene	8,000	0.36	UJ	0.36	UJ	0.36	UJ	0.36	UJ	0.36	UJ	0.36	UJ
1,4-Dioxane	NS	0.32	UJ	0.32	UJ	0.32	UJ	0.32	UJ	0.32	UJ	0.32	UJ
2,2,4-Trimethylpentane	NS	0.19	UJ	0.19	UJ	0.19	UJ	0.19	UJ	0.19	UJ	0.19	UJ
2-Butanone	NS	0.29	UJ	88.5	JD	10.4		59	JD	404	D	70.8	JD
2-Chlorotoluene	NS	0.52	UJ	0.52	UJ	0.52	UJ	0.52	UJ	0.52	UJ	0.52	UJ
4-Ethyltoluene	NS	0.39	UJ	2.7		0.39	UJ	0.39	UJ	0.39	UJ	0.39	UJ
4-Methyl-2-Pentanone	NS	0.25	UJ	0.25	UJ	0.25	UJ	0.25	UJ	0.25	UJ	0.25	UJ
Acetone	3,500	14.7		1993	DB	1510	DB	2757	DB	2194	DB	2513	DB
Allyl Chloride	NS	0.16	UJ	0.16	UJ	0.16	UJ	0.16	UJ	0.16	UJ	0.16	UJ
Benzene	31	0.13	UJ	0.13	UJ	0.13	UJ	0.13	UJ	2.17		3.87	
Bromodichloromethane	14	0.33	UJ	0.33	UJ	0.33	UJ	0.33	UJ	0.33	UJ	0.33	UJ
Bromoethene	NS	0.13	UJ	0.13	UJ	0.13	UJ	0.13	UJ	0.13	UJ	0.13	UJ
Bromoform	2,200	0.52	UJ	0.52	UJ	0.52	UJ	0.52	UJ	0.52	UJ	0.52	UJ
Bromomethane	NS	0.12	UJ	0.12	UJ	0.12	UJ	0.12	UJ	0.12	UJ	0.12	UJ
Carbon Disulfide	7,000	0.16	UJ	0.16	UJ	0.16	UJ	0.16	UJ	3.21		4.98	
Carbon Tetrachloride	16	0.25	UJ	0.25	UJ	0.25	UJ	0.25	UJ	0.25	UJ	0.25	UJ
Chlorobenzene	600	0.41	UJ	0.41	UJ	0.41	UJ	0.41	UJ	0.41	UJ	0.41	UJ
Chloroethane	100,000	0.18	UJ	0.18	UJ	0.18	UJ	0.18	UJ	0.18	UJ	0.18	UJ
Chloroform	11	0.1	UJ	0.1	UJ	0.1	UJ	0.1	UJ	3.42		0.1	UJ
Chloromethane	NS	1.69		1.84		3.39		2.13		1.32		2.81	
cis-1,2-Dichloroethene	350	0.24	UJ	0.24	UJ	9.87		0.24	UJ	0.24	UJ	0.24	UJ
cis-1,3-Dichloropropene	NS	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ	0.27	UJ
Cyclohexane	NS	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ
Dibromochloromethane	NS	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ
Dichlorodifluoromethane	2,000	3.41		2.57		0.2	UJ	3.41		5.39		2.67	
Dichlorotetrafluoroethane	NS	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ
Ethyl Benzene	220	0.35	UJ	3		0.35	UJ	0.35	UJ	2.52		7.73	
Heptane	NS	0.25	UJ	2.87		0.25	UJ	0.25	UJ	2.75		7.25	
Hexachloro-1,3-Butadiene	11	0.85	UJ	0.85	UJ	0.85	UJ	0.85	UJ	0.85	UJ	0.85	UJ
Hexane	2,000	0.14	UJ	2.5		0.14	UJ	0.14	UJ	2.54		2.78	
Isopropyl Alcohol	NS	1.35	UJ	13.7		4.38		10.9		19		25.8	
m/p-Xylene	70,000	0.48	UJ	7.25		0.48	UJ	2.82	J	5.34		9.16	
Methyl Methacrylate	7,000	0.41	UJ	0.41	UJ	0.41	UJ	0.41	UJ	0.41	UJ	0.41	UJ
Methyl tert-Butyl Ether	30,000	0.18	UJ	0.18	UJ	0.18	UJ	0.18	UJ	0.18	UJ	0.18	UJ
Methylene Chloride	520	2.85		6.5		0.17	UJ	0.17	UJ	0.17	UJ	0.17	UJ
o-Xylene	70,000	0.3	UJ	3.39		0.3	UJ	0.3	UJ	2.48		4.65	
Styrene	2,300	0.3	UJ	0.3	UJ	0.3	UJ	0.3	UJ	0.3	UJ	0.3	UJ
t-1,3-Dichloropropene	NS	0.32	UJ	0.32	UJ	0.32	UJ	0.32	UJ	0.32	UJ	0.32	UJ
tert-Butyl alcohol	NS	0.3	UJ	10.7		0.3	UJ	11.7		14.7		15.1	
Tetrachloroethene	81	0.2	UJ	58.2		0.2	UJ	0.2	UJ	0.2	UJ	0.2	UJ
Tetrahydrofuran	NS	0.24	UJ	0.24	UJ	0.24	UJ	0.24	UJ	0.24	UJ	0.24	UJ
Toluene	4,000	0.19	UJ	13.4		0.19	UJ	6.1		6.9		22.1	
trans-1,2-Dichloroethene	700	0.24	UJ	0.24	UJ	0.24	UJ	0.24	UJ	0.24	UJ	0.24	UJ
Trichloroethene	2.2	0.21	UJ	0.21	UJ	0.21	UJ	0.21	UJ	0.21	UJ	0.21	UJ
Trichlorofluoromethane	7,000	0.22	UJ	17.7		8.09		4.61		3.65		12.5	
Vinyl Chloride	28	0.18	UJ	0.18	UJ	0.18	UJ	0.18	UJ	0.18	UJ	0.18	UJ
Total VOCs	NS	22.65		2232.79		1546.53		2860.37		2679.04		2710.49	
Total TICs	NS	3.5		3.5		3.5		3.5		3.5		3.5	

Notes:
All concentrations are µg/m^3
(1) Target Shallow Soil Gas Concentrations, USEPA Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soil (Subsurface Vapor Intrusion Guidance) Table 2b Risk = 1 x 10-5
NS - No Standard
U - The compound was not detected at the indicated concentration.
J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.
B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
E - Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.

Table 4
QA/QC Sample Analytical Data Summary
Volatile Semi-Volatile Organic Compounds

Client Sample ID:	DUP-03		DUP-04		DUP-05		DUP-06		DUP-07		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Trip Blank		Field Blank (W)		Field Blank (S)		Field Blank (W)		Field Blank (S)		Field Blank (W)		Field Blank (S)	
Laboratory ID:	A2925-07		A3034-16		A3811-16		A3811-19		A3811-25		A2925-14		A2972-13		A2992-11		A3034-18		A3519-07		A3690-17		A3811-17		A2925-12		A2925-13		A2972-12		A2972-11		A2992-05		A2992-06	
Sampling Date:	5/28/2009		6/4/2009		8/4/2009		8/4/2009		8/4/2009		5/28/2009		5/29/2009		6/1/2009		6/4/2009		7/10/2009		7/23/2009		8/4/2009		5/28/2009		5/28/2009		5/29/2009		5/29/2009		6/1/2009		6/1/2009	
Volatile Organic Compounds:																																		
124-Trimethylbenzene	0.63	UJ	180		5.6	U	1	U	6.3	U	0.38	UJ	0.38	UJ	0.38	UJ	0.38	UJ	1	U	1	U	1	U	0.38	UJ	0.38	UJ	0.38	UJ	0.38	UJ	0.38	UJ	0.38	UJ
1,3,5-Trimethylbenzene	0.57	UJ	48		5.6	U	1	U	6.3	U	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ	1	U	1	U	1	U	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ
Benzene	0.48	UJ	3.2	UJ	5.6	U	1	U	6.3	U	0.32	UJ	0.32	UJ	0.32	UJ	0.32	UJ	1	U	1	U	1	U	0.32	UJ	0.32	UJ	0.32	UJ	0.32	UJ	0.32	UJ	0.32	UJ
Ethyl Benzene	0.78	UJ	76		5.6	U	1	U	6.3	U	0.53	UJ	0.53	UJ	0.53	UJ	0.53	UJ	1	U	1	U	1	U	0.53	UJ	0.53	UJ	0.53	UJ	0.53	UJ	0.53	UJ	0.53	UJ
Cumene (Isopropylbenzene)	0.61	UJ	33		5.6	U	1	U	6.3	U	0.45	UJ	0.45	UJ	0.45	UJ	0.45	UJ	1	U	1	U	1	U	0.45	UJ	0.45	UJ	0.45	UJ	0.45	UJ	0.45	UJ	0.45	UJ
m + p Xylene	0.91	UJ	280		11	U	2	U	13	U	0.95	UJ	0.95	UJ	0.95	UJ	0.95	UJ	2	U	2	U	2	U	0.95	UJ	0.95	UJ	0.95	UJ	0.95	UJ	0.95	UJ	0.95	UJ
ter.ButylMethylEther	1.2	UJ	3.5	UJ	5.6	U	1	U	6.3	U	0.35	UJ	0.35	UJ	0.35	UJ	0.35	UJ	1	U	1	U	1	U	0.35	UJ	0.35	UJ	0.35	UJ	0.35	UJ	0.35	UJ	0.35	UJ
Naphthalene(v)	0.57	UJ	61		5.6	U	1	U	6.3	U	0.67	UJ	0.67	UJ	0.67	UJ	0.67	UJ	1	U	1	U	1	U	0.67	UJ	0.67	UJ	0.67	UJ	0.67	UJ	0.67	UJ	0.67	UJ
n-Propylbenzene	0.58	UJ	43		5.6	U	1	U	6.3	U	0.45	UJ	0.41	UJ	0.45	UJ	0.45	UJ	1	U	1	U	1	U	0.45	UJ	0.45	UJ	0.41	UJ	0.41	UJ	0.45	UJ	0.45	UJ
n-Butylbenzene	0.46	UJ	14		5.6	U	1	U	6.3	U	0.41	UJ	0.45	UJ	0.41	UJ	0.41	UJ	1	U	1	U	1	U	0.41	UJ	0.41	UJ	0.45	UJ	0.45	UJ	0.41	UJ	0.41	UJ
o Xylene	0.86	UJ	88		5.6	U	1	U	6.3	U	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	1	U	1	U	1	U	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ
p-Isopropyltoluene	0.37	UJ	29		5.6	U	1	U	6.3	U	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	1	U	1	U	1	U	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ
sec-Butylbenzene	0.66	UJ	15		5.6	U	1	U	6.3	U	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ	1	U	1	U	1	U	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ
tert-Butylbenzene	0.75	UJ	4.4	UJ	5.6	U	1	U	6.3	U	0.44	UJ	0.44	UJ	0.44	UJ	0.44	UJ	1	U	1	U	1	U	0.44	UJ	0.44	UJ	0.44	UJ	0.44	UJ	0.44	UJ	0.44	UJ
Toluene	0.81	UJ	3.7	UJ	5.6	U	3		6.3	U	0.37	UJ	0.37	UJ	0.37	UJ	0.37	UJ	1	U	1	U	1	U	0.37	UJ	0.37	UJ	0.37	UJ	0.37	UJ	0.37	UJ	0.37	UJ
Semi-Volatile Organic Compounds:																																		
Acenaphthene	12	UJ	0.21	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.25	UJ	0.25	UJ	0.25	UJ	0.25	UJ	0.25	UJ	0.25	UJ
Anthracene	8.6	UJ	0.16	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.19	UJ	0.19	UJ	0.19	UJ	0.19	UJ	0.19	UJ	0.19	UJ
Benzo(a)anthracene	20	UJ	0.16	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.19	UJ	0.19	UJ	0.19	UJ	0.19	UJ	0.19	UJ	0.19	UJ
Benzo(a)pyrene	9.1	UJ	0.14	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.16	UJ	0.16	UJ	0.17	UJ	0.17	UJ	0.17	UJ	0.17	UJ
Benzo(b)fluoranthene	14	UJ	0.3	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.34	UJ	0.34	UJ	0.35	UJ	0.35	UJ	0.35	UJ	0.35	UJ
Benzo(g,h,i)perylene	17	UJ	0.3	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.34	UJ	0.34	UJ	0.35	UJ	0.35	UJ	0.35	UJ	0.35	UJ
Benzo(k)fluoranthene	20	UJ	0.18	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.21	UJ	0.21	UJ	0.21	UJ	0.21	UJ	0.22	UJ	0.22	UJ
Chrysene	19	UJ	0.18	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.21	UJ	0.21	UJ	0.21	UJ	0.21	UJ	0.22	UJ	0.22	UJ
Dibenzo(a,h)anthracene	12	UJ	0.43	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.49	UJ	0.49	UJ	0.5	UJ	0.5	UJ	0.51	UJ	0.51	UJ
Fluoranthene	8.5	UJ	0.41	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.47	UJ	0.47	UJ	0.48	UJ	0.48	UJ	0.48	UJ	0.48	UJ
Fluorene	16	UJ	0.32	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.36	UJ	0.36	UJ	0.37	UJ	0.37	UJ	0.37	UJ	0.37	UJ
Indeno(1,2,3-cd)pyrene	14	UJ	0.15	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.18	UJ	0.18	UJ	0.18	UJ	0.18	UJ	0.18	UJ	0.18	UJ
Phenanthrene	11	UJ	0.27	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.31	UJ	0.31	UJ	0.31	UJ	0.31	UJ	0.31	UJ	0.31	UJ
Pyrene	10	UJ	0.2	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		0.24	UJ	0.24	UJ	0.24	UJ	0.24	UJ	0.24	UJ	0.24	UJ

Client Sample ID:	Field Blank (W)		Field Blank (S)		Field Blank (W)		Field Blank (S)		Field Blank (W)		Field Blank (S)		Field Blank		Field Blank (W)		Field Blank (S)		Field Blank (W)		Field Blank (S)		Field Blank (W)		Field Blank (S)		Field Blank (W)		Field Blank (S)		Field Blank (W)		Field Blank (S)	
Laboratory ID:	A2992-14		A2992-14		A3034-07		A3034-06		A3034-17		A3034-11		A3107-01		A35919-05		A3519-06		A3690-03		A3690-06		A3690-09		A3690-12		A3811-01		A3811-04		A3811-13		A3811-14		
Sampling Date:	6/2/2009		6/2/2009		6/3/2009		6/3/2009		6/4/2009		6/4/2009		6/10/2009		7/10/2009		7/10/2009		7/22/2009		7/22/2009		7/23/2009		7/23/2009		8/3/2009		8/3/2009		8/4/2009		8/4/2009		
Volatile Organic Compounds:																																		
124-Trimethylbenzene	0.38	UJ	0.38	UJ	0.38	UJ	0.38	UJ	0.38	UJ	0.38	UJ	0.38	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
1,3,5-Trimethylbenzene	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
Benzene	0.32	UJ	0.32	UJ	0.32	UJ	0.32	UJ	0.32	UJ	0.32	UJ	0.32	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
Ethyl Benzene	0.53	UJ	0.53	UJ	0.53	UJ	0.53	UJ	0.53	UJ	0.53	UJ	0.53	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
Cumene (Isopropylbenzene)	0.45	UJ	0.45	UJ	0.45	UJ	0.45	UJ	0.45	UJ	0.45	UJ	0.45	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
m + p Xylene	0.95	UJ	0.95	UJ	0.95	UJ	0.95	UJ	0.95	UJ	0.95	UJ	0.95	UJ	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	
ter.ButylMethylEther	0.35	UJ	0.35	UJ	0.35	UJ	0.35	UJ	0.35	UJ	0.35	UJ	0.35	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
Naphthalene(v)	0.67	UJ	0.67	UJ	0.67	UJ	0.67	UJ	0.67	UJ	0.67	UJ	0.67	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
n-Propylbenzene	0.45	UJ	0.45	UJ	0.45	UJ	0.45	UJ	0.45	UJ	0.45	UJ	0.45	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
n-Butylbenzene	0.41	UJ	0.41	UJ	0.41	UJ	0.41	UJ	0.41	UJ	0.41	UJ	0.41	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
o Xylene	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
p-Isopropyltoluene	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	0.43	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
sec-Butylbenzene	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ	0.46	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
tert-Butylbenzene	0.44	UJ	0.44	UJ	0.44	UJ	0.44	UJ	0.44	UJ	0.44	UJ	0.44	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
Toluene	0.37	UJ	0.37	UJ	0.37	UJ	0.37	UJ	0.37	UJ	0.37	UJ	0.37	UJ	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	
Semi-Volatile Organic Compounds:																																		
Acenaphthene	0.26	UJ	0.25	UJ	NA		0.23	UJ	0.23	UJ	0.22	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		
Anthracene	0.2	UJ	0.19	UJ	NA		0.18	UJ	0.17	UJ	0.17	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		
Benzo(a)anthracene	0.2	UJ	0.19	UJ	NA		0.18	UJ	0.17	UJ	0.17	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		
Benzo(a)pyrene	0.17	UJ	0.17	UJ	NA		0.16	UJ	0.15	UJ	0.15	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		
Benzo(b)fluoranthene	0.35	UJ	0.35	UJ	NA		0.32	UJ	0.31	UJ	0.31	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		
Benzo(g,h,i)perylene	0.35	UJ	0.35	UJ	NA		0.32	UJ	0.31	UJ	0.31	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		
Benzo(k)fluoranthene	0.22	UJ	0.22	UJ	NA		0.2	UJ	0.19	UJ	0.19	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		
Chrysene	0.22	UJ	0.22	UJ	NA		0.2	UJ	0.19	UJ	0.19	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		
Dibenzo(a,h)anthracene	0.51	UJ	0.51	UJ	NA		0.47	UJ	0.45	UJ	0.45	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		
Fluoranthene	0.49	UJ	0.48	UJ	NA		0.44	UJ	0.43	UJ	0.43	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		
Fluorene	0.38	UJ	0.37	UJ	NA		0.34	UJ	0.33	UJ	0.33	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		
Indeno(1,2,3-cd)pyrene	0.18	UJ	0.18	UJ	NA		0.17	UJ	0.16	UJ	0.16	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		
Phenanthrene	0.32	UJ	0.31	UJ	NA		0.29	UJ	0.28	UJ	0.28	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		
Pyrene	0.24	UJ	0.24	UJ	NA		0.22	UJ	0.22	UJ	0.21	UJ	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		

Notes:
All concentrations are ug/L (ppb)
U - Indicates that the analyte was not detected above the laboratory MDL
J - Indicates an estimated value
B - Indicates the analyte was detected in the method blank
NS - Not Specified