Site Characterization Report Elks Plaza LLC - Site# 130193 157-189 West Merrick Road Freeport, New York



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ELKS PLAZA, LLC. 157 - 189 West Merrick Road, Freeport, New York Site# 130193

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SECTION 1 - INTRODUCTION

This Site Characterization Report (SCR) was prepared by Preferred Environmental Services (Preferred) on behalf of Elks Plaza LLC. This SCR has been prepared in accordance with the requirements set forth in the Order on Consent and Administrative Settlement, Index #W1-1120-08-04, between by the New York State Department of Environmental Conservation (NYSDEC) and Elks Plaza LLC signed and executed on September 6, 2008.

This Site Characterization Report follows the guidelines set forth in the "Draft Division of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation, dated December 2002". The Site Characterization performed consisted of a public file records search, site survey (as part of Records Research Report), collection and analysis of subsurface soil samples, sub-slab, indoor air and soil vapor sampling, vertical profiling of groundwater quality via the installation of temporary groundwater monitoring wells and private water supply analysis. The Records Research Report was submitted as a stand alone document in September 2008. Results of the Records Research Report are also detailed in the operational history and previous investigation sections of this report. This report contains the following sections:

- Section 1 Introduction This section presents the Site background and history, location, operational and remedial history, potential sources, as well as the project objectives.
- Section 2 Physical Setting This section presents the physical conditions of the Site and surroundings, including a general description of soils, geology, hydrogeology, and topography, as well as the groundwater flow direction.
- Section 3 Field Investigation This section provides the details of the investigation.
- Section 4 Site Characterization Analytical Results This section presents and evaluates the analytical results of the soil, groundwater, and soil vapor samples collected at the Site in comparison to acceptable New York State criteria.
- Section 5 Summary and Conclusions This section presents the conclusions based upon the analytical results of the Site Investigation and presents recommendations.

1.1 Site Description and Background

Elks Plaza is a retail shopping plaza (Subject Property) designated with street addresses between 157, 169-187 and 189 West Merrick Road, Village of Freeport, New York. The areal extent of the property is recorded as approximately 3.41 acres. The development at the subject property contains three (3) one-story commercial, masonry and steel buildings located at the southern side of West Merrick Road, immediately south of its intersection with South Bergen Place (**Figures 1 and 2**).

The multi-tenant building located at 165 through 187 West Merrick Road was constructed in 1984, is an "L"-shaped building which has an approximate footprint of 42,876 square feet; and is currently occupied with 14 retail shopping-tenants with one vacant tenant space. The building located at 189 West Merrick Road was constructed in 1984, has an approximate footprint of 7,120 square feet; and is currently used as a bank branch (Bank of America). The building located at 157 West Merrick Road was constructed in 1984, has an approximate footprint of 3,713 square feet; and is currently used as a food franchise (McDonald's).

The three buildings are serviced by the municipal sewer system and each has a roof-mounted natural gas-fired HVAC units. The land surface area of the subject property consists of asphalt parking areas with limited vegetated landscaping. Twenty (20) Class V underground injection well (UIW) storm water drywells are present on site that receive storm water runoff. The subject property exhibits generally low topographic relief (less than three percent slopes).

1.2 Operational History

Review of the available historical records indicates that the subject property was initially developed with residential dwellings and sheds from at least 1910 to 1925. From 1928 to 1980 the subject property maintained a structure utilized by the Elks Club. The three existing buildings were constructed in 1984.

A more detailed description obtained from a review of available Sanborn Maps for the subject property revealed that in 1910, 1917, 1925, the property maintained a dwelling on the northern portion of the Site. Six structures labeled as a shed, carriage house, and a chicken coop are depicted on the central portion of the Site. In 1928, 1941, 1951, and 1961, the subject property is depicted as maintaining an Elks Club House and a private automobile garage. In 1969 the subject property is depicted as maintaining an Elks Club House. In 1984, the subject property is depicted as maintaining three commercial structures. The development is labeled as maintaining Elks Plaza Shopping Center.

Based upon observations made during a September 19, 2008 site inspection conducted by Preferred Environmental Services, the current tenants of the three buildings are depicted within **Figure 2**.

The surrounding properties were also identified immediately adjacent to the Subject Property as follows:

North:

West Merrick Road, Residential Apt Buildings

East:

Residential Apartments, Professional Building

South:

Residential Apartments, Commercial Bld, Residential Home

West:

Commercial Building and school

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Review of historical documentation reveals that the retail property had two main historic uses of potential environmental concern: dry-cleaning and printing operations at 171, 179A, and 181Tenant units. The historic tenant units, occupants, length of occupancy is depicted on Figure 3. Detailed history of occupancy of these units was provided in the Record Research Report previously provided to NYSDEC. As only the 165-187 West Merrick Road Building has tenants of potential environmental concern, the information provided in this site characterization work plan is pertinent to only that building.

1.3 Previous Environmental Investigations

Summaries of existing historic investigations or assessments performed at the Subject Property were previously provided in the Record Research Report dated September 2008. Two main studies were available: 1) a Phase I Environmental Site Assessment (ESA) performed for the subject property dated October 16, 2006; and 2) a Phase II subsurface investigation completed in response to recommendations established in the Phase I ESA. The findings of these studies are summarized below:

Phase I Environmental Site Assessment (ESA)

A Phase I Environmental Site Assessment titled "Environmental Site Assessment; Phase I Investigation" was performed at 157-189 Merrick Road, Freeport, New York for the purpose of identifying Potential Environmental Condition (PECs) or Recognized Environmental Conditions (RECs). The Phase I ESA was conducted by Impact Environmental and prepared for Citibank, N.A. in 2006, with a report date of October 16, 2006.

At the time of the Phase I ESA, the subject property consisted of the current development - three one-story masonry and steel buildings with addresses of 157, 169-187 and 189 Merrick Road. Eighteen various tenants occupied the existing buildings at the time of the Phase I ESA. The Phase I ESA documented several recognized environmental conditions due to historical operations within Tenant units 171, 179A and 181 of the plaza. Due to the findings of the Phase I ESA, a Phase II ESA was recommended be performed to investigate subsurface conditions for environmental impacts.

Phase II Environmental Site Assessment

A Phase II Environmental Site Assessment was performed by Associated Environmental Services, Ltd. (Associated) in November and December of 2006 at 157-189 Merrick Road, Freeport, New York for the purpose of investigating soil and groundwater conditions at specific areas of recognized environmental conditions identified in the Phase I ESA. The Phase II ESA field activities were conducted on November 13, 2006 and December 6, 2006 with a report issued on December 18, 2006.

Soil and groundwater samples were collected in locations where the prior Recognized Environmental Conditions were noted within the Phase I ESA. The subsurface investigation consisted of a series of soil and groundwater sampling locations both upgradient and downgradient from potential contaminant sources. Five soil samples collected from ten to twelve feet below grade surface (bgs) and six groundwater samples were submitted for laboratory analysis for Volatile Organic Compounds (VOCs) via EPA Method 8260.

Laboratory analysis of the soil samples revealed no actionable impacts to subsurface soils from historic operations. Two groundwater samples, designated B-2 and B-5 in the Phase II ESA, located to the south and downgradient of the Laundromat (south of the former dry cleaners in Tenant unit 181) contained concentrations of cis-1,2-Dichloroethene (cis-12 DCE), Tetrachloroethene (PCE), and Trichloroethene (TCE) above NYSDEC Class GA Groundwater Standards and Guidance Values (SGVs)¹. Subsequent to the review of analytical results, NYSDEC Spill No. 06-10549 was assigned to the subject property. The spill was closed in December of 2006 as the case was re-assigned to the Hazardous Waste Remediation Unit.

1. 4 Site Characterization Objectives

Per the Order on Consent, the objective of this project was for the expedited investigation of the Subject Property and to identify the need for remediation, if deemed necessary.

<u>Task 1 – Work Plan Development</u>

A site-specific work plan including a site specific Quality Assurance Project Plan (QAPP) and Health and Safety Plan (HASP) were developed, submitted in February 2009, and approved by the NYSDEC.

Task 2 – Records Research Report

Pertinent public record files were identified and reviewed to determine the existence of site plans that indicate the presence of significant environmental features. Facility occupants were also identified to the extent possible to identify a history of site use and contaminants used/stored on-site. The Record Research Report was provided to NYSDEC as a standalone document, submitted in September 2008.

Task 3 – Field Investigation

The field investigation performed included the characterization of the subsurface soils, underlying groundwater, private supply wells, sub-slab vapors, indoor air and soil vapor at the Subject Property.

¹As set forth in NYSDEC TOGS 111 reissued June 1998; 2000 and 2004.

SECTION 2 - PHYSICAL SETTING

2.1 Environmental Setting

A concise and accurate description of the geology, physiography and drainage of Nassau County is found in the Soil Survey of Nassau County, New York (USDA). Relevant excerpts of this study are as follows. Nassau County is underlain by bedrock, but most of it is at a depth of several hundred feet. The closest surficial bedrock is to the west in the boroughs of Bronx and Queens in New York City and areas to the northwest in Westchester County near Long Island Sound. From these areas of surface exposure, the rock surface dips to the southeast to form a solid basement below Nassau County.

During the late Cretaceous Period the sediments from the eroding Appalachian Highlands were carried by streams and rivers to low-lying coastal areas. The sand, silt, and clay of the Raritan and Magothy formations, which form the foundation of Long Island, were deposited as deltas in areas of shallow water. The Raritan formation is below sea level, and the Magothy formation is at the surface of several sites along the north shore. The Magothy is the primary potable water supply aquifer on Long Island.

During the Pleistocene Epoch of the Quaternary Period, several major glacial advances into the northern United States occurred. This epoch is divided into four major glacial stages. From oldest to youngest, they are: Nebraskan, Kansan, Illinoisan, and Wisconsinan. During the Illinoisan advance, the ice sheet reached a position just north of the Long Island area. Outwash sand and gravel, of the Jameco gravel formation, was deposited by meltwater streams. Following the Illinoisan stage, sea level rose close to its present level and a clay (Gardiner clay) containing marine fossils was deposited in the shallow coastal waters surrounding Long Island.

During the Wisconsinan glacial advance, the ice reached a position represented on most of Long Island by the Ronkonkoma terminal moraine. In the latter part of this stage, the ice sheet receded from a point east of Lake Success. This caused the terminal moraine/deposits in Nassau County to form a wide band of irregular topography occupying the northern half of the county, while in adjacent Suffolk County the terminal moraine deposits were far enough apart to be two distinct landforms separated by a flat plain. During the Wisconsinan advance, sea level dropped about 350 feet below its current elevation to expose a broad, flat coastal plain. As the climate again warmed, the Holocene, or present, period began. The ice sheet receded to its present polar limits, and sea level rose to its present level. Currents and wave action modified the outwash plain to create the present-day shoreline.

These overlying Pleistocene deposits are referred to as the Upper Glacial aquifer, is a highly prolific aquifer and consists of three distinct units. The oldest and deepest unit is a sand and gravel layer associated with the Ronkonkoma ice sheet. After the recession of the ice sheet, sea level rose to near its' present level. During this interstadial period, marine and/or lacustrine sediments were deposited over the Ronkonkoma deposits, a clay bed at the base, separated from an upper clay bed by a band of silty, sandy beds. Overlying the clay is a terminal moraine and adjacent outwash deposits associated with the Harbor Hill ice sheet.

Direction and rate of groundwater flow are controlled by the rate and distribution of water entering and leaving the aquifer systems, the geometry of these systems, and the distribution of water transmitting and

storage properties of these aquifer systems. Based upon a projection from review of Nassau County Water Table Maps, local groundwater flow direction in the shallowest aquifer (the Upper Glacial aquifer) is expected to be to the south (either southwest or southeast) dependent upon local discharge patterns to surface water headwater areas. Published literature values for estimated average hydraulic conductivity for the Upper Glacial Aquifer is 270 feet per day horizontal with rates of 27 feet per day for vertical flow.

Groundwater flow at the Subject Property is in Hydrogeologic Zone VII: South Shore Shallow Flow Discharge System. Zone VII is located south of the Magothy recharge zone on the South Shore and discharges to Nassau and western Suffolk South Shore bays where tidal exchange facilitates the dilution and dispersion of contaminants. Zone VII is a shallow flow zone, thus contamination from activities in Zone VII mainly affects the Glacial aquifer.

From inspection it is confirmed that the area encompassing the study site is highly urbanized with surrounding residential, commercially and industrially-developed parcels. Therefore, groundwater in this area generally is vulnerable to potential contamination from this type of land use. Depth to groundwater has been identified during prior environmental assessment to be at a depth of 12 feet below grade surface (bgs). Regional flow direction is toward the southeast. A regional groundwater elevation and flow map is provided as **Figure 3**.

SECTION 3 - FIELD INVESTIGATION

3.1 Field Investigation (Table 1)

The following subsections describe the field investigation that was conducted from April to May, 2009. The investigation was conducted in accordance with the NYSDEC-approved February 2009 Site Characterization Work Plan. The field investigation included the following as further detailed in **Figures 4-7**:

- Conduct of a magnetometer and void survey to identify potential features of concern;
- Sampling of an out-of-service private supply well (Well #1) and the in-service private supply well (Well #2) to ascertain water quality as depicted on **Figure 6**.
- Four (4) borings were advanced as follows with further detail shown within **Appendix A** and **Figure 4**: adjacent to a drywell structure (SB-1); adjacent to a magnetometer anomaly (SB-2); and former dry-cleaning machine area within Tenant unit 181 (SB-4) and exterior to Tenant unit 171 at an historic dumpster location (SB-3).
- Four (4) soil samples were collected as follows (**Figure 4**): former dry-cleaning machine area within Tenant unit 181 (SB-4); the former locations of each dumpster used by Tenant units 171 (SB-3) and 181 (SB-1); and storm water drywell structure (D-1).
- Groundwater was sampled at nine (9) locations via temporary monitoring wells as follows (Figure 4): an upgradient location (GW-2); one (1) temporary monitoring well at each of the former dumpster locations for historic dry-cleaning operations (Tenant units 171 (GW-7) and 181 (GW-1)); four (4) temporary monitoring wells installed in a linear transect (GW-3, GW-4, GW-6 and GW-9), including one temporary well adjacent to a suspect drywell (GW-3); and lastly two (2) temporary monitoring wells (GW-5 and GW-8) installed at the downgradient property perimeter. Two groundwater samples were collected from each temporary monitoring well (identified as GW-1 through GW-9) at two vertical sample collection depths, one depth shallow within two feet of the water table surface and the second within ten feet below the water table surface (Tables 3 and 4). An additional water sample was collected from an active septic tank located at the southeast corner (ST-1). A total of twenty-one (21) groundwater/water samples were collected and submitted for laboratory analysis. Figure 6 displays detailed results for the groundwater samples.
- In order to address the requirement for sub slab vapor, soil vapor, indoor and outdoor air sampling, nine (9) locations interior and exterior of the building were evaluated (Figure 4). This included a sub-slab sample (SS-1) and an indoor air sample (IA-1) collected within former dry cleaning Tenant unit 181. A basement exists below Tenant unit 171 thus preventing such a sample to be collected. Additionally, four (4) soil vapor (SV) and one (1) outdoor air (OA-1) samples were collected along the western and southern boundaries of property.

• Analytical testing for site media was targeted for Volatile Organic Compounds (VOCs) as these are the specific compounds of potential environmental concern at Subject Property. The specific VOCs of concern were determined to be halogenated VOCs, such as those commonly used in the dry-cleaning process (Tetrachloroethylene (PCE) and its associated degradation or daughter breakdown products). **Table 1** provides a summary of the media samples, and testing parameters and QA/QC samples collected.

These samples were collected in accordance with the Quality Assurance Project Plan (QAPP) contained within the NYSDEC-approved Site Characterization Work Plan. Photographs taken during the field investigation are provided in **Appendix A**. A dedicated field notebook was maintained by the field technician overseeing the site activities.

Magnetometer and Void Survey

A magnetometer (Fischer M-Scope TW-6) and Whites TM 508 void detector were used to screen the portions of the property exterior to the building. These surveys were performed to confirm the absence of unidentified subgrade features that could yield a void and/or a magnetic signal, representative of buried metal (buried tanks, metal reinforced drainage structures, etc.) or other suspect features. Any anomalies identified were to be further investigated during the site investigation via the installation of soil borings by Geoprobe. One circular anomaly (approximately nine feet in diameter) was identified near the southwest corner of the building. This structure may be a subgrade drywell or similar type structure. A soil boring and temporary groundwater monitoring well (SB-2/GW-3) were installed adjacent to same. No other anomalies indicative of unidentified subgrade features of potential environmental concern were identified during these site surveys.

Sampling of In-Service/Out-of-Service Private Supply Wells and Septic Tank

Water samples were collected from both of the private supply wells; one was in-service (Well #2) and one (Well #1) has been out-of-service (OOS) for at least ten years. Preferred was not able to confirm the depth of completion of either of these wells. The out-of-service well still retained a former pump so interior access was limited. The OOS well was purged using a low flow peristaltic pump and tubing. A total of 35 gallons was purged and the well was pumped 3.5 hours. The in-service well (10-inch diameter) was pumped a minimum of 25 minutes to ensure that the well was adequately purged prior to sampling. This sample was collected prior to any filtration or holding tanks. A liquid sample was also procured from an active septic tank using a bailer to determine effluent water quality flowing into the municipal sewer system. Samples were collected and containerized in appropriate glassware and transported to the laboratory under appropriate chain of custody.

Soil Sampling and Groundwater Profiling

A subsurface soil and groundwater investigation was conducted at the site to evaluate if groundwater and soils had been impacted by historic uses of the site and to determine if applicable criteria and guidance values have been exceeded. As discussed, the specific VOCs of concern were Tetrachloroethylene (PCE) and its associated degradation or daughter breakdown product such as cis-1,2-Dichloroethene (cis-12 DCE), Trichloroethene (TCE) and potentially vinyl chloride (VC). Soil borings were installed at the following areas

depicted on Figure 4 & 6.

- Former dry-cleaning machine area (Tenant unit 181)² (SB-4);
- Adjacent to a subgrade anomaly located off the southwest corner of the building (SB-2);
- Former dumpster locations (Tenant units 171 (SB-3) and 181(SB-1)); and
- Bottom sediments of one proximate drainage structure (a stormwater drywell located at the southwest corner of property) (D-1);

A Geoprobe direct push sampling rig was mobilized for the collection of soil samples at the projected former dumpster locations (Tenant units 171(SB-3) and 181 (SB-1)). The soil borings were installed to a total depth of 12 feet below grade surface (bgs) (approximate water table interface). A five-foot long soil sampling tool (macro core) was attached to the Geoprobe drive rods for the collection of continuous undisturbed soil samples. The soil samples were protected in a polyethylene liner to prevent the loss of VOCs prior to field analysis/screening and containerization for laboratory analysis.

The interior location of the former dry-cleaning machine location (SB-4) in Tenant unit 181 was sampled using a rotary core drill with auger flytes, followed by a decontaminated stainless steel hand auger, to access soils within a 0-4 foot zone (below concrete floor). The 0-4 feet bgs depth is the preferential depth at which soil impacts, if present, would be identified. Before the advance of the rotary core drill, a small diameter core drill was used to create small concrete penetrations at four locations in order to conduct a limited soil gas screening using a Photoionization Detector (PID). No elevated PID responses were noted at any of the four locations.

A soil boring (SB-4) was installed within the footprint of the former dry cleaning machine area. During the installation of the boring, No elevated PID responses were noted in soils at any of the subsurface depths with the exception of a low level response (3.1 parts per million Response Units) at 3-4 feet bgs. A soil sample was collected from this depth as representative of the former dry cleaning machine area; data is provided in **Table 2**.

Only one (1) stormwater drywell was present at the rear of the property, proximate to the tenant units of potential environmental concern. A representation of the environmental condition of this structure was obtained via a sample of the bottom sediment sampling collected using the Geoprobe. The depth to bottom of the structure was noted at 11.5 feet with ten feet of standing liquid. A sample (D-1) was collected from 12-14 feet bgs; data is provided in **Table 2**.

Each soil/sediment, water and groundwater sample was logged to document subsurface conditions including soil types and description of non-soil materials, field instrument measurements and depth to groundwater, when encountered. There was additional documentation, if present, of soil mottling, presence of odor, vapors, and soil discoloration. A portion of each soil/sediment sample was placed in a resealable plastic bag and screened for total volatile organic compounds using the PID. Between each sampling event all equipment will be decontaminated following approved protocols. All soils were logged by Preferred and boring logs are

² Tenant unit 171 underlain by a basement, thereby rendering soil or sub-slab vapor sampling of the former dry cleaner machine area unnecessary.

included in Appendix B.

Nine (9) of the soil borings were deepened into temporary monitoring wells as depicted on **Figure 6**, with sampling of groundwater at two vertical depths (upper shallow water table and 10 feet below water table) as follows:

- Property perimeter, as an upgradient location (west of Tenant unit 179A/181) (GW-2);
- Former dumpster locations associated with Tenant units 171 and 181, respectively (GW-7 and GW-1):
- Four (4) temporary monitoring well locations, installed as a linear transect, encompassing the former groundwater sampling locations B-2 and B-5, including one adjacent to the anomaly identified adjacent to the southwest corner of the building (GW-3, GW-4, GW-6 and GW-9);
- Two (2) temporary monitoring wells, along a west-east linear transect, downgradient of prior groundwater sampling locations B-2 and B-5, preferentially located along the southern property boundary (GW-5 and GW-8); and
- A liquid sample from the septic tank at the southwest corner of the Subject Property (ST-1).

Temporary groundwater monitoring wells were installed at the locations depicted in **Figures 4 and 6** using the Geoprobe direct push sampling rig. As regional groundwater flow direction is anticipated to be to the southeast (toward the closest surface water body), these locations were preferentially selected to evaluate the previously reported VOCs. Groundwater samples were collected via preferentially decontaminated stainless steel mill-slotted screen. Groundwater samples were collected within the upper water table (approximately 12-14 feet bgs) as well as 10 feet below the upper water table at a depth of 22-24 feet bgs for vertical profiling.

Since the primary potential VOC of concern, Tetrachloroethene, has physical characteristics of a Dense Non-Aqueous Phase Liquid (DNAPL), groundwater grab samples were collected from the bottom of the mill-slotted screen. This was achieved by lowering the new disposable poly tubing through the probe rods to the bottom of the slotted screen with purging and sampling using a peristaltic pump with a low-flow rate (less than 100 ml/minute).

Upon completion of each day's sample collection, the samples were transported under strict chain-of-custody to an NYSDOH-ELAP certified laboratory (H2M Labs) for analysis by EPA Method 8260 -Target Compound List (TCL) Organics by GC/MS and Tentatively Identified Compounds (TICs) with NYSDEC ASP B deliverables. After collection of the groundwater samples, the borings were abandoned to grade via front after sampling. Results of the groundwater sample analysis are listed in **Tables 3 and 4** and depicted in **Figure 6**.

Sub-Slab and Soil Vapor Investigation

As depicted on **Figure 5**, a sub-slab vapor (SS-1) sample was collected within the former dry cleaning equipment location within Tenant unit 181. In association with the SS-1 sample, an indoor air sample (IA-1) was collected. A total of four (4) soil vapor (SV) samples were collected exterior proximate to the property perimeters. One of the locations was within the asphalt-paved driveway between the exterior western wall

of Tenant unit 181 and the western property line (SV-1), two (2) locations were within asphalt-paved parking area to the south of Tenant units 179A and 171 (SV-2 and SV-3), and the fourth location (SV-4) was at the southeastern corner of the property, adjacent to the neighboring apartment complex. An outdoor ambient air sample (OA-1) was also collected to provide correlative control data for the soil vapor and sub-slab vapor sampling.

All sampling was conducted in accordance the protocols established by the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in New York State (e.g., use of helium tracer gas, completion of NYSDOH Inventory Forms, Inspections, etc.). The laboratory and sampling technique were selected to ensure that the minimum detection limits for Trichloroethene, vinyl chloride and carbon tetrachloride of 0.25 micrograms per cubic meter (µg/m³) or less could be achieved.

Prior to the collection of these samples, Preferred completed the appropriate NYSDOH Questionnaire and Inventory form which included a product inventory survey documenting sources of volatile chemicals present in the accessible portions of the building during the indoor air sampling that could potentially influence the sample results (**Appendix B**).

Sub-Slab Vapor Samples

A sub-slab vapor sample (SSV-1) was collected via the installation of a small corehole in the concrete floor utilizing a rotary core hammer drill proximate to the former location of the dry cleaning equipment within Tenant unit 181. The drill created an approximate 5/8-inch diameter hole through the concrete slab floor. A length of polyethylene tubing was inserted within the two- inch void located directly below the concrete slab. The annular space surrounding the tubing was sealed utilizing hydraulic cement. The sample was collected in laboratory-supplied, pre-cleaned, 6-Liter summa canisters for laboratory testing. The regulator was set for an eight (8) hour sampling interval and care was exerted to ensure that vacuum remained within the canister.

Soil Vapor Samples

With the Geoprobe equipped with a Post-Run Tubing System (PRT), soil vapor samples were collected from a depth of nine (9) feet below grade surface(bgs), equivalent to adjoining basement structures (e.g., apartment buildings or other). Sampling boreholes were sealed at the land surface using bentonite/quick dry cement in the paved asphalt areas. Again, the soil vapor samples were collected in 6-Liter summa canisters over 8-hour time interval for laboratory analysis. During sampling events, a helium tracer was introduced within a confined space surrounding the sample tubing. A direct reading helium detector was utilized to evaluate the integrity of the soil gas sample. As per the NYSDOH Guidance Document, a sample may contain up to 20% of the tracer gas (helium) and be considered valid. All of the aforementioned samples did not exhibit short-circuiting as instrument readings confirmed the complete absence of helium.

Upon completion of each day's sample collection, the summa canisters were transported under strict chain-of-custody to an NYSDOH-ELAP certified laboratory for analysis for the Volatile Organic Compounds (VOC) by EPA Method TO-15. After the air sample collected, a PID was used to screen tubing remaining in the sampling location. Screening of the sealed tubing with the PID indicated readings of 0.0 ppm response units

at all of the soil vapor screening locations. After sample collection and screening, the borings were abandoned with grout to grade.

Indoor and Outdoor Air Samples

An indoor air (IA-1) sample was collected from within Tenant unit 181, in addition to the sub-slab sample (SS-1). One outdoor (ambient) air sample (OA-1) was collected as shown on **Figure 5** (eastern property line). The canisters were set at a height between three and five feet above grade so that samples collected are representative of the breathing zone. The indoor air samples were collected utilizing 6-Liter summa canisters with regulators set to an 8 hour sampling interval.

During all of the sub slab, soil vapor, outdoor and indoor air sampling, the field sampling team maintained a sample log sheet summarizing the following:

- a. sample identification,
- b. date and time of sample collection,
- c. sampling height/depth,
- d. identity of samplers,
- e. sampling methods and devices,
- f. depending upon the method, volume of air sampled,
- g. vacuum of canisters before and after samples collected, and
- h. chain of custody protocols and records used to track samples from sampling point to analysis.

Results of the sub-slab sample, soil vapor samples, indoor air sample and outdoor air sample analyses are listed in **Table 5** and depicted in **Figure 5**.

3.2 Quality Assurance/Quality Control

Laboratory Analysis and Validation

All samples were analyzed by H2M Labs, an NYSDOH approved ELAP-certified laboratory under strict chain-of-custody protocol. **Table 1** provides a summary of the analyses performed on each sample matrix and Quality Assurance and Quality Control (QA/QC) samples. Laboratory reports are provided electronically as a supplement to this document as **Appendix B**.

All samples were validated by Premier Services, an independent, qualified data validator in accordance with the NYSDEC Data Usability Summary Report (DUSR) guidance, and a usability analysis is attached as **Appendix D**.

SECTION 4 - SITE CHARACTERIZATION ANALYTICAL RESULTS

This section presents the analytical test results for the sampling conducted during the site characterization investigation. Only validated data was used in the evaluation of the site conditions and/or remedial decision making. A copy of the data validation package is provided in **Appendix D**.

The soil analytical results were compared to the Part 375 Table 375-6.8(a) Unrestricted Use Soil Cleanup Objectives. The soil sample analytical results are presented in **Table 2**. The private supply well, septic tank, liquid sample and groundwater analytical results (**Tables 3 and 4**) were compared to New York State Standards and Guidance Values for Class GA Groundwater (NYSDEC TOGS 1.1.1). The sub-slab vapor, soil vapor and ambient air sample results (**Table 5**) were compared to NYSDOH Soil Vapor/Indoor Air Matrix 1 and Matrix 2 guidance, and EPA 2001 BASE Database (Appendix C of NYSDOH guidance) where applicable.

4.1 Soil Sampling Analytical Testing Results (Table 2)

A total of five-soil borings was installed between April 9-17, 2009 to collect samples at the following areas³:

- Former dry cleaning machine area (SB-4⁴ at 3-4 feet bgs at Tenant unit 181);
- Former dumpster locations (SB-3 at 1-3 feet bgs for Tenant unit 171 and SB-4 at 1-3 feet bgs for Tenant unit 181);
- A soil boring (SB-2) was installed adjacent to a circular anomaly identified near the southwest corner of the building (no soil samples were selected for laboratory analysis); and
- Bottom sediments of a stormwater drywell structure (D-1 at a depth of 12-14 feet bgs) located at the southwest corner of property proximate to the dumpster for Tenant unit 181;

Four soil/sediment samples were collected from the five soil borings during the field investigation as described above. No VOCs were detected above their applicable SCOs at any of the soil borings. Estimated concentrations of three VOCs were quantified at the drywell location (D-1); toluene at 5J *micrograms per kilogram* (μ g/kg), total xylenes at 4 J μ g/kg, and acetone at 24 μ g/kg. The estimated concentration of these VOCs are well below any associated applicable SCOs for these compounds. PCE was reported at a concentration of 26 μ g/kg in the soil sample collected inside Tenant unit 181 (SB-4 at 3-4 ft bgs); this concentration is well below its applicable SCO. Sample locations are shown on **Figures 4 and 6** with soil sample analytical results summarized on **Table 2**.

³No soil sample was collected at the SB-2 sampling location as no significant field evidence of suspect conditions was present, and a groundwater sample was being collected at this location.

⁴No soil boring could be installed interior to the former dry cleaning machine area in Tenant unit 171 as a basement structure is present.

4.2 Water and Groundwater Sampling Analytical Testing Results (Tables 3 &4)

Groundwater

Between April 9 and 10, 2009 groundwater sampling with vertical profiling was completed at the study site. This included the installation of nine (9) groundwater locations via temporary monitoring wells, with up to two depths of completion (14-16 feet⁵ bgs and 24-26 feet bgs). Sampling locations included an upgradient sampling location, former dumpster locations; proximate or downgradient of former dry-cleaning machine areas, and in downgradient linear transects at the property perimeter.

A common VOC associated with laboratory sampling cross-contamination, methylene chloride, present in soil samples, was dismissed as insignificant during data validation. Similarly, acetone was noted in many of the groundwater samples; this compound was also dismissed as irrelevant during data validation.

A total of eighteen (18) groundwater samples were collected and submitted for analysis exclusive of QA/QC samples. No VOCs were reported at the upgradient sampling location, (GW-2) at either depth interval. GW-1 was installed directly adjacent to the stormwater drywell at the southwest corner of the property. Only estimated concentrations of 4J micrograms per liter (μ g/L) of PCE and 2 J μ g/L of 2-Butanone were noted at a depth of 12-14 feet bgs at the GW-1 location, while the deeper sampled interval, (22-24 feet bgs), PCE and related VOCs were non-detect.

GW-3 was installed directly downgradient of the suspect anomaly (possible drywell) off the southwest corner of the property. Concentrations of PCE, TCE and 1,2-Dichloroethene (1,2-DCE) exceeded their NYSDEC standard or guidance values (SGVs) of 5 μ g/L at the shallow sample (14-16 feet bgs) at respective concentrations of 180 μ g/L, 39 μ g/Land 31 μ g/L. The coincident deeper sampling interval (24-26 feet bgs) at GW-3 noted the following VOCs and concentrations: PCE (25 μ g/L), TCE (25 μ g/L), 1,2-DCE (45 μ g/L) and vinyl chloride (VC) at 4 J μ g/L.

A short linear (west-east) transect of three groundwater sampling locations (GW-4, GW-6 and GW-9) were installed directly downgradient of Tenant unit 181. At GW-4, the western end of the transect, the following VOCs were noted within the shallow sampling interval of 14-16 feet bgs: PCE (50 μ g/L), TCE (3J μ g/L), and 1,2-DCE (1J μ g/L). The deeper sampling interval (24-26 feet bgs) reported only an estimated concentration of PCE (1 J μ g/L).

At GW-6, the middle location of the transect, the following VOCs were noted within the shallow sampling interval of 14-16 feet bgs: PCE (53 μ g/L) and TCE (2 J μ g/L). Deeper sampling interval (24-26 feet bgs) at GW-6 reported only an estimated concentration of PCE (2 J μ g/L).

At GW-9, the eastern location of the transect, only one VOC at a low concentration was noted within the shallow sampling interval of 14-16 feet bgs; PCE (7 J μ g/L). Deeper sampling (24-26 feet bgs) at GW-9 again reported only an estimated concentration of PCE (1 J μ g/L).

⁵Depth for the shallow groundwater varied several feet across the subject property.

Two groundwater sampling locations (GW-5 and GW-8) were installed to complete a linear transect with GW-1, at the southern property boundary (downgradient of GW-4, GW-6 and GW-9).

At GW-5, the middle location of the transect, the following VOCs were noted within the shallow sampling interval of 14-16 feet bgs: PCE (68 μ g/L), TCE (11 μ g/L) and 1,2-DCE (8 J μ g/L). Deeper sampling (24-26 feet bgs) at GW-5 reported the following estimated concentrations of three VOCs: PCE (9 J μ g/L), TCE (3 J μ g/L) and 1,2-DCE (2 J μ g/L).

At GW-8, the eastern location, two VOCs were noted within the shallow sampling interval of 14-16 feet bgs as follows: PCE (3 J μ g/L) and 2-Butanone (2 J μ g/L). Deeper sampling (24-26 feet bgs) at GW-8 reported only an estimated concentration of PCE (1 J μ g/L).

Based upon the above data, the highest concentrations of VOCs in groundwater were located in the middle sampling location (downgradient of Tenant unit 181), and within the shallow groundwater. The southernmost linear transect of groundwater sampling locations confirmed the same overall same relationship as the other transect, with the highest concentrations of VOCs noted in the centrally located sample (downgradient of GW-3 and GW-4), and within the shallow groundwater zone.

Private Supply Wells

A water sampled collected from the out-of service private supply well reported a PCE concentration of 12 μ g/L. The depth of completion of this well and/or its integrity is not known. No VOCs were noted in the sample collected from the in-service private supply well.

Septic Tank

The water sample collected from the septic tank did not report elevated concentrations of dry-cleaning related chemicals. Two incidental VOCs such as acetone⁶ and chloroform were reported within the water sample obtained from the in-service septic system. Therefore, based upon the data collected during this site characterization, no inadvertent discharges to the municipal sewer are occurring relative to the current operations at the Subject Property.

4.3 Sub-Slab, Soil Vapor and Ambient Air Sampling Results (Table 5)

One sub-slab vapor sample (SSV-1) was collected within Tenant unit 181 in addition to a concurrent indoor air sample (IA-1). Four soil vapor (SV) samples (SV-1 to SV-4) were collected within the surrounding asphalt paved property perimeter as shown on the attached **Figure 5.** An ambient air sample (OA-1) was also collected in the parking lot at the northeastern portion of the property.

Analytical results for the soil vapor intrusion investigation are presented in **Table 5**. The 2006 NYSDOH Vapor Intrusion guidance indicates that the State of New York does not have any standards, criteria, or

⁶This was an estimated concentration and influenced by laboratory analysis as same was in a blank sample.

guidance values for soil vapors. However, the NYSDOH has established Air Guidance Values for Indoor Air for select VOC compounds. The EPA 2001 *Building Assessment and Survey Evaluation (BASE) Database,* also provides background concentrations of VOCs expected in typical indoor and outdoor locations. This data is provided in Appendix C of the NYSDOH soil vapor guidance. VOCs were detected in the sub-slab, soil vapor, indoor and outdoor air samples collected at the Subject Property.

The results for TCE and PCE concentrations were compared to Matrix 1 and Matrix 2 of the NYSDOH soil vapor guidance relative to the Subject Property and the potential for vapor intrusion. Therefore, comparisons made to the NYSDOH Vapor Intrusion guidance and EPA 2001 BASE Database serve as guidelines and are for reference purposes only.

Analysis of sub-slab vapors collected from SS-1 installed in the concrete floor at Tenant unit 181 reported a concentration of PCE of 14,900 micrograms per cubic meter ($\mu g/m^3$), TCE of 171 $\mu g/m^3$ and Toluene of 125 $\mu g/m^3$. An indoor air quality sample collected in the same Tenant space reported a concentration of PCE of 3.33 $\mu g/m^3$ and TCE of 0.186 $\mu g/m^3$. Numerous other VOCs were reported in the indoor air sample. Reference is made to the NYSDOH questionnaire for other VOC influences at the Tenant unit. The sub-slab vapor sample (SS-1) had concentrations of PCE significantly higher than the EPA 2001 BASE Database for indoor air 90th percentile concentration of 15.9 $\mu g/m^3$. TCE was also reported higher than the 2001 BASE Database for indoor air (90th percentile concentration) of <1.8 $\mu g/m^3$. Also the review of the PCE concentration noted an exceedance of the NYSDOH Matrix 2 concentration of 100 $\mu g/m^3$, indicating that soil vapor intrusion may occur and that mitigation is required. A review of the TCE concentration indicates that there is no exceedance of the indoor air NYSDOH Matrix 1 concentration (<0.25 $\mu g/m^3$) based upon a sub-slab concentration of 250 $\mu g/m^3$; therefore, generally only monitoring is required with respect to this compound. However, the concentration of PCE exceeds the regulatory potentially actionable concentration.

The SV-1 sampling location installed at the western side of the property, reported a concentration of PCE of 73.8 $\mu g/m^3$. SV-2 installed within the area of the property wherein groundwater VOC impacts were identified (downgradient of Tenant unit 181) reported PCE at 71.3 $\mu g/m^3$, TCE at 46.7 $\mu g/m^3$, and 1,2-DCE at 22.3 $\mu g/m^3$. SV-3 installed downgradient of Tenant unit 171 reported a non-detection of PCE and TCE; a concentration of 2,280 $\mu g/m^3$ of chloroform was detected. SV-4 located at the southeastern corner of the Subject Property reported only PCE at 7.56 $\mu g/m^3$.

Other VOCs were present such as Benzene, Trimethylbenzenes, Xylenes, Toluene, et al. at the majority of soil vapor sampling locations. The non-halogenated VOCs are not considered to be site-related VOCs of concern and are not discussed further.

The soil vapor samples from two of the four sampling locations (SV-1 and SV-2) had concentrations of PCE higher than the EPA 2001 BASE Database for indoor air 90th percentile concentration of 15.9 μ g/m³. SV-2 also reported TCE and 1,2-DCE higher than the 2001 BASE Database for indoor air 90th percentile concentration of 4.2 μ g/m³ and <1.8 μ g/m³, respectively. SV-4 reported only PCE at 7.56 μ g/m³, less than the 2001 BASE Database for indoor air 90th percentile concentration.

None of the four soil vapor locations reported PCE concentrations exceeding the NYSDOH Matrix 2 concentration of $100 \,\mu\text{g/m}^3$. Therefore, it would be unlikely that PCE concentrations located farther off-site,

toward the developed areas surrounding the subject property, would exceed the New York State Department of Health, (NYSDOH) air quality guidelines of 100 $\mu g/m^3$.

Only one of the four soil vapor samples (SV-2) reported concentrations of TCE higher than the lowest potentially actionable NYSDOH Matrix 1 concentration of 5 μ g/m³ for sub slab samples. This soil vapor sampling location abuts the empty undeveloped lot to the south that extends to the south, between 160 -190 feet (**Figure 7**).

SECTION 5 - SUMMARY AND CONCLUSIONS

5.1 Summary

A site characterization investigation was performed for the Elks Plaza retail shopping plaza located at 157, 169-187 and 189 West Merrick Road, Village of Freeport, New York in April-May 2009. The field investigation performed included the characterization of the subsurface soils, underlying groundwater, septic tank water, private supply wells, sub-slab vapors, soil gas, and indoor air at the Subject Property.

Soil Sampling Results

Five (5) soil borings were installed with four soil/sediment samples analyzed to evaluate a former dry cleaning machine area, former dumpster locations, an anomaly identified near the southwest corner of the building, and a stormwater drywell located at the southwest corner of property, proximate to the former dumpster area for Tenant unit 181. Analytical testing of representative soil samples did not report any drycleaning related VOCs above their applicable SCOs.

Groundwater Sampling Results

Groundwater sampling with vertical profiling was performed at nine locations to provide a representation of site groundwater quality conditions. This included an upgradient sampling location, two former dumpster locations, adjacent to a subgrade anomaly, adjacent to a stormwater drywell, and two west-east linear transects at the southern (downgradient) property perimeter.

No VOCs were reported at the upgradient sampling location. A low estimated concentration ($4J \mu g/L$) of PCE was noted in the shallow groundwater directly adjacent to the stormwater drywell. Groundwater quality downgradient of a suspect anomaly (possible subgrade drywell) was determined to contain concentrations of PCE and degradation/daughter products, TCE and 1,2-DCE above their respective NYSDEC SGVs in both the shallow and deeper groundwater sampling intervals, inclusive of a low level estimated concentration of vinyl chloride in the deeper groundwater. This location reported the overall highest concentrations of drycleaning related chemicals.

Analysis of groundwater from the linear transect of temporary monitoring wells, located closest to the building, also reported the detection of PCE, TCE and 1,2-DCE, with the highest concentrations in the middle sampling location (downgradient of Tenant unit 181), and within the shallow groundwater. The southernmost linear transect of groundwater sampling locations confirmed the same overall same relationship as the other transect, with the highest concentrations of VOCs noted in the centrally-located sample (downgradient of GW-3 and GW-4), and within the shallow groundwater zone.

The width of the VOC impacts has been adequately delineated during the site characterization study. The width is relatively narrow, approximately 60 feet wide, with its western boundary approximately 20 feet from the western property line. As the groundwater flow direction is to the southeast, groundwater is flowing toward the undeveloped lot to the south. The groundwater quality downgradient of Tenant unit 171 did not reveal significant concentrations of VOCs.

Although PCE (12 μ g/L) was reported at the sample collected from the OOS private supply well, the significance of this detection is unknown as information about well construction is not verifiable. It is unknown if the OOS well still possesses integrity. No VOCs were reported in the sample collected from the in-service private supply well. No dry-cleaning chemicals were reported in the water sample collected from the septic tank (only VOCs present were chloroform and acetone at minor concentrations).

Sub-Slab Soil Vapor and Indoor/Outdoor Air Sampling Results

A sub-slab vapor (SSV-1) sample was collected within Tenant unit 181 in addition to an indoor air sample (IA-1). Four soil vapor samples (SV-1 to SV-4) were collected around the southern property perimeter. An ambient air sample (OA-1) was also collected in the parking lot at the northeastern portion of the property.

The sub-slab vapor sample within Tenant unit 181 reported elevated concentrations of PCE (14,900 μ g/m³) in exceedance of the NYSDOH Matrix 2 concentration of 100 μ g/m³. Indoor air within Tenant unit 181 reported low concentrations of PCE. These data imply a potential for soil vapor intrusion and potentially the need for mitigation such as a Sub-Slab Depressurization System (SSDS).

None of the four soil vapor locations reported PCE concentrations exceeding the NYSDOH Matrix 2 concentration of $100 \, \mu g/m^3$. Only one of the four soil vapor samples (SV-2) reported concentrations of TCE higher than the lowest potentially actionable NYSDOH Matrix 1 concentration of 5 $\mu g/m^3$. This location abuts an unoccupied undeveloped lot to the south.

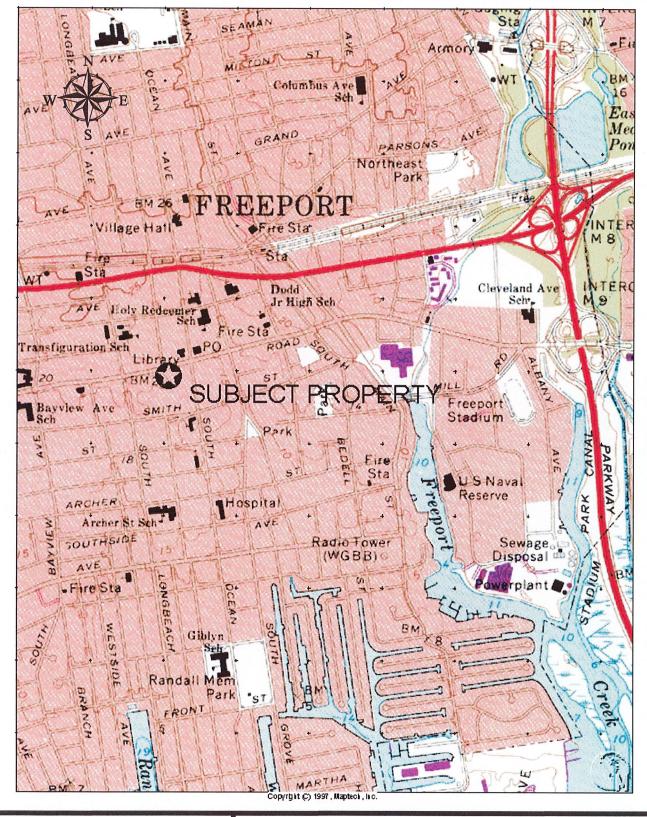
5.2 Conclusions

No soil source areas of dry-cleaning related chemicals were identified during the site characterization at Tenant unit 181. As there is a basement underlying Tenant unit 171, no subgrade soil source areas can exist associated with this Tenant unit. A suspect subgrade feature (9-foot diameter circular anomaly) exists as determined from a magnetometer study and groundwater sampling downgradient of Tenant unit 181. This feature should be further examined to ascertain the relationship with any former operations at the Subject Property.

Based on the vertical profiling groundwater results, groundwater contamination, consisting of PCE and its daughter/degradation products, is present at the Subject Property likely associated with the former operations at the Tenant unit 181. The highest concentrations of VOCs appear to be located downgradient of a subsurface anomaly and/or Tenant unit 181. These VOCs appear to be predominantly present in the shallow upper groundwater zone, with a significant decrease in concentration with increased depth below grade, and lateral distance, within the property boundaries. The width of the VOC impacts in groundwater has been adequately delineated. Groundwater flow direction is to the southeast, and toward the undeveloped vegetated lot to the south.

No dry-cleaning related VOCs were noted at the currently in-service private supply well or in the discharges from the septic system to the municipal sewer system. Analysis of sub-slab vapors confirm the potential for subsurface vapor intrusion at Tenant unit 181. Based upon this data, the reduction and mitigation of sub-slab vapors may be prudent at the Subject Property relative to Tenant unit 181 and possibly adjoining tenant units.

None of the four soil vapor locations reported PCE concentrations exceeding the NYSDOH Matrix 2 concentration of $100~\mu g/m^3$. Therefore, it would be unlikely that PCE concentrations located farther off-site, toward the developed areas surrounding the subject property, would exceed the NYSDOH indoor air quality guidelines of $100~\mu g/m^3$. Only one of the four soil vapor samples (SV-2) reported concentrations of TCE higher than the NYSDOH Matrix 1 concentration of $5~\mu g/m^3$. This location abuts an empty undeveloped lot to the south.





323 Merrick Avenue - North Merrick, New York 11566 Tel: (516) 546-1100 Fax: (516) 213-8156

Figure 1- Site Location

- Location of Subject Property Client: Elks Plaza LLC.

Site: 157 through 189 West Merrick Road

Freeport, New York

Date: April 2009



Current Occupants

- 157 McDonald's
- 165 NY Elite Limousine
- 169 The Wine Cellar Liquor Store
- 171 Ebony Beauty Supply
- 173 Jade Garden Chinese Food
- 173 99c Super Discount Store

- 177 Bagel Store 177A -Solgar Health Foods
- 179 XTC Hair Salon

- 179A-181A Laundry Palace
- 183 Five Star Nails & Spa
- 173 99c Super Discount Store
 175 South Shore Medical & Rehabilitation
 183A Rene's Gift Shop and 30 Minute Photo
 185 Eye World Ooptical

 - 185A Vacant
 - 187 Raimo's Pizzeria
 - 189 Bank of America

Figure 2 - Current Site Occupants



PREFERRED ENVIRONMENTAL SERVICES —

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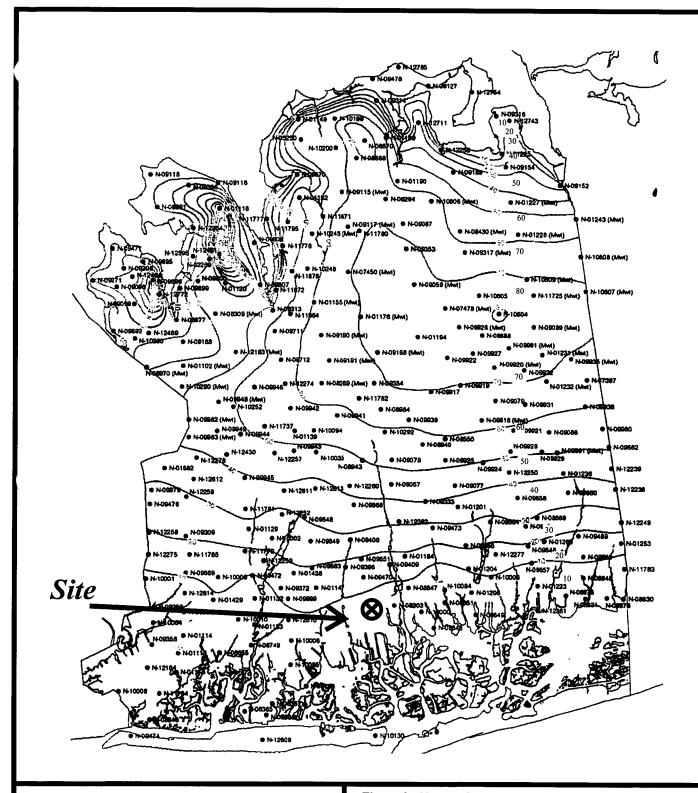
- Property Border

Client: Elks Plaza LLC.

157 through 189 West Merrick Road

Freeport, New York

Date: 9-19-2008





PREFERRED ENVIRONMENTAL SERVICES

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Figure 3 - Nassau County Groundwater Elevation Map



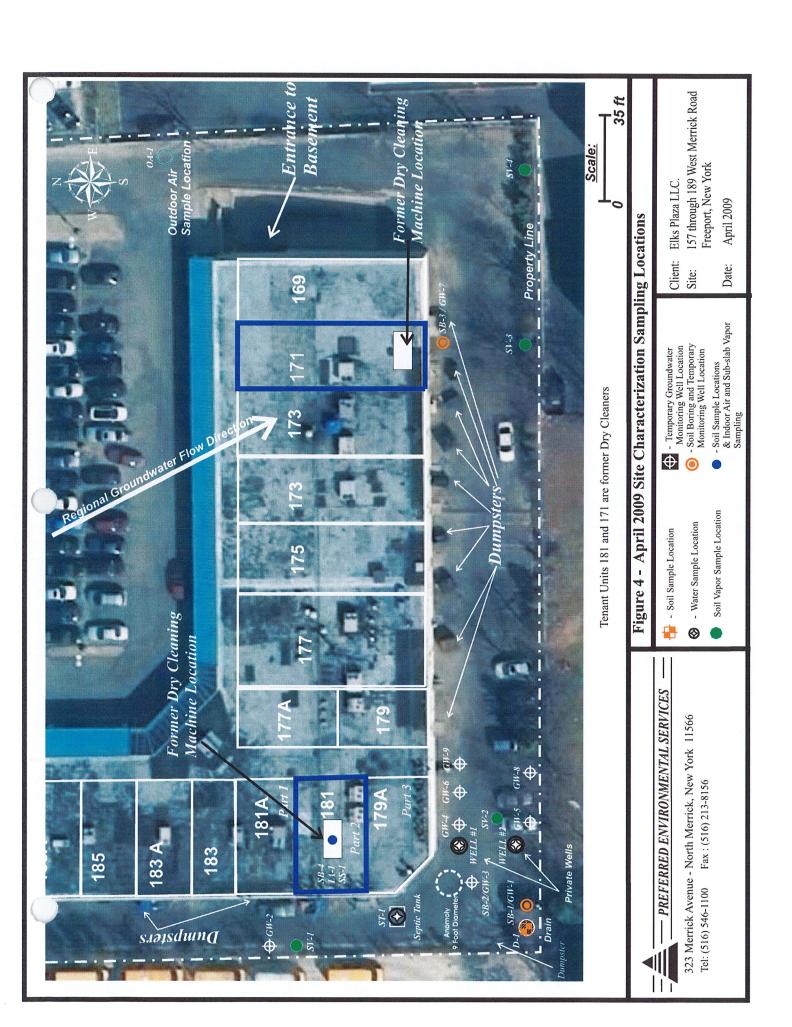
- Approximate Site Location

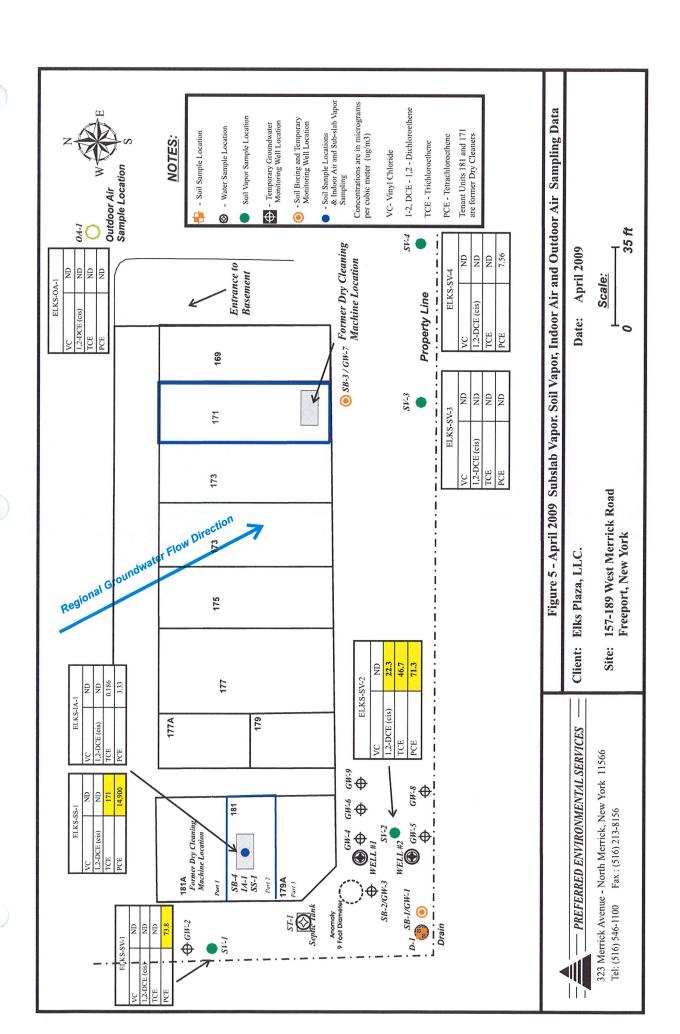
Client: Elks Plaza LLC.

Site: 157 through 189 West Merrick Road

Freeport, New York

Date: 10-17-08





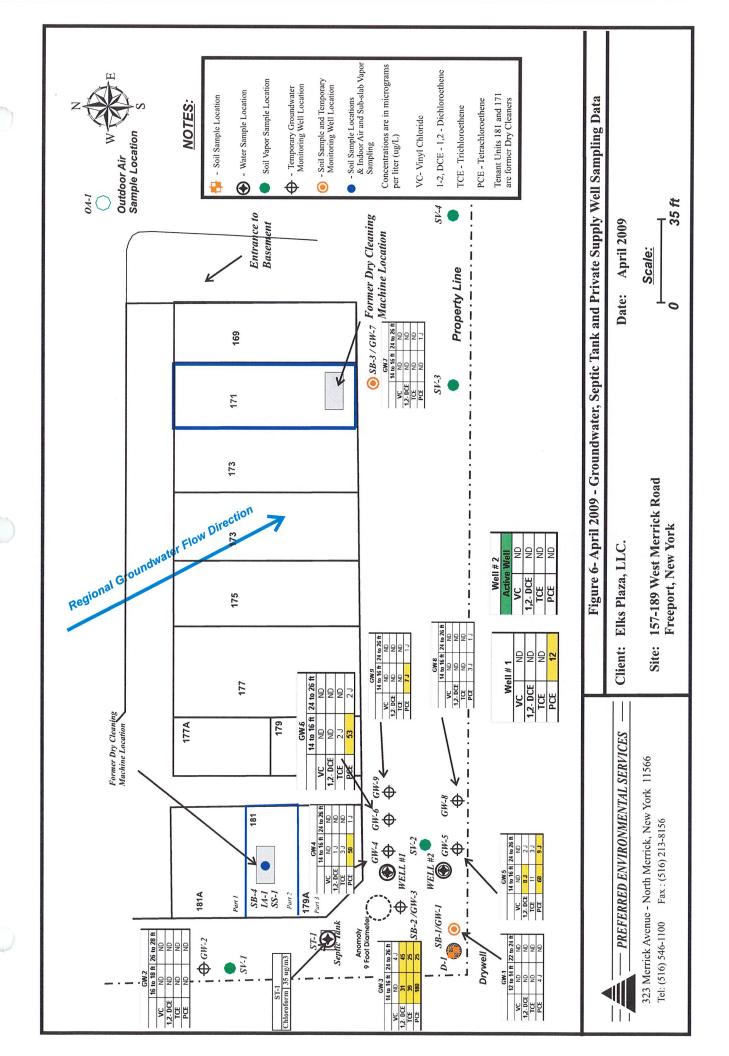




Figure 7- Aerial Photograph of Elks Plaza and Surrounding Properties

--- -Approximate Lot Line of Subject Property

- PREFERRED ENVIRONMENTAL SERVICES

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-Soil Vapor Sample Location

Elks Plaza LLC. Client: Site:

157 through 189 West Merrick Road Freeport, New York

9/14/2009 Date:

Table 1 Scope of Work for Site Characterization Investigation - Elks Plaza

Activity (Task)/ Location (in bold)	# Sampling Points	Location See Figure 4	No. Of Samples/Parameters	QA/QC Samples
Task 1 - Site Feature Evaluation and Magnetometer/Void Survey; Private supply wells and municipal sewer discharge.	Three	Abandoned private supply well, in-service private supply well, and septic tank (municipal discharge).	Three water samples: TCL VOC analysis by EPA Method 8260 plus TICs with NYSDEC ASP B deliverables.	One Matrix Spikes (MS)and Matrix Spike Duplicates (MSD) collected per twenty (20) samples/ one per media (soil or groundwater). One field blank per 20 samples per media with analysis for same analytes and one trip blank per field day (VOCs only).
Task 2 - Soil and Drainage Investigation	Five	Former dry cleaning machine area (Tenant Unit 181); former dumpster locations (Tenant units 171 and 181); and one drainage structure.	Four soil samples: TCL VOC analysis by EPA Method 8260 plus TICs with NYSDEC ASP B deliverables.	MS/MSDs, field blank and trip blanks.
Task 3- Groundwater Investigation	Nine locations- two depths	Groundwater: upgradient location (west); One temporary well at each of the former dumpster locations (tenant units 171 and 181); four temporary wells in a linear transect (two vertical depths); two temporary wells at downgradient property perimeter (two vertical depths)and adjacent to a stormwater drywell.	18 groundwater samples: TCL VOC analysis by EPA Method 8260 plus TICs with NYSDEC ASP B deliverables.	MS/MSDs, field blank and trip blanks.

¹The MS/MSD serves as a duplicate soil sample for NYSDEC ASP-B deliverables. No trip blanks are required to be collected for soil samples (only) for NYSDEC ASP-B deliverables.

Activity (Task)/ Location (in bold)	# Sampling Points	Location See Figure 4	No. Of Samples/Parameters	QA/QC Samples
Task 4 - Sub Slab Vapor, Soil Vapor, Indoor and Outdoor Air Sampling	Seven Locations inside and outside of building	Sub slab samples and indoor air samples were to be collected within former dry cleaning Tenant unit 181. Soil vapor and outdoor air samples were collected along western and southern boundaries of the property.	7 samples for VOCs by TO-15 method.	Helium Tracer on the soil gas samples and outdoor ambient sample for comparison values.

$\frac{\text{TABLE 2-SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED}}{\text{AND/OR ELEVATED ABOVE NYSDEC SOIL CLEAN-UP OBJECTIVES}}$

	Soil Samples- April 2009		4/9/2009		4/9/2009		4/10/2009		4/17/2009		Part 375
	Sampling Date: Project Location: Sample ID: Laboratory ID:		Elks Plaza D-1 (12-14) 0904473-001A	Qualifier	Elks Plaza SB-1 (1-3) 0904473-002A	Qualifier	Elks Plaza SB-3 (1-3) 0904506-001A	Qualifier	Elks Plaza SB-4 (3-4 FT BG) 0904747-001A	Qualifier	Table 375 - 6.8 (a) Unrestricted Use Soll Cleanup Objectives (ug/kg)
Cas #	Analyte	Units:								L	
74-87-3	Chloromethane	ug/kg	ND		ND		ND		ND	_	NA
75-01-4	Vinyl Chloride	ug/kg	ND		ND		ND		ND		20
75-00-3	Chloroethane	ug/kg	ND		ND		ND		ND		NA NA
75-35-4	1,1-Dichloroethene	ug/kg	ND		ND		ND		ND		330
540-59-0	1,2-Dichloroethene (total)	ug/kg	ND	<u> </u>	ND		ND		ND		NA
67-64-1	Acetone	ug/kg	24		ND		ND		ND		50
75-15-0	Carbon Disulfide	ug/kg	ND		ND		ND		ND		NA
75-09-2	Methylene Chloride	ug/kg	6	ВЈ	4	BJ	3	ВJ	6	BJ	50
1634-04-4	Methyl tert-butyl ether	ug/kg	ND		ND		ND	ļ	ND		930
75-34-3	1,1-Dichloroethane	ug/kg	ND		ND		ND		ND		270
78-93-3	2-Butanone	ug/kg	ND		ND		ND		ND	_	NA
67-66-3	Chloroform	ug/kg	ND		ND		ND		ND		370
71-55-6	1,1,1-Trichloroethane	ug/kg	ND		ND		ND		ND		680
56-23-5	Carbon Tetrachloride	ug/kg	ND		ND		ND		ND		760
71-43-2	Benzene	ug/kg	ND		ND		ND		ND		60
107-06-2	1,2-Dichloroethane	ug/kg	ND		ND		ND		ND	_	20 с
79-01-6	Trichloroethene	ug/kg	ND		ND		ND		ND		470
78-87-5	1,2-Dichloropropane	ug/kg	ND		ND		ND		ND		NA
75-27-4	Bromodichloromethane	ug/kg	ND		ND		ND		ND		NA
10061-01-5	cis-1,3-Dichloropropene	ug/kg	ND		ND		ND		ND		NA
108-10-1	4-Methyl-2-pentanone	ug/kg	ND		ND		ND		ND		NA
108-88-3	Toluene	ug/kg	5	J	ND		ND		ND		700
10061-02-6	trans-1,3-Dichloropropene	ug/kg	ND		ND		ND		ND		NA
79-00-5	1,1,2-Trichloroethane	ug/kg	ND		ND		ND		ND		NA
127-18-4	Tetrachloroethene	ug/kg	ND		ND		ND	_	26		1,300
591-78-6	2-Hexanone	ug/kg	ND		ND		ND		ND		NA
124-48-1	Dibromochloromethane	ug/kg	ND		ND		ND		ND		NA
108-90-7	Chlorobenzene	ug/kg	ND		ND		ND		ND		1,100
100-41-4	Ethylbenzene	ug/kg	ND		ND		ND		ND		1,000
1330-20-7	Xylene (total)	ug/kg	4	J	ND	Π	ND		ND	L	260
100-42-5	Styrene	ug/kg	ND		ND		ND		ND		NA_
75-25-2	Bromoform	ug/kg	ND		ND	Π	ND		ND		NA
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	ND		ND		ND	Γ	ND		NA

Elks Plaza Freeport, New York

| T9-34-5 | 1,1,2,2-Tetrachloroethane | ug/kg |
Notes:
NYSDEC - Soil Cleanup Objectives
Part 375 Table 375 - 6.8(a)
ND - Analyte was not detected above method detection limit.
NA - Not Analyzed / Not Available.
Bolded values indicates detected concentration exceeded NYSDEC.
MDL - Method Detection Limit

C-For constituants where the calculated SCO is lower than the rural background concentations as determined by the DEC/DOH rural soil survey the rural soil background concentration is used as the Track | SCO value for the use of this site.

B - Analyte detecetd is associated blank as well as the sample

TABLE 3 - SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED AND/OR ELEVATED ABOVE NYSDEC CLASS GA AMBIENT WATER OUALITY STANDARDS AND GUIDANCE VALUES IN GROUNDWATER SAMPLES GW-1 to GW-5

	Elks Plaza,					티	UALITY ST	AND	ARDS AND	GUIDAN	CE V.	ALUES IN C	ROL	NDWATEE	SA	QUALITY STANDARDS AND GUIDANCE VALUES IN GROUNDWATER SAMPLES GW-1 to GW	/-1 to	GW-5				
	Freeport, New Tork Soil Samoles- April 2009	_		GW-1	5	\vdash		GW-2			9	GW-3	H		GW-4		Н	١	GW-5		П	
	Sampling Date:	T	4/9/2009	Ī	4/9/2009	t	4/9/2009	\vdash	4/9/2009	4/9/2009	\vdash	4/9/2009		4/9/2009	\vdash	4/9/2009		4/9/2009	4/9	4/9/2009		to idea & Constitution of the
	Project Location:		Elks Plaza		Elks Plaza		Elks Plaza		Elks Plaza	Elks Plaza		Elks Plaza		Elks Plaza		Elks Plaza	_	Eiks Plaza	Elks	Elks Plaza		Water Quality Standards and
	Sample ID:		GW-1 (12-14)	13Ni	GW-1 (22-24)	19UI	GW-2 (16-18)		GW-2 (26-28)	GW-3 (14-16)	الود. چ چ	GW-3 (24-26)	Təfiil	GW-4 (14-16) 0904471-007A	lifler	GW-4 (24-26)	niller G G	GW-5 (14-16)		GW-5 (24-26) 0904471-010A	וותפר	Guidance Values (ug/L)
	Cabonatory to:			lauQ		(eus)		_	_	-	\exists		νпδ		ons	\dashv	_	1	4		тид	
Cas #	Analyte	Units:						-							\dashv		\dashv					
74-87-3	Chloromethane	ng/L	QN		ND		ND	_	ON	Ð	-	Q		Q	\dashv	QN	_	Q	_	Q		NA
75-01-4	Vinyl Chloride	ng/L	QN		QN		ND		ND	Q	_	4	7	QN	-	Q	_	Ð	-	ND ND		2
75-00-3	Chloroethane	ng/L	2		QN		QN		ND	QN		ON		QN	Н	Q	_	Q	_	Q		50
75-35-4	1.1-Dichloroethene	na/L	Q.		Q		2	-	QN	₽	_	QN		QN		Q.		Q	_	Q		5
540-59-0	1,2-Dichloroethene (total)	ng/L	Ð		Q		9	L	QN	34		45		1	ſ	Q		8		2	7	2
67-64-1	Acetone	ng/L	7	3	ъ	3	9	'n	8 UJ	J 3	n	2	З	3	3	4	3	ND ON		3	3	50
75-15-0	Carbon Disulfide	ng/L	₽	3	Q	3	ON	۲'n	U) ON	ON	m	ON	3	QN	3	ON ON	3	ND ON		QN	3	50
75-09-2	Methylene Chloride	ng/L	Q		Q		Q		QN	QN	_	ON		ND		Q		Q	_	Q		5
1634-04-4	Methyl tert-butyl ether	ng/L	Ş		QN		QV	-	Q	QN		QN		ND		QV		ð	_	Q		10
75-34-3	1.1-Dichloroethane	ng/L	ð		Q		QV	_	QN	QN		ON		QN		ND	_	Q	_	Q		52
78-93-3	2-Butanone	ng/L	2	5	Q	3		3	rn an	QN	3	ON	n	QN	n	ND	3	ND ON		ð	3	80
67-66-3	Chloroform	ng/L	S		Q		QN	H	ND	ND		QN		Q		Q	-	Q	_	Q		7
71-55-6	1,1,1-Trichloroethane	ng/L	QN		QN		ON		QN	ON.		QN		QN	_	Q		Q	_	Q		S
56-23-5	Carbon Tetrachloride	ng/L	8		QN		QN		ND	QN		Q		Q		Q		Q	ے	ND		ss
71-43-2	Benzene	ng/L	QN		ND		ON	-	S	Q.		Q		Q		Q	_	Q	_	ND		0.7
107-06-2	1,2-Dichloroethane	ug/L	QN		ND		ON	\dashv	ND	Q		Q		Ð	\dashv	Q		ND	_	ND		5
79-01-6	Trichloroethene	ng/L	ND		ND		ND		Q	39		25		ю	7	QN	_	=		3	3	5
78-87-5	1,2-Dichloropropane	ng/L	ND		ND		QN		ΩN	Q	-	Q		Q	+	Q	_	Q	_	Ω		1
75-27-4	Bromodichloromethane	ng/L	QN		ND		QN	Н	Q	2		2		QN		Q	\dashv	QN		Q		99
10061-01-5	10061-01-5 cis-1,3-Dichloropropene	ug/L	QN		QN		QV		Q	9	\dashv	Ð		Ð		QN	\dashv	Q	_	QN	1	5
108-10-1	4-Methyl-2-pentanone	ng/L	QN	3	ND	3	ON	m	ND ON	QN	3	Q	3	Q	3	DN	3	U ON		ND	3	50
108-88-3	Toluene	ng/L	QN		ND		Q	-	Q	9	-	Q		QV	_	Q	4	Ð	_	Q		5
10061-02-6	10061-02-6 trans-1,3-Dichloropropene	ng/L	ND		ND		QN	-	QN	Q	-	Q		Q		Q		2	_	QN		NA
79-00-5	1,1,2-Trichloroethane	ng/L	ON		ND		ON		Q	Q		Q		Q	7	Q	\dashv	Q	_	QN		\$0
127-18-4	Tetrachloroethene	ng/L	4	7	Q		Q		QN	180	-	25		50	\exists	-	-	89		6	7	25
591-78-6	2-Hexanone	ug/L	QN	UJ	Q	3	QN	3	ND ON	Q	3	Q	3	ð	3	ON	3	ND ON		ND	3	50
124-48-1	Dibromochloromethane	ug/L	QΝ		ND		ND	Н	QN	Q		Q		Ð		Q	\dashv	Q	-	Se		NA
108-90-7	Chlorobenzene	ng/L	QN		QN		QN		ON	Q		QN		ON		ND		ND	_	ND		5
100-41-4	Ethylbenzene	ng/L	QN		QN		QN		QN	2		ON		ND		ND	_	Q	_	Q		5
1330-20-7	Xylene (total)	ng/L	Ð		QN		QN		ND	ON		ND		Q	\exists	ð	_	Q	_	Q		32
100-42-5	Styrene	ng/L	QN		QN		QN		QN	QN		ND		Q	_	Q	4	Q		ð		v
75-25-2	Bromoform	ng/L	QN		ND		ON		Q	Q	-	Q		Õ		Ð		Ð	_	Q		50
79-34-5	1,1,2,2-Tetrachloroethane	ng/L	Q	S	QN	3	N	3	ON ON	ON C	3	QV	3	Ð	3	QN D	3	ON ON	n n	Q.	3	5
Notes:																						

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Indicate an estimated value

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NYSDEC Class GA Aemberent Water Quality Structure's and Gardennee Values.

New structure in 1998

NA - Not Ambere and and a second above NYSDEC Class GA Amberent Warer Quality Structure's Goldect values and are detected above NYSDEC Class GA Amberent Warer Quality Structure's

TABLE 4 - SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED AND/OR ELEVATED ABOVE NYSDEC CLASS GA AMBIENT WATER OUALITY STANDARDS IN GROUNDWATER SAMPLES GW-6 to GW-9 & SEPTIC TANK, & WELL # 1 AND 2

Eiks Plaza,	. ;	¥	3LE 4 -:	SOM	IABLE 4 - SUMMAKY OF) }	A I ILE OR	ا [GROUNDW	ATE	SAMPLI SAMPLI	ES G	VOLATILE ORGANIC COMPOUNDS DE IECTED AND/OR ELEVATED ABOVE NISDEC CLASS GA AMBIENT MATER VOALITISTANDARDS IN GROUNDWATER SAMPLES GW-6 to GW-9 & SEPTIC TANK, & WELL #1 AND 2	3 8 5	SEPTIC TA	K	& WE	7T#	1 AND 2	101	AI WALL	K OUAL	AIS III	NDARDS	
Soil Samples- April 2009	v 10fX - April 2009	L		9,85		\vdash	1	CW-7	,	-		GW-8		L	M5	10.		-	Septic Tank	F		Supply Wells			
	Sampling Date: Project Location: Sample ID: Laboratory ID:	_ @ g	4/10/2009 Elka Plaza GW-6 (14-16) 0904603-001A	19Hiller Q	4/10/2009 Elks Plaza GW-6 (24-26) 0904503-002A	Qualiffer	4/10/2009 Elks Plaza GW-7 (13-15) 0904503-003A		4/10/2009 Elks Plaza GW-7 (23-25) 0904603-004A	Qualifier Qualifier	4/10/2003 Elks Plaza GW-8 (14-16) 0904503-005A	TabilieuQ	4/10/2009 Elks Plaza GW-8 (24-25) 0904503-006A	1 M S S	4/10/2009 Elke Plaza GW-9 (14-16)		4/10/2009 Elks Plaza GW-9 (24-26) 090-4603-008A	Qualifier	4/10/2009 Elka Plaza ST-1 0904603-009A	Qualifice	4/10/2009 Elks Plaza WELL #1 0904503-010A OOS WELL	Outline Posts	41772009 Elks Plaza Well #2 0904738-001A ACTIVE WELL	NYSDEC CII Water Qualit Guidance	NYSDEC Class GA Ambient Water Quality Standards and Guidance Values (ug/L.)
Cas #	Analyte	Units:						H		Н		Н				Ц				_					
74-87-3	Chloromethane	ng/L	ND		ND		ND		QN	n	ND	lu.	ND	3	U) ON		Q	n	ND	3	Q	3	ND		NA
75-01-4	Vinyl Chloride	ng/L	ND		QN		QN		QN		ND	Н	QN		Q	Ц	QN		Q	_	ND	_	Q		2
75-00-3	Chloroethane	ug/L	ND		QN		ND	-	QN	_	QN		Q	_	Q	_	Q		Q	-	QV	_	Q		50
75-35-4	1,1-Dichloroethene	ug/L	NO		QN		ND	_	ON	_	ND		ND	_	Q		QN		Q		QN	_	Q		5
540-59-0	1,2-Dichloroethene (total)	ng/L	QN		QN		Q		Q		QN		QN	_	Q	_	ND		Q	_	QN	_	ND		5
67-64-1		ug/L	5	[m]	3	m	2	m	2	n	10	n	4	n	3 UN	_	3	n	110 E	8	4	3	QN		50
75-15-0	Carbon Disulfide	ug/L	ND	3	Q	n	QN	3	QN	3	Q	3	QN	3	ND ON	_	Q	n	ON O	3	Q	3	QN		50
75-09-2	Methylene Chloride	ng/L	ND		Q		QV	\dashv	QN		Q		Q		Q		Q		Q	_	Q	_	QN		5
1634-04-4	er	ug/L	ND		QN		ND		ND	Н	QV		Q		Q		Q		QV		Q		Ω		01
75-34-3	1,1-Dichloroethane	ug/L	ND		QN		ND		QN		QN		Q		Q		Q		Q		Q	_	Q		5
78-93-3	2-Butanone	ug/L	ND	m	QN	n		n	QN	3	2	7	ON C	3	ND		Q.	3	QN	3	Q	3	Q		50
67-66-3	Chloroform	ug/L	QN		Q		Q	-	QN		Q	\dashv	Q	_	Q		Q		8	_	Q		QV		7
71-55-6	1,1,1-Trichloroethane	ng/L	ND		ON		ON	-	ND		QN	-	QV	_	Q	_	Q		Q	_	Q	_	QN		5
56-23-5	Carbon Tetrachloride	ng/L	QN		Q		QV	H	Ð		QN		QV		Q	4	S		Q	-	Q		Q		5
71-43-2	Benzene	ug/L	QN		Q		Q	\dashv	Q	\dashv	Q		Ð	-	Q	_	Q		Q	-	Q		QN		0.7
107-06-2	1,2-Dichloroethane	ng/L	QN		Q		QN	\dashv	QV	-	Q		Q	4	Q	4	Q		QN		Q	_	QN		S
79-01-6	Trichloroethene	ug/L	2	7	Ð		Q	\dashv	QN	\dashv	Q		QN	_	QN	\dashv	ND		QN	-	Q		Q		5
78-87-5	1,2-Dichloropropane	ug/L	2		Q	\exists	ND	\dashv	QN	+	QN		QN	_	ND	\dashv	QN	_	Q	\dashv	Q	_	QN		-
75-27-4	Bromodichloromethane	ug/L	Q		Q		QN	\dashv	QN	\dashv	QN		QN		QV	4	Q		Q	\dashv	Q	_	Q		50
10061-01-5	cis-1,3-Dichloropropene	ng/L	QN		Q		Q	ᅱ	Q		Q		Q		Q	4	Q		Q		Q		QN		5
108-10-1	4-Methyl-2-pentanone	ug/L	O	3	QV	3	QN	3	QN	3	QN	ß	ON	n	ON	S	QN	3	ON	3	Q	7)	QN		50
108-88-3	Toluene	ng/L	Q		Q		QN		ND	-	QN	+	QN	_	Q	4	ND		QN	-	Q	_	Q		5
10061-02-6	trans-1,3-Dichloropropene	ng/L	QV		QV		NO		ND	+	N	-	Q		Q	4	Ð		Q	\dashv	Q		Q		NA
79-00-5	1,1,2-Trichloroethane	ng/L	ON	1	Q		Q	1	Q	\dashv	Q	\dashv	Q	-	Q	_	Q	╛	Q	\dashv	Q		Q.		\$
127-18-4	Tetrachloroethene	ug/L	53		2	5	Q	1	-	7	8	7	-	7	7	_	-	7	Q	\dashv	12	_	ND		5
591-78-6	2-Hexanone	ng/L	Q	3	QN	3	Q	3	QN	3		3	QN	3	ON	3	ND	3	Q	3	Q	3	Q		50
124-48-1	Dibromochloromethane	ug/L	Q		Q		Q		Q	-	Q	\dashv	QN	_	Q		Ð		Q	\dashv	Q		Q		NA
108-90-7	Chiorobenzene	ng/L	Q		Q		QN	_	QN	\dashv	Q	\dashv	QN	-	Q	4	Q		Q		Q		Q.		5
100-41-4	Ethylbenzene	ng/L	QN		Q		Q	+	Q	-	Q		Q	-	Q.	\dashv	N		9	\dashv	Q		Q.		5
1330-20-7	Xylene (total)	ng/L	Q		Q		QN	7	ON	-	Q	-	QN	-	Q.	4	QN		Q	-	Q		QN		5
100-42-5	Styrene	ng/L	NO	1	Q		Q	+	Q	\dashv	Q.	_	Q	-	Q	4	QN	_	Q	-	Q		ON		s
75-25-2	Bromoform	ng/L	Q		Q		Q		Q	+	Q	_	Q	1	Q	-	Q		Q	+	Q		Q.		50
79-34-5	1,1,2,2-Tetrachloroethane	ng/L	ð	3	Q	3	Q	3	Q	3	Q	3	QN	3	ND QN	3	Q	3	ON D	3	ō	3	ND QN		5

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Elks Plaza Freeport New York Air Samples- April 2009

TABLE 5 - SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED IN SOIL GAS AND/OR ELEVATED ABOVE NYSDOH AIR GUIDANCE VALUES

_	Sampling Date:		4/10/2009	4/17/2009	4/17/2009	4/17/2009	4/17/2009	4/17/2009	4/17/2009				
	Project Location: Sample ID:		Elks Plaza Elks- IA-1	Elks Plaza	Elks Plaza	Elks Plaza	Elks-SV-2	Elks-SV-3	Elks Plaza	NYSDOH Study	Study	NYSDOH Air	BASE Value
	Laboratory ID:		0904888-01	0904793-001A	0904793-002A	0904793-003A	0904793-004A	0904793-005A	0904793-006A	Homes in NYS 1997 - 2003	1997 - 2003		(90th
								lifier		Indo	Outdoor:		Percentile)
			-						Qual		25% to 75%	Indoor Air)	
Cas #	Analyte	Units:											
74-87-3	Chloromethane	ug/m3	2.91	1.18	ND	ND	dN	ND	N	<0.25 - 1.8	<0.25 - 1.8	NA A	Ϋ́
75-01-4	Vinyl Chloride (SIM)	ug/m3	ND	ND	ND	N	N	ND	8	<0.25	<0.25	N A	<1.9
75-00-3	Chloroethane	ug/m3	ND	ND	N	S	8	N	N	<0.25	<0.25	NA A	Z N
75-35-4	1,1-Dichloroethene	ug/m3	ND	N	N	NB NB	8	N	S	<0.25	<0.25	N A	<1.4
95-63-6	1,2,4-Trimethylbenzene	ug/m3	0.985	ND	ND	24.4	37.2	16.2	45.8	0.69 - 4.3	<0.25 - 0.81	NA NA	N.
108-76-8	1,3,5-Trimethylbenzene	ug/m3	ND	S	ND	8.04	12,0	N	14.2	<0.27 - 1.7	< 0.25 -0.34	NA A	×
67-64-1	Acetone	ug/m3		E 11.8	ND	653	192	J 105 J	207 J	9.9 - 52	3.4 - 14	NA.	X.
75-15-0	Carbon Disulfide	ug/m3	ND N		S	ND	5.76	S	8	NA	X.	X.	NA.
75-09-2	Methylene Chloride	uq/m3	S	ND	N	S	8	43.5	S	0.31 - 6.6	<0.25 - 0.73	50	10
1634-04-4	Methyl tert-butyl ether	ug/m3	8	S	N	N	8	N	8	<0.25 - 5.6	<0.25 - 0.86	N.	N.
75-34-3	1,1-Dichloroethane	ug/m3	S	S	ND	ND	ND	S	N	<0.25	<0.25	N	N.
78-93-3	2-Butanone	ug/m3	2.21	1.21	N	279	33.0	15.9	34.9	NA A	¥	NA A	Š
67-66-3	Chloroform	ug/m3	4.13	ND	ND	58.3	4.25	2260	ND	<0.25 - 0.54	<0.25	NA	N N
71-55-6	1,1,1-Trichloroethane	ug/m3	N N	ND	ND	ND	ND	ND	N	<0.25 - 1.1	<0.25 - 0.33	NA	20.6
56-23-5	Carbon Tetrachloride (SIM)	ug/m3	0.583	0.543	N	N	8	ND	N	<0.25 - 0.59	<0.25 - 0.6	NΑ	NA
71-43-2	Benzene	ug/m3	2.15	1.00	ND	15.1	15.2	10.5	16.4	1.1 - 5.9	0.57 - 2.3	ΝA	N A
107-06-2	1,2-Dichloroethane	ug/m3	0.906	ND	ND	ND	ND	ND	N	<0.25	<0.25	¥	N N
79-01-6	Trichloroethene (SIM)	ug/m3	0.186	ND	171	ND	46.7	ND	ND	<0.25	<0.25	5	4.2
78-87-5	1,2-Dichloropropane	ug/m3	S	ND	ND	ND	ND	NO	N	<0.25	<0.25	NΑ	NA
75-27-4	Bromodichloromethane	ug/m3	N	ND	ND	ND	N	51.6	ND	NA.	N.	N N	Ϋ́
156-59-2	cis-1,2-Dichloroethene	ug/m3	ND	ND	ND	ND	22.3	N	N	<0.25	<0.25	NA	<1.9
10061-01-5	cis-1,3-Dichloropropene	ug/m3	ND	ND	ND	ND	ND	ND	N	<0.25	<0.25	NA	N
108-10-1	4-Methyl-2-pentanone	ug/m3	ND N	N	ND	ND	2.85	ND	4.43	NΑ	NΑ	NA	NA
108-88-3	Toluene	ug/m3	19.8	2.34	125	299	393	168	368	3.5 - 24.8	0.60 - 2.4	NA	NA
156-60-5	trans-1,2-Dichloroethene	ug/m3	ND	ND	ND	ND	2,92	ND	ND	NA	NA	NA	N N
10061-02-6	trans-1,3-Dichloropropene	ug/m3	ND	ND	ND	ND	ND	ND	ND	<0.25	<0.25	ΝA	NA
79-00-5	1,1,2-Trichloroethane	ug/m3	ND	ND	ND	ND	ND	ND	N	<0.25	<0.25	ΝĀ	NA
127-18-4	Tetrachloroethene	ug/m3	3.33	ND	14,900	73.8	71.3	ND	7.56	<0.25 - 1.1	<0.25 - 0.34	100	15.9
591-78-6	2-Hexanone	ug/m3	ND	ND	ND	ND	N	ND	S	NA A	NA	NA	N A
124-48-1	Dibromochloromethane	ug/m3	ND	ND	ND	ND	ND	ND	ND	AN	NA	NA	NA
75-71-8	Dichlorodifluoromethane	ug/m3	2.27	2.57	ND	ND	2.63	ND	3.05	<0.25 - 4.1	<0.25 - 4.2	NA	NA
108-90-7	Chlorobenzene	ug/m3	S	N	ND	ND	ND	ND	ND	<0.25	<0.25	NA	NA
100-41-4	Ethylbenzene	ug/m3	ND	ND	ND	29.7	47.2	14.7	45.0	0.41 - 2.8	<0.25 - 0.48	NA	NA
1330-20-7	m/p-Xylene	ug/m3	2.00	ND	ND	103	147	49.1	142	0.50 - 4.6	<0.25 - 0.48	ΝĀ	N
95-47-6	o-Xylene	ug/m3	ND	ND	ND	31.2	50.8	17.1	44.7	0.39 - 3.1	<0.25 - 0.56	Ν	NA
100-42-5	Styrene	ug/m3	ND	ND	ND	7.29	10.5	ND	10.9	0.25 - 0.64	<0.25	NΑ	NA
75-25-2	Bromoform	ug/m3	ND	ND	ND	ND	ND	ND	N	NA A	NA	NΑ	NA A
75-69-4	Trichlorofluoromethane	ug/m3	6.81	1.36	ND	ND	ND	ND	ND	1.1 - 5.4	<0.25 - 2.2	NA	NA
106-46-7	1,4-Dichlorobenzene	ug/m3	1.22	S	S	N	B	N	N	<0.25 - 0.54	<0.25	NA	NA
79-34-5	1,1,2,2-Tetrachloroethane	ug/m3	Š	N	N	ND	NO	ND -	ND	<0.25	<0.25	NA	NA
Notes:								•					

Notes:

NYSDOH Study is the Summary of Indoor and Outdoor Levels of Volatile Organic Compounds From Fuel Oil Heated Home in NYS, 1997 to 2003.

Unpublished. New York State Department of Health, Bureau of Toxic Substance Assessment

Target Indoor Shallow Soil Concentration are presented in the November 2002 USEPA Draft Guidance For Evaluating The Vapor Intrusion to Indoor

Air Palmway From Groundwater and Soils

The NYSDOH Air Guidelines Values are provided in the NYSDOH Guidance for Evaluating Soil Vapor Intrusion

in the State of New York Issued for Public Comment in February of 2005

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Building Assessment and Survey Evaluation (BASE '94-'98), Unpublished, Indoor Environments Division, United States Environmental Protection Agency, Washington D.C.

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Building Assessment and Survey Evaluation (BASE '94-'98), Unpublished, Indoor Environments Division, United States Environmental Protection Agency, Washington D.C.

Building Assessment and Survey Evaluation (BASE '94-'98), Unpublished, Indoor Environments Division, United States Environmental Protection Agency, Washington D.C.

Building Assessment and Survey Evaluation (BASE '94-'98), Unpublished Division, United States Environmental Protection Agency, Washin

ND - Analyte no detected at concentration exceeding method detection limit

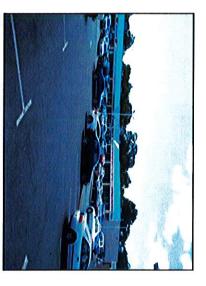
TABLE 6- QA/QC SAMPLES SUMMARY

	Elks Piaza, Freeport New York Soil Samples- April 2009						TABLE 6- QA/Q	CSA	TABLE 6- QA/QC SAMPLES SUMMARY					
	Sampling Date: Project Location: Sample ID: Laboratory ID:		4/17/2009 Elks Plaza Trip Blank 0904738-002A	Qualifier	4/9/2009 Elks Plaza TB #1 0904471-012A	Qualifier	4/10/2009 Elks Plaza TB #2 0904503-011A	Qualifier	4/9/2009 Elks Plaza FB#1 Soil 0904473-003A	Qualifier	4/9/2009 Elks Plaza FB #2 0904471-011A	Qualifier	4/9/2009 Elks Plaza SB 040909 0904471-013A	Qualifier
Cas#	Analyte	Units:						┪						\dashv
74-87-3	Chloromethane	ug/L	dN		ND		ND	5	ND		ND		ND	_
75-01-4	Vinyl Chloride	ug/L	ďΝ		ND		ND		ND		ND		ND	\dashv
75-00-3	Chloroethane	ug/L	ND		ND		ND		ND		ND.		ND	-
75-35-4	1,1-Dichloroethene	ug/L	dN		ND		ND		UN		ND		ND	\dashv
540-59-0	1,2-Dichloroethene (total)	ug/L	ND		ND		ND		ND		ND		ND	\dashv
67-64-1	Acetone	ug/L	ND		ND	w	2	ВJ	3	ſIJ	3	IJ	2	2
75-15-0	Carbon Disulfide	ug/L	ND		ND	w	ND	IJ	ND	ſП	ND	IJ	ΝD	Ξ
75-09-2	Methylene Chloride	ug/L	ND		ND		ND		ND		an		4	
1634-04-4	Methyl tert-butyl ether	ug/L	ND		Ŋ		ND		ND		ND		ND	H
75-34-3	1,1-Dichloroethane	ug/L	ND		ND		ND		ND		ND		dN	
78-93-3	2-Butanone	ug/L	ND		ND	IJ	ND	IJ	ND	UJ	ND	IJ	ND	IJ
67-66-3	Chloroform	ug/L	ND		N N		ND		ND		ND		ND	
71-55-6	1,1,1-Trichloroethane	ug/L	ND		ND		ND		ND		ND		ND	
56-23-5	Carbon Tetrachloride	ug/L	ND		ND		ND		ND		ND		ND	
71-43-2	Benzene	ug/L	NB		ND		ND		ND		ND		ND	
107-06-2	1,2-Dichloroethane	ug/L	ND		Ŋ	Г	ND		ND		ND		ND	
79-01-6	Trichloroethene	ug/L	ND		ND		ND		CIN		ND		ND	
78-87-5	1,2-Dichloropropane	ug/L	ND		N		ND		ND		ND		ND	
75-27-4	Bromodichloromethane	ug/L	ND		N		ND		ND		ND		ND	
10061-01-5	cis-1,3-Dichloropropene	ug/L	ND		ND		ND		ND		ND		ND	
108-10-1	4-Methyl-2-pentanone	ug/L	ND		N	IJ	ND	9	ND	UJ	ND	IJ	ND	UJ
108-88-3	Toluene	ug/L	ND		Ŋ		ND		ND		ND		ND	H
10061-02-6	trans-1,3-Dichloropropene	ug/L	ND		N		NB		ND		ND		ND	
79-00-5	1,1,2-Trichloroethane	ug/L	UN		N		N		ND		ND		ND	
127-18-4	Tetrachloroethene	ug/L	ND		N		ND		ND		N		ND	
591-78-6	2-Hexanone	ug/L	ND		N	IJ	ND	S	ND	UJ	ND	IJ	ND	IJ
124-48-1	Dibromochloromethane	ug/L	AN		ND		NJ		ND		ND		ND	
108-90-7	Chlorobenzene	ug/L	UN		ND		NI		ND		ND ND		ND	
100-41-4	Ethylbenzene	ug/L	ND		ND		ND		ND		ND		ND	
1330-20-7	Xylene (total)	ug/L	ND		ND		ND		ND		ND		ND	
100-42-5	Styrene	ug/L	UN		N N		ND	Г	ND		ND		ND	
75-25-2	Bromoform	ug/L	ND		ND		ND		ND		ND		ND	
79-34-5	1,1,2,2-Tetrachloroethane	ug/L	ND		ND	UJ	ND	UJ	ND	UJ	ND	UJ	ND	UJ

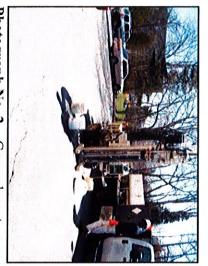
Notes:
ND - Analyte was not detected above method detection limit.

APPENDIX A

Field Investigation Photo Documentation



Photograph No. 1 — Subject property located at 157-189 West Merrick Road, Freeport, New York.



Photograph No. 2 – Geoprobe set up on location SB-2/GW-3 for groundwater sampling.



Photograph No. 3 – Sludge sample D-1 collected from drain located at the southwest corner of the property.



Photograph No. 4 – Medium to coarse sand and gravel encountered within soil borings exterior to the building.



Photograph No. 5 - Low flow pump utilized for purging of groundwater prior to sample collection.



Photograph No. 6 – Geoprobe set up at location GW-5.



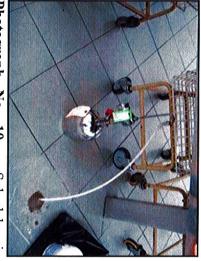
Photograph No. 7 – Purging of Well #1 utilizing the low flow pump.



Photograph No. 8 – Interior of Septic Tank where sample ST-1 was collected.



Photograph No. 9 — Soil Vapor sample SV-1 is being helium tested prior to final sample collection.



Photograph No. 10 – Sub-slab air sampling location within Laundromat.



Photograph No. 11 – Measurement of parameters during purging of Private Supply Well #2.



Photograph No. 12 — Soil Boring SB-4 installed within the Laundromat.



Photograph No. 13 — Outdoor air sample location OA-1 located at the northeastern portion of the building.

APPENDIX B

Boring Logs

- 1	ı							CONSIR	CONSTRUCTION LOG
PREFERRED ENTIROXMENTAL SERVICES RESIDENCE ANOTH MICROS. New York. 11866 Tel. (SIM)S46-1100. PAN: (SS) 218-1586	DXMENTAL S rrick, New York r (856) 213-8186	ES	OCATIO	LOCATION: 157-189 Freeport, New York	LOCATION: 157-189 West Merrick Road Freeport, New York	* Road,	BORING NO.:	•	SB-1 / GW-1
			DATE: A	DATE: April 9, 2009			SHEET	1 OF	
BORING LOCATION: Southwest corner of property	Southwes	17	of property		FOGGED B	LOGGED BY: William Schlageter	schlageter		
START TIME: NA DATE: 4	-LEVAIIC	DATE: 4-9	4-9-09		DRILLING (DRILLING CO.: Berning Environmental Inc.	Evalion Environm	ental Inc.	:
FINISH TIME: NA DATE: 4-9-09	DA1	TE: 4-9	-09		DRILLERS	DRILLERS NAME: Jon Mangano; Eusi Watkins	Mangano	E: Jon Mangano ; Eusi Watkins	ins
groundwater	Columb	2000	el celanig	6	DATE	TIME	рертн	CASING	NOTES
DRILLING METHOD AND RIG TYPE: Dual tube sampling method	ND RIG T		Geoprobe 6610DT	6610DT	4/9/2009	AM	12 ft	¥	NA
DEBTH	SAMPLE	Е		CBABHIC					
(FT) DEPTH (FT)	REC. E	BLOWS/	PID (PPM)	LOG		M.	ATERIAL I	MATERIAL DESCRIPTION	ON
3 2 4 3 0-5	30	N A	0.0		12" Asp	ohalt base; irse sand a	Brown silt	y sand an No odors	12" Asphalt base; Brown silty sand and Brown medium to coarse sand and gravel; No odors or staining; Dry
6 7 7 8 5-10	32	Z >	0.0		Reddish	tan mediu	m sand ar staini	and and little fine	Reddish tan medium sand and little fine gravel; No odors or staining; Dry
11	29	Z	0.0	;	Reddish	tan mediu staining	m sand ar	n medium sand and little fine gravel; staining; Wet at 12 feet below grade	Reddish tan medium sand and little fine gravel; No odors or staining; Wet at 12 feet below grade.
			MONITO	RING WEL	L CONSTRU	MONITORING WELL CONSTRUCTION DETAILS	AILS		
DEPTH (FT): NA			RISER IN	RISER INTERVAL: NA	NA .			MANHOLE: NA	
DIA. (IN.): NA			DEPTH/	DEPTH/TYPE PACK: NA	C NA			WELL ENDCAP:	IDCAP: NA
WELL MATERIAL: NA	, A		DEPTHA	DEPTH/TYPE SEAL: NA	NA NA			WELL CAP:	P: NA
SCREEN INTERVAL:	\$ 3		SURFAC	SURFACE SEAL: NA	Ā []				

)								CONSTR	CONSTRUCTION LOS
\$23 Mertick Avenue - North Mertick, New York, 11 S66 [Idi:\\$16)\\$46 (10) - Fav. \[\frac{\pi_10}{2}\]21-81%	h Mernek, New Y	į	Freeport,	New York	LOCATION: 157-189 West Merrick Road Freeport, New York	Road,	BORING NO.:	NO: SB-2	SB-2/GW-3
			DATE: /	April 10, 2009			SHEET	SHEET 1 OF	
BORING LOCATION: Adjacent to Magnetometer Anaomoly	N: Adjacer	nt to Magne	tometer /		LOGGED BY: William Schlageter	': William Sc	hlageter		
START TIME: NA DATE:	NA C	DATE: 4-	4-10-09		DRILLING CO.: Berning Environmental Inc.	O.: Berning	Environmei	ntal Inc.	
<u>" </u>	A Contin	DATE: 4-	4-10-09		DRILLERS NAME: Jon Mangano; Eusi Watkins	IAME: Jon N	Mangano ; E	: Jon Mangano ; Eusi Watkins	TIONIC
groundwater	Contract	4000) of Colling	â	DATE	TIME	DEPTH	CASING	NOTES
DRILLING METHOD AND RIG TYPE: Dual tube sampling method	D AND RIG		Geoprobe 6610DT	6610DT	4/10/2009	ΑM	14 ft	NA	NA
DEPTH	SAMPLE	IPLE .		GRAPHIC					!
(FT) DEPTH	REC.	BLOWS/ 6 IN.	PID (PPM)	LOG		MΑ	TERIAL D	MATERIAL DESCRIPTION	Ž
<u>-</u>									
2 1					·	; ; ; ; ;	L 	 	
3 0-5	24	N A	0.0		ô" Asph	ıalt base an	d Fill; Brown me staining; Dry	vn medium g; Dry	ธ์" Asphalt base and Fill; Brown medium sand; No odor or staining; Dry
4									
5									
б 									
7 5-10	≅ 20	₹	0.0		Brown	medium to	coarse sar	nd; No odo	Brown medium to coarse sand; No odors or staining; Dry
9									
10									
11									
12)	:	-	<u>.</u>	
13 10-15	29	¥.	0.0		Brown me	dium to coa	rse sand; No odor feet below grade	No odors ow grade.	Brown medium to coarse sand; No odors or staining; Wet at 14 feet below grade.
14		-			-				
15	!			:					
YEDTU (ET): NIA			TINOM	ORING WEL	MONITORING WELL CONSTRUCTION DETAILS	CTION DETA	AILS	NANHO!	" NA
DEPTH (FT): NA			DEPTH/	DEPTH/TYPE PACK: NA	NA S			WELL ENDCAP:	DCAP: NA
WELL MATERIAL: NA	NA		DEPTH/	DEPTH/TYPE SEAL: NA				WELL CAP: NA	
SCREEN SLOT SIZE: NA	ZE: NA		BACKFI	BACKFILL OVER SEAL:	AL: NA				
SCREEN INTERVAL:	AL: NA		SURFAC	SURFACE SEAL: NA			i		

	1							CONVIX	CONSTRUCTION LOG
325 Meriask Avenue - North Wernek, New York 11566 Tel: 1556/546-1100 - Fav. [516): 1558/156	Mernek, New Y		Freeport,	Freeport, New York	LOCATION: 157-189 West Merrick Road Freeport, New York	Koad,	BORING NO.:	NO.: SB-3	SB-3 / GW-7
			DATE: /	April 10, 2009			SHEET	SHEET 1 OF	
BORING LOCATION: Southern exterior portion of unit # 171	N: Southern	exterior p	ortion of	unit # 171	LOGGED B	LOGGED BY: William Schlageter	hlageter	:	
START TIME: NA DATE: 4	A D	DATE: 4-	4-10-09		DRILLING C	MEASURING POINT ELEVATION: NA DRILLING CO.: Berning Environmental Inc.	Fnvironme	ntat Inc.	
SAMPLING METHOD: Continuous Soil Screening to	A Contin	DATE: 4-	4-10-09	5	DRILLERS	DRILLERS NAME: Jon Mangano; Eusi Watkins GROUNDWATER OBSERVATIONS	Mangano ; I	usi Watkin	TIONO
groundwater		0000	30000	6	DATE	TIME	DEPTH	CASING	NOTES
DRILLING METHOD AND RIG TYPE: Dual tube sampling method	D AND RIG		Geoprobe 6610DT	6610DT	4/10′2009	AM	13 ft	NA NA	NA
DEBTH	SAMPLE	PLE	i	CBABUIC					
(FT) DEPTH	REC.	BLOWS/ 6 IN.	(PPM)	LOG		W	TERIAL D	MATERIAL DESCRIPTION	ž
<u> </u>									
2 1									
4 3 0-5	30	Z	0.0	-	6" asphalt;	Brown silty	sand and	gravel; No	6" asphalt; Brown silty sand and gravel; No odors or staining; Dry
о 									
7 8 5-10 9	30	N _A	0.0		Brown I	nedium san	d and gra	vel; No oda	Brown medium sand and gravel; No odors or staining; Dry
11 12 13 10-15	26	NA	0.0		Brown med	dium sand a	nd gravel; No odo feet below grade	No odors w grade.	Brown medium sand and gravel; No odors or staining; Wet at 13 feet below grade.
			MONIT	DING WE	MONITORING WELL CONSTRUCTION DETAILS	CTION DET			
DEPTH (FT): NA			RISER IN	RISER INTERVAL: NA	IA		Î	MANHOLE:	: NA
DIA. (IN.): NA			DEPTH/T	DEPTH/TYPE PACK: NA	NA			WELL ENDCAP:	DCAP: NA
WELL MATERIAL:	T. NA		DEPTH/I	DEPTH/TYPE SEAL:	A. NA			WELL CAP:	P. NA
SCREEN INTERVAL:	. I		SHREACE SEALS	SHREACE SEAL: NA	A.F. NA				

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	PROJEC	T: Elks Plaz	PROJECT: Elks Plaza Shopping Center	enter	SOIL	BORING/	SOIL BORING/MONITORING WELL
PREFERRED ENTIRONMENTAL SERVICES)N- 157_180	1 OCATION: 157-180 West Merrick Road)))		CONSTR	CONSTRUCTION LOG
323 Mercick Avenue - North Mercick, New York 11866 Tel. (\$16) 546-1800 — Fav - (\$56) 203-8256		Freeport, New York	A A COL TAILOUTE	, voec,	BORING NO.:	NO: SB-4	
	DATE: /	DATE: April 17, 2009	9		SHEET 1 OF	1 OF	-3
BORING LOCATION: Interior of Laundromat - Unit 181	12	181	LOGGED B	LOGGED BY: Bryan Gammons	nons		
GROUND SURFACE ELEVATION: NA	4-17-09		MEASURING C	MEASURING POINT ELEVATION: NA	VATION:	NA Service	\$
FINISH TIME: NA DATE:	4-17-09		DRILLERS	DRILLERS NAME: Bryan Gammons	Gammons	Gildi oci +i	
SAMPLING METHOD: Continuous Soil Screening	il Screening		DATE	GROUN	DEPTH	GROUNDWATER OBSERVATIONS	NOTES
DRILLING METHOD AND RIG TYPE:	Manually operated	operated	NA !	NA		NA C	NA
SAMPLE SAMPLE		כום					
(FT) DEPTH REC. BLOWS/	S/ PID (PPM)	LOG		MA	TERIAL DI	MATERIAL DESCRIPTION)N
1 0-2 NA NA	0.0		3" Concret brow	e and 1" voic n fine sand a	space be	tween co	Concrete and 1" void space between concrete and soils; Light brown fine sand and gravel; No odors or staining; Dry
3 2-4 NA NA	See Des.		2-3 ft - Ligh staining a (B	nt brown fine nd Dry; 3-4 rick) - No sta	sand with ft - Light b sining or o	fill materi rown fine dors and I	2-3 ft - Light brown fine sand with fill material (Brick)- No odors or staining and Dry; 3-4 ft - Light brown fine sand and fill material (Brick) - No staining or odors and Dry - 3.1 ppm.
(J)			,				
6							
7							
8							
9							
10							
12			•				
13							
14							
	TINOM	ORING WEI	L CONSTRU	MONITORING WELL CONSTRUCTION DETAILS	ILS		
DEPTH (F1): NA	RISER I	RISER INTERVAL: NA	NA NA NA NA NA NA NA NA NA NA NA NA NA N			MANHOLE: NA	E: NA
WELL MATERIAL: NA	DEPTHA	DEPTH/TYPE SEAL: NA	NA S			WELL CAP: NA	I I.
SCREEN SLOT SIZE: NA	BACKFI	BACKFILL OVER SEAL:	AL: NA				
Notes:	OORFAC	SORFACE SEAL. INC.					
Notes: Soil sample from 3-4 feet below grade retained for laboratory analysis	ade retaine	d for labora	tory analysis	ÿ,			

APPENDIX C

NYSDOH Indoor air Quality Questionnaire and Building Inventory



PREFERRED ENVIRONMENTAL SERVICES —

323 Merrick Avenue - North Merrick, New York 11566 Tel: (516) 546-1100 Fax: (516) 213-8156

157-189 West Merrick Road, Freeport, New York **ELKS PLAZA**

Indoor Air Sample Log Sheet

SAMPLE IDENTIFICATION	ELKS -IA-1
DATE AND TIME OF SAMPLE COLLECTION	4-10-09 /
SAMPLING HEIGHT	Four feet above grade
IDENTITY OF SAMPLERS	William Schlageter
SAMPLING METHODS AND DEVICES	Summa Canister with Regulator set for 8 hours
DEPENDING UPON THE METHOD, VOLUME OF AIR SAMPLED	2.7 Liter Summa
IF CANISTERS ARE USED, VACUUM OF CANISTERS BEFORE AND AFTER SAMPLES COLLECTED	-30 lb Start lb Finish Canister- 454 Regulator- 0017

Subslab Sample Log Sheet

SAMPLE IDENTIFICATION	ELKS -SS-1
DATE AND TIME OF SAMPLE COLLECTION	4-17-09 / 17:18
SAMPLING HEIGHT	4" Below Grade
IDENTITY OF SAMPLERS	David Kahn, Bryan Gammons
SAMPLING METHODS AND DEVICES	Summa Canister with Regulator set for 8 hours
DEPENDING UPON THE METHOD, VOLUME OF AIR SAMPLED	2.7 Liter Summa
IF CANISTERS ARE USED, VACUUM OF CANISTERS BEFORE AND AFTER SAMPLES COLLECTED	-30 lb Start -8 lb Finish Canister- 395 Regulator - 0154

OutdoorAir Sample Log Sheet

SAMPLE IDENTIFICATION	ELKS - OA-1
DATE AND TIME OF SAMPLE COLLECTION	4-17-09 / 16:40
SAMPLING HEIGHT	3.5 feet above grade
IDENTITY OF SAMPLERS	David Kahn, Bryan Gammons
SAMPLING METHODS AND DEVICES	Summa Canister with Regulator set for 8 hours
DEPENDING UPON THE METHOD, VOLUME OF AIR SAMPLED	2.7 Liter Summa
IF CANISTERS ARE USED, VACUUM OF CANISTERS BEFORE AND AFTER SAMPLES COLLECTED	-30 lb Start -5.5 lb Finish Canister- 371 Regulator- 0237

Soil Vapor Sample Log Sheet

SAMPLE IDENTIFICATION	ELKS - SV-1
DATE AND TIME OF SAMPLE COLLECTION	4-17-09 / 16:58
SAMPLING HEIGHT	Six Feet Below Grade
IDENTITY OF SAMPLERS	David Kahn, Bryan Gammons, Butch Meyers
SAMPLING METHODS AND DEVICES	Summa Canister with Regulator set for 8 hours
DEPENDING UPON THE METHOD, VOLUME OF AIR SAMPLED	2.7 Liter Summa
IF CANISTERS ARE USED, VACUUM OF CANISTERS BEFORE AND AFTER SAMPLES COLLECTED	-30 lb Start -11 lb Finish Canister- 136 Regulator- 0078

Soil Vapor Sample Log Sheet

SAMPLE IDENTIFICATION	ELKS - SV-2
DATE AND TIME OF SAMPLE COLLECTION	4-17-09 / 16:45
SAMPLING HEIGHT	Six Feet BelowGrade
IDENTITY OF SAMPLERS	David Kahn, Bryan Gammons, Butch Meyers
SAMPLING METHODS AND DEVICES	Summa Canister with Regulator set for 8 hours
DEPENDING UPON THE METHOD, VOLUME OF AIR SAMPLED	2.7 Liter Summa
IF CANISTERS ARE USED, VACUUM OF CANISTERS BEFORE AND AFTER SAMPLES COLLECTED	-29 lb Start -5.5 lb Finish Canister- 112 Regulator- 0064
BEFORE AND AFTER SAMPLES COLLECTED	Califold 112 Negulator 0007

Soil Vapor Sample Log Sheet

SAMPLE IDENTIFICATION	ELKS - SV-3
DATE AND TIME OF SAMPLE COLLECTION	4-17-09 / 16:59
SAMPLING HEIGHT	Six Feet Below Grade
IDENTITY OF SAMPLERS	David Kahn, Bryan Gammons, Butch Meyers
SAMPLING METHODS AND DEVICES	Summa Canister with Regulator set for 8 hours
DEPENDING UPON THE METHOD, VOLUME OF AIR 2.7 Liter Summa SAMPLED	2.7 Liter Summa
IF CANISTERS ARE USED, VACUUM OF CANISTERS BEFORE AND AFTER SAMPLES COLLECTED	-26 lb Start -7 lb Finish Canister- 545 Regulator- 0079

Soil Vapor Sample Log Sheet

SAMPLE IDENTIFICATION	ELKS - SV-4
DATE AND TIME OF SAMPLE COLLECTION	4-17-09 / 17:29
SAMPLING HEIGHT	Six Feet Below Grade
IDENTITY OF SAMPLERS	David Kahn, Bryan Gammons, Butch Meyers
SAMPLING METHODS AND DEVICES	Summa Canister with Regulator set for 8 hours
DEPENDING UPON THE METHOD, VOLUME OF AIR 2.7 Liter Summa SAMPLED	2.7 Liter Summa
IF CANISTERS ARE USED, VACUUM OF CANISTERS BEFORE AND AFTER SAMPLES COLLECTED	-30 lb Start -11 lb Finish Canister- 467 Regulator- 0294

NEW YORK STATE DEPARTMENT OF HEALTH INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name (1) or or 1 becker		Date Time Premined 11 (17) / 7 / 7 / 7 / 7
Preparer's Affiliation (2)		
Purpose of Investigation [2] (4)	24 - 2524, 24	Commercial with Alman Beach, Tropost, As
L OCCUPANT:	Index 10	v*.
Interviewed: Y/N		
Last Name:		First Name:
Address:		
County:		
Home Phone:	ortic	Office Phone:
Number of Occupants persons at this location	is at this locatio	n Age of Occupants
2. OWNER OR LANDLORD: (Check if same as occupant	D: (Check if's	anic as occupant)
Interviewed: $Y/\widehat{\mathbb{N}}$		
Last Name:		First Name:
Address:		
County:		
Home Phone:	Offi	Office Phone:
3. BUILDING CHARACTERISTICS	ERISTICS	•
Type of Building: (Circle appropriate response)	propriate respo	
Residentul Industrali	School Church	Commercial Multi-use > 5 hopper) walks: Other:

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If the property is residential, type? (Circle ap
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ppropriate response)
? (Circle appropriate response) N/-

If multiple units, how many?

If the property is commercial, type?

Does it include residences (i.e., multi-use)? Y 🚫 Business Type(s) _ The pring or ner · > Specific wall is landermal concertly If yes, how many?

Other characteristics:

Is the building insulated? Y / N Various of Coors How air tight? Tight (Average) Not Tight Building age

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

	Infilmati		Outdoor	ļ		100	Airflow	1			Airflow
	Infiltration into air ducts		Outdoor air infiltration	!			Airflow near source			~.	Airthow between floors
	ir ducts		Outdoor air infiltration				લ				lloors
	İ			Ì		Ì					
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İ				1	1						

$\mathcal{G}_{\mathbf{i}}$ BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	concrete)	stone	brick
b. Bavement type:		crawlspace	\tub	other fig. in. the con
e. Basement floor:	concrete	dırt	stone	other
d. Basement floor:	uncovered	(covered)	covered with	CONCILLE
e. Concrete floor:	(unsealed)	scaled	scaled with	;
f. Foundation walls:	poured	hlock.	stone	other
g. Foundation walls:	(unscaled)	scaled	scaled with	
h. The basement is:	wet	damp	(<u></u> 場)	moldy
i. The basement is:	līmisked	untinished	partially finished	ied
j. Sump present?	Q V			
k. Water in sump? (() Not applicable			

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Basement/Lowest level depth below grade: $-\sum_{i} x_i$

(feet)

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply - note primary)

Flectric baseboard	Space Heaters	(Hot air circulation)
Wood store	Stream radiation	Heat bump
Outdoor wood boiler Other	Radiant floor	Hot water baseboard
Other		

The primary type of fuel used is:

Boiler: furnace located in: R	Domestic hot water tank fueled by: Alster at 12 als	Wood	Flectric	(Natural Clas
Rasement Outdoors	W. Alaterat Gaz	Coal	Propane	Fuel Oil
(Main Floor)			Solar	Kerosene

Air conditioning:

(Central Air)

Window units Open Windows

Your

Other

Are there air distribution ducts present? -V/N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the fightness of duct joints. Indicate the locations on the floor plan diagram.

	l		
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		·	

7. OCCUPANCY

Level	ls basement/lov
General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage	Is basement/lowest level occupied? Full-time
Floor (e.g.,	Full-time
familvroom, bedr	Occasionally Seldom
oom, hundry.	Seldom
workshop, storage	Almost Never

4" Floor	3 ^{pl} Floor	2nd Piloon	I Than	Basement
				Da had
	į		I with the transfer of the second	505 500000
			Gross .	
	į	! 	1 State (On the face)	But a besign of be to be him a war of
ļ				1 to 0 500

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

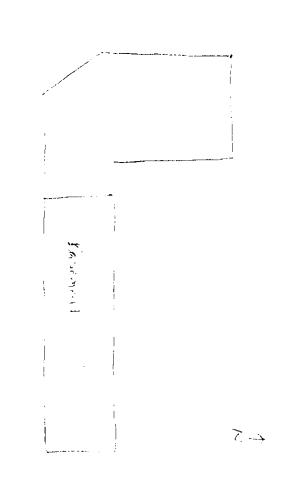
a. Is there an attached garage?	~ ?
b. Does the garage have a separate heating unit?	Y ONA
c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawamower, atv. car)	Y/(X)/NA Please specify
d. Has the building ever had a fire?	Y N When?
e. Is a kerosene or unvented gas space heater present?	Y (§) Where?
f. Is there a workshop or hobby/craft area?	Y (N.) Where & Type?
g. Is there smoking in the building?	$Y(N)$ How frequently? $S(N) = \frac{1}{N} \frac{1}{N$
h. Have cleaning products been used recently?	(j)/ N When & Type?
i. Have cosmetic products been used recently?	Y 🚫 When & Type?

9)	
j. Has painting/staining been done in the last 6 months?	Y/S Where & When?
k. Is there new carpet, drapes or other textiles?	Y (S) Where & When?
1. Have air fresheners been used recently?	Y (8) When & Type?
m, is there a kitchen exhaust fan?	Y 🚫 Tryes, where vented?
n. Is there a bathroom exhaust fan?	Y (8) If yes, where vented?
o. Is there a clothes dryer?	(ŷ Ν Tryes, is it vented outside (ġ) Ν
p. Has there been a pesticide application?	Y (S) When & Type?
Are there odors in the building? If yes, please describe: 그 한 나는 이 사람들은 사용하는 사용하다.	CON CONTRACTOR OF THE PROPERTY
Do any of the building occupants use solvents at work? $Y(\mathbb{R})$ to g_{+} chemical manufacturing or laboratory, auto mechanic or auto hody shop, painting, botter mechanic, posticide application, cosmetologist	$Y \in \mathbb{N}$ uto hady shop, painting, fuel oil delivery.
If yes, what types of solvents are used?	F .
If yes, are their clothes washed at work?	4 ×
Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)	dry-eleaning service? (Circle appropriate
Yes, use dry-eleming regularly (weekly) Yes, use dry-eleming infrequently (monthly or less) Yes, work at a dry-eleming service	No (Taknown)
Is there a radon mitigation system for the building/structure? $Y(\aleph)$ Date of Installation. Is the system active or passive? Active Passive	e? Y $(\widehat{\mathbb{N}})$ Date of Installation:
9, WATER AND SEWAGE	
Water Supply: Public Water a Drilled Well. Drive	Driven Well - Dug Well - Other:
Sewage Disposal: / Public Sewer Septic Tank Lend	Leach Field — Dry Well — Other:
10. RELOCATION INFORMATION (for oil spill residential emergency)	al emergency)
a. Provide reasons why relocation is recommended:	***
b. Residents choose to: remain in home relocate to friends/family	iends/family relocate to hotel/motel
c. Responsibility for costs associated with reimbursement explained?	
d. Relocation package provided and explained to residents?	nts?

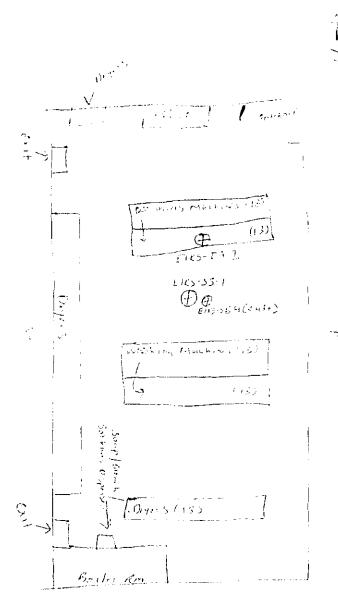
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement



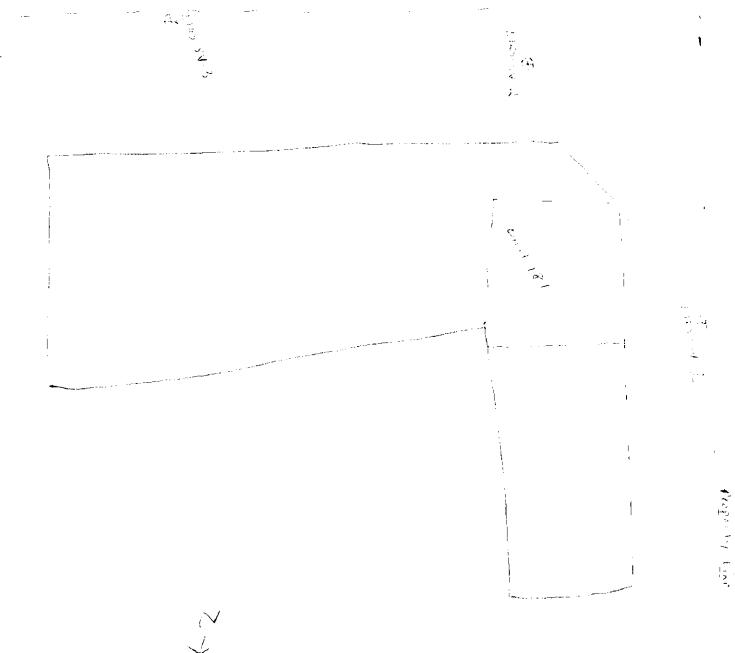
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



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1 110.04

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: Alene 30 Icarzation Detator 3000

List specific products found in the residence that have the potential to affect indoor air quality.

	,				-		 				100-20-100-100	Location
·					Com topic of Small of Small of Small	Daving table Sall proof	Shoul Stain Removed	TIPE DE HEADON	Donary Determent	~ \	Palbulese	Product Description
				 	Ct Swith	ef Shirts	72.1.1 1940	1250	300 51 02	1240 FI 62	7 7	Size (units)
	:		[-		00		(60	do	17.6	an	۱۲	Condition
		,			(Bookgadeable Report Softmans	Charle Buckle polymos	Ethins (30 Allohar 10, ME),	Emines (10 mans 40, MCA, Beaux)	Brozeneso Hanic Acrol	I's proferool	Chemical Ingredients
					် ()	Э Э	CC	0.0	0	00	0.0	Field Instrument Reading (units)
				 	7	(~ (°	~{	-4,	7	Photo Y/N

^{*} Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D) ** Photographs of the front and back of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

APPENDIX D

Data Usability Summary Report

PREFERRED ENVIRONMENTAL SERVICES

Premier Environmental Services

DATA USABILTY SUMMARY REPORT (DUSR)
OF THE
ELKS PLAZA-FREEPORT SITE
FREEPORT, NEW YORK

ORGANIC ANALYSES IN AQUEOUS SAMPLES

H2M LABORATORIES, INC. MELVILLE, NEW YORK

SDG NUMBER: PES004

June, 2009

Prepared for
Preferred Environmental Services
Merrick, New York

Prepared by
Premier Environmental Services
2815 Covered Bridge Road
Merrick, New York 11566
(516)223-9761

NYS DEC Data Usability Summary Report

DATA VALIDATION FOR: Volatile Organic Analyses - EPA Method 8260B

Elks Plaza Site

Freeport, New York

CONTRACT LAB: Melville, New York H2M Laboratories, Inc.

Renee Cohen

REVIEWER:

DATE REVIEW COMPLETED: June, 2009

MATRIX:

protocol specified in the NYS Analytical Services Protocol ('95). Development of Data Usability Summary Reports (DUSR). In addition the data was been reviewed using the Department of Environmental Conservation, Division of Environmental Remediation, Guidance for the The data validation was performed according to the guidelines in the described in the New York State

the attached sheets. (unreliable/unusable). Due to various QC problems some analytes may have been qualified with a "J" (estimated), "N" (presumptive evidence for the presence of the material, "U" (non-detect), or "JN" (presumptive evidence for the presence of the material at an estimated value) flag. All actions are detailed on All data are considered valid and acceptable except those analytes which have been rejected "R"

criteria for data quality and data use. appropriately qualify outliers and to determine whether the results presented meet the specific site/project no result is guaranteed to be accurate even if it has passed all QC tests. The main purpose of this review is to Several factors should be noted for all persons using this data. Persons using this data should be aware that

This data set includes the review of twenty-two (22) aqueous samples, one (1) Field Blank sample and three (3) Trip Blank samples. The samples in this data set were collected April 9, 2009, April 10, 2009 and April 17, 2009. The samples were delivered to H2M Labs, Inc. located in Melville, New York. The samples were on the Chain of Custody (COC) documentation that accompanied the samples to the laboratory. good condition. received at the laboratory on April 9, 2009, April 10, 2009 and April 17, 2009. The samples were analyzed for Volatile Organic Analytes (EPA Method 8260B) as specified All samples were received in

with this data set is located in Appendix C of this report. Appendix D of this report is a copy of the TIC result pages associated with each sample in this data set. Appendix B of the report includes the qualified data result tables. A copy of the COC documents associated Appendix A of this report includes a list of qualifiers and definitions that may be used in this report.

1. OVERVIEW:

The aqueous samples associated with this data set were submitted to the laboratory for the analyses requested on the Chain of Custody (COC) documentation. The samples were analyzed for the organic analytes using EPA Test Methods for the Evaluation of Solid Waste (SW 846), Method 8260B. The laboratory provided a deliverables package in accordance with the guidelines in the NYSDEC ASP, Rev '95, Category B

The samples in this data set are designated as SDG PES004.

2. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Preserved volatile organic analyses are required to be analyzed within 10 days of validated time of sample receipt (VTSR) in accordance with the NYSDEC ASP, Rev '95.

data set were completed by April 24, 2009. All of the samples in this data set were analyzed within ten (10) days of and associated QC samples were analyzed in two analytical sequences. All samples in this data set were analyzed for Volatile Organic Analytes by EPA Method 8260B. All of the samples All holding times were met in each of these sample analyses. All sample analyses associated with this

3. SURROGATES:

concentrations are outside the QC limits, qualifiers were applied to the effected samples. All samples are spiked with surrogate compounds prior to sample preparation to evaluate the overall laboratory performance and the efficiency of the analytical technique. If the measured surrogate

Each sample was spiked/fortified with the surrogate compounds 1,2-Dichlorocthanc-d4, Toluene-d8 and 4-Bromofluorobenzene. In-house surrogate recovery limits were reported by the laboratory. The percent recovery of each surrogate met QC criteria in each of the field samples and QC samples associated with this data set.

4. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:

for reporting purposes. qualification of data. The laboratory used the in-house generated recovery criteria and RPD (precision) data in various matrices. The MS/MSD may be used in conjunction with other QC criteria for additional The MS/MSD data are generated to determine the long term precision and accuracy of the analytical method

was spiked with the CLP subset of target analytes. In-house recovery and RPD limits were applied for review. recovery of all spiked compounds met QC criteria in both the matrix spike and matrix spike duplicate sample. Relative Percent Differences (RPD) of all spiked analytes met QC criteria in this site specific MS/MSD set Sample GW-1 (22-24) was utilized as the site-specific Matrix Spike/Matrix Spike Duplicate sample.

5. BLANK SPIKE ANALYSIS:

recovery limits for each analyte. spike analysis is used to insure that the analytical system is in control. The NY ASP protocol requires that a blank spike analysis be performed with each sample batch. The blank The laboratory applied in-house

reported analytes. The laboratory reported two (2) blank spike samples with this data set. The blank spike sample was fortified with all The spike recovery of each target analyte in each of the aqueous blank spike samples met QC

6. BLANK CONTAMINATION:

contamination that may have been introduced into the samples during sample preparation or field activity are then qualified based on blank contamination when detected. during shipment. Field blanks measure cross-contamination of samples during field operations. Samples Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples Quality assurance (QA) blanks, such as the method, trip, field, or rinse blanks are prepared to identify any

A) Method Blank contamination

contamination Acetone has been negated and qualified "U" and non-target analytes with the exception of Acetone. Acetone was detected in each of the method blank samples at a concentration of 2 J ug/l. When detected at a concentration that can be attributed to method blank Three (3) method blank samples are associated with this data set. Each was free from contamination of all target

Qualified data result pages are located in Appendix B of this report.

B) Field Blank contamination

exception of Acetone (3 J B ug/l). The Field Blank sample (FB #2) was free from contamination of all target and non-target analytes with the

Methylene Chloride (4 J ug/l). In addition a number of tentatively identified alkane compounds were detected in this sample. When detected in associated samples, these were negated and qualified "U". The SB040909 was free from contamination of all target analytes with the exception of Acetone (2 B J ug/l) and

C) Trip Blank contamination

associated samples, these were negated and qualified "U". Sample Trip Blank (4/17/09) was free from a number of tentatively identified alkane compounds were detected in this Trip Blank sample. from contamination of all target and non-target analytes. Sample TB #2 (4/10/09) was free from contamination of all target analytes with the exception of Acetone. Acetone was detected at a concentration of 2 B J ug/l. In addition One (1) Trip Blank sample was associated with each day of sample collection. Sample TB #1 (4/9/09) was free contamination of all target and non-target analytes. When detected in

Qualified data result pages are located in Appendix B of this report.

7. GC/MS CALIBRATION:

is for VOA and SVOA samples analyses. all analytes in both GC/MS Volatile and GC/MS Semivolatile Organic analyses, therefore, all text discussion that the instrument is giving satisfactory daily performance. USEPA data validation criteria is the same for acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving Satisfactory instrument calibration is established to ensure that the instrument is capable of producing

A) RESPONSE FACTOR

continuing calibration analyses. A value less than 0.05 indicates a serious detection and quantitation problem review requires that the response factor of all analytes be greater than or equal to 0.05 in both initial and reviewed for the criteria in the cited in the EPA Method and the USEPA criteria. must stop and the source of problems must be found and corrected. Data associated with this set has been (SPCC). Minimum response criteria are set for these analytes. If the minimum criteria are not met, analyses analysis, affected positive analytes will be qualified "J" estimated. Those analytes not detected are not RRF < 0.05 are qualified "R", unusable. If RRF criteria is not met in the continuing calibration curve initial calibration the positive results are qualified "J". Non-detect results in the initial calibration with a (poor sensitivity). USEPA data validation criteria states that if the minimum RRF criteria are not met in an The response factor measures the instrument's response to specific chemical compounds. USEPA data The SW-846 Methods cite specific analytes known as System Performance Check Compounds

calibration curve. multi-level calibration on March 2, 2009. The RRF for all target compounds met QC criteria in this initial One (1) initial calibration curve analysis is associated with this data set. The laboratory performed an aqueous initial

analytes met QC criteria each of these continuing calibration standard analyses. Three (3) continuing calibration standards are associated with this data set. All response factor criteria of the target

B) PERCENT RELATIVE STANDARD DEVIATION (RSD) AND PERCENT DIFFERENCE (%D):

outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects may be flagged "UJ", based on professional judgment. be <25% in the continuing calibration standard. This criteria has been applied to all target analytes. A value states that the percent RSD of the initial calibration curve must be less than or equal to 30%. The %D must compounds in the continuing calibration standard to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Region II data validation criteria compound response factor over increasing concentration. Percent D compares the response factor of the Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific associated with this set has been reviewed for the criteria in the cited in the USEPA Data Validation If %RSD and %D grossly exceed QC criteria (>90%), non-detects data may be qualified "R", unusable. Data

initial calibration curve. multi level aqueous calibration on March 2, 2009. The %RSD for all target compounds met QC criteria in this One (1) initial calibration curve analysis is associated with this data set. The laboratory performed one (1) initial

criteria for the target analytes with the exception of the following: Three (3) continuing calibration standards are associated with this data set. All %Difference criteria met all QC

						4/16/09						4/15/09	Date of Analysis
						A\A64382						A\A64356	File ID
1,1,2,2-Tetrachloroethane 26.3	2-Hexanone	4-Methyl-2-Pentanone	2-Butanone	Carbon Disulfide	Acetone	Chloromethane	1,1,2,2-Tetrachloroethane 28.5	2-Hexanone	4-Methyl-2-Pentanone	2-Butanone	Carbon Disulfide	Acetone	Analyte
ne 26.3	37.7	38.9	28.5	28.4	29.3	34.9	ne 28.5	41.5	41.2	29.1	28.1	30.3	%Difference

calibration standard analyses These target analytes have been qualified "UJ/J" estimated in each of the samples associated with these continuing

Qualified data result pages are located in Appendix B of this report.

8. GC/MS MASS SPECTROMETER TUNING:

calibration is in error, or missing, all associated data will be classified as unusable, "R" compounds, and to some degree, sufficient instrument sensitivity. all circumstances. The tuning standard for volatile organics is Bromofluorobenzene (BFB). If the mass Instrument performance is determined using standard materials. Therefore, these criteria should be met in Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of These criteria are not sample specific.

All BFB Instrument Tuning criteria were met for these sample analyses.

9. GC/MS INTERNAL STANDARDS PERFORMANCE:

the (-50% to +100%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified estimated, "J", and all non-detects below 50% are qualified "UJ", non detects factor of 2 (-50%to +100%) from the associated continuing calibration standard. The method recommends Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during evaluation criteria are applied to all field and QC samples. above 100% should not be qualified or "R" if there is a severe loss of sensitivity. The internal standard continuing calibration standard. The EPA CLP validation guidelines state that if the area count is outside that the retention time of the internal standard must not vary more than ±30 seconds from the associated every run. The method recommends that the internal standard area count must not vary by more than a

Chorobenzene-d5. All samples were fortified with the internal standards Bromochloromethane, 1,4-Difluorobenzene and All internal standard area criteria were met for the samples in this data set

10. COMPOUND IDENTIFICATION:

of the primary and secondary ion intensities with 20% of that in the standard compound. peak must be within ± 0.06 RRT units of the standard compound, and have an ion spectra which has a ratio comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample Target compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by

the laboratory reporting limit (RL). Results between the MDL and RL were qualified "J" by the laboratory on the The samples in this data set were analyzed via EPA Method 8260B. The laboratory reported all target analytes to Compounds (TIC's) were analyzed for and reported with each sample in this data set All samples in this data set were analyzed and reported without dilution. Tentatively Identified

11. FIELD DUPLICATE SAMPLE ANALYSES:

Field duplicate samples are collected and analyzed as an indication of overall field precision. These results are expected to have more variability than laboratory duplicate samples. Field duplicate samples are not associated wit this data set.

12. OVERALL ASSESSMENT:

Analytical QC criteria were met for these analyses. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

The sample data results reported are acceptable for use with the noted data qualifiers. Data qualifiers are detailed in the above report.

Qualified data result pages are located in Appendix B of this report.

TABLE 1

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CLIENT SAMPLE ID

LABORATORY SAMPLE ID

WELL #2 TRIP BLANK	ST-1 WELL #1 TB # 2		GW-6 (24-26) GW-7 (13-15) GW-7 (23-25) GW-8 (14-16)	SB 040909 GW-6 (14-16)	GW-5 (14-16) GW-5 (24-26) FB # 2 TB # 1		GW-1 (12-14) GW-1 (22-24) GW-2 (16-18) GW-2 (26-28) GW-3 (14-16)
0904738-001 0904738-002	0904503-009 0904503-010 0904503-011	0904503-006 0904503-007 0904503-008	0904503-002 0904503-003 0904503-004 0904503-005	0904471-013	0904471-009 0904471-010 0904471-011 0904471-012	0904471-006 0904471-007 0904471-008	0904471-001 0904471-002 0904471-003 0904471-004

APPENDIX A

DATA QUALIFIER DEFINITIONS

- quantitation limit. U - The analyte was analyzed for, but was not detected above the reported sample
- concentration of the analyte in the sample The analyte was positively identified; the associated numerical value is the approximate
- evidence to make a "tentative identification." N - The analysis indicates the presence of an analyte for which there is presumptive
- and the associated numerical value represents its approximate concentration NJ - The analysis indicates the presence of an analyte that has been "tentatively identified"
- sample. limit of quantitation necessary to accurately and precisely measure the analyte in the the reported quantitation limit is approximate and may or may not represent the actual UJ - The analyte was not detected above the reported sample quantitation limit. However,
- cannot be verified R - The sample results are unreliable/unusable. The presence or absence of the analyte
- expected to be lower than reported The analyte is present. The reported value may be biased high. The actual value is
- expected to be higher than reported. L - The analyte is present. The reported value may be biased low. The actual value is
- than reported UL – The analyte was not detected, and the reported quantitation limit is probably higher

APPENDIX B

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TABLE 1 - SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED AND/OR ELEVATED ABOVE NYSDEC CLASS GA AMBIENT WATER OUALITY STANDARDS IN GROUNDWATER SAMPLES GW-1 THROUGH GW-5

	Sampling Date		48/2000	G	49/2009	1			W-2			<u>. G</u>	W-1			GV	V-4			G۷	V-5		
	Project Location Sample (D Laboratory (D		ER1 Plaza GW-1 (12-14) 0904471-001A	4 6	6W-1 (22-24) 0904471-002A	Qualities.	48/2009 Ethe Plaza GW-2 (16-18) 0804471-003A	S alife	48/2006 Elke Plaza GW-2 (26/28) 0804471 (04/4	1	46/2008 Elke Plaza GW-3 (14-16) 0804471-006A	O alife	49/2008 Elke Plaza GW-3 (24-26) 0904471-006A	į	49/2008 Elks Plaza GW-4 (14-18) 0804471-007A	1	48/2009 Elks Plaza GW-4 (24-24) 0904471-009A	and the same of	48/2006 Elku Piaza GW-6 (14-16) 0904471-009A	angue .	49/2009 Elka Plaza GW-5 (24-26) 0904471-010A	i i	NYSOEC Class GA Ambient Quality Standards and Gui Values (ug/L)
3 f	Analyte	Units		1	i —	†		+-	 	 ~ -		۲		13	 	8		Š		ઠ		ઠ	
47-3	Chloromethane	ug/L	ND	1	ND	T	ND.	+-∵-	ND		ND	 -		 -	ł	L		إشا				\Box	
01-4	Vinyl Chloride	Ug/L	ND	-	ND	1-	ND		ND			┼-	ND	├ -	. ND	1	ND		ND		ND		NA NA
43-9	Bromomethane	ug/L	ND	T	ND	11	NO.	+	ND	+-	ND	∤	4	11		_	ND		ND	T-'1	ND	1	1
00-3	Chloroethane	ug/L	ND	T	ND	<u> </u>	ND	+	ND ND	+-	ND	1-	ND	┷.	ND		ND		ND	Τ.	ND		NA.
35-4	1.1-Dichloraethene	ug/L	NO	+	ND	1	ND	┿-		·	ND	<u> </u>	ND	↓_	ND	L []	ND		ND	1-1	ND	\vdash	59
-59-0	1,2-Dichloroethene (total)	Ug/L	NO	+	NO				ND	+-	ND	!	ND		ND NO		ND		ND		ND	1-1	5
64-1	Acetone	Ug/L	- · ···· -·-	1:::-	3	 	ND .	 	NO	ऻ	31	Ĺ.,	45		1	П	ND			,	2	3	5
15-0	Carbon Disulfide	ug/L	ND	33		23		w		w	3	w	5	8	3	w	4	ш	ND	Ė	3	w	
9-2	Methylene Chloride		ND	- <u> </u>	NO	<u> w</u>	ND NO	W	NO	W	ND NO	w	NID	w	NO	w	ND	w	NO	E S	NO NO	ü	59
1-04-4	Methyl tert-butyl ether	ug/L			_ <u>ND</u>	<u> </u>	ND.	┷.	ND		ND		ND		ND	-	NO	~	ND	3		Į WJ	50
4.3	1.1-Dichloroethane	.vol	ND	┵	ND	\sqcup	ND	Д.	ND	1	ND	1	ND	\vdash	ND	\vdash	ND	-	ND	-	NO	┼╌┦	
	2-Butanone	поr	<u>ND</u>	4	ND	\Box	ND .	1	ND		ND		ND	 	מא	\vdash	ND ND				ND	ш	. 14
6.3	• <u> </u>	ug/L	2	Į.,	ND	w	NO	II.	ND	w	ND	w	NO	w		ł. .!			ND		ND	↓!	
· · · · ·	Chloroform	ñb∕r	ND	1	ND		NO	1	ND		ND	† ~	NO	-		w	. ND	w	ND	w	ND_	w	54
	1,1,1-Trichloroethane	ug/L	ND	. L	ND		ND	+ -	ND	1	ND	 -	ND	<u> </u>	ND -	⊢ I	ND		ND		ND ND	!	, ,
	Carbon Tetrachloride	Ugl	ND		ND		ND	· -	ND	1	ND	-		-	OND	\Box	ND	1	ND .	!	ND	"	5
	Beutene	Ug/L	ND	1 "	NO	1-1	ND	†···	ND ND	+		ł –	ND ND	-	ND_		ND		ND		ND		5
	1.2-Dichloroethane	ugiL	ND .	1 1	NO	1-1	ND	 	ND ND	+	ND	⊢ -i	ND ND	ł	ND ND	L	ND	!	ND		ND		0.7
4	Trichloroethene	ug/L	ND .	1	ND	十十	NO	· ·	ND	· 	ND	ш	ND	ļ;	ND ND		ND	1	ND		ND	$t \rightarrow$	5
1-5	1,2-Dichloropropane	ug/L	ND	1	ND	- - 	ND.	-		∔ —	39	-	25	i	3	J	ND	\neg	41	1	3	77	
4	Bromodichloromethane	ս ը/L [ND	·†	ND -	<u></u> †~ - ∤		÷ - +	ND		ND	L.	ND	L	ND	-	ND	_	ND	m	NO		
1-01-5	cis-1.3-Dichloropropene	ug/L	ND	1 1	DN	∤··— 		÷	. , <u>ND</u>	 -	ND	_	ND	$\lfloor \rfloor$	ND		ND	\neg	ND	-	ND ND		 -
	4-Methyl-2-pentanone	Ug/L	NO	t _w		 	ND	f	ND	\perp	ND	L.,	ND		NO	Т	ND		ND				50
9.3	Toluene	ug/1	NO ND	100	. ND	w	ND .	w	ND .	w	ND	<u>w</u>]	ND	2	NO.	w	ND	w	ND	w		1	
1-02-8	trans-1,3-Dichloropropene				,NO	1	ND _	J	NO.	ļ	ND		ND		ND		ND		ND	- 32	ND.	w	
	1.1.2-Trichloroethane	no/r	ND	+ 1	ND .		ND	↓	ND		ND		ND		ND		NO	· - f			ND		
1-4	Tetrachioroethene	սջև	ND	ļ	NO	L-I	ND	L	ND	1 1	ND		ND		ND ND		ND ND		ND.		ND	\vdash	NA_
	2-Hexanone	ug/L	4	ţı.,	ND	ļi	ND_	L.,	ND.		180		25	t	50	\dashv	1	7	ND		ND	ш	
		uoL	ND	<u> w </u>	ND	W.	ND	w.	NO	W.	NO	3	NO	w		w		ü	50	_	9	,	
	Dibromochloromethane	49 🖳	ND	11	ND ND	[ND		ND	1	ND	-	ND	ا ∽ا	ND ND	ᄥ	ND	ᄴ	ND	3	NO.	w	54
	Chlorobenzene	. ա.	ND	. l l	ND .	L . I	ND		ND	1-1	ND	-	ND ND	╀─┤		\dashv	ND		ND		ND	Ш	NA NA
	Ethylbenzene	upt	ND	L.	ND	T	ND		NO	1	ND		ND ND	╁╾╁	ND		ND	_	ND		ND		. 5
20-7	Xylena (total)	UOL	ND NO	1 1	ND		ND	\Box	ND	++	ND .			 	NDND		ND	l	ND	1	ND	\Box	5
	Styrene	ug/L	ND	T1	NO	m	ND	+	NO NO	╁─╂	ND ND		ND		ND ND		ND		ND		NĎ		5
	Bromoform	ug/L [ND	11	NO	-1	ND	1	ND	╂═┼			ND D	 	ND		ND.		ND		ND		5
⊹ 5	1,1,2,2-Tetrachioroethane	Ug/L	ND	Tu I	NO	w	NO	w	NID	w	ND_		NO	┖	ND_	_ 1	ND		NO	\neg	ND	/**** †	59
	mated value						- 12	<u> </u>	- FRU	144	ND	w	NO	w	ND	3	ND	w	NO	w	NO	ᄦ	

Elks Plaza,

TABLE 3 - SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED AND/OR ELEVATED ABOVE NYSDEC CLASS GA AMBIENT WATER QUALITY STANDARDS IN GROUNDWATER SAMPLES GW-6 THROUGH GW-9 AND ST-1, WELL #1 AND WELL #2

ries rieza. Freeport New	York							GRO	DUNDWAT	TER.	SAMPLES	GW	7-6 THROU	ĊН	GW-9 AND	T?	1 WELL	#1	AND UTER	450	IBIENT WA	Ľ,	ROUALITY	214	ANDARDS IN
Sall Samples		ſ		GW 6			_					_		71.	317 27440		,, ,, <u>t. t. t. t.</u>	17.1	AND WELL	. #4	i.				
	Sampling Date	-	4/10/2008	UW 1	4/10/2008	-	4100000	Ç₩	4/16/2008	┯┵		GV	W.B			GW	·		Geptie Ten)	k _	5	- ply	Wells	Т	
	Project Location Sample (C) Universitory (C)		Eha Plaza GW-6 (14-W) GM-603-001A	8	Elis Piaza GW & (24-24) MO4803 GEZA	Quality .	68 e Pisza GW-7 (13-16) 0004603-003A	į	EX Ph2: 0W-7 (23-26) 0004603-004A	1	A/16/2008 Elks Plazs GW/4 (14-16) DB04663-006A	age may	4/10/2008 Elika Filaza GW-4 (24-24) 9804803-006A	1	4710/0000 Elts Plats GW-2 (14-16) GRG4803-007A	Ì	410/2008 ER 6 Pinza CMV-6 (24-26) 9804601-008A	4	6/19/2008 Ellis Plaza 57-1 0994803-008A	i	619/2006 Elks Flats WELL FS 9904803-010A	į	417/2008 Etto Plans Wall 82 0004738 201A	1	NYSDEC Class GA Ambien Water Quality Standards an
Çaş 🛚 💶 🗀	Analyte	Units:		1 1				1 1		+ +		┿		┽╾	 -	Ť		°		١,		<u>•</u>	AL INCOME.	5	Guidance Values (upfL)
74-87-3	Chloromethans	ug/L	ND	I	ND	[]	ND	\top 1	HD	Turl	NO	w	NO NO	w	ND -	w	NO	w		1				\perp	
75-01-4	Vinyl Chloride	ug/L	ND	f 1	ND		ND	71	ND	+=+	ND	+==+	ND -	+~	NO NO			ᄥ	ND	m		w		_1.	NA.
74-43-9	Bromomethane	ug/L	ND	1 1	ND		ND	1-1	ND	+	ND	+i	ND ND	┰	ND -	+-	NO.	⊢- 4	ND		ND		ND NO	_L	1
75-00-3	Chloroethane	ug/L	ND	1	ND	1-1	ND		NO	† - †	ND	1	ND ND		ND ND	+-	ND	\vdash	ND	4	ND	_ [ND	1.	. NA
75-35-4	1,1-Dichloroethene	ug/L	ND	1 1	ND	\vdash	ND	1 1	ND	1	NO	+	- ND	+		+-	ND	├-	ND ND	╄-	NO NO	_	NO I		54
540-59-0	1,2-Dichloroethene (total)	ug/L	ND	1 1	ND	1	ND	†-†	NO	╁╌┪	ND	+	ND	+-	NO NO	₩.	ND	⊢⊢	ND	<u> </u>	ND I	_1	ND	. Т	3
67-64-1	Acetone	uga	5	اسا	3	m.		Twi	2	انيدا	50	w	- NU	Time	ND.	 	ND		ND	↓	ND	[מא	Т	5
75-15-0	Carbon Disultide	I of	MD	Tio I	ND	EΕ	ND	10	ND	믮	10	<u></u>	NO NO	- W		w		w	110	BJ.		w]	ND	Т	50
75-09-2	Methylene Chioride	JOL.	ND	1 17	ND	+	ND	+=+	ND	╁╩┨		180		w		m		Ü	ND	w	NO	w	, ND	777	10
1634-94-4	Methyl tert-butyl ether	ugt	ND	† 1	ND	 	ND	╅╌╅	NO	┿┪	ND NO	╁	ND ND	٠-	ND_	₩.	ND	1	ND	1_	ND	_ 1	ND	7	5
75-34-3	1,1-Dichloroethane	ugiL	NO	† -	ND	1	ND -	+	ND.	╅╾┪	ND	-	ND.		ND	1_	ND		ND	1_	NO		ND		10
78-93-3	2-Butanone	ug/L	ND	tait	NO	w	NO NO	l wi	ND	+::+	ND	-	ND		ND	₽	ND	1	ND		NO	_	ND	-+	
87-86-3	Chioroform	Ug/L	ND	1=1	ND	۳.	ND ND	+~		ᄤ	2	J	NO.	W		w	NO_	w	ND	ů,	NO NO	w	ND	-1-	50
71 55 6	1,1,1-Trichlorgethane	Ug/L	ND	ir i	ND		ND ND	+	ND		ND	Н	ND	_	ND.	_	NO	<u></u> [3	J	ND		ND	·-t-	
56-23-5	Carbon Tetrachionide	91	ND -	1		 -	ND ND	╆╌╂	ND	∔- 4	ND	 - 	ND	.	ND		ND		ND		ND	-t	ND	+	
71-43-2	Bentene		ND -	f- f	ND ND	╂─┤	ND	╁╌┟	ND	+1	ND ND	-	ND.		ND		ND		ND	1	ND	t	NO	+	·
107-05-2	1,2-Dichloroethane	, nov	ND	+ 1		+		╅┷╅	ND	╁╌╂	ND ND	ا. ـــا	ND	4	ND _	l	ND		ND	1	ND "	~ -	NO		•
79-01-6	· _ · · · · · · · · · · · · · · · · · ·	. ugr	- <u></u>	1.1	ND	+	ND	-	NO	-1-	ND	ļ ļ	ND	Щ.	ND	I	ND		NO	1	ND	·	ND		····
78-87-5	1,2-Dichloropropane	ug/L	- 4	1.4	<u>ND</u> .	ļ;	ND	1-1	ND	┵┙	ND	L.	ND.		NO		ND	T	NO	T	NO NO	+	ND	-+-	
75-27-4	Bramodichioromethane	ug/L	ND	∤ ↓	ND ND	٠.	ND	4	ND	11	ND	<u> </u>	ND		ND	T-	ND		NO	1	ND	-+	ND		
10061-01-1		ug/L	ND	1	, ND	1 3	ND	4.1	NO	1-1	NO	L.	ND	.[NO	Т	ND		ND	 - 	NO !	-+	ND		
108-10-1	cis 1,3 Dichloropropene	. ug/L	ND	11	ND	↓ .	NO	1	ND	4. 4	ND		ND		ND	Î	ND	\vdash	ND	t	ND	+		-	50
	4-Methyl-2-pentanone	1.407	ND	w	ND .	w	ND	W	NO	<u>[w]</u>	#D	w	ND	w	ND	w		ш	ND	w		w	ND ND	-1	
108-88-3	Toluene	. 19/1	ND	1.4	ND	Ι.	ND	4_1	ND ND		ND	Ϊ	ND	1-	ND	_	ND		ND	-	ND		ND ND		
10061-02-6	trans-1,3-Dichloropropene	.ug/t	. ND _	1 1	ND .	l.,	ND		ND	Γ	ND		ND	1	ND	†-	ND	-	ND ND	\vdash		—ł	ND ND	 -	
79-00-5	1,1,2-Trichlorosthane	ug/L	ND	.ļ	NO	1	ND	JI	ND ND	Т. Т	ND	\Box	ND T	+	ND	1-	NO	- †	ND ND	-	ND -		NO		NA NA
127-18-4	Tetrachioroethene	i novr	\$3	i. I	?	Į,	ND	L.I	1		3	127	1 - 1	757	TOTAL STATE	1	1	7	ND		ND	[NO	۰₽	
591-78-6	2 Hexanone	¦ug⁄L	NO.	m	NO	W.	NO	w	NO	w	ND	w	ND	اسا	NO	ш	NO.	ú	NO NO	w	12		ND .		
124-49-1	Dibromochloromethane	, ug/L	ND	1 1	ND.	1.	ND		ND	1-7	ND	1	NO	1	ND -		ND	~	NO NO	w		<u> </u>	<u>ND</u>	-4-	58
108-90-7	Chloropenzene	ug/L	ND _	1	ND	.[]	ND	7	ND -	T	ND	† 1	NO	+	ND	+	ND	+	ND	-	NO NO	_	ND ND	ļ_	NA NA
100414	Ethylbenzene	ւսց/ւ	, ND	1 1	ND	1	ND		ND	7 7	ND	T 1	NO NO	†	ND	+-	ND ND	┝╼╀		 	ND.	-4	ND	-1-	
1330-20-7	Xylene (total)	ug/L	ND	LI	ND	L	ND ND	1	ND	† 1	ND	t t	ND ND	1	ND	+-	ND ND	\vdash	ND	ļ	ND ND		ND D	[.	5
100-42-5	Etyrene	ug/L	ND	1]	ND	Γ	ND	1	ND	\Box	ND	1	ND —	+	ND ND	+-	ND ND		ND	1—	ND I		ND		5
75-25-2	promotorm	ug/L	ND	[]	ND		ND	7-1	ND	1	ND	Ħ	ND	+	ND -	 		-	ND	1	ND	1	ND		5
79-34-5	1,1,2,2-Tetrachloroethane	ug/L	ND.	w	HD	u	NO	w	NO	lw	ND	w		w		w	ND ND	w	ND ND		ND	_	ND	\perp	50
Profes La dicare an estamate										,,						_~	, RU	w	NO	W	ND	3	ND	Γ	5

Elks Plaza,

There is a communicative of and another interest to the condition of the completion

Elks Plaza,
Freeport New York
Samples Collegeed, April 2009

TABLE 5- OA/OC SAMPLES SUMMARY

	Samples Collected-April 2009			· · ·		,						1	4/9/2008	
	Sampling Date: Project Location: Sample ID: Laboratory ID;		4/17/2009 Elke Plaza Trip Blank 0904738-002A	Qualifier	4/9/2009 Elks Plaza TB #1 0904471-012A	Qualifier	4/10/2009 Elks Pisza TB #2 0904503-011A	Qualitier	4/9/2009 Elks Pleza FB#1 Soil 0904473-003A	Qualifier	4/9/2009 Elke Pleza FB #2 0904471-011A	Qualifier	Elka Plaza SB 040909 0904471-013A	Qualifier
Cas =	Analyte	Units:				Ш						\perp		
74-87-3	Chloromethane	ug/L	ND		ND		ND	UJ	ND	$\perp \perp$	ND	\perp	ND	U
75-01-4	Vinyl Chloride	ug/L	ND		ND		ND		ND	\perp	ND		ND	$oldsymbol{\perp}$
74-83-9	Bromomethane	ug/L	ND		ND		ND		ND		ND		ND	
75-00-3	Chloroethane	ug/L	ND		ND		ND		ND		ND		ND	
75-35-4	1,1-Dichloroethene	ug/L	ND		ND		ND		ND		ND		ND	
540-59-0	1,2-Dichloroethene (total)	ug/L	ND		ND		ND		ND	\perp	ND	\perp	ND	
67-64-1	Acctone	ug/L	ND		ND	UJ	2	BJ	3	UJ	3	UJ	2	UJ
75-15-0	Carbon Disulfide	ug/L	ND		ND	UJ	ND	UJ	ND	UJ	ND	UJ	ND	UJ
75-09-2	Methylene Chloride	ug/L	ND		ND		ND		DZ		ND		4	J
1634-04-4	Methyl tert-butyl ether	ug/L	ND		ND		ND	l	ND		ND		ND	
75-34-3	1,1-Dichloroethane	ug/L	ND		ND		ND		ND		ND	$\bot \bot$	ND	ᆚ
78-93-3	2-Butanone	ug-L	ND	Ţ	ND	IJ	ND	UJ	ND	บร	ND	UJ	ND	UJ
67-66-3	Chloroform	ug 1.	ND	<u> </u>	ND		ND		ND		ND		ND	
71-55-6	1.1.1-Trichloroethane	ug.l.	ND		ND		ND		ND		ND		ND	
56-23-5	Carbon Tetrachloride	ug/I.	ND		ND		ND	<u> </u>	ND		ND		ND	\perp
71-43-2	Benzene	ug·L	ND		ND	_	ND		ND		ND		ND	\bot
107-06-2	1,2-Dichloroethane	ug L	ND		ND		ND		ND		ND		ND	ᆚ
79-01-6	Trichloroethene	սցՂ	ND		ND		ND		ND		ND		ND	
78-87-5	1,2-Dichloropropane	ug/L	ND		ND		ND		ND		ND		ND	\bot
75-27-4	Bromodichloromethane	ug/L	ND		ND		ND		ND		ND		ND	
10061-01-5	cis-1,3-Dichloropropene	ug/L	ND		ND	┸	ND		ND		ND		ND	
108-10-1	4-Methyl-2-pentanone	ug/L	ND		ND	UJ	ND	บู	ND	UJ	ND	บป	ND	UJ
108-88-3	Toluene	ug/L	ND		ND		ND		ND	1	ND		ND	
10061-02-6	trans-1,3-Dichloropropenc	ug/L	ND		ND		ND		ND _		ND		ND	
79-00-5	1,1,2-Trichloroethane	ug/L	ND_		ND		ND		ND		ND		ND	
127-18-4	Tetrachloroethene	ug/L	ND		ND		ND		ND	_	ND		ND	
591-78-6	2-Hexanone	ug/L	ND		ND	บง	ND	บเ	ND	UJ	ND	່ນງ	ND	UJ
124-48-1	Dibromochloromethane	ug/L	ND		ND		ND		ND		ND		ND	
108-90-7	Chlorobenzene	ug/L	ND		ND		ND		ND		ND		ND	
100-41-4	Ethylbenzene	ug/L	ND		ND	\mathbb{L}	ND		ND		ND		ND	
1330-20-7	Xylene (total)	ugL	ND	\mathbb{I}	ND		ND		ND		ND		ΝD	
100-42-5	Styrene	ug/L	ND	$oldsymbol{\mathbb{L}}$	ND		ND		ND		ND		ND	
75-25-2	Bromoform	ug/L	ND		ND		ND		ND		ND		ND	
79-34-5	1,1,2,2-Tetrachloroethane	ug/L	ND		ND	Ü.	ND	U.	I ND	UJ	ND	UJ	ND	Ü.

Notes

PURM I NOW-IIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPCONUS

HAX TEBS, TAO Contract:

Wattik (soil/water) Not schedt not dec (low/med) Sample wt/vol: Tab Code: CLO MORA: 10478 ₩ 109 WATER Case No. 1 PES (q/mi) E SAS Ho : Date Websived: Lab File ID: Dato Analyzed: Lab Sample ID: SDG No : MESSOG

CONCENTRATION UNITS:

10	. . .	œ	7, 000124-19-6	on.	5. 000138-86-3	4. 000124-13-0	3. 000066-25-1	2. 001066-40-6	1, 000064-17-5	CAS NUMBER	Number TICs found:
unknown alcohol (21)	straight-chain alkane (19.62)	straight-chain alkane (17.99)	Nonanal	unknown alcohol (16.8)	Limonene	Octanal	Hexanal	Silanol, trimethyl-	Ethanol	COMPOUND NAME	හ (
21.00	19.62	17.99	17.36	16.80	15.85	15.71	11.95	7.42	5.03	XI.	(pg/L or pg/Kg)
	6.8	9.6	NP - 9'6		22 JN	あ あ	NF 6'9	9.5 JN	45	RSH. GONG.	<u>ug/L</u>

Soil Aliquot Volume: 10 Ē

Soil Extract Volume:

Od Column.

3B-624

10. 18

Ti

Dilution Factor: 65/01/10 13.00 04/16/09

A\A64390.D

0904503-009A

ETA SAMPLE NO

PES004 S69

OUAS.S

EPA SAMPLE NO

WELL #1

VOLATILE ORGANICS AMALYSIS DAYA SHEET

TENTATIVELY LOSNTIFIED COMPOUNDS

Matrix: (soil/water) Lab Name: Number TICs found: BOLL Extract Volume: OC Column: 1 19 CAN T Somple wi/vol: Edb Code: & Moisture: not dec ar ta va m in in (Low/med) CAS NUMBER 23 624 10478 HZM LABS U MOL SKE straight-chain alkane (19.63) straight-chain alkane (21.47) straight-chain alkane (17.99) branched alkane (18.22) branched alkane (19.17) straight-chain alkane (16.43) WATER Case No. \Diamond (3) (m) COMPOUND MAKE (d/ab) 155 155 155 (11) .5 SAS No.: Contract: CONCENTRATION UNITS: (µg/L or µg/Kg) Date Analyzed: Date Received Lab File ID: Lub Sample ID: Dilution Factor Soil Alignot Volume: 18.22 19.17 19.63 21.47 16.43 17.99 EST. CONC. SUG No. : UG/L 04/16/09 A\264391 04/10/09 0904503-010A Ç00 **.‡**▲ PES004 ك أنه أنه أنه أنه أنه 10 î.

DIL-MOA I ABOS

OLMOR 13

PES004 S71

Anna Anna Anna Anna Anna

APPENDIX C

Ha. LABS, INC.

2931

575 Broad Hollow Rd, Melville, NY 11147-5076											· ·		
Tel: (631) 694-3040 Fax: (631) 420-8436	CLIE	NT:		PE	5						H2M SDG	NO: PESOOY/	005
PROJECT NAME/NUMBER		876								NOTES:		Project Contact: Bill Schlage ter	
Elks Plaza	ž	85] }			•				BUI SCHIAJE ICI	
157-189 W. Merrick ROAD	Sample Container Description	1005 5								MS/MS	10 d	Phone Number:	
French	ြင့္ဆို	(2π)		Ì								514 546 - 1100	
SAMPLERS: (signature)/Client		(E)								EIKSSA	₹/		
William Schlageter Lat 1/7 Victored ENU.	တီ	~ Z								11-3F+	· -)	PIS/Quote #	
Freeport SAMPLERS: (signature)/Client / My Preferred Evo. David Kahn Delle Preferred En.		70											
		[[4]								EIKS G	W~/ -34€C	<u> </u>	
DELIVERABLES: NYSDEC	5 2			L	l	J	<u> </u>	L	<u> </u>	اعديم	~ Y F T-		
ASP-B	5. g	ļ	AN	ALY:	SIS REQ	UES	TED	· ·		1			
15 days	Total No. of Containers	ORG	3ANI	С		<u> </u>		INO	RG.				
		δ. V	≨	Peret/ PCB				Metal	S				
DATE TIME MATRIX FIELD I.D.	<u> </u>	>		a a		ļ	ļ	Σ	_	LAB I.D		REMARKS:	
4/969 8:40 L FIKS TB #1	5	ΙΧΊ				-				0404471		<u> </u>	
4869 9:27 5 FIKS SB-1 (1-3ft) MS/MSD	3	X				<u> </u>				J404473	- 002A	PES OCIO	
HOW HOUSE HOUSE AS SEN BUSINE	100												
4969 9:58 L Elks 6W-1 (22 24 FL) 1850	6	X								0904471	-002A		
4/9/09/10/12 L E/KS 6W-1 (12 14/64)	2	X		aut er Loz	PT-42000 1 . 10	ana na		برستاها.	·		-001 V	in Area of the contact and columns and columns are also as a second and columns are also as a second and a second area.	
19/09 10/31 KS Elks FB#1 Soil	J	Х								J:14473 -	- 203A	PES 005	
4/9/09 10:32 L Elks FB#2 GW	2	X		,						0904471-	- 0/1 A		
4/4/09/11:03 L EIKS GW-2 (26-284+)	2	X									- 604		
4/9/00 11:14 L EIKS GW-2 (10-18++)	2	X								-	-003		
4/9/01d:d3 L EIKS GW-3 (24-265t)	à	V								<u> </u>	-0062	****	
Relinquished by: (Signature) Date Time Received by: (Sign	nature)	LZ			Date	T	me			LABORA	TORY USE OF	ILY	
- LIM 4/1/09 12:15 DAK	L_				4-9-09	<u> </u>		Disc	repar	ncies Between	Samples were:	land Delivered Airbill#	
Relinquished by: (Signature) Date Time Received by: (Signature)	ature)				Date		me		•	abels and ord? Y or N	2. Amblent or child	A Temp I condition: O or N	
Relinquished by: (Signalure) Date Time Recognod by: (Signalure)	Atum)	£,_			4/9/09 Date	15	. <u>5</u> _	Expl		0.01 1.0114	 Received in goot Properly preserv 	ed O or N	
	71 1	1			11						COC Tapo was:	C .	
Retinguished by (Signature) Date Time Received by: (Sign	vatura)		~		4/1/04 Date	12.2	mo				1. Present on outer	package; YorN erpackage; YorN	
Relinquished by: (Signature) Date Time Received by: (Sign			`	۱ ۲	2410	'"					COC record pres	ent & complete upon sample re	ecelpt:
						L					Y or N		

HA ALABS, INC.

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575 Broad Hollow Rd, MelVille, NY 11/47-5076													1
Tel: (631) 694-3040 Fax: (631) 420-8436	CLIE	NT:		Ŧ	ΈS						H2M SDG	NO: PESWY	00.5
PROJECT NAME/NUMBER		Ī.,		-		T				NOTES:		Project Contact:	
EIKS PLAZA		ان دا				1						Bill Schlagete	_
15-7-189 W. Memck Rd	Sample Container Description	10c											٦.
Freeport, NY	J rple Contail Description	7CL)										Phone Number:	
	ન ફ્રેંફેં - ક્રેંફેં	C TC				İ						376-546-11	00
SAMPLERS: (signature)/Client DavidKala DAML Preferred on.	, s	1.54				ŀ						PIS/Quote #	
		160											
DELIVERABLES: MKOEC		17.8								_]			,
A5P-B	0.0		A۱	IALY	SIS RE	QUE	STEC)					
TURNAROUND TIME: 15 days	Total No. of Containers	OR	GANI	С				IN	ORG.				
DATE TIME MATRIX FIELD LD.		VOA	8NS BNS	Perty PCB				Matsi	S	LAB I.	D. NO.	REMARKS:	
4-9-0712:37 L EIKS - GW-3(14-16 Ft)	2	又								040447	1-005 A		
4-9-0913:00 L GIKS-GW-4 (24-26FF)	a	メ									- 00%		
4-9-09 13-15 L EIKS- 6-W-4 (14-16-Ft)	a	又								Ţ	-w7 V		
4-901 13:28 SL FIKS - D-1 (12-14 F+)	7	X								0404473	- 001A	PES OUS	
4-9-0813-34 L EIKS-GW-5 (24-26 ft)	2	又		204 (7				- 7		0504971	- OIO A	a en la estada de la composición de la composición de la composición de la composición de la composición de la	
4-2-19-13-44 L FIRS-GW2 "5 (14-16 Ft)	2	X								Jy .	- 009 L		
4900 HOO LSAN FIRS SEP I (01)	200	Xon											
			 -										
				*******				 	1		·		
	<u> </u>					+							·
Relinquished by: (Signature) Date Time Received by: (Signature)	maturo)				Date		Time			LABOR	ATORY USE OF	VLY	
DUKIL 4-9-09 3:53	[[2]])		4/4/00		5:5	_		ancies Between	Samples were: 1. Shipped or i	Hand Delivered Airbil#_	
Rollinguished by: (Signifiture) Date Time Received by (Significance)	nature)		·	7	Date		Time		,	Labels and accord? Yor N	2. Amblent or chilf	at, Temp d condition: 0 or N	
Rollinguished by: (Signature) Date Time Received by: (Signature)	maiture)		$\sqrt{\lambda}$	4	Date		ز ر emiT	⊢ E>	plain:		4. Property presers	red/Oor N	
				7							COC Tape was:	- androsa V as N	
Relinquished by: (Signature) Date Time Received by: (Signature)	nature)				Date	+	Time	┥			2. Unbroken on ou	r package: Y or N ter package: Y or N	
								_		·····	3, COC record pre- Y or N	sent & complete upon samp	ia recelpt:
													

HALLA LABS, INC.

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575 Blodd Honow Rd, Molenia, Rt 11141-0010			-K-	77	- 1							
Tel: (631) 694-3040 Fax: (631) 420-8436	CLIE	VT:	<u> </u>	e+c	ired i	Pull)	<u> ७८५</u>	ent,	<u>د ابر</u>	en ices	H2M SDG	NO: PESOUL 1005
PROJECT NAME/NUMBER	1									NOTES:		Project Contact:
Elks Place	Į į	_ ^						1				B. Yl Schlageter
	휥온	123	i			}.		ļ				
	\ \delta \frac{1}{2} \frac{1}{2} \.	(TCL)							1	[Phone Number:
	Sample Container Description	Vacs I							1			514 546-180
SAMPLERS; (signature)/oflent	l E	70	-						1			010/0
Services	"	7,0							1			PIS/Quote #
111/11/		7								1		
	┤──	3							}			L
DELIVERABLES:	5 10	<u> </u>			<u> </u>	Щ		<u> </u>	<u> </u>	ĺ		
NYSDEC ASP-B	o e		AN.	ALY	SIS RE	QUES	TED					
TURNAROUND TIME: 15 0 4VS	Total No. of Containers	OR	3ANI	c ;		İ		INO	RG.	ļ		
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DATE TIME MATRIX FIELD I.D.	↓	۷ ک	8	Perel PCB				Metal	S	LAB I.	D. NO.	REMARKS:
VII 8 37 L Ellis TB # 2 (2)	2	X		·						0404507	3-011 A	
41000 8'40 S 6168 SB 20 (10-14') EMININ	1-											
4/10/69 9:03 L EIKS GW-6 (24-26)	2	X								0904503	5- 002 A	
4/10/09 4:30 L Elks 6w-6 (14-16)	2	X								J	- 7001 L	
4/10/06 6:43 S EIKS SB-3 (1-3f+)	7	X						<u></u>	± . 1±	0404509	- 001 A	PES 005
4/10/00 11/00 L Elks 6W-7 (13-25')	2					_				0904503		
1/ 11/12 / (1/2 / 1/2 = 151)	5	$\langle \rangle$	-			+			 		- 003 1	· · · · · · · · · · · · · · · · · · ·
31/2/11	2			-		_	+				مان	
11. [2.]	2					+-	-				005	
	5	$\frac{\lambda}{\lambda}$							-	 	08	
4/10/01/10 L E/KS GW-9 (24-26) Relinquished by: (Signature) Pale Time Received by: (Signature)	nature)		!		Date	 T	ime		<u> </u>	/ * * * * * * * * * * * * * * * * * * *		
4/10/09 15:45 1] [[4-10-0	ا ر اور	7:45	Dier	Yanar	LABUR ncies Between	ATORY USE OF Samples were:	
Relinquished by: (Signature) / Date Time Received by: (Signature)	nature)				Date		Ime		•	abels and	Shipped or F Ambient or child	land Delivered Airbill#
1 /10-07/16:20 2	1/-	1			4/10/0	4 10	,20	CO	C Rec	ord? Yor N	3. Received in good	d condition: For N
Relinquished by: (Signature) Date Time Received by: (Sign	rature)	$\overline{}$			Date		lme	Exp	ialn:		4. Property preserv	ed. Yorn
Treatminion by Longitudion of							J				COC Tape was:	
Relinquished by (Shnahira) Date Time Received by (Skg	satises!		-		Date	┥	ime				1. Present on outer	
Relinquished by: (Signature) Date Time Received by: (Signature)	HOUR O'			Į	Date	'	गास्ट		 -			er package; Y or N ent & complete upon sample receipt:
											YON	

29311

575 Broad Hollow Rd, Melville, NY 11747-5076													
Tel: (631) 694-3040 Fax: (631) 420-8436	CLIE	NT:		PE	\$				•			H2M SDG	NO: PESOUL
PROJECT NAME/NUMBER	····	1							T	T	NOTES:		Project Contact:
Elks Ph24	Sample Container Description	10005 457125			:								Bill Schlageter Phone Number: (516) 546-1100
SAMPLERS: (signature)/Client Gettered Euritonements/ Services	Sample	1724 (TCL	-										PIS/Quote #
DELIVERABLES:		17,		<u>L.</u> .					<u></u>	<u></u>	-		
NYSDEC ASP-B	- in in in in in in in in in in in in in	<u> </u>	Al	NALY	SIS RE	QL	JES	TED			1		
TURNAROUND TIME: 1 150445	Total No. of Containers	OR	GAN	liC				-	INO	RG.	<u> </u>		
DATE TIME MATRIX FIELD I.D.		VOA	¥ S S S S	P. C.					Metal	S	LAB 1.	D. NO.	REMARKS:
4/10/09 13:19 L ELKS 6W-9/14-16f+)	2	X									040450	<u> - υο</u> Α	
4/10/09 13:40 L E/KS ST-1	2	X									1	-0091	
4/10/09 13:46 L Elks Well #1	2	X									Ţ	-010 V	
100													
The state of the s		÷ 100 v	1111	273 11 11 11 11 11	#11.17			-	and the same	in and	***************************************	en transfer venterer.	And the first of the second of
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		 		 				1					
Relinquished by: (Skignsture) Date Time Received by: (S	Signature)	.J			Date	,	۲	ime	 	٠	LABOR	TORY USE ON	VLY
Relinquished by: (Signature) Relinquished by: (Signature) Pate Time Received by: (Signature) H-10-07 /6:20 Relinquished by: (Signature) Date Time Received by: (Signature)	m		2		9-10- Date 4)13	νή (*)	/ L 2	ime	San CO	nple l	ncies Between abels and cord? Y or N	Samoles were; 1. Shipped oc.h. 2. Ambient or oblige 3. Received in good 4. Properly preserv COC Tape was;	d condition(2) or N
Reilinquished by: (Signature) Date Time Received by: (S	Signature)				Date	,	Ť	ime					package: Y or N ar package: Y or N sent & comptete upon sample recetpt:

H2... LABS, INC.

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575 Broad	Hol	low Rd	, Melville,	NY 1174	7-5076														MIM
Tel: (631) 6	94-	3040 F	ax: (631)	420-8436	3		CLIE	NT:										H2M SDG	NO: PES 007, 004/005
PROJECT N			ER					۵									NOTES:		Project Contact:
EIKS 1	PL.	A2/A		. 1			<u> </u>	9×8	ļ										BILL Schlage to
157-189	1	V.M	errick	Red			ontal		}						ļ				Phone Number:
Freepur	+,	M					Sample Container Description	101											516-546-1100
SAMPLERS:	(sig	nature)/	'Cllent			 	e de d	3 5											
Dela	رار	1	10.5.	1 001	~		<i>د</i>	1,5+(mi)											PIS/Quote #
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DELIVERABI	LES	:	····					F0: C	<u> </u>					<u> </u>		<u> </u>	_		·
NSI	oce	~ /1	5P-B				o. of		Αì	VALY	SIS	REQ	JES	TED			j		
TURNAROU	ND	TIME:	15 DAY.	<u> </u>			Total No. of Containers	OR	GAN	IC					INO	RG.			
<u> </u>	\neg							VOA	\$	Pest PCB	\vdash				Metal	Z.	1		
DATE TIM	EΛ	/ATRIX		FIEL	.D I.D.		₩	<u> </u>	ä	4 4	<u> </u>	ļ			_≝	0		D, NO.	REMARKS:
4-17-09 7 30	2	<u>L</u>	EIKS-Tri	P Blan	K			X			<u> </u>			-	ļ		0904738	? 002 A	PES 004
4-17-07 11:4	9	4	EIKS-	Well	#12			X						<u> </u>		<u> </u>	1	00LA	↓ ↓
4-17-07 1233	a L	5	EIKS-	58-46	3.4F+	<u>5.) </u>		X	<u> </u>	<u> </u>	<u> </u>			<u> </u>	<u> </u>		090474	7 - 001 A	PES 005
							<u></u>								<u> </u>				
																	ALLE D. SERVICE SAME	* Marrie D. C. Carrie VI.	
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Relinquished by:	(Sign	ature)		Date	Time	Received by: (Sign	eture)	I	1	<i>ا</i> ــــــــــــــــــــــــــــــــــــ	D:	ate	T	lme			LABOR	ATORY USE ON	ILY
DIX	//			447-09	13:51	yett el	<u></u>					7/09		:57	Disc	repar	ncies Between	Samoles were:	
Relinquished by:	(Sign	aluro)		Date	Time	Received by: (Sign	ature)				D:	ale	T	lme	1	•	abels and ord? Yor N	2. Amblent or chille	
Oalla a Jahad Ku	(Cl	= (=\		Date	Time	Received by: (Sign	vature)				D:	ate	Ŧ	me	Exp		W. O. 1 W. 14	Received in good Properly preserve	
Relinquished by:	(Sign	ature)		Date	INING	, coonso sy, (orgi					-			,,,,			· ··········· .	COC Tape was:	-
Rollnquished by:	(Sloo	ature)		Date	Time	Received by: (Sign	ature)			·	Di	ate	TI	me				Present on outer Unbroken on out	package; YorN erpackage; YorN
	(- . g -,			ļ															ent & complete upon sample receipt:
				L	<u></u>	<u></u>					<u> </u>				L				

APPENDIX D

EPA SAMPLE NO. GW-1 (12-14)

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS, INC. Contract:

Level: Sample wt/vol: Matrix: (soil/water) Lab Code: (low/med) 10478 ΙĠ NO. WATER Case No.: PES (g/mL)13 SAS No.: Date Received: Lab File ID: Lab Sample ID: SDG No.: 0904471-001A 04/09/09 A\A64360.D PESO04

Number TICs found: Soil Extract Volume: CAS NUMBER 28-624 IJ: 0 . 18 COMPOUND NAME (TT) (µg/L or µg/Kg) CONCENTRATION UNITS: Soil Aliquot Volume: T'S EST. CONC. 1.00

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Dilution Factor: Date Analyzed:

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(1d)

04/15/09

GC Column:

& Moisture: not dec.

FORM I VOA-TIC

OLM04.2

PES004 S27

(22-24)

Number TICs found: Soil Extract Volume: % Moisture: not dec. Level: (low/med) Sample wt/vol: Matrix: (soil/water) Lab Code: Lab Name: ZB-624 CAS NUMBER 10478 H2M LABS, INC. MOT WATER Case No.: PES 0 TENTATIVELY IDENTIFIED COMPOUNDS . 18 (mm) COMPOUND NAME (g/mL) (14) β SAS No. : Contract: (pg/L or pg/Kg) CONCENTRATION UNITS: Soil Aliquot Volume: Dilution Factor: Date Analyzed: Date Received: Lab File ID: Lab Sample ID: RT EST.CONC. SDG No. : UG/L 1.00 0904471-002A A\A64361.D 04/15/09 04/09/09 PES004

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(1ਪ)

FORM I VOA-TIC

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VOLATILE CRGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

GW-2 (16-18)

EPA SAMPLE NO.

Number TICs found: Soil Extract Volume: GC Column: 2B-624 § Moisture: not dec. Level: (low/med) Sample wt/vol: Matrix: (soil/water) Lab Code: ab Name: CAS NUMBER 10478 H2M LABS, INC. MOT WATER Case No.: 0 . 18 COMPOUND NAME (g/mL) SEG (14) 3 SAS No. : CONCENTRATION UNITS: Contract: (µg/L or µg/Kg) Soil Aliquot Volume: Dilution Factor: Date Analyzed: Date Received: Lab File ID: Lab Sample ID: χŢ SDG No.: PES004 EST.CONC. 1.00 04/09/09 04/15/09 A\A64365.D 0904471-003A Ю 10 (TT)

PES004 S31

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

CAS NUMBER	Number TICs found:	Soil Extract Volume:	GC Column: ZB-624	% Moisture: not dec	Level: (low/med)	Sample wt/vol: 5	Matrix: (soil/water)	Lab Code: 10478	Lab Name: H2M LA
ER				•	HOT	, 0	_		H2M LABS, INC.
	0		ID: .18				WATER	Case No.:	ļ;·
COMPOUND NAME		(µ1)	(nun)			(g/mL)		PES	
NAME						<u>۱</u>		SAS	
RT EST	CONCENTRATION UNITS: (µg/L or µg/Kg)	Soil Aliquot Volume:	Dilution Factor:	Date Analyzed:	Date Received:	Lab File ID:	Lab Sample ID:	SAS No.: SDG	Contract:
EST.CONC. Q	<u>1/50</u>	$\underline{\mathbf{u}}$ $\underline{\mathbf{e}}$: $\underline{0}$ (µL)	1.00	04/15/09	04/09/09	A\A64366.D	0904471-004A	SDG No.: PESO04	

OLM04.2

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

GW-3 (14-16)

EPA SAMPLE NO.

ab Name: H2M LABS, INC.	NC.		Contract:			
ab Code: 10478	Case No.:	PES	SAS No.:		SDG No.: PES004	
atrix: (soil/water)	WATER			Lab Sample ID:	0904471-005A)5A
ample wt/vol: · 5		(g/mL)	省	Lab File ID:	A\A64367.D	10
	MOT			Date Received:	04/09/09	
Moisture: not dec.				Date Analyzed:	04/15/09	
3C Column: 28-624	ID: .18	(mm)		Dilution Factor:	br: 1.00	
Soil Extract Volume:		(µ1)		Soil Aliquot Volume:		(14) <u>0</u>
			CONCENT	CONCENTRATION UNITS:		
Number TICs found:	0		o 1/pq)	(µg/L or µg/Kg)	ng/T	
CAS NUMBER		COMPOUND NAME	NAME	RT	EST.CONC.	Ю

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

ab Name: H2M LABS, Contract:

Matrix: (soil/water) Lab Code: 10478 WATER Case No.: PES SAS No.: Lab Sample ID: SDG No.: A\A64368.D 0904471-006A PESO04

Number TICs found: Soil Extract Volume: % Moisture: not dec. GC Column: ZB-624 ID: .18 (Lul) CONCENTRATION UNITS: (µg/L or µg/Kg) Soil Aliquot Volume: Dilution Factor: Date Analyzed: UG/L 1.00 04/15/09

OLM04.2

FORM I VOA-TIC

PESÖ04 S37

15 J EST.CONC.

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CAS NUMBER

COMPOUND NAME

(<u>1</u>4)

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EPA SAMPLE NO

GW-3 (24-26)

Sample wt/vol:

UT

Level: (low/med)

(g/mL) 肾

Date Received: Lab File ID:

04/09/09

3.08

unknown hydrocarbon

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS, INC. Contract:

Lab Code: 10478 Case No.: 533 SDG No.: PESO04

Matrix: (soil/water) % Moisture: not dec. Level: Sample wt/vol: (low/med) LOW WATER (g/mL) 到 Date Received: Date Analyzed: Lab File ID: Lab Sample ID: 04/15/09 A\A64369.D 0904471-007A 04/09/09

Number TICs found: Soil Extract Volume: 0 (14) CONCENTRATION UNITS: (μg/L or μg/Kg) Soil Aliquot Volume: 10 (1대)

EST.CONC.

FORM I VOA-TIC

OLM04,2

GW-4 (14-16)

EPA SAMPLE NO.

GC Column:

. 18

ZB-624

CAS NUMBER

COMPOUND NAME

UG/L

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1.00

Dilution Factor:

PES004 S39

FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Code: Lab Name: H2M LABS, INC. Contract:

10478 Case No.: SES SAS No.: SDG No.:

Sample wt/vol:

Level:

(low/med)

MOT

Matrix: (soil/water)

WATER

(g/mL)

Įğ

Date Received: Lab File ID: Lab Sample ID:

Number TICs found: GC Column: Soil Extract Volume: & Moisture: not dec. CAS NUMBER ZB-624 ID: . 18 (mem) COMPOUND NAME (14 (µg/L or CONCENTRATION UNITS: Dilution Factor: Soil Aliquot Volume: Date Analyzed: μg/Kg) RT EST.CONC. UG/L 1.00 04/15/09 0 10

unknown hydrocarbon straight-chain alkane 3.08 3.66 5.0 دد

, N | F

(1대)

0904471-008A 04/09/09 A\A64370.D PES004 GW-4 (24-26)

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

GW-5 (14-16) EPA SAMPLE NO

Sample wt/vol: · 5 Matrix: (soil/water) Number TICs found: Soil Extract Volume: GC Column: ZB-624 % Moisture: not dec. Level: (low/med) Lab Code: Lab Name: 10478 H2M LABS, LOW WATER Case No.: PES 0 (4/mL) (µ1) 肖 SAS No.: Contract: CONCENTRATION UNITS: (µg/L or µg/Kg) Soil Aliquot Volume: Dilution Factor: Date Analyzed: Date Received: Lab File ID: Lab Sample ID: EST.CONC. SDG No.: 04/09/09 A\A64371.D 0904471-009A 04/15/09 PESO04 10 (14)

CAS NUMBER

COMPOUND NAME

RT

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FORM I VOA-TIC

PES004 S43

01304.2

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

H2M LABS, INC. Contract:

Lab Name: 10478 Case No.: SEG SDG No.

Soil Extract Volume: GC Column: % Moisture: not dec. Level: Sample wt/vol: Matrix: (soil/water) Number TICs found: (low/med) CAS NUMBER ZB-624 MOT ID: WATER .18 (TELEN) COMPOUND NAME (g/mL) (L4) 肖 CONCENTRATION UNITS: (µg/L or µg/Kg) Soil Aliquot Volume: Dilution Factor: Date Analyzed: Date Received: Lab File ID: Lab Sample ID: EST.CONC. 04/15/09 04/09/09 A\A64372.D 0904471-010A Ю

unknown hydrocarbon

3.08

6.4

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10

(14)

PES004

GW-5 (24-26)

EPA SAMPLE NO

PES004 S45

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS, INC. Contract: SDG No : PESO04

Matrix: (soil/water) WATER Case No.: PES SAS No.: Lab Sample ID:

Soil Extract Volume: & Moisture: not dec ZB-624 MOJ . 18 (mm) (H1) Soil Aliquot Volume: Dilution Factor: Date Received: Date Analyzed: 1.00

CONCENTRATION UNITS:

(µg/L or µg/Kg)

EST. CONC.

Ø

FORM I VOA-TIC

OLM04.2

PES004 S47

EPA SAMPLE NO.

Level

Number TICs found:

0

CAS NUMBER

COMPOUND NAME

(d/mL)

到

Lab File ID:

0904471-011A

A\A64373.D

04/09/09

04/15/09

10

(14)

T/Sn

GC Column:

(low/med)

Sample wt/vol:

FB #2

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Code: Lab Name: 10478 H2M LABS, INC. Case No.: PES SAS No.: Contract: SDG No.:

MOT WATER (mm.) (g/mL) 텕 Dilution Factor: Date Anaiyzed: Date Received: Lab File ID: Lab Sample ID: 1.00 04/09/09 04/15/09 A\A64374.D 0904471-012A

CONCENTRATION UNITS:

(µg/L or µg/Kg)

Number TICs found:

0

CAS NUMBER

COMPOUND NAME

Soil Extract Volume:

(1q)

GC Column:

ZB-624

& Moisture: not dec Level: (low/med) Sample wt/vol: Matrix: (soil/water)

RT EST.CONC.

Ю

J/S0

(14)

10

Soil Aliquot Volume:

PESO04

EPA SAMPLE NO.

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

H2M LABS, INC. Contract: SB 040909

Lab Name:

Number TICs found: GC Column: % Moisture: not dec. Sample wt/vol: . Matrix: (soil/water) Lab Code: Soil Extract Volume: Level: (low/med) CAS NUMBER ZB-624 10478 MOT straight-chain alkane (19.62) straight-chain alkane (21.48) ID: branched alkane straight-chain alkane (17.99) WATER Case No.: PES .18 COMPOUND NAME (g/mL) (1H) 肾 CONCENTRATION UNITS: (µg/L or µg/Kg) Dilution Factor: Date Analyzed: Date Received: Lab File ID: Soil Aliquot Volume: Lab Sample ID: R 21.48 19.62 17.99 19.18 EST.CONC. SDG No.: 04/09/09 04/16/09 A\A64393.D 0904471-013A 8.2 5.0 11 7.4 PES004 دددا 10 (14)

FORM I VOA-TIC

OLM04.2

PES004 S51

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: 10478 H2M LABS, INC. Case No.: PES SAS No.: Contract: SDG No.:

Number TICs found: Soil Extract Volume: GC Column: & Moisture: not dec Sample wt/vol: Matrix: (soil/water) Level: (low/med) ZB-624 ΙG MOT ID: .18 WATER 0 (mm) (d/mL) (Tu) 到 CONCENTRATION UNITS: Dilution Factor: Date Analyzed: Date Received Soil Aliquot Volume: Lab File ID: Lab Sample ID: 1.00 A\A64377 D 0904503-001A 04/15/09 04/10/09 PESO04

(µg/L or µg/Kg) RT

EST.CONC.

Ö

CAS NUMBER

COMPOUND NAME

(עע)

10

GW-6 (14~16)

EPA SAMPLE NO.

EPA SAMPLE NO

VOLATILE ORGANICS ANALYSIS DATA SHEET

Sample wt/vol: Matrix: (soil/water) Lab Code: Lab Name: (low/med) 10478 H2M LABS, ľ MOT INC. WATER Case No.: TENTATIVELY IDENTIFIED COMPOUNDS (g/mL) PES 肾 SAS No. : Contract: Date Received: Lab File ID: Lab Sample ID: SDG No.: GW-6 (24-26) 04/10/09 A\A64378.D 0904503-002A PESO04

Number TICs found: Soil Extract Volume: CAS NUMBER unknown hydrocarbon straight-chain alkane COMPOUND NAME (14) CONCENTRATION UNITS: (µg/L or µg/Kg) Soil Aliquot Volume: P.1 3.09 EST.CONC. 6.2 0 (14)

GC Column:

2B-624

ID: .18

(mm)

Date Analyzed:

04/15/09

Dilution Factor:

1.00

& Moisture: not dec.

FORM I VOA-TIC

PES004 S55

OLM04.2

OLM04.2

EPA SAMPLE NO. GW-7 (13-15)

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: H2M LABS, INC. Contract:

Matrix: (soil/water) Lab Code: 10478 WATER Case No.: PES Lab Sample ID: SDG No.: 0904503-003A PESO04

Sample wt/vol:

(g/mL)

科

Date Received: Lab File ID:

04/10/09 A\A64379.D

Level: (low/med)

MOT

% Moisture: not dec. ZB-624 . 18 (mm) Dilution Factor: Date Analyzed: 1.00 04/15/09

Soil Extract Volume: GC Column:

Number TICs found: 0 (µ1) CONCENTRATION UNITS: Soil Aliquot Volume: IG/L 10

(ਹਜ਼)

(µg/L or µg/Kg)

R H EST. CONC.

CAS NUMBER

COMPOUND NAME

Ø

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Lab Code: 10478 H2M LABS, INC. Case No.: PES SAS No.: Contract: SDG No.: 0904503-004A

Number TICs found: Soil Extract Volume: & Moisture: not dec Sample wt/vol: Matrix: (soil/water) (low/med) 28-624 MOT ID: .18 WATER 0 (mun) (g/mL) (14) 阁 CONCENTRATION UNITS: (μg/L or μg/Kg) Date Received: Soil Aliquot Volume: Dilution Factor: Date Analyzed: Lab File ID: Lab Sample ID:

GC Column:

Level:

72 17 EST.CONC.

Ю

CAS NUMBER

COMPOUND NAME

J/Sn

1.00

04/16/09

04/10/09 A\A64385.D

10

(1대)

GW-7 (23-25)

PESO04

EPA SAMPLE NO.

PES004 S59

OLM04,2

1 F

VOLATILE ORGANICS ANALYSIS DATA SHEET

GW-8 (14-16)

EPA SAMPLE NO.

TENTATIVELY IDENTIFIED COMPOUNDS

Matrix: (soil/water) Lab Code: Lab Name: 10478 H2M LABS, INC. WATER Case No.: PES SAS No.: Contract: Lab Sample ID: SDG No.: PESO04

Level: (low/med) LOW Date Received:

(g/mL)

ß

Lab File ID:

0904503-005A A\A64386.D

04/10/09

Sample wt/vol:

GC Column: % Moisture: not dec Soil Extract Volume: 28-624 ID: .18 (mm) (LL) Date Analyzed: Soil Aliquot Volume: Dilution Factor: 1.00 04/16/09

CONCENTRATION UNITS:

10

(14)

CAS NUMBER cyclic alkane 0 COMPOUND NAME (µg/L or µg/Kg) 3.62 EST.CONC. 15 J

Number TICs found:

FORM I VOA-TIC

OLM04.2

PES004 S61

VOLATILE ORGANICS ANALYSIS DATA SHEET EPA SAMPLE NO

GW-8 (24-26)

Lab Name: H2M LABS, INC. TENTATIVELY IDENTIFIED COMPOUNDS Contract: PESO04

Matrix: (soil/water) Lab Code: 10478 WATER Case No.: SEG Lab Sample ID: SDG No : 0904503-006A

(g/mL)

肖

A\A64387.D

04/16/09 04/10/09

0 (14) CONCENTRATION UNITS:

Soil Aliquot Volume: Dilution Factor: Date Analyzed: Date Received: Lab File ID:

10

(11)

COMPOUND NAME (µg/L or µg/Kg)

Number TICs found:

CAS NUMBER

straight-chain alkane

Soil Extract Volume:

GC Column:

ZB-624

. 18

(mm)

% Moisture: not dec.

Level:

(low/med)

HOT

Sample wt/vol:

3.65 EST.CONC.

13 ے

FORM I VOA-TIC

OLM04.2

EPA SAMPLE NO

GW-9 (14-16)

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Matrix: (soil/water) Sample wt/vol: Lab Code: Lab Name: 10478 H2M LABS, Ισ INC. WATER Case No.: (g/mL) S34 ξ SAS No.: Contract: Lab File ID: Lab Sample ID: SDG No.: A\A64388.D 0904503-007A PESO04

MOJ ID: . 18 (mm) (Lt) Soil Aliquot Volume: Dilution Factor: Date Analyzed: Date Received: 1.00 04/16/09 04/10/09

CONCENTRATION UNITS:

COMPOUND NAME (µg/L or µg/Kg) T/50

Number TICs found:

0

CAS NUMBER

Soil Extract Volume:

GC Column:

ZB-624

% Moisture: not dec.

Level:

(low/med)

RT

EST.CONC.

10 (14)

O

FORM I VOA-TIC

PES004 S65

OLM04.2

VOLATILE ORGANICS ANALYSIS DATA SHEET

GW-9 (24-26)

EPA SAMPLE NO.

TENTATIVELY IDENTIFIED COMPOUNDS

Matrix: (soil/water) & Moisture: not dec Sample wt/vol: Soil Extract Volume: Level: (low/med) Lab Code: Lab Name: TICs found: 10 H CAS NUMBER 10478 H2M LABS, MOT INC. straight-chain alkane unknown hydrocarbon WATER Case No.: 18 COMPOUND NAME (g/mL) PES (1₄) ğ CONCENTRATION UNITS: Contract: (µg/L or µg/Kg) Date Analyzed: Soil Aliquot Volume: Dilution Factor: Date Received: Lab File ID: Lab Sample ID: EST.CONC. SDG No.: ug/L 04/10/09 1.00 04/16/09 A\A64389.D 0904503-008A 7.9 6.2 PESO04 10 (Jt)

FORM I VOA-TIC

OLM04.2

PES004 S67

3.65

FORM I VOA-TIC

OLM04.2

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Code: Lab Name: 10478 HZM LABS, INC. Case No.: PES Contract: SDG No.: PESO04

Level: Sample wt/vol: Matrix: (soil/water) (low/med) MOT WATER (g/mL) 到 Date Received: Lab File ID: Lab Sample ID: 04/10/09 A\A64390.D 0904503-009A

GC Column: % Moisture: not dec. ID: . 18 Dilution Factor: Date Analyzed: 04/16/09

Soil Extract Volume: (µ1) CONCENTRATION UNITS: Soil Aliquot Volume: 10 (1대)

Number TICs found:	8 (µg/)	(µg/L or µg/Kg)	<u>1/50</u>
CAS NUMBER	COMPOUND NAME	RT	EST.CONC.
1. 000064-17-5	Ethanol-	5.03	45
2.001066-40-6	Silanol, trimethyl-	7.42	9.5
3. 000066-25-1	Hexanal	11.95	6.9
4. 000124-13-0	Octanal	15.71	6.6
5.000138-86-3	Limonene	15.85	22
6.	unknown alcohol (16.8)	16.80	11
7. 000124-19-6	Nonanal	17.36	9.6
8	straight-chain alkane (17.99)	17.99	9.6
9.	straight-chain alkane (19.62)	19.62	8.9
10.	unknown alcohol (21)	21.00	18

PES004 S69

ST-1

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

WELL #1

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:

H2M LABS,

INC

Contract:

Number TICs found: Soil Extract Volume: % Moisture: not dec. Level: Sample Matrix: (soil/water) Lab Code: wt/vol: $\mathbb{A}[\omega]$ 4 Nin ი ი (low/med) CAS NUMBER ZB-624 10478 MOT branched alkane (19.17) straight-chain alkane (19.63) straight-chain alkane (21.47) straight-chain alkane (17.99) branched alkane (18.22) straight-chain alkane (16.43) WATER Case No.: 0 . 18 (mm) COMPOUND NAME (g/mL) SES (1대) ß CONCENTRATION UNITS: (µg/L or µg/Kg) Soil Aliquot Volume: Dilution Factor: Date Analyzed: Date Received: Lab File ID: Lab Sample ŖΤ 19.63 21.47 17.99 18.22 19.17 16,43 ID: EST.CONC. SDG No.: 1.00 04/16/09 04/10/09 A\A64391.D 0904503-010A 15 5.3 7.8 17 8.4 PES004 0

(LL)

PES004 S71

OLM04.2

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Soil Extract Volume: & Moisture: not dec Sample wt/vol: Matrix: (soil/water) Lab Code: ab Name: (low/med) ZB-624 10478 H2M LABS, MOT INC. ID: WATER Case No.: PES .18 (mm) (g/mL) · (11) 引 SAS No.: Contract: Soil Aliquot Volume: Dilution Factor: Date Analyzed: Date Received: Lab File ID: Lab Sample ID: SDG No.: 1.00 0904503-011A 04/16/09 A\A64392.D 04/10/09 PESCO4

UG/	CONCENTRATION UN. (µg/L or µg/Kg) RT 16.43 17.99	CONCEI (µg/L COMPOUND NAME Straight-chain alkane (16.43) Straight-chain alkane (17.99)
	EST. CONC	MITS: UG/ EST.CONC. 43 99 92 22

straight-chain alkane (19.63) straight-chain alkane (21.48)

21.48 19.63 Number TICs found:

CAS NUMBER

(14)

10

TB#2

EPA SAMPLE NO.

PES004 S73

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

e E	SDG No.: PE	SAS No.:	Case No.: PES	Case	Lab Code: 10478	b Code:	a)
		Contract:		, INC.	H2M LABS, INC	Lab Name:	9
	<u></u>	IGNIATIVEEL TOBNITETED COMPOUNDS	TWITTELL II	i.			

	ю	EST.CONC.	EST.	RI		NAME	COMPOUND NAME	••	. ~	CAS NUMBER		
		ug/L		(µg/L or µg/Kg)	(µg/L					Number TICs found:	er TIC	Numb
			's	CONCENTRATION UNITS:	CONCEN							
(14)	10	me:	iot Volu	Soil Aliquot Volume:		٠	(µ1)			Soil Extract Volume:	. Extra	Soil
		1.00	actor:	Dilution Factor:			(mm)	ID: 18		ZB-624	GC Column:	0 0
	90,	04/24/09	zed:	Date Analyzed:						% Moisture: not dec.	isture	% ∀0
	60,	04/17/09	.ved:	Date Received:					MOT	(low/med)		Level:
	526.D	A\A64526.D	.b.:	Lab File ID:		肖	(g/mL)			vol: 5	Sample wt/vơl:	Samp
	0904738-001A	090473	ID:	Lab Sample ID:				WATER		Matrix: (soil/water)	ix: (s	Matr
	PESO04	SDG No.: PE	SDG		SAS No.:		S Ed	Case No.:		10478	Lab Code:	Lab

EPA SAMPLE NO.
TRIP BLANK

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Code: Lab Name: H2M LABS, INC Case No.: S34 Contract: SDG No.:

Number TICs found: Soil Extract Volume: & Moisture: not dec. Level: (low/med) Sample wt/vol: Matrix: (soil/water) ZB-624 MOT . ID: WATER . 18 (d/mL) (14) |3 CONCENTRATION UNITS: (µg/L or µg/Kg) Soil Aliquot Volume: Dilution Factor: Date Analyzed: Date Received: Lab File ID: Lab Sample ID: 1.00 04/17/09 04/24/09 A\A64525.D 0904738-002A PESO04 10 (II)

CAS NUMBER

COMPOUND NAME

RT

EST.CONC.

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FORM I VOA-TIC

OLM04.2

PES004 S77

Premier Environmental Services

DATA USABILTY SUMMARY REPORT (DUSR)
OF THE
ELKS PLAZA-FREEPORT SITE
FREEPORT, NEW YORK

ORGANIC ANALYSES IN AQUEOUS AND NON-AQUEOUS SAMPLES

H2M LABORATORIES, INC.
MELVILLE, NEW YORK

SDG NUMBER: PES005

June, 2009

Prepared for Preferred Environmental Services Merrick, New York

Prepared by
Premier Environmental Services
2815 Covered Bridge Road
Merrick, New York 11566
(516)223-9761

NYS DEC Data Usability Summary Report

DATA VALIDATION FOR: Volatile Organic Analyses – EPA Method 8260B

Elks Plaza Site

Freeport, New York

CONTRACT LAB: Melville, New York **H2M** Laboratories, Inc.

REVIEWER: Rence Cohen

DATE REVIEW COMPLETED: June, 2009

MATRIX: Aqueous, Non-Aqueous

protocol specified in the NYS Analytical Services Protocol ('95). Department of Environmental Conscrvation, Division of Environmental Remediation, Guidance for the Development of Data Usability Summary Reports (DUSR). In addition the data was been reviewed using the The data validation was performed according to the guidelines in the described in the New York State

(presumptive evidence for the presence of the material at an estimated value) flag. All actions are detailed on (estimated), "N" (presumptive evidence for the presence of the material, "U" (non-detect), or "JN" (unreliable/unusable). Due to various QC problems some analytes may have been qualified with a "J" All data are considered valid and acceptable except those analytes which have been rejected "R"

criteria for data quality and data use. appropriately qualify outliers and to determine whether the results presented meet the specific site/project no result is guaranteed to be accurate even if it has passed all QC tests. The main purpose of this review is to Several factors should be noted for all persons using this data. Persons using this data should be aware that

This data set includes the review of four (4) non-aqueous samples and one (1) Field Blank sample. The samples in this data set were collected April 9, 2009, April 10, 2009 and April 17, 2009. The samples were delivered to H2M Labs, Inc. located in Melville, New York. The samples were received at the laboratory on (COC) documentation that accompanied the samples to the laboratory. were analyzed for Volatile Organic Analytes (EPA Method 8260B) as specified on the Chain of Custody April 9, 2009, April 10, 2009 and April 17, 2009. All samples were received in good condition. The samples

result pages associated with each sample in this data set. with this data set is located in Appendix C of this report. Appendix D of this report is a copy of the TIC Appendix B of the report includes the qualified data result tables. A copy of the COC documents associated Appendix A of this report includes a list of qualifiers and definitions that may be used in this report.

1. OVERVIEW:

The non-aqueous samples associated with this data set were submitted to the laboratory for the analyses requested on the Chain of Custody (COC) documentation. The samples were analyzed for the organic analytes using EPA Test Methods for the Evaluation of Solid Waste (SW 846), Method 8260B. The laboratory provided a deliverables package in accordance with the guidelines in the NYSDEC ASP, Rev '95, Category B.

The samples in this data set were designated SDG: PES005

2. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Preserved volatile organic analyses are required to be analyzed within 10 days of validated time of sample receipt (VTSR) in accordance with the NYSDEC ASP, Rev '95.

times were met for the samples in this data set. and associated QC samples associated with this data set were analyzed within ten (10) days of VTSR. All samples in this data set were analyzed for Volatile Organic Analytes by EPA Method 8260B. All of the samples All holding

3. SURROGATES:

concentrations are outside the QC limits, qualifiers were applied to the effected samples. laboratory performance and the efficiency of the analytical technique. If the measured surrogate All samples are spiked with surrogate compounds prior to sample preparation to evaluate the overall

each surrogate met QC criteria in each of the field samples and QC samples associated with this data set Bromofluorobenzene. In-house surrogate recovery limits were reported by the laboratory. Each sample was spiked/fortified with the surrogate compounds 1,2-Dichloroethane-d4, Toluene-d8 and 4-The percent recovery of

4. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:

for reporting purposes. qualification of data. The laboratory used the in-house generated recovery criteria and RPD (precision) data The MS/MSD data are generated to determine the long term precision and accuracy of the analytical method in various matrices. The MS/MSD may be used in conjunction with other QC criteria for additional

Relative Percent Differences (RPD) of all spiked analytes met QC criteria in this site specific MS/MSD set recovery of all spiked compounds met QC criteria in both the matrix spike and matrix spike duplicate sample. was spiked with the CLP subset of target analytes. In-house recovery and RPD limits were applied for review. Sample ELKS-SB-1 (1-3) was utilized as the site-specific Matrix Spike/Matrix Spike Duplicate sample. The sample

met in-house QC criteria. In addition a full component LCS was prepared and analyzed with this data set. The recovery of all target analytes

5. BLANK SPIKE ANALYSIS:

recovery limits for each analyte. spike analysis is used to insure that the analytical system is in control. The laboratory applied in-house The NY ASP protocol requires that a blank spike analysis be performed with each sample batch. The blank

The laboratory reported one (1) blank spike sample with this data set. The blank spike sample was fortified with CLP spike analytes. The spike recovery of each target analyte in the non-aqueous blank spike sample met QC The blank spike sample was fortified with the

6. BLANK CONTAMINATION:

Quality assurance (QA) blanks, such as the method, trip, field, or rinse blanks are prepared to identify any are then qualified based on blank contamination when detected. during shipment. Field blanks measure cross-contamination of samples during field operations. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples contamination that may have been introduced into the samples during sample preparation or field activity. Samples

A) Method Blank contamination

Three (3) method blank samples are associated with this data set. One (1) aqueous method blank sample was free from contamination of all target and non-target analytes with the exception of Acetone. Acetone was detected at a concentration of 2 J ug/l. Acetone was detected in the associated Field Blank sample. The result has been negated and qualified "U"

samples in this data set. Methylene Chloride has been negated and qualified "U" in each of the soil samples all target analytes with the exception of Methylene Chloride. Methylene Chloride was detected in each of the soil Two (2) non-aqueous method blank samples are associated with this data set. Each was free from contamination of

Qualified data result pages are located in Appendix B of this report

B) Field Blank contamination

exception of Acetone (3 J B ug/l). The Field Blank sample (FB #1-Soil) was free from contamination of all target and non-target analytes with the

C) Trip Blank contamination

A Trip Blank sample is not associated with this data set.

7. GC/MS CALIBRATION:

all analytes in both GC/MS Volatile and GC/MS Semivolatile Organic analyses, therefore, all text discussion that the instrument is giving satisfactory daily performance. USEPA data validation criteria is the same for acceptable performance at the beginning of an experimental sequence. acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving Satisfactory instrument calibration is established to ensure that the instrument is capable of producing is for VOA and SVOA samples analyses. The continuing calibration verifies

A) RESPONSE FACTOR

must stop and the source of problems must be found and corrected. Data associated with this set has been (SPCC). Minimum response criteria are set for these analytes. If the minimum criteria are not met, analyses qualified. The SW-846 Methods cite specific analytes known as System Performance Check Compounds continuing calibration analyses. A value less than 0.05 indicates a serious detection and quantitation problem analysis, affected positive analytes will be qualified "J" estimated. Those analytes not detected are not (poor sensitivity). USEPA data validation criteria states that if the minimum RRF criteria are not met in an review requires that the response factor of all analytes be greater than or equal to 0.05 in both initial and reviewed for the criteria in the cited in the EPA Method and the USEPA criteria. RRF < 0.05 are qualified "R", unusable. If RRF criteria is not met in the continuing calibration curve initial calibration the positive results are qualified "J". Non-detect results in the initial calibration with a The response factor measures the instrument's response to specific chemical compounds.

One (1) initial calibration curve analysis is associated with this data set. The laboratory performed an aqueous initial calibration curve multi-level calibration on March 2, 2009 (HP5971). The RRF for all target compounds met QC criteria in this initial

analytes met QC criteria each of these continuing calibration standard analyses. One (1) continuing calibration standard is associated with this data set. All response factor criteria of the target

An additional calibration curve analysis is associated with this data set. The laboratory performed a non-aqueous initial multi-level calibration on March 26, 2009 (HP5972-2). The RRF for all target compounds met QC criteria in this initial calibration curve.

analytes met QC criteria each of these continuing calibration standard analyses One (1) continuing calibration standard is associated with this data set. All response factor criteria of the target

B) PERCENT RELATIVE STANDARD DEVIATION (RSD) AND PERCENT DIFFERENCE (%D):

outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects may be flagged "UJ", based on professional judgment. If %RSD and %D grossly exceed QC criteria (>90%), non-detects data may be qualified "R", unusable. Data be <25% in the continuing calibration standard. This criteria has been applied to all target analytes. A vanishing of these limits indicates notential detection and quantitation errors. For these reasons, all positive **Guidelines** associated with this set has been reviewed for the criteria in the cited in the USEPA Data Validation states that the percent RSD of the initial calibration curve must be less than or equal to 30%. calibration. Percent D is a measure of the instrument's daily performance. Region II data validation criteria compounds in the continuing calibration standard to the mean response factor (RRF) from the initial compound response factor over increasing concentration. Percent D compares the response factor of the Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific

One (1) initial calibration curve (HP5971) analysis is associated with this data set. The laboratory performed one initial multi level anneous calibration on March 2, 2009. The %RSD for all target compounds met QC criteria in this initial calibration curve. The laboratory performed one (1)

criteria for the target analytes with the exception of the following: One (1) continuing calibration standard is associated with this curve analysis. All %Difference criteria met all QC

					4/15/09	Date of Analysis
					A\A64356	File ID
1,1,2,2-Tetrachloroethane 28.5	2-Hexanone	4-Methyl-2-Pentanone	2-Butanone	Carbon Disulfide	Acetone	Analyte
e 28.5	41.5	41.2	29.1	28.1	30.3	%Difference

calibration standard analyses. These target analytes have been qualified "UJ/J" estimated in each of the samples associated with these continuing

criteria in this initial calibration curve. An additional initial calibration curve analysis is associated with this data set. The laboratory performed one (1) initial multi level aqueous calibration on March 26, 2009 (HP5972-2). The %RSD for all target compounds met QC

Two (2) continuing calibration standards are associated with this curve analysis. All %Difference criteria met all QC criteria for the target analytes with the exception of the following:

4/23/09	4/16/09	Date of Analysis
09\G1189	09\G1142	File ID
Bromomethane	Bromomethane	Analyte
35.4	38.2	%Difference

Bromomethane has been qualified "UJ" estimated in each of the soil samples associated with this data set.

Qualified data result pages are located in Appendix B of this report.

8. GC/MS MASS SPECTROMETER TUNING:

compounds, and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in calibration is in error, or missing, all associated data will be classified as unusable, "R". all circumstances. The tuning standard for volatile organics is Bromofluorobenzene (BFB). If the mass Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of

All BFB Instrument Tuning criteria were met for these sample analyses.

9. GCMS INTERNAL STANDARDS PERFORMANCE:

evaluation criteria are applied to all field and QC samples. using that IS are qualified estimated, "J", and all non-detects below 50% are qualified "UJ", non detects above 100% should not be qualified or "R" if there is a severe loss of sensitivity. The internal standard the (-50% to $\pm 100\%$) range of the associated standard, all of the positive results for compounds quantitated continuing calibration standard. The EPA CLP validation guidelines state that if the area count is outside that the retention time of the internal standard must not vary more than ± 30 seconds from the associated factor of 2 (-50%to +100%) from the associated continuing calibration standard. The method recommends every run. The method recommends that the internal standard area count must not vary by more than a Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during

Chorobenzene-d5. All internal standard area criteria were met for the samples in this data set. All samples were fortified with the internal standards Bromochloromethane, 1,4-Difluorobenzene and

10. COMPOUND IDENTIFICATION:

of the primary and secondary ion intensities with 20% of that in the standard compound. peak must be within ± 0.06 RRT units of the standard compound, and have an ion spectra which has a ratio comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample Target compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by

Compounds (TIC's) were analyzed for and reported with each sample in this data set. Appendix D of this report contains a summary of the TIC's detected at each sample point. the laboratory reporting limit (RL). Results between the MDL and RL were qualified "F" by the laboratory on the result page. All samples in this data set were analyzed and reported without dilution. Tentatively Identified The samples in this data set were analyzed via EPA Method 8260B. The laboratory reported all target analytes to

1. FIELD DUPLICATE SAMPLE ANALYSES:

expected to have more variability than laboratory duplicate samples. Field duplicate samples are not associated with Field duplicate samples are collected and analyzed as an indication of overall field precision. These results are

12. OVERALL ASSESSMENT:

Analytical QC criteria were met for these analyses. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

The sample data results reported are acceptable for use with the noted data qualifiers. Data qualifiers are detailed in the above report.

Qualified data result pages are located in Appendix B of this report.

TABLE 1

CLIENT SAMPLE ID

LABORATORY SAMPLE ID

ELKS FB#1 Soil	ELKS-SB-1 (1-3Ft)	ELKS-D-1 (12-14Ft)
0904473-003	0904473-002	0904473-001

APPENDIX A

DATA QUALIFIER DEFINITIONS

- quantitation limit U - The analyte was analyzed for, but was not detected above the reported sample
- concentration of the analyte in the sample. The analyte was positively identified; the associated numerical value is the approximate
- evidence to make a "tentative identification." N - The analysis indicates the presence of an analyte for which there is presumptive
- and the associated numerical value represents its approximate concentration NJ - The analysis indicates the presence of an analyte that has been "tentatively identified"
- sample. limit of quantitation necessary to accurately and precisely measure the analyte in the the reported quantitation limit is approximate and may or may not represent the actual UJ - The analyte was not detected above the reported sample quantitation limit.
- cannot be verified. R - The sample results are unreliable/unusable. The presence or absence of the analyte
- expected to be lower than reported The analyte is present. The reported value may be biased high. The actual value is
- expected to be higher than reported L - The analyte is present. The reported value may be biased low. The actual value is
- than reported - The analyte was not detected, and the reported quantitation limit is probably higher

APPENDIX B

 $\frac{\text{TABLE 1 - SUMMARY OF VOLATILE ORGANIC COMPOUNDS DETECTED AND/OR ELEVATED ABOVE NYSDEC TAGM RECOMMENDED}{\text{SOIL CLEAN-UP OBJECTIVES}}$

	Freeport, New York					SOII	CLEAN-UP OBJECTIV	ES			
	Soil Samples- April 2009					5011	Chen. Colonelli	200			
	Sampling Date:	r	4/9/2009	$\overline{}$	4/9/2009	1	4/10/2009	т —	4/17/2009	1	NYSDEC TAGM Recommended Spil
1	Project Location:		Eiks Plaza	+ 1	Elks Plaza	i l	Elks Plaza		Elks Plaza		Clean-up Objectives
1	Sample ID:	Ī	D-1 (12-14)	5	SB-1 (1-3)	٤ ا	SB-3 (1-3)	ية ا	SB-4 (3-4 FT BG)	ابا	
1	Laboratory ID:		0904473-001A		0904473-002A	nalifler	0904506-001A	Qualifie	0904747-001A	o siling	
	Laboratory ID.	l	0304413-00174	Qualific	000410-002/	ੈ	200-000-00 124	₽			
Cas#	Analyte	Units:									
74-87-3	Chloromethane	ug/kg	ND		ND		ND		ND		NA
75-01-4	Vinyl Chloride	ug/kg	ND		ND		ND	<u> </u>	ND	Ш	200
74-83-9	Bromomethane	ug/kg	ND	เกา	ND	เม	ND	UJ	ND	IJ	NA NA
75-00-3	Chloroethane	ug/kg	ND		ND		ND		ND		1,900
75-35-4	1,1-Dichlorosthene	ug/kg	ND	ΤI	ND	L.,	ND	<u> </u>	ND	\sqcup	400
540-59-0	1,2-Dichloroethene (total)	ug/kg	ND		ND		DN	L_	ND		250
67-64-1	Acetone	ug/kg	24		ND	\perp	ND	1	ND	╙	200
75-15-0	Carbon Disulfide	ug/kg	ND		ND		ND		ND		2,700
75-09-2	Methylene Chloride	ug/kg	6	Ü	4	U	3	U	6	υ	100
1634-04-4	Methyl tert-butyl ether	ug/kg	ND	.TI	ND		ND		ND	ш	120
75-34-3	1,1-Dichloroethane	ug/kg	ND		ND		ND	L	ND	JI	200
78-93-3	2-Butanone	ug/kg	ND		ND		ND		ND	Ш	300
67-66-3	Chloroform	ug/kg	ND		ND		ND	ļ	ND		300
71-55-6	1,1,1-Trichloroethane	ug/kg	ND		ND		ND	Ц.	ND	╙	800
56-23-5	Carbon Tetrachloride	ug/kg	ND		ND		ND ND	Ь.	ND	↓	600
71-43-2	Benzene	ug/kg	ND		ND	\perp	ND		CN	ļ .	60
107-06-2	1,2-Dichloroethane	ug/kg	ND	\perp	<u>ND</u>	\perp	ND		ND	∐ ↓	100
79-01-6	Trichloroethene	ug/kg	ND		ND		ND	╙	NO	\sqcup	700
78-87-5	1,2-Dichlorepropane	ug/kg	ND	1	ND	\perp	ND ND	l !	NO	Ļ_ !	NA NA
75-27-4	Bromodichtoromethane	ug/kg	ND	\perp	ND		ND		ND	\sqcup	NA NA
10061-01-5	cis-1,3-Dichtoropropene	ug/kg	ND	\perp	ND	\dashv	ND		ND		NA NA
108-10-1	4-Methyl-2-pentanone	ug/kg	ND	4.4	ND		ND	!	ON	₩	1,000
108-88-3	Toluene	ug/kg	5	J	ND	\perp	ND	!	ND		1,500
10061-02-6	trans-1,3-Dichteropropene	ug/kg	ND		ND	\bot	ND	Ш	ND	\sqcup	NA NA
79-00-5	1,1,2-Trichloroethane	ug/kg	ND		ND		ND	ļ	ND	\sqcup	NA
127-18-4	Tetrachioroethene	ug/kg	ND	4-4	ND	44	ND	Ш	26	\sqcup	1,400
591-78-6	2-Hexanone	ug/xg	ND	\rightarrow	ND		ON	<u> </u>	ND	ш	. NA
124-48-1	Dibromochloromethane	ug/kg	ND	\rightarrow	ND		ND		ДИ	1	300
108-90-7	Chlorobenzene	ug/kg	ND		ND		ND	ш	ND	├ —	1,700
100-41-4	Ethylbenzene	ug/kg	ND		NO	\perp	ND	L_	ND		5,500
1330-20-7	Xylene (total)	ug/kg	4	J	ND	\bot	ND	ш	ND	⊢⊢	NA NA
100-42-5	Styrene	ug/kg	ND		ND		ND	Ш	ND	┞—┨	1,200
75-25-2	Bromoform	ug/kg	ND		ND		ND	Ш	ND	⊢ I	NA.
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg	ND		ND	لــــــــــــــــــــــــــــــــــــــ	ND	Ш	ND	Ш	600

Elks Plaza

Notes:
NYSDEC TAGM - Recommended Soil Cleanup Objectives,
HVR-94-4046, Revised 4/95 and 2001 update.
RSCO - Recommended Soil Cleanup Objective.
DI - Analyte was not detected above method detection limit.
NA - Not Analyted / Not Available.
Rolfed values indicates detected concernation exceeded NYSDEC RSCO.

EUS BC - Eastern United States Background Concentration MDL - Method Detection Limit

Indicates that he confaminant was detected at a concentration below its applicable MDL
 B - Analyte detected is accorded blank as well as the sample.

Elks Plaza, Freeport New York

TABLE 5- QA/QC SAMPLES SUMMARY

	Samples Collected- April 2009 Sampling Date:		4/17/2009	_	4/9/2009		4/10/2009	- -	4/9/2009	_	4/9/2009		4/9/2009	
	Project Location: Sample ID: Laboratory ID:		Elks Plaza Trip Blank 0904738-002A	Qualifier	Elks Plaza TB #1 0904471-012A	Qualifier	Eiks Plaza TB #2 0904503-011A	Qualifier	Eiks Plaza FB#1 Soil 0904473-003A	Qualifier	Elks Plaza FB #2 0904471-011A	Qualifier	Eiks Plaza SB 040909 0904471-013A	Qualifier
Cas#	Analyte	Units:						_!_				_ _		
74-87-3	Chloromethane	ug/L	ND		ND		ND	UJ	ND		ND		ND	ι
75-01-4	Vinyl Chloride	ug/L	ND		ND		ND		ND ND		ND	$\perp \perp$	ND	
74-83-9	Bromomethane	ug/L	ND		ND		ND		ND	\perp	ND	$\perp \perp$	ND	
75-00-3	Chloroethane	ug/L	ND		ND		ND	\perp	ND	\perp	ND		ND	4.
75-35-4	1,1-Dichloroethene	ug/L	ND		ND		ND		ND		ND	Ш	ND	
540-59-0	1,2-Dichloroethene (total)	ug/L	ND		ND		ND		ND		ND	\perp	ND	╽.
67-64-1	Acctone	ug/L	ND		ND	UJ	2	BJ	3	UJ	3	UJ	2	U.
75-15-0	Carbon Disulfide	ug/L	ND		ND	UJ	ND	UJ	ND	UJ	ND	UJ	ND	U.
75-09-2	Methylene Chloride	ug/L	ND	П	ND	\top	ND		ND		ND		4	J
1634-04-4	Methyl tert-butyl ether	ug/L	ND		ND		ND	T	ND		ND		ND	
75-34-3	1,1-Dichloroethane	ug/L	ND		ND		ND	T	ND		ND		ND	
78-93-3	2-Butanone	ug/L	ND		ND	UJ	ND	UJ	ND	UJ	ND	UJ	ND	U.
67-66-3	Chloroform	ug/L	ND		ND		ND		ND		ND		ND	
71-55-6	1,1,1-Trichloroethane	ug/L	ND		ND		ND	Т	ND		ND		ND	
56-23-5	Carbon Tetrachloride	ug/L	ND		ND	1-1	ND		ND		ND		ND	
71-43-2	Benzene	ug/L	ND		ND		ND	T	ND		ND	\perp	ND	丄
107-06-2	1,2-Dichlorocthane	ug/L	ND		ND		ND		ND		ND		ND	\perp
79-01 - 6	Trichloroethene	ug/L	ND		ND		ND		ND		ND		ND	\perp
78-87-5	1,2-Dichloropropane	ug/L	ND		ND		ND		ND	i	ND	$\perp \perp$	ND	
75-27-4	Bromodichloromethane	ug/L	ND		ИD]]	ND		ND		ND		ND	
10061-01-5	cis-1,3-Dichloropropene	ug/L	ND		ND		ND	Τ	ND		ND		ND	
108-10-1	4-Methyl-2-pentanone	ug/L	ND	ГΤ	ND	UJ	ND	UJ	ND	UJ	ND	UJ	ND	U.
108-88-3	Toluene	ug/L	ND		ND		ND		ND		ND		ND	
10061-02-6	trans-1,3-Dichtoropropene	ug/L	ND		ND		ND		ND		ND		NID	
79-00-5	1,1,2-Trichloroethane	ug/L	ND		ND		ND	T	ND		ND		ND	
127-18-4	Tetrachloroethene	ug/L	ND		ND		ND		ND		ND		ND	
591-78-6	2-Hexanone	ug/L	ND		ND	UJ	ND	UJ	ND	UJ	ND	UJ	ND	U.
124-48-1	Dibromochloromethane	ug/I.	ND		ND	П	ND		ND		ND		ND	
108-90-7	Chlorobenzene	ug/L	ND	П	ND		ND		ND		ND		ND	L
100-41-4	Ethylbenzene	ug/L	ND	П	ND		ND		ND		ND		ND	Ĭ.
1330-20-7	Xylene (total)	ug/L	ND	П	ND		ND		ND		ND		ND	
100-42-5	Styrene	ug/L	ND	П	ND		ND		ND		ND		ND	
75-25-2	Bromoform	ug/L	ND	П	ND	7-1	ND		ND		ND		ND	Ι
79-34-5	1,1,2,2-Tetrachlorocthanc	ug/L	ND	П	ND	UJ	ND	UJ	ND	บป	ND	UJ	ND	U

Notes

APPENDIX C

H2M LABS, INC.



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575 Broad Hollow Rd, Melville, NY 11747-5076												
Tel: (631) 694-3040 Fax: (631) 420-8436	CLIEN	NT:	Ī	PE,	5						H2M SDG	NO: PESOOY/005
PROJECT NAME/NUMBER		376								NOTES:		Project Contact: B.11 Schlageter
Elics Plaza	iner.	8 2 XX										Bill Schild Je 151
157-189 W Merrick ROAD	Sample Container Description	W								Ms/Ms	له و	Phone Number: 50 546 - 1100
SAMPLERS: (signature)/Client // // // //		13						Í		EIKSSE	> /	5.0
William Schlageter Lat 114 Vectored two.	S.	7.2								11-3FH		PIS/Quote#
Freeport SAMPLERS: (signature)/Client William Schlagetor Lat My Preferred Env. I avid Kahn DIKL Preferred Env.		Full L	-					į		EIKS G	•	
DELIVERABLES: NYSOEC		11				L	<u>L, l</u>			.دج	-34 CT	
ASP-B	fo. of Iners		AN	ALY	SIS REQU	JES.	TED					
TURNAROUND TIME: 15 days	Total No. of Containers	OR	SANI	С				INO	RG.			
DATE TIME MATRIX FIELD I.D.		VOA	¥ _N	Pess PCS				Metal	CN	LAB I.C), NO.	REMARKS:
4/969 8:40 L EIKS TB # 1	<i>₽</i> -	X								0904471	-012A	
4818 9:27 5 F/ks SB-1 (1.3ft) ms/msD	3	X								0404473	- 002A	PES 008
HOMEN CONTRACTOR (SCHOOL)	A Med	X	110							<u> </u>		
49/01 9158 L EIKS GW-1 (23 24 FL) 12	10	X							ļ 	0904471	-002A	
4/9/09/10:12 L E/KS 6W-1 (12/ 14/64)	2	X									-001 1	
1/4/09 10131 L Elks FB#/ Soil	2	Х								044473	- 003A	PES 005
1/9/04 10:32 L EIKS FB # 2 GW	>	X		-						0904471	A 110 -	
4/9/09 11:03 L EIKS GW-2 (26-284+)	2	X								1	- 664	
4/9/09 11:14 L EIKS GW-2 (16-18++)	7	-IX									− <i>∞</i> 3	
4/9/01d:23 L EIKS CW-3 (24-26 Ft)	a	X								V	-0062	
Relinquished by (Signature) Qaje Time Received by: (Si	oneture)				Date	1	lme			LABOR	TORY USE O	NLY
- CAMP 4/1/09 12:15 DV/	el_				4-9-09					ncles Between	Samoles were: 1, Shipped or	Hand Delivered AirbiR#
Relinquished by: (Signeture) Date Time Received by: (Signeture) 4-9-09 3:53	oranire)				1/9/09	.l i	ime	_	•	Labels and cord? Y or N	2. Amblent or chil	
Relinquished by: (Signature) Data Time Received by: (Signature)	gnéture)				Date 7		S_ Ime	Exp	daln:	ė.	4. Properly prese	rved O or N
4/1/1 1553	X Ch	<u> </u>	.1		44109	15	23	-			COC Tape was:	
Relinquished by: (Signature) Date Time Received by: (S	gnature)	+-	T	2_	Date		lime	1 =			2. Unbroken on o	er package; Yor N uter package; Yor N
				-							3, COC record pr Y or N	esent & complete upon sample receipt:
<u> </u>						-					•——	

HAM LABS, INC.





575 Broad Hollow Rd, Melville, NY 11747-5076														1
Tel: (631) 694-3040 Fax: (631) 420-8436	CLIEN	NT:		<u> </u>	ES							H2M SDG	NO: PESOUY	1005
PROJECT NAME/NUMBER EIKS PLAZA 157-189 W. Memck Rd Freepost, NY	Sample Container Description	rzt)νος,ς ς ΤΕCΣ									NOTES:		Project Contact: Bill Sch lage to Phone Number: 576-546-11	'
David Kala D-1/12 Preferred em. DELIVERABLES: MODEC	_ >	8260 Plus											PIS/Quote #	
ASP-B.	o. of	Ĺ	ΑN	IALY	SIS R	EQU	EST	ED						
TURNAROUND TIME: 15 days	Total No. of Containers	OR	GANI	С					INOI	RG.				
DATE TIME MATRIX FIELD I.D.		VOA	BNA	3 0		_			Metal	CN	LAB I.E), NO.	REMARKS:	
4-4-09 12:37 L EIKS - GW-3 (14-16 Ft)	a	X									0904471	- 005 A		
4-9-91500 L GIKS-GW-4 (24-26FF)	a	火										1 800 -		
4-9-09 13 15 L EXS- GW-4 (14-16-Pt)	2	X									\downarrow	- w7 V		
4-901 13:28 51 EIKS - D-1 (12-14 F+)	マ	X									0404473	- 001A	PES DUS	•
4-9-0813-34 L EIKS-GW-5 (a4-26 ft)	2	X									0504471	A 010 -		
4-9-19-13-44 / FINS-GLO-5 (14-16 Ft)	Z	X									- بل	- 009 L		
490 HOS ENS SEP I (00)	786	1/6	1											'
	1	<u> </u>	-										,	
			Γ							_				
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Relinquished by: (Signature) Date Time Received by: (Signature)				D	ate	Tir	The				2. Unbroken on ou	r package: Y or N rter package: Y or N sent & complets upon sam;	ole receipt:

H2.4 LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076





Tel: (631) 694-3040 Fax: (631) 420-8436	CLIE	NT:	Pn	etci	red	Ĕu	lino	une	Atri	1 \$	2)	Vices 1	H2M SD	GNO: PES004 005
PROJECT NAME/NUMBER						Ť		Ť	7			OTES:		Project Contact:
Elks Place	1 2	,					-	1		1	Ĭ			B. Yl Schlageter
	활동	25					1		ſ					
	mpie Container Description	(TCL) TICS												Phone Number:
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SAMPLERS: (signature violent) Proferred Environment	. I S	١.	^					ļ			ŀ			PIS/Quote#
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NYSDEL ASP-B TURNAROUND TIME: 15 days	Total No. of Containers			,							1			
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DATE TIME MATRIX FIELD I.D.	\	VO V	%	PC8	1		ĺ		Metai	Ö		LAB I.D	. NO.	REMARKS:
Yliolay 8:37 L 5165 TB # 2 (2)	12	X			<u> </u>	_	\dashv				1	340450Z		
41000 5 10 S EHS SB -> (12-14) EMINI		1				\dashv	\dashv				۲	<u> </u>		
4/10/6/ 9:03 L Elks Gw-4 (24-24)	12	X				\dashv					†	0904503	- 002 A	
4/10/09 9130 L EIKS 6W-6 (14-16)	1 2	X			-						Ť		J 100"	
4/10/06/05/43 5 Elks SB-3 (1-3ft)	1-7	X	-								†,	2404509-		PES 005
4/10/00 11:00 L EIKS 6W-7 /23-251)	1 2	文				\neg						0904503-		
410/19 11:17 L Ellic GW7 (13-15')	15	X		-						_	T		1 500	
4/10/01 12:20 L FIKS GW-8 (24-76')	12	W-X		 						<u> </u>	t		مان	
4/10/09/2143 L Elks GW-8 (14-16')	12	X	I^-								t	_	005	
4/10/41/10 L EIKS GW-9 (24-26)	15	X									†	-	008	,
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(18/14) 4/10/09 15:45 De	<u> </u>				4-10				4			cies Between	Samples were	or Hand Delivered Alroin#
Relinquished by. (Signature) / Date Time Received by: (S	lgnature) /I	1			Dat		Tir	ne ∠ø		•		bels and and? Yor N	2 Ambient or	căliidd. Temp
1-10.00 16:30 CM	<u> </u>	\rightarrow			4/10					c ne daln:		RUT FOIN	Received in Property pr	n good condition: Vor N eserved. Yor N
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D. C.									l			-	1, Present on	outer package: Y or N
Relinquished by: (Signature) Date Time Received by: (S	ignaturė)				Dat	te	Tir	THE	_					on outer package: Y or N d present & complete upon sample receipt:
					}								YorN	
DECOME COLO														

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076

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Tel: (631) 694-3040 Fax: (631) 420-8436 PROJECT NAME/NUMBER							CLIE	NT:											12M SDG	NO: PES 00-7 004/005
PROJECT	NAME	NUME	BER			· · · · · · · · · · · · · · · · · · ·		۵									NOTES:		······································	NO: PES DOZ 004/005
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157-18	17 1	VM	errick	Red			ontale ition													Phone Number:
Freepo							Sample Container Description	VOC5												516-546-1100
SAMPLERS	S: (sig	nature)	/Client				ا ا	3 3	'											
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			75P B				0.0	<u> </u>	AN	IALY	SIS F	REQL	JEST	ED						
TURNARO	UND	TIME:	15 DAY	5			Total No. of Containers	OR	GANI	С					INO	RG.				
DATE TI	ME I	MATRIX	•	FIEL	.D I.D.			ő,	8NA A	<u>.</u> 5					Metal	CN	LAB	3 I.D	. NO.	REMARKS:
4-17-09 7:	30	L	EIKS-Tri	P Blan	K			X									09047	38.	- 002 A	PES 004
4-17-07 11:	49	4		- Well				X								Π	T J		001 A	\ \ \ \
417.07 12:	งล	5	EIKS-			55)		X									09047	47	- 001 A	PES 005
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APPENDIX D

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

D-1 (12-14)

H2M LABS, INC. Contract:

Lab Code: Lab Name: 10478 Case No.: Sad SDG No.:

PES005

GC Column: Rtx-624 % Moisture: not dec. 42.8 ID: .18 (HE) Dilution Factor: Date Analyzed: 04/16/09 1.00

Level:

(low/med)

MOT

Sample wt/vol:

Matrix: (soil/water)

TIOS

(g/mL)

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Date Received: Lab File ID: Lab Sample ID:

04/09/09 09\G1147.D 0904473-001A

Soil Extract Volume: (TH) Soil Aliquot Volume: 10

CONCENTRATION UNITS:

(14)

(µg/L or µg/Kg) UG/KG

Number TICs found:

μ

CAS NUMBER	.	2.	ω.	4	5.	6.	7.	8,	9	10.
COMPOUND NAME	(DEL) Alkane: Branched (6.4)	(DEL) Alkane: Branched (8.83)	(DEL) Alkane: Cyclic (14.29)	unknown hydrocarbon	(DEL) Alkane: Branched (14.84)	(DEL) Alkane: Cyclic (15.06)	(DEL) Alkane: Cyclic (15.11)	(DEL) Alkane: Cyclic (15.26)	(DEL) Alkane: Branched (15.62)	(DEL) Alkane: Straight-Chain
RT	6.40	8.83	14.29	14.73	14.84	15.06	15.11	15.26	15.62	16.65
EST.CONC.	72	35	38	110	62	63	54	290	71	54
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FORM I VOA-TIC

OEM04 . 2

EPA SAMPLE NO.

PES005 S26

VOLATILE ORGANICS ANALYSIS DATA SHEET

SB-1 (1-3)

EPA SAMPLE NO.

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Code: Lab Name: 10478 H2M LABS, INC. Case No.: SES SAS No. : Contract: SDG No.: PESO05

Matrix: (soil/water)

TIOS

GC Column: Rtx-624 % Moisture: not dec. Level: Sample wt/vol: (low/med) NON 8.6 В: . 18 (mm) (g/ml) ۱o Dilution Factor: Date Analyzed: Date Received: 04/16/09 1.00 04/09/09 09\G1148.D

Lab File ID: Lab Sample ID:

0904473-002A

Soil Extract Volume: (14) Soil Aliquot Volume: 10 (14)

CONCENTRATION UNITS:

27 ug/kg

(µg/L or µg/Kg)

Number TICs found:

0

CAS NUMBER

COMPOUND NAME

EST. CONC.

Ю

FORM I VOA-TIC

PES005 S28

OLM04.2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: H2M LABS, INC.

Lab Code: 10478 Case No.: PES SDG No.: PESOOS

% Moisture: not dec. Level: Sample wt/vol: Matrix: (soil/water) (low/med) Rtx-624 Įω MOT TIOS . 18 (mm) (J/mL) ıo Dilution Factor: Date Analyzed: Date Received: Lab File ID: Lab Sample ID: 1.00 04/16/09 04/10/09 09\G1151.D 0904506-001A

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/KG

EST. CONC.

O

FORM I VOA-TIC

OLM04.2

PES005 S30

EPA SAMPLE NO.

TENTATIVELY IDENTIFIED COMPOUNDS

Soil Extract Volume:

(TH)

Number TICs found:

0

CAS NUMBER

COMPOUND NAME

10

Soil Aliquot Volume:

(14)

")

Contract:

SB-3 (1-3)

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Code: Lab Name: 10478 H2M LABS, INC. Case No.: Sad SAS No.: Contract: SDG No .:

Level: Sample wt/vol: Matrix: (soil/water) (low/med) Įσ MOT SOIL (g/mL) ۱n Date Received: Lab File ID: Lab Sample ID: 04/17/09 0904747-001A 09\G1192.D

Soil Extract Volume: GC Column: Rtx-624 : OI (mm) (14) Soil Aliquot Volume: Dilution Factor:

CONCENTRATION UNITS:

(µg/L or µg/Kg)

RT

FORM I VOA-TIC

OLM04.2

PES005 S32

EPA SAMPLE NO.

% Moisture: not dec.

Number TICs found:

CAS NUMBER

0

COMPOUND NAME

O

EST.CONC.

04/23/09

(1q)

10

Date Analyzed:

SB-4 (3-4 FT BG)

PESO05

EPA SAMPLE NO.

FB#1 SOIL

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

H2M LABS, INC. Contract:

Lab Code: Lab Name: 10478 Case No.: PES SAS No. : SDG No .: PES005

Sample wt/vol:

(low/med)

MOT

Matrix: (soil/water)

WATER

(g/mL)

肖

Date Received: Lab File ID: Lab Sample ID:

04/09/09

A\A64376.D

0904473-003A

& Moisture: not dec. ZB-624 (mm) Dilution Factor:

GC Column: ID: .18 1.00

Soil Extract Volume: 0 (11) CONCENTRATION UNITS: (pg/L or pg/Kg) Date Analyzed: Soil Aliquot Volume: 1/9n 04/15/09 10

(14)

Number TICs found:

CAS NUMBER

COMPOUND NAME

EST.CONC.

Ю

FORM I VOA-TIC

OLM04.2

PES005 S34

APPENDIX E

LABORATORY DATA