FINAL
ANNUAL LONG TERM MONITORING REPORT

Site:
Utility Manufacturing/Wonder King
700-712 Main Street
New Cassel, New York 11590

Submitted to:
New York State Department of Environmental Conservation (NYSDEC)
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Albany, New York 12233

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1 INTRODUCTION

AECOM Technical Services Northeast, Inc. (AECOM) has been issued Work Assignment #D004436-32 under the New York State Department of Environmental Conservation (NYSDEC) State Superfund Standby Program. The site under this work assignment is Utility Manufacturing/Wonder King (Utility Manufacturing), Operable Unit 2 (Site No. 130043H). The location of the site is shown on Figure 1.

The scope of work for this project, as defined by the NYSDEC, is project scoping, preparation of plans and specifications, oversight of construction services including sub-slab depressurization system installation at three facilities and installation of six monitoring wells, and one round of groundwater and indoor air sampling. The work was performed in accordance with NYSDEC Division of Environmental Remediation Final DER-10 Technical Guidance for Site Investigation and Remediation (NYSDEC, May 2010) and the Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH; Final, October 2006). This report documents the well installation, groundwater sampling, and indoor air sampling conducted in 2010.

1.1 Background

Utility Manufacturing site is located at 700-712 Main Street (south side) between Bond Street and Frost Street, approximately 500 feet (ft) north of Old Country Road in the New Cassel Industrial Area (NCIA), Town of North Hempstead, Nassau County, New York (Figure 1). The Utility Manufacturing site is approximately one acre in size and is comprised of one building with pavement on three of the four sides, a fence along the west, south and east sides with a gate to the driveway area opening on the north. Trailers (sea containers) are located along the southern perimeter fence.

Currently, Utility Manufacturing site is an active facility consisting of a 20,000 square feet (sf) main floor manufacturing and storage facility, and a 10,000 sf second floor for offices, technical laboratory, silk screening, and storage area. The company manufactures a variety of cleaning and lubricating products primarily for commercial and industrial customers. Utility Manufacturing stores, blends, and repackages tetrachloroethene (perchloroethene, or PCE). The facility uses over 20,000 pounds of PCE per year (ERM, December 2005). In 1988, several dry wells and cesspools were sampled at the Utility Manufacturing site by Utility Manufacturing's consultant. Sampling results indicated that these drainage structures were contaminated with PCE and other volatile organic chemicals (VOCs). Utility Manufacturing subsequently remediated these drainage structures under the supervision of the Nassau County Health Department (NCHD). Groundwater contamination from the Utility Manufacturing has migrated downgradient of the site and has mingled with the contaminated groundwater from other sites in the New Cassel Industrial Area (NCIA).

The site and study area are located within the NCIA, which is a 170-acre industrial and commercial area on the north side of Old Country Road. The NCIA is bounded on the north by the Long Island Railroad, on the east by the Wantagh Parkway, on the south by Old Country Road, and on the west by Grand Boulevard. Land uses directly north, south and west are primarily residential with some light business interests along Old Country Road. East and northeast of the Wantagh Parkway (east side of the NCIA) is the West Hicksville industrial/commercial area. These areas were developed in the late 1940s–early 1950s timeframe. The sites within the study area consist mostly of commercial and industrial operations including auto repair, auto garage, office spaces, warehouse, and machine tool shop.

1.2 Investigations Conducted at the Utility Manufacturing Site

In 1986, an investigation revealed that groundwater beneath and downgradient of the NCIA was impacted by four chlorinated VOCs, whose concentrations exceeded New York State (NYS) Class GA Groundwater Criteria: PCE, trichloroethene (TCE), 1,2-dichloroethene, and 1,1,1-trichloroethane. As a result of the investigation, the NYSDEC classified the entire NCIA as a Class 2 site in 1988. Regional groundwater was determined to flow to the southwest, and consequently, impacted groundwater leaving the NCIA flows directly towards the Bowling Green Water District (BGWD) public supply wells (Well Nos. N8956

and N8957) located south of Old Country Road at the end of Iris Place. At the time of the 1986 investigation, the BGWD public supply wells were not impacted by the VOCs, but have since been impacted by VOC contamination. An air-stripper treatment system was constructed in 1996, and the water supplied to the public system from the BGWD wells has since then been treated by the air stripping system to meet Federal and New York State Drinking Water Maximum Contaminant Levels (MCLs) and guidelines.

In 1988, drywells and cesspools at Utility Manufacturing were sampled and found to have elevated concentrations of chlorinated and aromatic VOCs (PCE, TCE, 1,2-dichloroethene, 1,1,1-trichloroethane, methylene chloride, chloroform, toluene, ethylbenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, chloroethane, chloromethane, bromomethane, and vinyl chloride). These structures were remediated by Utility Manufacturing in 1989 by pumping them out and power-washing them under the supervision of the NCDH. Endpoint sampling results met NYSDEC Soil Cleanup criteria. The Utility Manufacturing facility was subsequently connected to the municipal sewer.

Based on the findings of a 1995 site investigation report, the NYSDEC removed the NCIA from the Registry in March 1995. In 1996, NYSDEC issued a Preliminary Site Assessment (PSA) report for several properties in the NCIA. Groundwater sampling results from the PSA showed PCE concentrations downgradient of the Utility Manufacturing site an order of magnitude greater than upgradient concentrations. The NYSDEC added the Utility Manufacturing site to the Registry of Inactive Hazardous Waste Sites as a Class 2 site in May 1996, naming Utility Manufacturing as a Potentially Responsible Party (PRP). Utility Manufacturing filed petitions to delist the site in 1996 and 1997. The NYSDEC denied both petitions.

In September 1997, Utility Manufacturing entered into a Consent Order with NYSDEC to perform a Remedial Investigation/Feasibility Study (RI/FS) for the Utility Manufacturing site. The RI included the installation of groundwater monitoring wells, and the collection of both soil and groundwater samples. The RI indicated that groundwater beneath the Utility Manufacturing site was contaminated with volatile organic compounds and the contaminants appear to flow in the general groundwater direction flow from northeast to southwest. No on-site soil contamination exceeding the evaluation criteria was detected during the RI. The NYSDEC required Utility Manufacturing to perform additional groundwater sampling to fully define the extent of on-site groundwater contamination. The additional sampling was completed in fall 2000. The result of the fall 2000 sampling revealed elevated levels of PCE in groundwater beneath the Utility Manufacturing site. PCE was detected in on-site groundwater at concentrations exceeding the New York State groundwater standard. PCE was detected in on-site soils at concentrations below the NYSDEC guidance value of 1.4 mg/kg. Two semivolatile organic compounds (SVOCs), benzo(a)anthracene and benzo(a)pyrene, were detected in on-site soils at concentration exceeding NYSDEC guidance values. However, neither compound was detected in the groundwater.

An Interim Remedial Measure (IRM) consisting of an air sparge/soil vapor extraction (AS/SVE) system was installed to the south of the Utility Manufacturing building to remediate on-site soil and groundwater contamination. The AS/SVE system operated from December 2001 to December 2002. By December 2002, the system had reduced total VOC concentrations in groundwater from 1,019 µg/L to 13 µg/L, and the contaminant concentration had stopped decreasing. The AS/SVE system was chosen for the final remedy for on-site contamination in the Record of Decision (ROD) dated March 2003 (NYSDEC, 2003). The remaining contamination was allowed to attenuate naturally. After the AS/SVE system ceased operation, Utility Manufacturing's consultant (CA RICH Consultants, Inc.) obtained groundwater samples annually until 2005 to detect any possible rebound in groundwater contaminant concentrations. As no rebound was detected, the NYSDEC deemed the on-site remediation to be complete.

In 2002, NYSDEC ordered Utility Manufacturing to perform off-site (downgradient) groundwater sampling to Old Country Road. This off-site area comprises Operable Unit 2 (OU2) of the site and is known as the study area. Utility Manufacturing refused to perform this work in accordance with the NYSDEC's requirements. As a result, NYSDEC lead the off-site RI/FS. As part of the off-site RI, 11 soil borings were advanced to the south of the site. Groundwater samples were collected from each of the soil borings by

Hydropunch sampling and new groundwater monitoring wells were installed in the south parking lot of the office building located at 1025 Old Country Road. Thirteen VOCs were detected in the Hydropunch and monitoring well groundwater samples; seven of which exceeded the applicable New York State Groundwater Quality Standard by one to two orders of magnitude. The vertical distribution of contaminants shows that VOCs were present in groundwater at higher concentrations in the deeper more transmissive strata of the Magothy aquifer. The RI concluded that the distribution of the VOCs in groundwater is consistent with southwesterly flow direction from the site across the study area towards the public supply wells.

A total of 17 soil vapor/indoor air/outdoor air samples were also collected from various locations across the study area. Initially, one soil vapor sample was collected from each of the 11 soil borings. Based on the results of the initial soil vapor samples, a sub-slab soil vapor sample from the ground floor of the office building located at 1025 Old Country Road, and two soil vapor samples from the parking lot of the shopping center at 1065 Old Country Road were also collected. Outdoor air samples were collected on the east side of the 1025 Old Country Road office building and an indoor air sample was collected from a small office area on the south end of the building at 1025 Old Country Road. A total of 30 VOCs were detected in the soil vapor/indoor/outdoor air samples. PCE was the dominant VOC in soil vapor. The results indicated that volatilization of VOCs from groundwater represented a complete and significant exposure pathway that is confirmed by the presence of VOCs in groundwater, soil vapor, and indoor/outdoor air samples collected in the study area.

A total of eight properties in the study area were investigated as part of the Off-Site Soil Vapor Intrusion study in 2007 by AECOM. Originally, 13 properties were proposed for sampling. Since access was denied for five of the structures; only eight structures were sampled.

Based on the detected concentrations of TCE and PCE in the sub-slab vapor and indoor air samples, the following recommendations were made:

- No additional actions were required to address human exposures for two properties (Structures 3 and 11).
- Continued indoor air monitoring was recommended at three properties (Structures 1, 7, and 13).
- Based on TCE concentrations mitigation was recommended for three properties (Structures 2, 6, and 9).

1.3 Selected Remedy

A ROD presenting the selected remedy for Operable Unit 2 was finalized in March 2008. The elements of the selected remedy are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program.
2. Sub-slab depressurization systems will be installed in three off-site buildings that have vapor intrusion impacts.
3. Periodic vapor sub-slab vapor, indoor air and outdoor air samples will be obtained at three properties where the potential for vapor intrusion exists. Periodic sampling will continue until sampling results indicate that continued sampling is no longer required.
4. Groundwater contamination within the study area will be allowed to naturally attenuate.
5. Imposition of an institutional control in the form of an environmental easement on the site that will require: (a) compliance with the approved site management plan; and (b) the property owner to complete and submit to the Department a periodic certification of institutional and engineering controls.
6. Development of a site management plan which will include the following institutional and engineering controls: (a) monitoring of groundwater, sub-slab vapor, indoor air and outdoor air; and (b) provisions for the continued proper operation and maintenance of the components of the remedy.

7. The property owner will provide a periodic certification of institutional and engineering controls, prepared and submitted by a professional engineer or such other expert acceptable to the Department, until the Department notifies the property owner in writing that this certification is no longer needed.
8. The operation of the components of the remedy will continue until the remedial objectives have been achieved, or until the Department determines that continued operation is technically impracticable or not feasible.
9. Since the remedy results in untreated hazardous waste remaining at the site, a long term monitoring program will be instituted. Up to nine monitoring wells will be sampled periodically for VOCs to track the progress of the natural attenuation. In addition, sub-slab vapor, indoor air and outdoor air samples will be obtained and analyzed for VOCs at three buildings with potential vapor intrusion impacts. This program will allow the effectiveness of the natural attenuation and soil vapor intrusion mitigation measures to be monitored and will be a component of the operation, maintenance, and monitoring for the site.

This report documents sampling efforts in accordance with items 3 and 9 of the selected remedy.

2 FIELD INVESTIGATION

The Phase II field investigation, conducted between January and May 2010, consisted of monitoring well installation, groundwater sampling, collection of groundwater elevation measurements, and indoor air sampling. Groundwater samples were collected from two existing wells and six newly installed wells. Indoor air samples were collected from three structures. AECOM contacted the owners and occupants to schedule appointments for indoor air sampling. Laboratory analyses were conducted by TestAmerica. YEC, Inc. participated in field activities as a subcontractor to AECOM. Field forms are provided in Appendix A. Indoor air property questionnaires are provided in Appendix B. Occupants were provided with information on indoor air sampling and a handout prior to sampling listing activities which could influence the results of the sampling (Appendix A).

2.1 Groundwater Sampling

2.1.1 Well Installation & Development Oversight

As required in the 2008 ROD for OU 2, annual groundwater monitoring will be conducted in the study area to evaluate natural attenuation of the groundwater contamination from up to nine wells (three existing and six installed as required by the ROD). Two existing wells have been identified on site (MW-1S and MW-1D); however, the third existing well – Nassau County well NC-12 – could not be located. A small manhole was identified near the location of NC-12, but a monitoring well inner casing and cap were not found. A picture of this location is shown in Appendix C.

Three additional nested pairs of groundwater monitoring wells were installed. The well locations are shown on Figure 2. The well locations were moved from the proposed locations to north of Old Country Road to avoid overhead utilities. Each of these well pairs was screened from approximately 85-95 feet below ground surface (bgs) (shallow) and 115-125 feet (deep). AECOM coordinated with NYSDEC's remedial contractor (Environmental Assessments and Remediation, Inc. [E.A.R.]) and provided oversight during installation of the wells. During the installation and development of the wells AECOM prepared soil boring logs, well construction logs, and development forms. These forms are provided in Appendix A. The six wells were installed in March 2010. Prior to installation, E.A.R. contacted DIG SAFE and conducted a utility mark out prior to advancing borings. All borings were first hand cleared to 5 ft bgs.

Soil cuttings were collected in drums. A composite sample was collected for waste characterization by the AECOM representative during well installation and provided to E.A.R for laboratory analysis. E.A.R. arranged for the drums to be collected from the site on a daily basis.

The wells were surveyed by YEC, Inc. on April 13, 2010. Well construction information is provided in Table 1. The wells were developed by NYSDEC's remedial contractor with oversight by an AECOM representative on April 13, 2010. Nassau County Department of Public Works approved discharge of the purge water to the sanitary sewer based on a VOC analysis on a sample collected from the six new wells, provided the water was screened to remove sediment prior to disposal. The purge water was discharged to the sanitary sewer at locations approved by Nassau County.

2.1.2 Well Sampling

AECOM collected one round of samples from two existing (MW-1S and MW-1D) and six newly installed wells in May 2010 (MW-11S, MW-11D, MW-12S, MW-12D, MW-13S, and MW-13D). Well sampling forms showing compliance with EPA low flow sampling procedures (EPA SOP, 1998) are provided in Appendix A. A bladder pump was used. The pump intake was set at the midpoint of the screened interval. Dedicated Teflon-lined tubing was used for all groundwater sample collection. Several parameters were recorded during purging including flow rate, depth to water, temperature, pH, conductivity, DO, ORP and turbidity. The measurements were recorded on a well sampling form. Measurements were collected approximately every five minutes. A flow through cell was used to measure most of the parameters. Purging was considered complete when the indicator parameters have stabilized over three consecutive readings. If the groundwater did not stabilize, the samples were collected after two hours of purging. Stabilization parameters are:

- depth to water: less than 0.3 ft drawdown during purging;
- pH: ± 0.1
- conductivity: ± 3%
- DO: ± 10 mV
- ORP: ±10% and
- Turbidity: less than 50 NTU.

During sample collection, the flow cell was disconnected and the sample tubing discharge was poured directly into the laboratory supplied sample containers and field vials. Water samples were collected in pre-preserved bottles provided by the laboratory, cooled to 4ºC after collection, and shipped to the subcontract laboratory for analysis of VOCs, dissolved iron (field filtered), sulfates, nitrates, carbon dioxide, and methane by TestAmerica in Amherst, New York a NYSDOH Environmental Laboratory Approval Program (ELAP #10391).

A round of water table elevation data for the existing monitoring wells was collected on May 12, 2010, prior to groundwater sampling. The results are presented in Table 2. Groundwater elevations are shown on Figure 3 for the shallow wells and Figure 4 for the deep wells. The groundwater flow direction appears to be to the southwest.

2.2 Indoor Air Sampling

AECOM collected indoor air, outdoor ambient air and sub-slab soil vapor samples at the three properties in January 2010 in accordance with the Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH; Final, October 2006). The locations for Structures 1, 7, and 13 are shown on Figure 5.

Prior to sampling, an inspection of general site conditions was performed at each location. The inspection also included the preparation of a chemical product inventory, collection of ambient air organic vapor readings, and the completion of a property owner questionnaire (Appendix B).

Two indoor air samples were collected within the first floors of each structure. Two outdoor ambient air samples were collected concurrently with the indoor air samples. Two sub-slab vapor samples were collected at Structures 7 and 13. One sub-slab sample and one duplicate were collected from Structure 1

using a sampling tee. AECOM installed permanent sub-slab sampling ports to facilitate future long term air monitoring.

Where possible, sub-slab vapor samples were located central to the building and away from the foundation walls and apparent penetrations such as water pipes and floor drains. Each sampling point location was marked, documented, and photographed. The Summa canisters were located in the same locations as in 2007. AECOM used a photoionization detector (PID) to screen indoor air and penetrations (e.g., concrete floor cracks, floor drains) prior to collecting the air samples. No products containing chlorinated solvents were identified which required removal from the interior of the buildings prior to and during the sampling effort. Product inventories for each structure are provided in Appendix B. Photographs of the sampling event are included in Appendix C.

The air samples were collected using 6-liter summa batch certified canisters equipped with 24-hour flow controller valves pre-calibrated at the laboratory.

Indoor air samples were collected by placing the summa batch certified canister with 24-hour flow controllers in the breathing zone (4-6 ft above the floor).

Outdoor air sampling locations were away from outdoor operations known to generate VOCs. The outdoor air samples were collected from the rear of Structures 1 and 7. For the sub-slab samples, after the foundation slab had been inspected, the location of subsurface utilities determined, and the ambient air surrounding the proposed sampling location screened with a PID, an electric drill was used to advance a boring to a depth of no more than 2 inches beneath the basement flooring/foundation slab.

AECOM installed the permanent probes for sampling sub-slab vapor. An electric drill was utilized to make a 1-inch diameter borehole through the concrete slab. The drill bit was advanced approximately six inches into the sub-slab material at each sampling location to create an open cavity. A 6-inch long stainless steel soil gas implant fitted with a Teflon-lined polyethylene tube was then inserted into the borehole. The annulus around the implant was backfilled with sand pack to the bottom of the cement slab. The remaining annular space was sealed using inert material (i.e., bentonite). The integrity of the seal was then tested using helium tracer gas inserted into an enclosure placed above the seal. After installation of the probe, the tubing was connected to a vacuum pump and up to one liter of sub-slab vapor was purged (at a rate less than 200 milliliters per minute [mL/min]). Once purging was completed, the sample tube was connected to the Summa® canister with a pre-set regulator designed to sample for a 24-hour period. Permanent sub-slab points were sealed to the floor with hydraulic cement. After sampling, each point will be capped with a stainless steel threaded cap to seal the point and allow future monitoring activities. Appendix A contains the field information collected during sampling. Pictures of a typical sub-slab point are provided in Appendix A.

All sub-slab, indoor air, and outdoor air samples were sent to TestAmerica in South Burlington, Vermont, a NYSDOH Environmental Laboratory Approval Program (ELAP #10391). Proper chain-of-custody (COC) procedures were maintained throughout the sampling event. The samples were analyzed for VOCs by USEPA Method TO-15 with a detection limit of 1.0 µg/m^3 (0.25 µg/m^3 for TCE). Site-specific quality control (QC) measures included the submission of a field duplicate (co-located sample) from Structure 1. The field duplicate is a sub-slab sample. In addition, the laboratory performed batch QC as required by the analytical method.

3 LABORATORY ANALYTICAL RESULTS

3.1 Groundwater Samples

Groundwater samples were collected from eight wells and submitted for the following analyses VOC (EPA SW-846 Method 8260), dissolved iron (EPA SW-846 Method 6010B), sulfates (EPA 300.0), nitrates (EPA 353.2), carbon dioxide (EPA RSK-175), and methane (EPA RSK-175). The VOC groundwater results are compared to the NYS Class GA Groundwater Criteria and are presented in Table 3. VOC detections are

summarized on Figure 6. A summary of concentrations exceeding the NYS Class GA Groundwater Criteria are provided below:

- 1,1,1-Trichloroethane was detected in the four deep wells. The concentrations exceed the NYS Class GA criterion of 5 µg/L in MW-1D (15 µg/L) and MW-12D (8.8 µg/L).
- 1,1-Dichloroethene was detected in the four deep wells. The concentrations exceed the NYS Class GA criterion of 5 µg/L in MW-1D (30 µg/L) and MW-12D (17 µg/L).
- 1,2-Dichloroethene was detected in all wells except MW-11S. The concentrations exceed the NYS Class GA criterion of 5 µg/L in MW-1S (18 µg/L), MW-12S (15 µg/L), and MW-13D (17 µg/L).
- cis-1,2-Dichloroethene was detected in all wells except MW-11S and MW-13S. The concentrations exceed the NYS Class GA criterion of 5 µg/L in MW-1S (18 µg/L), MW-12S (15 µg/L), and MW-13D (17 µg/L).
- Tetrachloroethene (PCE) was detected in all of the wells. The concentrations exceed the NYS Class GA criterion of 5 µg/L in seven of the eight wells with concentrations ranging from 7.1 µg/L (MW-12D) to 18 µg/L (MW-1D).
- Trichloroethene (TCE) was detected in five of the eight wells. The concentrations exceed the NYS Class GA criterion of 5 µg/L in MW-1D at 74 µg/L and MW-13D at 200 µg/L.

Groundwater samples collected from monitoring wells in 2005 (ERM, 2005) exceeded the NYS Class GA criteria for five parameters:

	2005	2010
• 1,1,1-Trichloroethane	17 µg/L	15 µg/L
• 1,1-Dichloroethene	22 µg/L	30 µg/L
• cis-1,2-Dichloroethene	84 µg/L	18 µg/L
• PCE	220 µg/L	18 µg/L
• TCE	54 µg/L	200 µg/L

The decline in the maximum concentration detected in 2010 for PCE, cis-1,2-dichloroethene, and 1,1,1-trichloroethane compared to the levels detected in 2005 indicates limited dechlorination through natural attenuation is occurring at the site. The concentration of 1,1-dichloroethene increased from 22 µg/L to 30 µg/L, possibly as a result of dechlorination from TCE or PCE. The maximum TCE concentration detected increased from 54 µg/L in 2005 to 200 µg/L in 2010. However, the maximum detection in 2010 was from a downgradient location (MW-13D) which was not sampled during the RI. Natural attenuation may be occurring in this area, but another round of groundwater monitoring is recommended to confirm the remedy is active throughout OU2.

The results for parameters other than VOCs are provided in Table 4. A summary of the results is provided below. This evaluation considers the deep wells only because the total VOC concentrations in the deep wells show the pattern as in the ROD (2008) for this portion of the plume where concentrations increase approximately tenfold from MW-11S/D to MW-13S/D.

- Methane: An increase in methane may be an indicator of reducing conditions or be a present as a byproduct microbial degradation using carbon dioxide as an electron acceptor. Methane was not detected at seven of the eight wells. This parameter does not appear to be an indicator of biological activity at this site.
- Carbon dioxide: An increase in carbon dioxide may provide an indication of biodegradation. Concentrations ranged from 1,000 µg/L at MW-11D to 9,000 µg/L at MW-13D in the deep wells, potentially providing an indication of biological activity at this site.
- Sulfate: A decrease in sulfate, relative to background, may indicate that sulfate is serving as an electron acceptor under anaerobic conditions. Sulfate concentrations drop from 28 µg/L at MW-11D to 12.4 µg/L at MW-13D. This parameter may indicate of biological activity at this site.
- Nitrite-Nitrate: A decrease in nitrite-nitrate, relative to background, may indicate nitrite-nitrate is serving as an electron acceptor under slightly reducing conditions. Concentrations increase from

1.62 mg/L-N at MW-11D to 6.39 mg/L-N at MW-13D. This parameter does not appear to be an indicator of biological activity at this site.

- Dissolved iron: An increase in dissolved iron (Fe II), relative to background, may indicate that insoluble iron (Fe III) is serving as an electron acceptor in anaerobic biodegradation. Iron is not detected at all wells except MW-1D (0.029 mg/L). This parameter does not appear to be an indicator of biological activity at this site.
- Dissolved oxygen: Dissolved oxygen is a microbial electron acceptor and a redox indicator. High concentrations were measured, but these results are unlikely to indicate aerobic conditions because the bladder pump was operating.

3.2 Air Samples

A total of 13 air samples and one field duplicate were collected. The air samples include sub-slab soil vapor samples, indoor air samples, and outdoor air samples. All air samples were analyzed for VOCs by USEPA method TO-15. The analytical results are presented in Table 5 (indoor air), Table 6 (sub-slab), and Table 7 (outdoor air). Detected VOCs included chlorinated aliphatics (e.g., TCE and PCE), and petroleum-related compounds (e.g., m/p-xylene). Detections at each sample location are shown in Figure 7.

Indoor air and outdoor air sample data compared to background concentrations are presented in Table 8 and Table 9, respectively. The background concentrations are the 75th percentiles reported in the NYSDOH 2003 Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes and the EPA 2001 Building Assessment and Survey Evaluation (BASE) database (Appendix C of NYSDOH, 2006).

Indoor air concentrations exceeded at least one of the reported average background levels for the following compounds:

- PCE
- n-Hexane
- Ethylbenzene
- Xylene (m,p)
- Xylene (o)

Outdoor air concentrations exceeded at least one of the reported average background levels for the following compounds:

- Chloroform
- PCE
- Cyclohexane
- n-Hexane
- Toluene
- Ethylbenzene
- Xylene (m,p)
- Xylene (o)

A comparison of the concentrations of TCE and PCE in the sub-slab vapor and indoor air samples with the Decision Matrices from NYSDOH (2006) is presented in Table 10. No further action is indicated for the three structures based on the PCE concentrations. No further action is indicated for Structures 1 and 13 based on the TCE concentrations. Take reasonable and practical actions to identify source(s) and reduce exposures is indicated for Structures 7 based on the TCE concentrations, although the TCE concentrations are just above this criteria. No further monitoring is recommended for Structure 7, because of the soil vapor concentration reductions in indoor and sub-slab air in 2010 compared to the initial vapor sampling conducted in 2007 (AECOM, 2007); current indoor air levels are relatively equal to those typically found in indoor air; and the building has a commercial use within an industrial area. If future

groundwater sampling determines that concentrations of volatile organic compounds are increasing again around Structures 1, 7 and 13, additional soil vapor intrusion monitoring may be required at that time according to the recommendation of NYSDOH and NYSDEC.

4 DATA VALIDATION

Data validation was provided by Environmental Data Services, Inc. (EDS) of Williamsburg, Virginia, an independent chemist under subcontract to AECOM. Data Usability Summary Reports (DUSRs) for each sample delivery group (SDG) are included on CD as Appendix D. Complete copies of the laboratory analytical data reports are included on CD as Appendix D.

Air sample data from samples collected in January 2010 were reported by TestAmerica, South Burlington, Vermont as one sample delivery group (SDG), NY135783. A total of 14 analyses were validated, including one field duplicate and 13 environmental samples. The data are acceptable for the intended purposes. Data were qualified for the following deficiencies:

- One compound (1,2-dichlorotetrafluoroethane) was qualified as estimated in eight samples due to a high continuing calibration percent deviation value.
- Three compounds (PCE, 4-ethyltoluene, 1,3,5-trimethylbenzene) were qualified as estimated in the field duplicate pair due to poor duplicate precision.
- One compound (toluene) was qualified as estimated in two samples due to exceeding the linear range of the instrument.

Groundwater data from samples collected in May 2010 were reported by TestAmerica, South Burlington, Vermont as one sample delivery group (SDG), RTE0678. A total of 14 analyses were validated, included two trip blanks, one MS/MSD pair, one field duplicates, eight environmental samples, and one reanalyses. The data are acceptable for the intended purposes. Data were qualified for the following deficiencies:

- TCE was qualified as not detected in three samples due to trip blank contamination.
- Several compounds were qualified as estimated in all samples due to high continuing calibration relative response factor values.

5 CONCLUSIONS AND RECOMMENDATIONS

Groundwater and air sampling was performed at the Utility Manufacturing site in Westbury, NY with field work conducted in 2010. A summary of the sampling effort is provided below:

- Installation and development of six monitoring wells was completed in March 2010. Two existing and the six newly installed monitoring wells were sampled in May 2010. VOC concentrations in samples from one or more monitoring wells exceed the NYS Class GA criteria for 1,1,1-trichloroethane, 1,1-dichloroethene, 1,2-dichloroethene, PCE, and TCE. Due to the continued exceedences of compounds above NYS Class GA standards another round of groundwater sampling is recommended.
- Soil vapor intrusion air sampling was conducted at Structures 1, 7, and 13. Based on the results of this sampling event, no additional soil vapor intrusion air sampling is recommended.

6 REFERENCES

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Table 1
Well Construction Data

Well Number	Northing	Easting	Ground Elevation	Top of Casing Elevation	Total Depth of Well
MW-11D	214,701.44	1,106,744.20	119.77	119.51	124
MW-11S	214,706.18	1,106,741.07	119.96	119.66	95
MW-12D	214,675.55	1,106,597.69	118.56	118.26	125
MW-12S	214,670.11	1,106,598.27	118.51	117.88	95
MW-13D	214,630.74	1,106,353.23	116.82	116.41	126
MW-13S	214,625.69	1,106,354.25	116.66	116.32	96
MW-1S	214,708.46	1,106,651.34	120.28	119.82	90
MW-1D	214,707.10	1,106,646.90	120.18	119.77	130

Notes:
All elevations and depths are in feet.
Vertical datum: NAVD88
Horizontal datum: NY State Plane NAD83

Table 2
Groundwater Elevations

Well Number	Ground Elevation	Depth To Water 5/12/10	Groundwater Elevation 5/12/10
MW-11D	119.77	42.74	77.03
MW-11S	119.96	42.76	77.2
MW-12D	118.56	41.47	77.09
MW-12S	118.51	41.08	77.43
MW-13D	116.82	39.74	77.08
MW-13S	116.66	39.68	76.98
MW-1S	120.28	41.85	78.43
MW-1D	120.18	42.4	77.78

Notes:
All elevations and depths are in feet.
Vertical datum: NAVD88

Table 3

VOCs in Groundwater

ANALYTE	NYS Class GA ug/L	MW11S 5/12/2010 µg/L		MW11D 5/12/2010 µg/L		MW12S 5/11/2010 µg/L		MW12S (dup) 5/11/2010 µg/L		MW12D 5/11/2010 µg/L		MW13S 5/11/2010 µg/L		MW13D 5/11/2010 µg/L		MW1S 5/12/2010 µg/L		MW1D 5/12/2010 µg/L	
1,1,1-Trichloroethane	5	1	U	1.8		1	U	1	U	**8.8**		1	U	4.2		1	U	**15**	
1,1,2,2-Tetrachloroethane	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	1	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichlorotrifluoroethane	5	1	U	1	U	1	U	1	U	2.2		1	U	1.2		1	U	3.5	
1,1-Dichloroethane	5	1	U	2.5		1	U	1	U	2.4		1	U	1.2		1	U	4.3	
1,1-Dichloroethene	5	1	U	4		1	U	1	U	**17**		1	U	**7**		1	U	**30**	
1,2,4-Trichlorobenzene	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dibromo-3-chloropropane	0.04	1	U	1	U	1	UJ	1	U	1	U	1	UJ	1	UJ	1	U	1	U
1,2-Dibromoethane (EDB)	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichlorobenzene	3	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethane	0.6	1	U	1	U	1	U	1	U	1	U	1	U	0.58	J	1	U	1	U
1,2-Dichloroethene, Total	5	2	U	1.2	J	**15**		**15**		1.8	J	0.74	J	**17**		**18**		4.4	
1,2-Dichloropropane	1	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3-Dichlorobenzene	3	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,4-Dichlorobenzene	3	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone (MEK)	5	5	U	5	UJ	5	U	5	U	5	U	5	U	5	U	5	UJ	5	U
2-Hexanone	5	5	U	5	UJ	5	U	5	U	5	U	5	U	5	U	5	UJ	5	U
4-Methyl-2-pentanone (MIBK)	5	5	U	5	UJ	5	U	5	U	5	U	5	U	5	U	5	UJ	5	U
Acetone	5	5	U	4.8	J	5	U	5	U	5	U	5	U	5	U	5	J	5	U
Benzene	1	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromoform	5	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	UJ	1	U
Bromomethane	5	1	UJ	1	U	1	U	1	UJ	1	UJ	1	U	1	U	1	U	1	UJ
Carbon disulfide	60	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Tetrachloride	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorodibromomethane	NA	1	U	1	U	1	UJ	1	U	1	U	1	UJ	1	UJ	1	U	1	U
Chloroethane	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroform	7	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloromethane	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,2-Dichloroethene	5	1	U	1.2		**15**		**15**		1.8		1	U	**17**		**18**		4.4	
cis-1,3-Dichloropropene	0.4	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Cyclohexane	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dichlorodifluoromethane	5	1	U	1	U	1	UJ	1	U	1	U	1	UJ	1	UJ	1	U	1	U
Ethylbenzene	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Isopropylbenzene	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methyl Acetate	NA	1	U	1	UJ	1	U	1	U	1	U	1	U	1	U	1	UJ	1	U
Methyl tert-Butyl Ether	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylcyclohexane	NA	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene Chloride	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

Table 3

VOCs in Groundwater

ANALYTE	NYS Class GA ug/L	MW11S 5/12/2010 µg/L		MW11D 5/12/2010 µg/L		MW12S 5/11/2010 µg/L		MW12S (dup) 5/11/2010 µg/L		MW12D 5/11/2010 µg/L		MW13S 5/11/2010 µg/L		MW13D 5/11/2010 µg/L		MW1S 5/12/2010 µg/L		MW1D 5/12/2010 µg/L	
Styrene	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene (PCE)	5	**8.7**		**8.1**		**10**		**10**		**7.1**		1.2		**9.4**		**8.9**		**18**	
Toluene	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	5	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	0.4	1	U	1	U	1	UJ	1	U	1	U	1	UJ	1	UJ	1	U	1	U
Trichloroethene (TCE)	5	1	U	3	U	2.5		2.4		**25**		1.7		**200**		3.1	U	**74**	
Trichlorofluoromethane	5	1	U	1	U	1	UJ	1	U	1	U	1	UJ	1	UJ	1	U	1	U
Vinyl chloride	2	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes, total	5	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U

U Not detected

J Concentrations are estimated.

Bolded concentrations exceed the NYS Class GA groundwater criteria.

Table 4

Other Parameters in Groundwater

ANALYTE	UNITS	MW11S 5/12/2010		MW11D 5/12/2010		MW12S 5/11/2010		MW12S (dup) 5/11/2010		MW12D 5/11/2010		MW13S 5/11/2010		MW13D 5/11/2010		MW1S 5/12/2010		MW1D 5/12/2010	
Methane	µg/L	1	U	0.63	J	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon Dioxide	µg/L	5200		1000		3500		3400		3500		17000		9000		7700		15000	
Sulfate	mg/L	16.1	B	28.4	B	28.9		29		46.8		47.9		12.4		25.9	B	24.4	B
Nitrate-Nitrite	mg/L-N	1.42		1.62		2.97		2.97		3.38	D08	3.81	D08	6.39	D08	1.85		2.8	
Iron - Dissolved	mg/L	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.029	J
Dissolved Oxygen	mg/L	10.50		10.58		11.31		11.31		9.92		12.19		9.32		6.64		4.16	

U Not detected

J Concentrations are estimated.

D08 Dilution required due to high concentration of target analyte(s)

B Analyte was detected in the associated Method Blank

Table 5

VOCs in Indoor Air Samples

Building	B01		B01		B07		B07		B13		B13	
Sample	FF1		FF2		FF1		FF2		FF1		FF2	
Sample Date	01/27/2010		01/27/2010		01/28/2010		01/28/2010		01/27/2010		01/27/2010	
Parameter	µg/m³		µg/m³		µg/m³		µg/m³		µg/m³		µg/m³	
1,1,1-Trichloroethane	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
1,1,2,2-Tetrachloroethane	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U
1,1,2-Trichloroethane	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U	0.22	U
1,1-Dichloroethane	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U
1,1-Dichloroethene	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U
1,2-Dibromoethane	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U
1,2-Dichloroethane	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U
1,2-Dichloroethene,Total	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U
1,2-Dichloropropane	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U	0.37	U
1,2-Dichlorotetrafluoroethane	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ	0.28	UJ
1,3,5-Trimethylbenzene	0.88		1.0		0.39	U	0.39	U	0.79		1.0	
1,3-Butadiene	0.40		0.31		0.24		0.18	U	0.18	U	0.24	
2,2,4-Trimethylpentane	1.3		1.1		0.61		0.47		1.7		2.3	
3-Chloropropene	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U	0.25	U
4-Ethyltoluene	0.74		0.88		0.38		0.29		0.74		1.2	
Benzene	2.2		2.0		1.2		1.0		2.9		3.5	
Bromodichloromethane	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U	0.27	U
Bromoethene	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U
Bromoform	0.41	U	0.41	U	0.41	U	0.41	U	0.41	U	0.41	U
Bromomethane	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U	0.31	U
Carbon tetrachloride	0.56		0.50		0.55		0.48		0.57		0.50	
Chloroethane	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U	0.21	U
Chloroform	0.20	U	0.37		0.47		0.23		0.20	U	0.20	U
cis-1,2-Dichloroethene	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U
cis-1,3-Dichloropropene	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U
Cyclohexane	0.89		0.96		0.59		0.45		0.96		1.5	
Dibromochloromethane	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U	0.34	U
Dichlorodifluoromethane	3.0		2.6		3.1		3.0		3.3		2.9	
Ethylbenzene	2.9		3.4		0.61		0.69		2.4		3.7	
Methyl tert-Butyl Ether	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U
Methylene chloride	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U	2.8	U
n-Heptane	1.5		1.5		0.61		0.78		2.1		3.0	
n-Hexane	2.3		2.0		1.1		0.81		6.0		9.5	
Tetrachloroethene (PCE)	0.81		0.95		0.68		0.75		1.9		1.2	
Toluene	14		14		4.5		5.3		17	J	23	J
trans-1,2-Dichloroethene	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U
trans-1,3-Dichloropropene	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U
Trichloroethene (TCE)	0.21	U	0.21	U	0.33		0.28		0.21	U	0.21	U
Trichlorofluoromethane	1.6		1.5		1.6		1.6		1.7		1.5	
Vinyl Chloride	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U	0.20	U
Xylene (m,p)	6.9		7.4		1.9		1.7		8.7		13	
Xylene (o)	2.3		2.4		0.61		0.61		2.6		3.9	
Xylenes, Total	9.6		9.6		2.5		2.3		11		17	

U Not detect

J Concentrations are detected

Table 6

VOCs in Sub-Slab Air Samples

Building	B01		B01		B07		B07		B13		B13	
Sample	SS1		SS1 (dup)		SS1		SS2		SS1		SS2	
Sample Date	01/27/2010		01/27/2010		01/28/2010		01/28/2010		01/27/2010		01/27/2010	
Parameter	µg/m³		µg/m³		µg/m³		µg/m³		µg/m³		µg/m³	
1,1,1-Trichloroethane	0.87	U	41		6.5		2.2	U	21		0.87	U
1,1,2,2-Tetrachloroethane	1.1	U	1.1	U	2.7	U	2.7	U	1.1	U	1.1	U
1,1,2-Trichloroethane	0.87	U	0.87	U	2.2	U	2.2	U	0.87	U	0.87	U
1,1-Dichloroethane	0.65	U	0.65	U	1.6	U	1.6	U	0.65	U	0.65	U
1,1-Dichloroethene	0.63	U	0.63	U	1.6	U	1.6	U	0.63	U	0.63	U
1,2-Dibromoethane	1.2	U	1.2	U	3.1	U	3.1	U	1.2	U	1.2	U
1,2-Dichloroethane	0.65	U	0.65	U	1.6	U	1.6	U	0.65	U	0.65	U
1,2-Dichloroethene,Total	0.63	U	0.63	U	1.6	U	1.6	U	0.63	U	0.63	U
1,2-Dichloropropane	0.74	U	0.74	U	1.8	U	1.8	U	0.74	U	0.74	U
1,2-Dichlorotetrafluoroethane	1.1	U	1.1	U	2.8	U	2.8	U	1.1	U	1.1	U
1,3,5-Trimethylbenzene	1.1	J	12	J	5.4		5.4		1.6		10	
1,3-Butadiene	0.88	U	0.88	U	2.2	U	2.2	U	1.4		0.88	U
2,2,4-Trimethylpentane	1.4		0.75	U	1.9	U	1.9	U	0.75	U	2.2	
3-Chloropropene	1.3	U	1.3	U	3.1	U	3.1	U	1.3	U	1.3	U
4-Ethyltoluene	0.88	J	9.3	J	4.4		4.3		1.8		7.9	
Benzene	2.7		1.4		1.3	U	1.3	U	1.8		3.5	
Bromodichloromethane	1.1	U	1.1	U	2.7	U	2.7	U	1.1	U	1.1	U
Bromoethene	0.70	U	0.70	U	1.7	U	1.7	U	0.70	U	0.70	U
Bromoform	1.7	U	1.7	U	4.1	U	4.1	U	1.7	U	1.7	U
Bromomethane	0.62	U	0.62	U	1.6	U	1.6	U	0.62	U	0.62	U
Carbon tetrachloride	1.0	U	1.0	U	2.5	U	2.5	U	1.1		1.0	U
Chloroethane	1.1	U	1.1	U	2.6	U	2.6	U	1.1	U	1.1	U
Chloroform	0.78	U	0.98		2.0	U	2.0	U	1.2		0.78	U
cis-1,2-Dichloroethene	0.63	U	0.63	U	1.6	U	1.6	U	0.63	U	0.63	U
cis-1,3-Dichloropropene	0.73	U	0.73	U	1.8	U	1.8	U	0.73	U	0.73	U
Cyclohexane	0.72		1.6		1.4	U	1.4	U	1.1		1.6	
Dibromochloromethane	1.4	U	1.4	U	3.4	U	3.4	U	1.4	U	1.4	U
Dichlorodifluoromethane	2.9		3.1		4.9	U	4.9	U	2.4		3.1	
Ethylbenzene	3.3		3.3		1.7	U	1.7	U	2.2		3.3	
Methyl tert-Butyl Ether	1.4	U	1.4	U	3.6	U	3.6	U	1.4	U	1.4	U
Methylene chloride	1.4	U	1.4	U	3.5	U	3.5	U	1.9		1.4	U
n-Heptane	1.4		1.2		1.6	U	1.6	U	1.2		2.9	
n-Hexane	1.7		1.4	U	3.5	U	3.5	U	1.7		7.4	
Tetrachloroethene (PCE)	1.5	J	31	J	43		9.5		66		1.5	
Toluene	12		11		2.2		1.7		9.8		18	
trans-1,2-Dichloroethene	0.63	U	0.63	U	1.6	U	1.6	U	0.63	U	0.63	U
trans-1,3-Dichloropropene	0.73	U	0.73	U	1.8	U	1.8	U	0.73	U	0.73	U
Trichloroethene (TCE)	0.86	U	0.86	U	3.4		2.1	U	17		0.86	U
Trichlorofluoromethane	1.5		1.7		2.8		2.2	U	5.6		1.5	
Vinyl Chloride	0.41	U	0.41	U	1.0	U	1.0	U	0.41	U	0.41	U
Xylene (m,p)	6.5		7.8		3.5	U	3.5	U	7.4		11	
Xylene (o)	2.3		3.5		1.7	U	1.7	U	2.4		4.0	
Xylenes, Total	8.7		11		1.7	U	1.7	U	9.6		14	

U Not detect

J Concentrations are detected

Table 7

VOCs in Outdoor Air Samples

Building	B01		B07	
Sample	OA		OA	
Sample Date	01/27/2010		01/28/2010	
Parameter	µg/m³		µg/m³	
1,1,1-Trichloroethane	0.22	U	0.22	U
1,1,2,2-Tetrachloroethane	0.27	U	0.27	U
1,1,2-Trichloroethane	0.22	U	0.22	U
1,1-Dichloroethane	0.16	U	0.16	U
1,1-Dichloroethene	0.16	U	0.16	U
1,2-Dibromoethane	0.31	U	0.31	U
1,2-Dichloroethane	0.32	U	0.32	U
1,2-Dichloroethene,Total	0.16	U	0.16	U
1,2-Dichloropropane	0.37	U	0.37	U
1,2-Dichlorotetrafluoroethane	0.28	UJ	0.28	UJ
1,3,5-Trimethylbenzene	0.39	U	0.39	U
1,3-Butadiene	0.18		0.27	
2,2,4-Trimethylpentane	0.44		0.70	
3-Chloropropene	0.25	U	0.25	U
4-Ethyltoluene	0.29		0.29	
Benzene	0.99		1.3	
Bromodichloromethane	0.27	U	0.27	U
Bromoethene	0.35	U	0.35	U
Bromoform	0.41	U	0.41	U
Bromomethane	0.31	U	0.31	U
Carbon tetrachloride	0.39		0.54	
Chloroethane	0.21	U	0.21	U
Chloroform	0.48		0.20	U
cis-1,2-Dichloroethene	0.16	U	0.16	U
cis-1,3-Dichloropropene	0.18	U	0.18	U
Cyclohexane	0.48		0.34	
Dibromochloromethane	0.34	U	0.34	U
Dichlorodifluoromethane	3.0		3.0	
Ethylbenzene	0.52		0.74	
Methyl tert-Butyl Ether	0.14	U	0.14	U
Methylene chloride	2.8	U	2.8	U
n-Heptane	0.53		0.57	
n-Hexane	0.92		1.1	
Tetrachloroethene (PCE)	0.66		0.63	
Toluene	3.7		5.3	
trans-1,2-Dichloroethene	0.16	U	0.16	U
trans-1,3-Dichloropropene	0.18	U	0.18	U
Trichloroethene (TCE)	0.24		0.21	U
Trichlorofluoromethane	1.5		1.5	
Vinyl Chloride	0.20	U	0.20	U
Xylene (m,p)	1.4		2.3	
Xylene (o)	0.43		0.69	
Xylenes, Total	1.9		3.0	

U Not detect

J Concentrations are detected

Table 8

VOCs Comparison to 75th Percentile NYSDOH Background - Indoor Air Samples 2010

Building	NYSDOH	B01	B01	B07	B07	B13	B13
Sample	Background	FF1	FF2	FF1	FF2	FF1	FF2
Sample Date	75th Percentile	01/27/10	01/27/10	01/28/10	01/28/10	01/27/10	01/27/10
Parameter	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
1,3,5-Trimethylbenzene	1.7	0.88	1.0	0.39 U	0.39 U	0.79	1.0
1,3-Butadiene	NA	0.40	0.31	0.24	0.18 U	0.18 U	0.24
2,2,4-Trimethylpentane	NA	1.3	1.1	0.61	0.47	1.7	2.3
4-Ethyltoluene	NA	0.74	0.88	0.38	0.29	0.74	1.2
Benzene	5.9	2.2	2.0	1.2	1.0	2.9	3.5
Carbon tetrachloride	0.6	0.56	0.50	0.55	0.48	0.57	0.50
Chloroform	0.5	0.20 U	0.37	0.47	0.23	0.20 U	0.20 U
Cyclohexane	2.6	0.89	0.96	0.59	0.45	0.96	1.5
Dichlorodifluoromethane	4.1	3.0	2.6	3.1	3.0	3.3	2.9
Ethylbenzene	2.8	**2.9**	**3.4**	0.61	0.69	2.4	**3.7**
n-Heptane	7.6	1.5	1.5	0.61	0.78	2.1	3.0
n-Hexane	5.9	2.3	2.0	1.1	0.81	**6.0**	**9.5**
Tetrachloroethene (PCE)	1.1	0.81	0.95	0.68	0.75	**1.9**	**1.2**
Toluene	25	14	14	4.5	5.3	17 J	23 J
Trichlorofluoromethane	5.4	1.6	1.5	1.6	1.6	1.7	1.5
Xylene (m,p)	4.6	**6.9**	**7.4**	1.9	1.7	**8.7**	**13**
Xylene (o)	3.1	2.3	2.4	0.61	0.61	2.6	**3.9**
Xylenes, Total	NA	9.6	9.6	2.5	2.3	11	17

U Not detect

J Concentrations are detected

Bolded concentrations exceed the NYSDOH Background 75th percentile.

Table 9

VOCs Comparison to 75th Percentile NYSDOH Background - Outdoor Air Samples 2010

Building	NYSDOH	B01	B07	
Sample	Background	OA	OA	
Sample Date	75th Percentile	01/27/2010	01/28/2010	
Parameter	µg/m³	µg/m³	µg/m³	
1,3-Butadiene	NA	0.18	0.27	
2,2,4-Trimethylpentane	NA	0.44	0.70	
4-Ethyltoluene	NA	0.29	0.29	
Benzene	2.2	0.99	1.3	
Carbon tetrachloride	0.6	0.39	0.54	
Chloroform	<0.25	**0.48**	0.20	U
Cyclohexane	0.4	**0.48**	0.34	
Dichlorodifluoromethane	4.2	3.0	3.0	
Ethylbenzene	0.5	**0.52**	**0.74**	
n-Heptane	1.9	0.53	0.57	
n-Hexane	1	0.92	**1.1**	
Tetrachloroethene (PCE)	0.3	**0.66**	**0.63**	
Toluene	2.4	**3.7**	**5.3**	
Trichloroethene (TCE)	<0.25	0.24	0.21	U
Trichlorofluoromethane	2.2	1.5	1.5	
Xylene (m,p)	0.5	**1.4**	**2.3**	
Xylene (o)	0.6	0.43	**0.69**	
Xylenes, Total	NA	1.9	3.0	

U Not detect

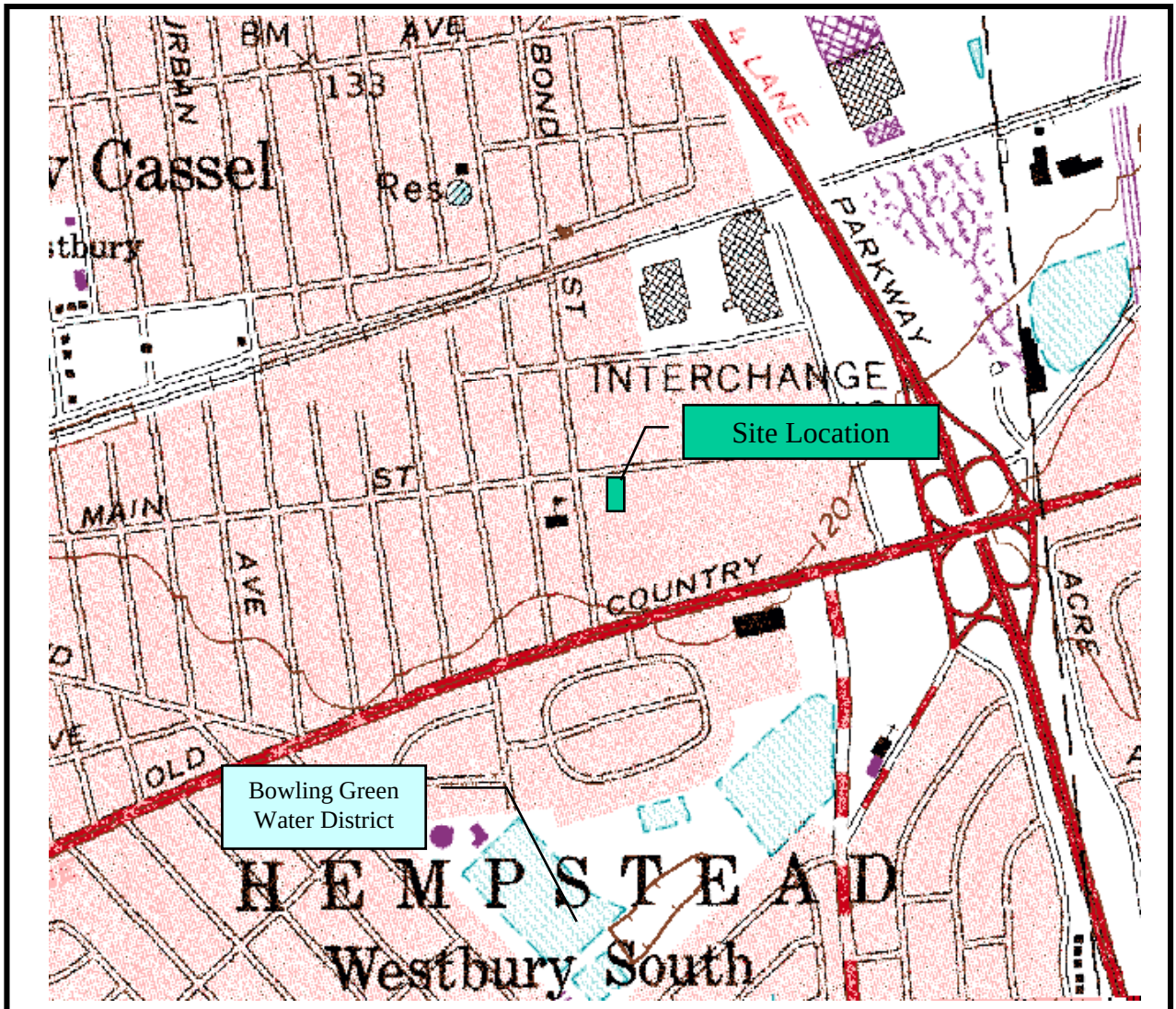
J Concentrations are detected

Bolded concentrations exceed the NYSDOH Background 75th percentile.

Table 10
Comparison of Indoor Air Levels to the NYSDOH Decision Matricies

Units: ug/m3	Tetrachloroethene (PCE)							Trichloroethene (TCE)						
Structure	Indoor Air	Q	Sub-Slab	Q	Outdoor Air	Q	Matrix 2	Indoor Air	Q	Sub-Slab	Q	Outdoor Air	Q	Matrix 1
1	0.81		1.5	J	0.66		1. No further action	0.21	U	0.86	U	0.24		1. No further action
	0.95		31	J	0.66		1. No further action	0.21	U	0.86	U	0.24		1. No further action
7	0.75		9.3		0.63		1. No further action	0.28		2.1	U	0.21	U	2. Take reasonable and practical
	0.68		43		0.63		1. No further action	0.33		3.4		0.21	U	actions to identify source(s) and
														reduce exposures
13	1.9		66				1. No further action	0.21	U	17				1. No further action
	1.2		1.5				1. No further action	0.21	U	0.86	U			1. No further action

Notes:
1. Soil/Vapor Matrix as shown in NYSDOH (2006); recommended action and numbering taken from corresponding matrix.
U = Not detected
J = Concentrations are estimated
NA = Data are not available to compare to the matrix thresholds



USGS Hicksville (NY) Quadrangle

U.S.G.S. 1:24 000 SCALE TOPOGRAPHIC MAP

1 1/2 0 1 MILE

1000 0 1000 2000 3000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

MN GN

12° 213 MILS | 0° 42' 12 MILS

UTM GRID & 1979
MAGNETIC NORTH
DECLINATION AT
CENTER OF SHEET

100 Red Schoolhouse Road, Suite B-1
Chestnut Ridge , NY 10977-6715

ENVIRONMENTAL CONSULTING ENGINEERS

AECOM

PROJECT:

REMEDIAL DESIGN/
CONSTRUCTION OVERSIGHT

Utility Manufacturing/Wonder King, OU2
700 – 712 Main Street, Westbury, New York

SITE LOCATION MAP

Project No: 60134954

Figure No: 1

AECOM

Utility Manufacturing/Wonder King
700 – 712 Main Street
Westbury, New York

0 20 40 80
Feet

Legend

Monitoring Wells

- Installed March 2010
- Installed by ERM
- No Monitoring Well Found

Monitoring Well Locations

Project No: 60134954

Figure No: 2

October 1, 2010

AECOM

Utility Manufacturing/Wonder King
700 – 712 Main Street
Westbury, New York

0 15 30 60
Feet

Legend

Monitoring Wells

- Installed March 2010
- Installed by ERM

Groundwater elevations are in NAVD88.

Groundwater Elevations
Shallow Wells - May 2010

Project No: 60134954

Figure No: 3

October 1, 2010

AECOM

Utility Manufacturing/Wonder King
700 – 712 Main Street
Westbury, New York

0 15 30 60
Feet

Legend

Monitoring Wells

- Installed March 2010
- Installed by ERM

Groundwater elevations are in NAVD88.

Groundwater Elevations
Deep Wells - May 2010

Project No: 60134954

Figure No: 4

October 1, 2010

AECOM

Utility Manufacturing/Wonder King
700 – 712 Main Street
Westbury, New York

0 30 60 120
Feet

Legend

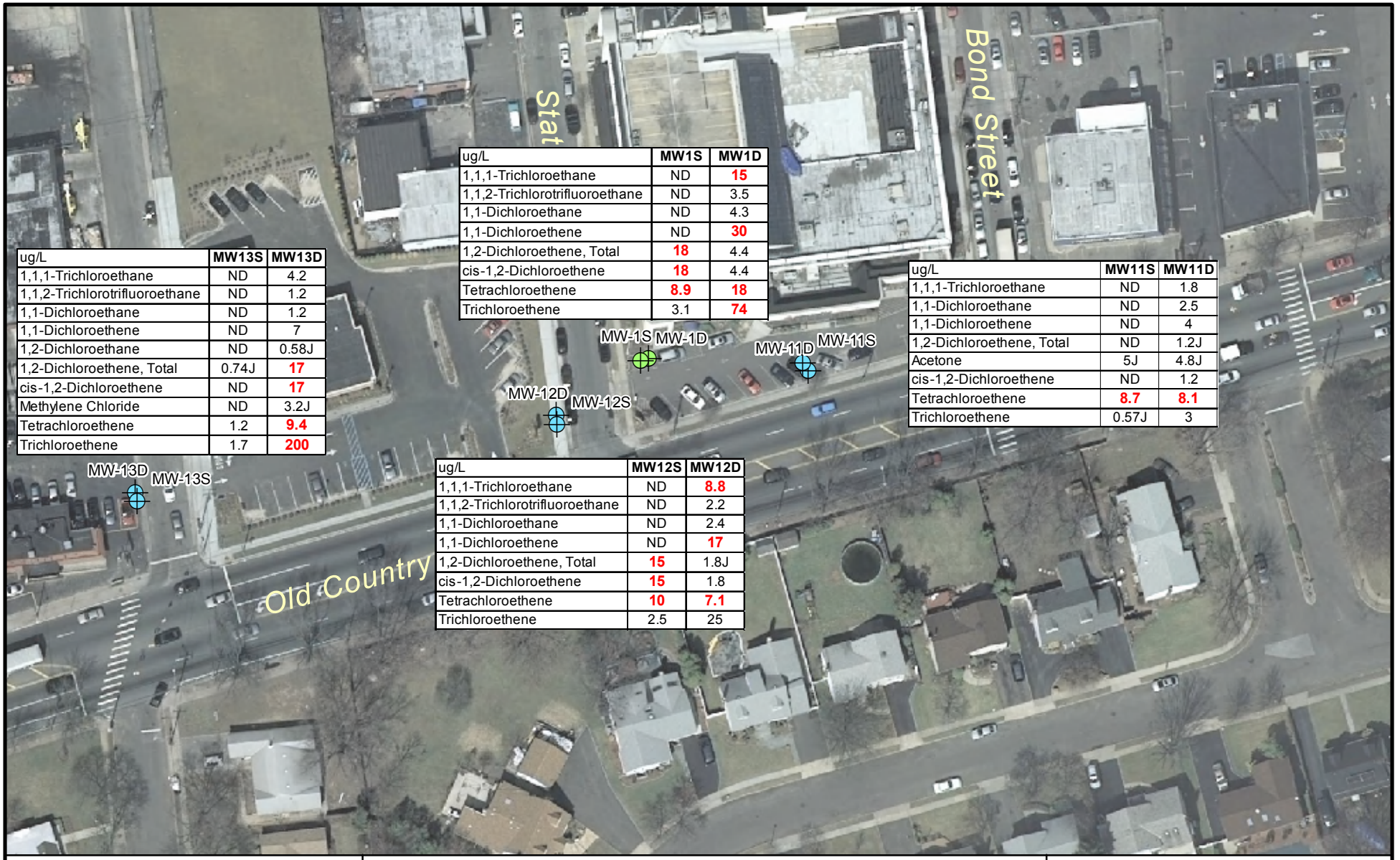
Site
Indoor Air Sample Structures

Indoor Air Sampling Locations

Project No: 60134954

Figure No: 5

October 1, 2010



ug/L	MW13S	MW13D
1,1,1-Trichloroethane	ND	4.2
1,1,2-Trichlorotrifluoroethane	ND	1.2
1,1-Dichloroethane	ND	1.2
1,1-Dichloroethene	ND	7
1,2-Dichloroethane	ND	0.58J
1,2-Dichloroethene, Total	0.74J	17
cis-1,2-Dichloroethene	ND	17
Methylene Chloride	ND	3.2J
Tetrachloroethene	1.2	9.4
Trichloroethene	1.7	200

ug/L	MW1S	MW1D
1,1,1-Trichloroethane	ND	15
1,1,2-Trichlorotrifluoroethane	ND	3.5
1,1-Dichloroethane	ND	4.3
1,1-Dichloroethene	ND	30
1,2-Dichloroethene, Total	18	4.4
cis-1,2-Dichloroethene	18	4.4
Tetrachloroethene	8.9	18
Trichloroethene	3.1	74

ug/L	MW11S	MW11D
1,1,1-Trichloroethane	ND	1.8
1,1-Dichloroethane	ND	2.5
1,1-Dichloroethene	ND	4
1,2-Dichloroethene, Total	ND	1.2J
Acetone	5J	4.8J
cis-1,2-Dichloroethene	ND	1.2
Tetrachloroethene	8.7	8.1
Trichloroethene	0.57J	3

ug/L	MW12S	MW12D
1,1,1-Trichloroethane	ND	8.8
1,1,2-Trichlorotrifluoroethane	ND	2.2
1,1-Dichloroethane	ND	2.4
1,1-Dichloroethene	ND	17
1,2-Dichloroethene, Total	15	1.8J
cis-1,2-Dichloroethene	15	1.8
Tetrachloroethene	10	7.1
Trichloroethene	2.5	25

AECOM

Utility Manufacturing/Wonder King
700 – 712 Main Street
Westbury, New York

0 20 40 80
Feet

Legend

Monitoring Wells

- Installed March 2010
- Installed by ERM

Concentrations exceeding the NYS Class GA criteria are in red.

The NYS Class GA criterion for 1,2-dichloroethane is 0.6 ug/L.

The NYS Class GA criteria for all other parameters shown are 5 ug/L.

Groundwater Sampling Results - May 2010

Project No: 60134954

Figure No: 6

October 1, 2010

B01 ug/m3	Indoor Air		Sub-Slab		Outdoor
Sample	FF1	FF2	SS1	(dup)	OA
1,1,1-Trichloroethane	0.2 U	0.2 U	0.9 U	41	0.2 U
1,3,5-Trimethylbenzene	0.9	1.00	1.1 J	12 J	0.4 U
1,3-Butadiene	0.4	0.3	0.9 U	0.9 U	0.2
2,2,4-Trimethylpentane	1.3	1.1	1.4	0.8 U	0.4
4-Ethyltoluene	0.7	0.9	0.9 J	9.3 J	0.3
Benzene	2.2	2	2.7	1.4	0.99
Carbon tetrachloride	0.6	0.5	1.00 U	1.00 U	0.4
Chloroform	0.2 U	0.4	0.8 U	0.98	0.5
Cyclohexane	0.9	0.96	0.7	1.6	0.5
Dichlorodifluoromethane	3	2.6	2.9	3.1	3
Ethylbenzene	2.9	3.4	3.3	3.3	0.5
n-Heptane	1.5	1.5	1.4	1.2	0.5
n-Hexane	2.3	2	1.7	1.4 U	0.9
Tetrachloroethene (PCE)	0.8	0.95	1.5 J	31 J	0.7
Toluene	14	14	12	11	3.7
Trichlorofluoromethane	1.6	1.5	1.5	1.7	1.5
Xylene (m,p)	6.9	7.4	6.5	7.8	1.4
Xylene (o)	2.3	2.4	2.3	3.5	0.4
Xylenes, Total	9.6	9.6	8.7	11	1.9

B07 (ug/m3)	Indoor Air		Sub-Slab		Outdoor
Sample	FF1	FF2	SS1	SS2	OA
1,1,1-Trichloroethane	0.2 U	0.2 U	7	2 U	0.2 U
1,3,5-Trimethylbenzene	0.4 U	0.4 U	5	5	0.4 U
1,3-Butadiene	0.2	0.2 U	2 U	2 U	0.3
2,2,4-Trimethylpentane	0.6	0.5	2 U	2 U	0.7
4-Ethyltoluene	0.4	0.3	4	4	0.3
Benzene	1.2	1	1 U	1 U	1.3
Carbon tetrachloride	0.6	0.5	3 U	3 U	0.5
Chloroform	0.5	0.2	2 U	2 U	0.2 U
Cyclohexane	0.6	0.5	1 U	1 U	0.3
Dichlorodifluoromethane	3.1	3	5 U	5 U	3
Ethylbenzene	0.6	0.7	2 U	2 U	0.7
n-Heptane	0.6	0.8	2 U	2 U	0.6
n-Hexane	1.1	0.8	4 U	4 U	1.1
Tetrachloroethene (PCE)	0.7	0.8	43	10	0.6
Toluene	4.5	5.3	2	2	5.3
Trichloroethene (TCE)	0.3	0.3	3	2 U	0.2 U
Trichlorofluoromethane	1.6	1.6	3	2 U	1.5
Xylene (m,p)	1.9	1.7	4 U	4 U	2.3
Xylene (o)	0.6	0.6	2 U	2 U	0.7
Xylenes, Total	2.5	2.3	2 U	2 U	3

B13 ug/m3	Indoor		Sub-Slab	
Sample	FF1	FF2	SS1	SS2
1,1,1-Trichloroethane	0.2 U	0.2 U	21	0.9 U
1,3,5-Trimethylbenzene	0.8	1	1.6	10
1,3-Butadiene	0.2 U	0.2	1.4	0.9 U
2,2,4-Trimethylpentane	1.7	2.3	0.8 U	2.2
4-Ethyltoluene	0.7	1.2	1.8	7.9
Benzene	2.9	3.5	1.8	3.5
Carbon tetrachloride	0.6	0.5	1.1	1 U
Chloroform	0.2 U	0.2 U	1.2	0.8 U
Cyclohexane	1	1.5	1.1	1.6
Dichlorodifluoromethane	3.3	2.9	2.4	3.1
Ethylbenzene	2.4	3.7	2.2	3.3
Methylene chloride	2.8 U	2.8 U	1.9	1.4 U
n-Heptane	2.1	3	1.2	2.9
n-Hexane	6	9.5	1.7	7.4
Tetrachloroethene (PCE)	1.9	1.2	66	1.5
Toluene	17 J	23 J	9.8	18
Trichloroethene (TCE)	0.2 U	0.2 U	17	0.9 U
Trichlorofluoromethane	1.7	1.5	5.6	1.5
Xylene (m,p)	8.7	13	7.4	11
Xylene (o)	2.6	3.9	2.4	4
Xylenes, Total	11	17	9.6	14

AECOM

Utility Manufacturing/Wonder King
700 – 712 Main Street
Westbury, New York

0 30 60 120
Feet

Legend

- IndoorAirSamples
- Site
- Indoor Air Sample Structures

Indoor Air Sampling
Results - January 2010

Project No: 60134954

Figure No: 7

October 1, 2010

APPENDIX A

Field Forms

AECOM

BORING LOG

Boring No.: MW-11S

PROJECT:	Utility Mfg/Wonder King			PAGE 1 OF 1
PROJECT No.:	60134954	CONTRACTOR: EAR/Clearwater Drillers, Inc.		DATE: 3/9/2010
LOCATION:	Westbury, NY	DRILLERS NAME: Rob, Mike, Bruce, Dennis		REP.: Jim Christopher (YEC)
WATER LEVELS		DESIGNATION OF DRILL RIG: Hollow Stem Auger		
DATE	TIME	DEPTH	SIZE AND TYPE OF EQUIPMENT: Truck Mounted Rig	
3/11/10	1050	45	REFERENCE ELEVATION: GS	DEPTH OF BOREHOLE: 95.0'
LABORATORY ANALYSES: waste characterization				

Depth (ft)	Sample Number &Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
1	MW-11S Boring		0.0	Asphalt
	Composite 1118			
20				
			0.0	Orange-Brown gravelly coarse sand, clasts round to sub-round ~14mm, slightly damp
40				
				▼
60				
			0.0	Yellow-Brown coarse sand, saturated
80				
			0.0	Yellow-Brown fine to medium sand, very wet
100				End of boring
120				
140				

AECOM

BORING LOG

Boring No.: MW-11D

PROJECT:	Utility Mfg/Wonder King		PAGE 1 OF 1
PROJECT No.:	60134954	CONTRACTOR: EAR/Clearwater Drillers, Inc.	DATE: 3/16/2010
LOCATION:	Westbury, NY	DRILLERS NAME: Rob, Mike, Bruce, Dennis	REP.: Peter Lawlor (YEC)

WATER LEVELS			DESIGNATION OF DRILL RIG: Hollow Stem Auger
DATE	TIME	DEPTH	SIZE AND TYPE OF EQUIPMENT: Truck Mounted Rig
3/16/10	1439	45.6	REFERENCE ELEVATION: GS DEPTH OF BOREHOLE: 128.0'

LABORATORY ANALYSES: waste characterization

Depth (ft)	Sample Number &Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
1	MW-11D Boring		0.0	Asphalt Tan coarse sand, moist
	Composite 1415			
20				
40				
			0.0	Tan coarse sand, saturated ▽
60				
80				
100				
120			0.0	Tan medium to coarse sand, saturated
			0.0	Gray clay, trace fine sand, saturated, no odor
140				End of borehole

AECOM

BORING LOG

Boring No.: MW-12S

PROJECT: Utility Mfg/Wonder King			PAGE 1 OF 1
PROJECT No.: 60134954		CONTRACTOR: EAR/Clearwater Drillers, Inc.	DATE: 3/10/2010
LOCATION: Westbury, NY		DRILLERS NAME: Rob, Mike, Bruce, Dennis	REP.: Jim Christopher (YEC)
WATER LEVELS		DESIGNATION OF DRILL RIG: Hollow Stem Auger	
DATE / TIME / DEPTH		SIZE AND TYPE OF EQUIPMENT: Truck Mounted Rig	
-- / -- / --		REFERENCE ELEVATION: GS	DEPTH OF BOREHOLE: 95.0'
LABORATORY ANALYSES: waste characterization			

Depth (ft)	Sample Number &Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
	MW-12S Boring		0.0	Concrete sidewalk Orange-Brown gravelly coarse sand, clasts ~14mm, damp,
1	Composite			some cohesion
20			0.0	Yellowing Orange-Brown gravelly coarse sand, clasts ~14mm, cohesion, damp, weakening
40			0.0	Yellow-Brown gravelly coarse sand, clasts≤~5mm, moist, very little cohesion
			0.1	Yellow-Brown medium sand, no clasts, moist
60				
			0.1	Yellow-Brown medium sand, no clasts, wet
80				
				End of boring
100				
120				
140				

AECOM

BORING LOG

Boring No.: MW-12D

PROJECT:	Utility Mfg/Wonder King			PAGE 1 OF 1
PROJECT No.:	60134954	CONTRACTOR: EAR/Clearwater Drillers, Inc.		DATE: 3/5/2010
LOCATION:	Westbury, NY	DRILLERS NAME: Rob, Mike, Bruce, Dennis		REP.: Peter Lawlor (YEC)
WATER LEVELS		DESIGNATION OF DRILL RIG: Hollow Stem Auger		
DATE	TIME	DEPTH	SIZE AND TYPE OF EQUIPMENT: Truck Mounted Rig	
3/5/10	--	58	REFERENCE ELEVATION: GS	DEPTH OF BOREHOLE: 126.0'
LABORATORY ANALYSES: waste characterization				

Depth (ft)	Sample Number &Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
	MW-12D Boring			Concrete sidewalk
1			0.0	
	Composite 1045			Tan coarse sand, moist
20				
			0.0	Tan coarse sand, trace gravels (-20mm) moist
40				
				Tan coarse sand, moist
60			0.0	
				▽
				Tan coarse sand, saturated
80			0.0	
100				
				Tan clayey medium to coarse sand, saturated
120				
				End of borehole
140				

AECOM

BORING LOG

Boring No.: MW-13S

PROJECT:	Utility Mfg/Wonder King			PAGE 1 OF 1
PROJECT No.:	60134954	CONTRACTOR: EAR/Clearwater Drillers, Inc.		DATE: 3/11/2010
LOCATION:	Westbury, NY	DRILLERS NAME: Rob, Mike, Bruce, Dennis		REP.: Jim Christopher (YEC)
WATER LEVELS		DESIGNATION OF DRILL RIG: Hollow Stem Auger		
DATE	TIME / DEPTH	SIZE AND TYPE OF EQUIPMENT: Truck Mounted Rig		
3/16/10	0851 / 41.48	REFERENCE ELEVATION: GS	DEPTH OF BOREHOLE: 96.0'	
LABORATORY ANALYSES: waste characterization				

Depth (ft)	Sample Number &Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
1	MW-13S Boring Composite 0938		0.0	Asphalt Brown gravelly coarse sand, clasts ~12.5mm, moist
			0.0	Orange-Brown gravelly coarse sand, clasts ~12.5mm, moist
20				
			0.0	Yellow-Brown gravelly coarse sand, clasts ~12.5mm, moist, some cohesion
40			0.1	Yellow-Brown gravelly coarse sand, fewer clasts, clasts ~5mm, moist, some cohesion
60			0.0	Light Yellow-Brown medium sand, no clasts, wet, some cohesion
			0.0	Light Yellow-Brown medium sand, no clasts, very wet, some cohesion
80			0.0	Light Yellow-Brown mottled clayey fine to medium sand, clay
				medium grey, no clasts, wet, moderate cohesion End of boring
100				
120				
140				

AECOM

BORING LOG

Boring No.: MW-13D

PROJECT:	Utility Mfg/Wonder King			PAGE 1 OF 1
PROJECT No.:	60134954	CONTRACTOR: EAR/Clearwater Drillers, Inc.		DATE: 3/12/2010
LOCATION:	Westbury, NY	DRILLERS NAME: Rob, Mike, Bruce, Dennis		REP.: Jim Christopher (YEC)
WATER LEVELS		DESIGNATION OF DRILL RIG: Hollow Stem Auger		
DATE	TIME	DEPTH	SIZE AND TYPE OF EQUIPMENT: Truck Mounted Rig	
--	--	--	REFERENCE ELEVATION: GS	DEPTH OF BOREHOLE: 126.0'
LABORATORY ANALYSES: waste characterization				

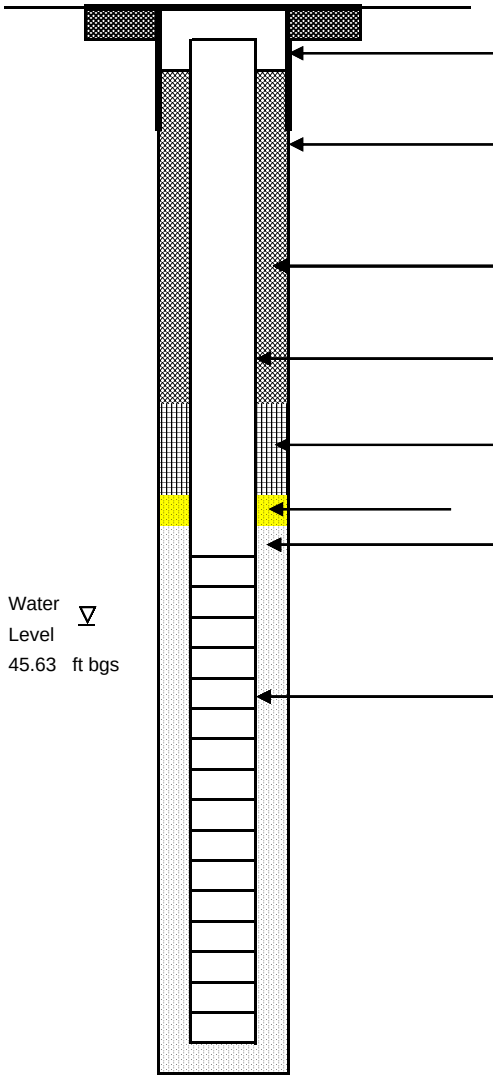
Depth (ft)	Sample Number &Time	Rec. (feet)	PID Readings (ppm)	SAMPLE DESCRIPTION, REMARKS, AND STRATUM CHANGES
	MW-13D Boring			Asphalt
1	Composite		0.0	Light Orange-Brown gravelly coarse sand,
				clasts ~15mm, largest ~40mm, little cohesion, moist
20				
			0.0	Yellow-Brown gravelly coarse sand, clasts≤ 20mm, moist
40			0.0	Yellow-Brown gravelly coarse sand, fewer clasts, clasts≤ 10mm, moist
			0.0	Yellow-Brown medium sand, no clasts, moist
60				
			0.0	Light Yellow-Brown medium sand, no clasts, wet
			0.0	Light Yellow-Brown clayey fine to medium sand, no clasts, wet
80				
100				
120				
				End of boring
140				

AECOM

Well No. MW-11S

Project: Utility Mfg/Wonder King	Location: Westbury, NY	Page 1 of 1
AECOM Project No.: 60134954	Date of Completion: 3/9/2010	
Driller: CDI		
Well Permit No.: N/A		
AECOM Rep.: Jim Christopher		

Locking protective flushmount with concrete pad



Ground Surface 0.0 ft

Well casing 0.5 ft bgs

Borehole diameter 4 inches

Cement-bentonite grout from 77.3 ft to 1.0 ft

Riser Pipe from 85.0 ft to 0.5 ft

Slurry 78.3 ft to 77.3 ft

Sand Choker (Size 00) 80.5 ft to 78.3 ft

Filter pack from 95.0 ft to 80.5 ft

Sand Size 0

Well screen from 95.0 ft to 85.0 ft

Diameter 2 inches

Slot size 10 inches

Type PVC Sch 40

Bottom Cap at 95.0 ft

Bottom of Borehole at 95.0 ft

Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

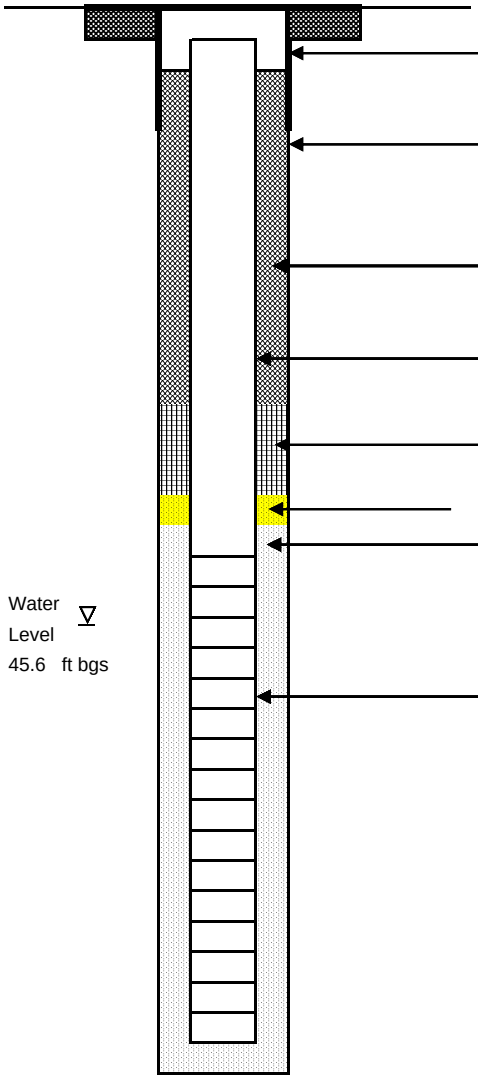
(NOT TO SCALE)

AECOM

Well No. Deep 11D

Project: Utility Mfg/Wonder King	Location: Westbury, NY	Page 1 of 1
AECOM Project No.: 60134954	Date of Completion: 3/16/10	
Driller: Clearwater		
Well Permit No.: N/A		
AECOM Rep.: Peter Lawler		

Locking protective flushmount with concrete pad



Ground Surface 0.0 ft

Well casing 0.5 ft bgs

Borehole diameter 6 inches

Cement-bentonite grout from 108.4 ft to 1.0 ft

Riser Pipe from 114.0 ft to 0.5 ft

Slurry 109.4 ft to 108.4

Sand Choker (Size 00) 117.7 ft to 109.4 ft

Filter pack from 125.0 ft to 117.7 ft

Sand Size 0

Well screen from 124.0 ft to 114.0 ft

Diameter 2 inches

Slot size 10 inches

Type PVC Sch 80

Bottom Cap at 124.0 ft

Bottom of Borehole at 128.0 ft

Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

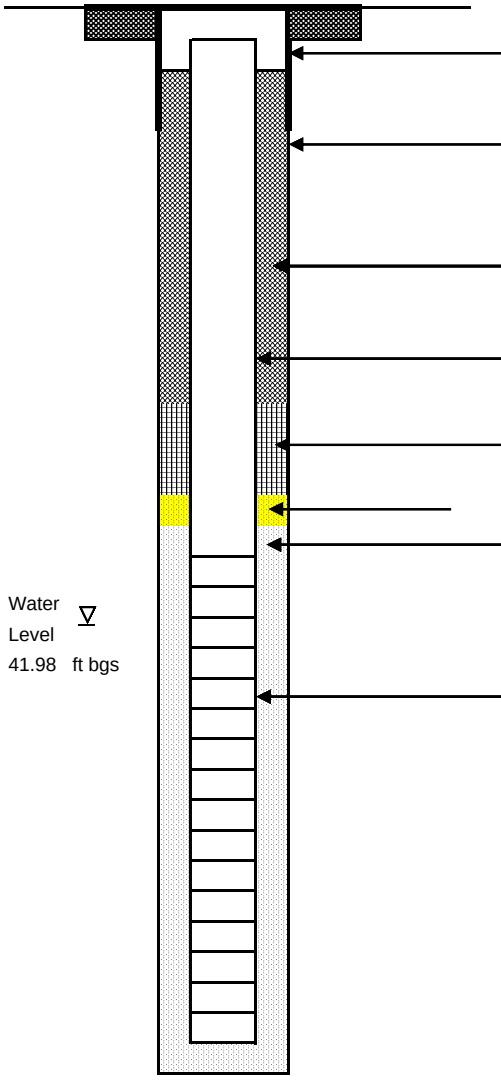
(NOT TO SCALE)

AECOM

Well No. MW-12S

Project: Utility Mfg/Wonder King	Location: Westbury, NY	Page 1 of 1
AECOM Project No.: 60134954	Date of Completion: 3/11/2010	
Driller: CDI		
Well Permit No.: 66198		
AECOM Rep.: James Christopher		

Locking protective flushmount with concrete pad



Ground Surface 0.0 ft

Well casing 0.5 ft bgs

Borehole diameter 4 inches

Cement-bentonite grout from 75.0 ft to 1.0 ft

Riser Pipe from 85.0 ft to 0.5 ft

Slurry 76.0 ft to 75.0

Sand Choker (Size 00) 78.0 ft to 76.0 ft

Filter pack from 95.0 ft to 78.0 ft

Sand Size 0

Well screen from 95.0 ft to 85.0 ft

Diameter 2 inches

Slot size 10 inches

Type PVC Sch 40

Bottom Cap at 95.0 ft

Bottom of Borehole at 95.0 ft

Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

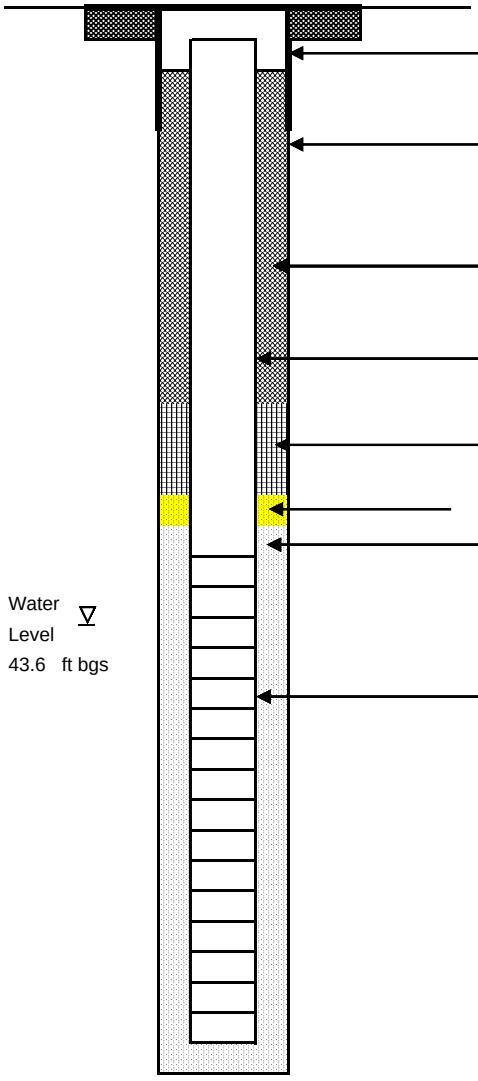
(NOT TO SCALE)

AECOM

Well No. Deep 12D

Project: Utility Mfg/Wonder King	Location: Westbury, NY	Page 1 of 1
AECOM Project No.: 60134954	Date of Completion: 3/15/10	
Driller: Clearwater		
Well Permit No.: 66199		
AECOM Rep.: Peter Lawler		

Locking protective flushmount with concrete pad



Ground Surface 0.0 ft

Well casing 0.5 ft bgs

Borehole diameter 6 inches

Cement-bentonite grout from 110.0 ft to 1.0 ft

Riser Pipe from 115.0 ft to 0.5 ft

Slurry 111.0 ft to 110.0

Sand Choker (Size 00) 113.0 ft to 111.0 ft

Filter pack from 125.0 ft to 113.0 ft

Sand Size 0

Well screen from 125.0 ft to 115.0 ft

Diameter 2 inches

Slot size 10 inches

Type PVC Sch 80

Bottom Cap at 125.0 ft

Bottom of Borehole at 126.0 ft

Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

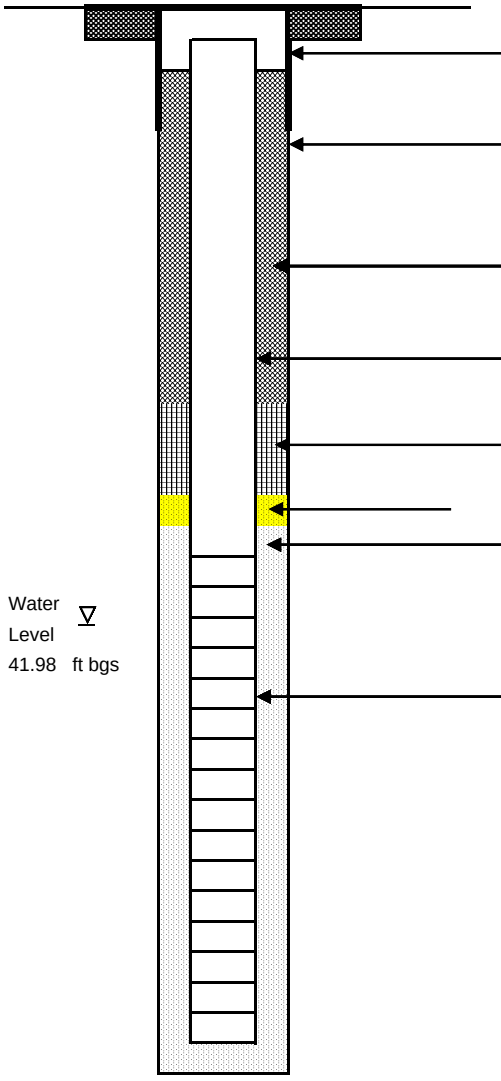
(NOT TO SCALE)

AECOM

Well No. MW-13S

Project: Utility Mfg/Wonder King	Location: Westbury, NY	Page 1 of 1
AECOM Project No.: 60134954	Date of Completion: 3/11/2010	
Driller: CDI		
Well Permit No.: 66198		
AECOM Rep.: James Christopher		

Locking protective flushmount with concrete pad



Ground Surface 0.0 ft

Well casing 0.5 ft bgs

Borehole diameter 4 inches

Cement-bentonite grout from 75.0 ft to 1.0 ft

Riser Pipe from 86.0 ft to 0.5 ft

Slurry 76.0 ft to 75.0

Sand Choker (Size 00) 78.0 ft to 76.0 ft

Filter pack from 96.0 ft to 78.0 ft

Sand Size 0

Well screen from 96.0 ft to 86.0 ft

Diameter 2 inches

Slot size 10 inches

Type PVC Sch 40

Bottom Cap at 96.0 ft

Bottom of Borehole at 96.0 ft

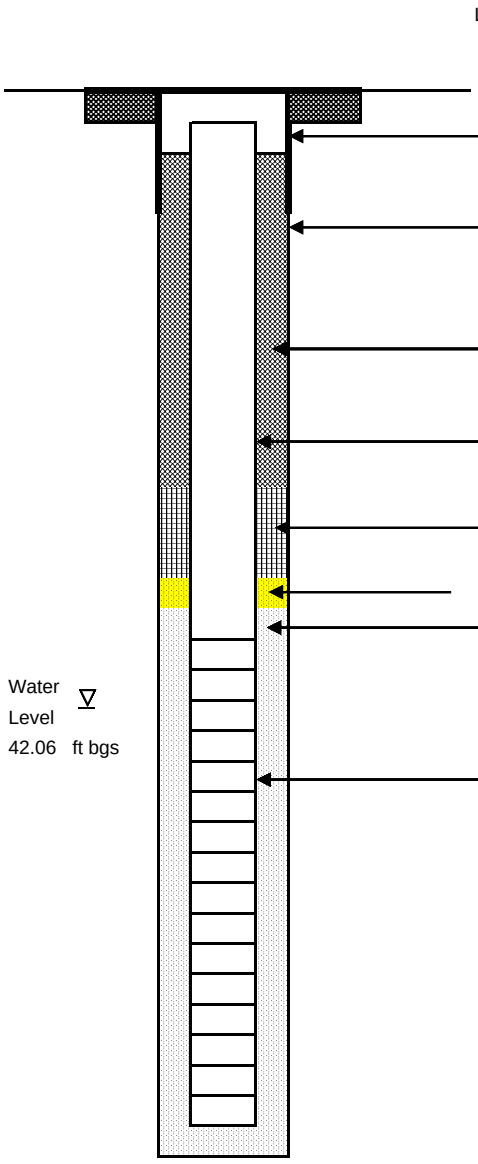
Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

(NOT TO SCALE)

AECOM

Well No. MW-13D

Project: Utility Mfg/Wonder King	Location: Westbury, NY	Page 1 of 1
AECOM Project No.: 60134954	Date of Completion: 3/12/2010	
Driller: CDI		
Well Permit No.: 66198		
AECOM Rep.: James Christopher		



Locking protective flushmount with concrete pad

Ground Surface 0.0 ft

Well casing 0.5 ft bgs

Borehole diameter 4 inches

Cement-bentonite grout from 109.5 ft to 1.0 ft

Riser Pipe from 116.0 ft to 0.5 ft

Slurry 110.5 ft to 109.5

Sand Choker (Size 00) 112.5 ft to 110.5 ft

Filter pack from 126.0 ft to 112.5 ft

Sand Size 0

Well screen from 126.0 ft to 116.0 ft

Diameter 2 inches

Slot size 10 inches

Type PVC Sch 80

Bottom Cap at 126.0 ft

Bottom of Borehole at 126.0 ft

Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

(NOT TO SCALE)

AECOM

WELL NO. 11S

WELL DEVELOPMENT FORM	PROJECT: Utility Mfg/ Wonder King	PROJECT No.: 60134954	SHEET: 1 OF SHEETS: 1
1. LOCATION: Westbury, NY	4. DATE WELL STARTED: April 13, 2010		5. DATE WELL COMPLETED: April 13, 2010
2. CLIENT: NYSDEC	6. NAME OF INSPECTOR: Peter Lawler		
3. DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	REMARKS
1036	42.92								Static
10:40	42.96								Static, with pump
10:44	43.15	8603	15.4	0.176	5.99	5.87	-	51	Begin pumping, yellow tint
10:49	43.15	7471	15.7	0.198	6.63	5.66	-	253	cloudy
10:56	43.15	9158	15.8	0.192	7.1	5.63	-	11	clear
11:01	43.16	9233	15.7	0.192	6.62	5.54	-	3	clear
11:03									pump off
									pump set at ~60-65' bgs
									total volume purged: 45 gallons

Pump Type: S.S. Monsoon (Pump 01)

Analytical Parameters: Not Required

AECOM

WELL NO. 11D

WELL DEVELOPMENT FORM	PROJECT: Utility Mfg/ Wonder King	PROJECT No.: 60134954	SHEET 1 OF SHEETS 1
1. LOCATION: Westbury, NY	4. DATE WELL STARTED: April 13, 2010		5. DATE WELL COMPLETED: April 13, 2010
2. CLIENT: NYSDEC	6. NAME OF INSPECTOR: Peter Lawler		
3. DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	REMARKS
10:38	43.33								Static
									Static, with pump
10:52	47.39	7327	14.6	0.833	4.16	12.59	-	232	Begin pumping, brown
10:57	*	3773	15.0	0.861	3.41	12.85	-	199	pump at 66.5'bgs, brown
11:06	*	2723	16.0	0.641	2.39	12.46	-	902	gray
11:11	*	2416	15.8	0.436	3.31	11.72	-	707	brown
11:16	*	2736	15.9	0.362	3.23	11.08	-	805	gray
11:20	69.72	2421	15.9	0.333	3.28	10.54	-	835	gray
11:25	69.80	2391	16.0	0.305	3.11	10.04	-	825	brown
11:30	*	2406	16.0	0.290	4.96	9.64	-	735	brown
11:35	*	2280	15.9	0.293	3.58	9.52	-	663	gray
11:45	*	2271	16.0	0.272	3.88	9.12	-	570	gray
11:50	68.93	2227	15.8	0.266	4.01	8.83	-	611	brown
12:00	*	2065	15.7	0.261	4.32	8.61	-	545	brown
12:10	69.63	1121	15.9	0.249	4.58	8.42	-	344	pump dropped to 76.75'bgs, brown
12:20	77.15	3889	15.5	0.249	3.77	8.27	-	390	brown
12:33									pump off, water dischg. to sewer
12:47									pump on
12:50	69.52	3605	15.1	0.243	3.53	8.14	-	409	brown
12:55	72.60	3045	15.2	0.241	3.31	7.96	-	362	brown
13:00	75.98	3217	15.5	0.234	3.68	7.89	-	306	gray
13:05	76.24	3028	15.5	0.226	3.27	7.84	-	336	gray
13:15	77.55	2950	15.7	0.217	3.20	7.51	-	626	gray
13:25	*	2934	15.4	0.211	3.82	7.48	-	589	brown
13:30	*	2942	15.5	0.212	3.70	7.39	-	618	brown
13:35	*	3012	15.5	0.210	3.90	7.35	-	673	brown
13:40	*	2973	15.5	0.209	3.71	7.30	-	619	brown
									pump off
									pump set at 76.75' bgs
									total volume purged: 120 gallons
									* = water level below top of pump

Pump Type: S.S. Monsoon (Pump 1102)

Analytical Parameters: Not Required

AECOM

WELL NO. 12S

WELL DEVELOPMENT FORM	PROJECT: Utility Mfg/ Wonder King	PROJECT No.: 60134954	SHEET: 1 OF SHEETS: 1
1. LOCATION: Westbury, NY	4. DATE WELL STARTED: April 13, 2010		5. DATE WELL COMPLETED: April 13, 2010
2. CLIENT: NYSDEC	6. NAME OF INSPECTOR: Peter Lawler		
3. DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	REMARKS
9:03	41.28								Static
9:05	43.00								Static, with pump
9:27	41.75	4542	16.0	0.369	6.93	7.51	-	-10	Begin pumping, cloudy
9:32	41.67	5594	16.0	0.369	7.04	7.03	-	249	cloudy
9:37	41.68	6489	15.8	0.364	7.33	6.60	-	-10	
9:42	41.68	6309	15.9	0.360	7.24	6.60	-	-10	clear
9:47	41.68	6206	15.6	0.356	7.79	6.58	-	-10	clear, recalibrated U-10
9:55	-	-	15.8	0.442	8.79	4.93	-	1	clear
9:57	41.69	5332	15.4	0.360	7.14	5.76	-	2	clear
									pump set at ~60' bgs
									total volume purged: 55 gallons

Pump Type: S.S. Monsoon (Pump 1102)

Analytical Parameters: Not Required

AECOM

WELL NO. 12D

WELL DEVELOPMENT FORM	PROJECT: Utility Mfg/ Wonder King	PROJECT No.: 60134954	SHEET: 1 OF SHEETS: 1
1. LOCATION: Westbury, NY	4. DATE WELL STARTED: April 13, 2010		5. DATE WELL COMPLETED: April 13, 2010
2. CLIENT: NYSDEC	6. NAME OF INSPECTOR: Peter Lawler		
3. DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	REMARKS
900	42.03								Static
-	-								Static, with pump
9:18	45.12	3785	16.0	0.930	2.25	12.47	-	-10	Begin pumping, clear
9:27	50.05	3785	15.8	0.719	3.02	12.82	-	-10	clear, recalibrated U-10
9:30	51.08	3407	15.7	0.605	2.02	12.69	-	951	cloudy
9:35	51.64	3273	15.4	0.315	3.06	10.68	-	359	cloudy
9:40	51.72	4130	15.3	0.281	3.50	9.72	-	-10	cloudy
9:45	51.61	3370	15.1	0.261	4.51	8.99	-	-10	cloudy
9:53	-	3785	15.3	0.293	3.84	5.49	-	32	clear
9:57	52.34	-	15.2	0.253	4.01	6.01	-	22	clear
									pump set at ~70' bgs
									total volume purged: 42 gallons

Pump Type: S.S. Monsoon (Pump 01)

Analytical Parameters: Not Required

AECOM

WELL NO. 13S

WELL DEVELOPMENT FORM	PROJECT: Utility Mfg/ Wonder King	PROJECT No.: 60134954	SHEET 1 OF SHEETS 1
1. LOCATION: Westbury, NY	4. DATE WELL STARTED: April 12, 2010		5. DATE WELL COMPLETED: April 13, 2010
2. CLIENT: NYSDEC	6. NAME OF INSPECTOR: Peter Lawler		
3. DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	REMARKS
8:44	39.96								Static
9:41	40.02								Static, with pump
9:54	40.12	-	-	-	-	-	-	-	Begin pumping
10:00	40.04	3596	17.6	0.628	8.08	6.14	-	999	cloudy tan, pump off 1003-1014
10:19	40.12	3785	16.9	0.570	6.96	5.62	-	999	light tan, flow stopped
13:03	40.10	-	19.7	0.416	7.09	10.08	-	761	cloudy, resumed purging by hand
13:10	40.08	8736	16.4	0.535	8.29	7.10	-	999	Light tan
13:15	40.04	18927	16.1	0.519	7.98	6.04	-	999	tan
13:20	40.04	7941	16.0	0.508	7.57	5.83	-	999	tan
13:25	40.25	16223	16.0	0.491	7.34	5.69	-	999	tan
13:33	39.98	16223	16.1	0.481	7.00	5.56	-	671	light tan, water discharged to sewer
14:06	40.05	-	16.4	0.481	6.81	5.55	-	381	cloudy
14:11	40.08	-	16.0	0.475	7.36	5.64	-	156	cloudy
14:16	40.28	-	16.1	0.472	9.99	5.58	-	166	cloudy
14:21	40.08	-	16.4	0.475	6.92	5.55	-	155	cloudy
14:26	39.86	-	16.3	0.483	6.70	5.71	-	573	cloudy, orange (140 gals)
14:33	40.00	-	17.2	0.474	6.62	5.77	-	420	cloudy
14:38	39.89	-	16.4	0.465	7.16	6.13	-	379	cloudy, light tan
14:56	39.99	-	21.0	0.484	6.47	5.72	-	196	cloudy, (158 gallons purged)
15:01	-	-	18.2	0.467	6.69	6.16	-	299	cloudy
15:05	-	-	17.4	0.461	7.21	6.33	-	362	cloudy
15:14	-	-	16.5	0.480	7.77	5.90	-	90	cloudy
15:31	-	-	15.9	0.489	7.00	5.64	-	826	cloudy (170 gals purged)
14:04	40.05								Static
14:05	40.15	7941	15.4	0.538	7.46	7.15	-	16	pump on; clear
14:10	40.15	-	15.2	0.550	7.19	6.15	-	35	clear, pump off
									total volume purged: 180 gallons

Pump Type: S.S. Monsoon and 1" poly tubing with check valve.

Analytical Parameters: Not Required

AECOM

WELL NO. 13D

WELL DEVELOPMENT FORM	PROJECT: Utility Mfg/ Wonder King	PROJECT No.: 60134954	SHEET 1 OF 1 SHEETS
1. LOCATION: Westbury, NY	4. DATE WELL STARTED: April 12, 2010		5. DATE WELL COMPLETED: April 13, 2010
2. CLIENT: NYSDEC	6. NAME OF INSPECTOR: Peter Lawler		
3. DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.			

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (C)	Conduct. (ms/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (ntu)	REMARKS
8:48	40.30								Static
9:06	39.48								Static, with pump
9:21	43.70	-	15.8	0.266	5.69	8.77		-10	Begin pumping, milky tan
9:29	50.65	3028	15.8	0.260	4.65	8.03		-10	milky tan; lost flow after 15 gals
14:14	40.05								Static
14:15	57.47	8350	16.3	0.325	5.76	9.92		100	pump on; Cloudy
14:20	60.57	5540	15.3	0.318	4.18	8.44		999	tan
14:27	60.38	-	15.3	0.280	3.43	7.40		999	tan
14:34	60.70	5092	15.5	0.267	3.21	6.95		439	cloudy
14:40	60.69	5307	15.4	0.259	3.44	6.68		199	pump at 59.10' bgs
14:45	59.73	5162	15.5	0.254	2.83	6.38		133	cloudy
14:50	*	4506	15.4	0.252	3.11	6.36		201	cloudy
14:55	*	5408	15.5	0.246	3.13	6.37		117	cloudy
15:00	*	4792	15.4	0.245	2.55	6.32		107	clear
15:05	59.10	5162	15.4	0.242	3.43	6.19		74	clear
15:10	59.10	5794	15.4	0.241	3.28	6.22		78	clear
15:15	*	4673	15.3	0.240	3.10	6.18		121	cloudy
15:20	*	5434	15.5	0.240	4.28	6.23		174	
15:22									pump off, discharged into sewer
15:40									pump on
15:41	54.75	6041	15.7	0.247	2.66	6.17		114	cloudy
15:45	*	4812	15.6	0.240	2.80	6.10		124	pump at 58.75
15:50	*	4598	15.4	0.244	2.83	6.27		290	
15:55	*	4937	15.4	0.244	2.84	6.18		166	cloudy
16:00	*	4471	15.4	0.240	3.30	6.21		141	clear
16:05	*	5025	15.4	0.239	2.65	6.07		112	clear
16:10	*	4673	15.5	0.237	3.03	6.15		111	clear
16:15	*	4812	15.5	0.233	2.52	6.10		110	clear
16:20	*	5594	15.4	0.236	3.08	6.11		89	clear
16:25	*	5258	15.4	0.232	3.30	6.13		92	clear
16:30	*	4673	15.3	0.234	3.30	6.13		61	clear
16:35	*	4506	15.4	0.233	2.91	6.01		60	clear

Pump Type: S.S. Monsoon

pump set at 60.74' bgs

total volume purged: 180 gallons

Analytical Parameters: Not Required

*= water level below top of pump

AECOM

WELL NO. MW-1S

WELL SAMPLING FORM	PROJECT: Utility Manufacturing	PROJECT No.	SHEET 1 OF SHEETS 1
LOCATION: Westbury, NY	DATE WELL STARTED: May 12, 2010	DATE WELL COMPLETED: May 12, 2010	
CLIENT: NYSDEC	NAME OF INSPECTOR: Celest Foster (AECOM)/Pete Lawler (YEC Inc.)		
DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.	SIGNATURE OF INSPECTOR		

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (ºC)	pH	Conduct. (ms/cm)	DO (mg/L)	ORP (mV)	Turbidity (ntu)	REMARKS
12:44	41.57								Static
12:42									Pump On
12:47	42.88	400	15.40	4.35	0.214	6.64	191	0.1	
12:52	42.50	400	15.80	4.03	0.206	6.77	215	0.0	
12:57	41.87	250	15.60	4.16	0.206	6.74	226	0.0	
13:06	41.87	280	15.60	4.18	0.205	6.73	232	0.0	
13:14	41.87	250	15.60	4.07	0.205	6.66	235	0.0	
13:19	41.87	250	15.60	4.17	0.204	6.65	238	0.1	
13:25	41.87	200	15.50	4.02	0.204	6.65	242	0.0	
13:30	41.87	250	15.60	4.28	0.202	6.91	247	0.1	
13:35	41.87	240	15.70	4.38	0.201	6.93	249	0.0	
13:40	41.87	225	15.60	4.35	0.201	6.83	252	0.0	
13:48	41.87	400	15.80	4.41	0.199	6.76	256	0.1	
13:55									Sample 08 MW 1S collected
									Purged 4.3 gals

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs

AECOM

WELL NO. MW-1D

WELL SAMPLING FORM	PROJECT: Utility Manufacturing	PROJECT No.	SHEET 1 OF SHEETS 1
LOCATION: Westbury, NY	DATE WELL STARTED: May 12, 2010	DATE WELL COMPLETED: May 12, 2010	
CLIENT: NYSDEC	NAME OF INSPECTOR: Celest Foster (AECOM)/Pete Lawler (YEC Inc.)		
DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.	SIGNATURE OF INSPECTOR		

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (ºC)	pH	Conduct. (ms/cm)	DO (mg/L)	ORP (mV)	Turbidity (ntu)	REMARKS
12:17	42.10								Static
12:21	41.95	150	14.97	5.53	0.177	4.16	143	>1000	Pump On
12:25	42.00	150	15.05	5.46	0.179	3.06	155	499	
12:30	41.98	150	14.70	5.35	0.179	2.75	176	728	
12:42	41.95	100	14.52	5.43	0.178	2.17	198	508	
12:50	41.89	100	14.33	5.38	0.177	1.98	212	475	
12:55	41.90	100	14.15	5.38	0.176	1.95	218	489	
13:00	42.05	290	15.20	5.33	0.172	1.89	224	467	
13:05	42.00	200	15.15	5.31	0.173	1.09	229	470	
13:10		200	15.08	5.31	0.172	0.99	234	396	
13:15	41.98	200	15.06	5.27	0.171	0.89	242	358	
13:20	41.98	200	15.12	5.29	0.171	0.85	246	340	
13:25	42.00	200	15.03	5.26	0.168	0.86	257	314	
13:30	41.98	150	15.21	5.26	0.169	0.80	260	0	Clear
13:35	41.94	175	15.21	5.24	0.169	0.75	266	241	
13:40	41.98	170	15.18	5.25	0.169	0.64	270	215	
13:45	41.98	210	15.36	5.22	0.168	0.72	275	187	
13:50	41.96	210	15.42	5.22	0.169	0.61	280	207	
13:55	41.96	210	15.36	5.23	0.169	0.58	284	160	
14:00	41.96	210	15.31	5.22	0.168	0.58	287	152	
14:05	41.98	210	15.31	5.21	0.168	0.60	291	145	
14:10	41.98	210	15.42	5.21	0.168	0.59	293	127	
14:18	42.02	210	15.20	5.14	0.165	0.57	300	108	
14:25									Sample 09 MW 1D collected
									Purged 5.3 gals

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs

AECOM

WELL NO. MW-11S

WELL SAMPLING FORM	PROJECT: Utility Manufacturing	PROJECT No.	SHEET: 1 OF SHEETS: 1
LOCATION: Westbury, NY	DATE WELL STARTED: May 12, 2010	DATE WELL COMPLETED: May 12, 2010	
CLIENT: NYSDEC	NAME OF INSPECTOR: Celest Foster (AECOM)/Pete Lawler (YEC Inc.)		
DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.	SIGNATURE OF INSPECTOR		

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (ºC)	pH	Conduct. (ms/cm)	DO (mg/L)	ORP (mV)	Turbidity (ntu)	REMARKS
									Static
9:31	42.85								Pump On
9:35	42.81	400	14.40	3.76	0.162	10.50	157	0	
9:40	42.81	250	14.20	2.86	0.156	11.11	175	0	
9:45	42.81	250	14.20	3.89	0.156	11.14	182	0	
9:50	42.80	250	14.30	4.07	0.150	11.12	186	0	
9:55	42.80	250	14.20	4.09	0.154	10.88	188	0	
10:00	42.82	280	14.20	4.1	0.154	10.97	189	0	
10:05	42.82	280	14.20	4.2	0.153	10.84	192	0	
10:10	42.82	280	14.40	4.19	0.151	10.15	196	0	
10:25	42.81	280	14.30	4.03	0.150	9.88	201	0	
10:30	42.82	280	14.40	4.12	0.149	9.82	203	0	
10:35	42.82	280	14.40	4.12	0.148	9.76	201	0	
10:40	42.81	280	14.40	4.04	0.147	9.71	203	0	
10:50									Sample 06 MW 11S coolected
									Purged 4 gals
									Sample 09 MW 1D collected

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs

AECOM

WELL NO. MW-11D

WELL SAMPLING FORM	PROJECT: Utility Manufacturing	PROJECT No.	SHEET: 1 OF SHEETS: 1
LOCATION: Westbury, NY	DATE WELL STARTED: May 12, 2010	DATE WELL COMPLETED: May 12, 2010	
CLIENT: NYSDEC	NAME OF INSPECTOR: Celest Foster (AECOM)/Pete Lawler (YEC Inc.)		
DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.	SIGNATURE OF INSPECTOR		

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (ºC)	pH	Conduct. (ms/cm)	DO (mg/L)	ORP (mV)	Turbidity (ntu)	REMARKS
									Static
9:16	42.73								Pump On
9:26	43.70	200	12.12	4.11	0.000	10.58	217	74	
9:33	43.61	160	12.82	4.19	0.000	10.32	218	74	
9:39	43.50	175	13.03	4.22	0.000	10.44	219	75	
9:45	43.35	160	13.20	4.26	0.000	10.43	219	76	
9:50	43.30	160	13.20	4.25	0.000	10.37	220	77	
9:55	43.30	160	13.22	4.25	0.000	10.35	220	77	
10:00	43.25	100	13.18	4.24	0.000	10.38	221	78	
10:05	43.15	100	13.03	4.22	0.000	10.49	222	80	
10:10	43.09	100	12.95	4.19	0.000	10.47	222	82	
10:25	43.10	100	12.75	4.17	0.000	10.21	222	85	
10:30	43.12	100	12.83	4.15	0.000	10.37	222	85	
10:40	43.51	240	12.79	4.16	0.000	10.52	221	85	Flowrate changed
10:43									Horriba U-22 changed from 11S
10:45	43.84	260	14.00	5.61	0.243	5.02	87	0	
10:50	43.81	110	13.10	5.6	0.238	3.79	85	0	
10:55	43.35	110	13.40	5.63	0.235	3.67	84	0	
11:00	43.32	160	13.30	5.63	0.233	3.78	82	0	
11:10									Sample 07 MW 11D collected
									Purged 2.3 gals

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs

AECOM

WELL NO. MW-12S

WELL SAMPLING FORM	PROJECT: Utility Manufacturing	PROJECT No.	SHEET: 1 OF SHEETS: 1
LOCATION: Westbury, NY	DATE WELL STARTED: May 11, 2010	DATE WELL COMPLETED: May 11, 2010	
CLIENT: NYSDEC	NAME OF INSPECTOR: Celest Foster (AECOM)/Pete Lawler (YEC Inc.)		
DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.	SIGNATURE OF INSPECTOR:		

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (ºC)	pH	Conduct. (ms/cm)	DO (mg/L)	ORP (mV)	Turbidity (ntu)	REMARKS
13:37	41.27								Static
13:56	41.20								Pump On
14:00	41.20	425	16.10	2.8	0.273	1304.00	179	0	
14:05	41.30	275	16.00	2.35	0.263	11.31	213	0	
14:10	41.25	275	16.00	2.79	0.260	10.61	214	0	
14:15	41.25	250	16.00	3.04	0.257	10.47	212	0	
14:20	41.25	250	15.90	3.06	0.254	10.03	210	0	
14:25	41.25	250	15.90	3.16	0.252	10.17	207	0	
14:30	41.25	250	15.90	3.16	0.252	10.30	202	0	
14:37	41.25	250	15.80	3.42	0.247	10.60	198	0	
14:42	41.25	250	15.80	3.47	0.247	9.89	196	0	
14:47	41.25	250	15.80	3.56	0.245	10.07	194	0	
14:55									Sample 03 MW 12S collected
15:10									Sample 03 MW 62S collected
									Purged 3.6 gals

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs

AECOM

WELL NO. MW-12D

WELL SAMPLING FORM	PROJECT: Utility Manufacturing	PROJECT No.	SHEET: 1 OF SHEETS: 1
LOCATION: Westbury, NY	DATE WELL STARTED: May 11, 2010	DATE WELL COMPLETED: May 11, 2010	
CLIENT: NYSDEC	NAME OF INSPECTOR: Celest Foster (AECOM)/Pete Lawler (YEC Inc.)		
DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.	SIGNATURE OF INSPECTOR:		

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (ºC)	pH	Conduct. (ms/cm)	DO (mg/L)	ORP (mV)	Turbidity (ntu)	REMARKS
									Static
13:32									Pump On
13:33	41.95	200	18.94	3.9	0.000	9.92	194	65.1	
13:41	41.91	200	18.25	3.9	0.000	10.12	196	67.2	
13:46	41.90	180	17.89	3.89	0.000	10.13	198	67.2	
13:51	41.90	180	17.60	3.9	0.000	10.15	199	66.9	
13:56	41.82	180	17.54	3.87	0.000	10.02	200	67.8	
14:02	41.89	180	17.68	3.87	0.000	10.06	201	67.1	
14:07	41.80	180	17.68	3.86	0.000	9.99	201	67.0	
14:12	41.85	180	17.67	3.86	0.000	9.83	201	66.9	
14:17	41.84	180	17.63	3.86	0.000	9.98	201	67.3	
14:22	41.87	180	17.52	3.87	0.000	9.89	200	67.1	
14:28	41.87	180	17.34	3.87	0.000	10.00	202	67.0	
14:34	41.87	180	17.59	3.88	0.000	9.71	202	67.0	
15:05	41.87	180	18.10	3.89	0.000	9.72	202	66.0	
15:10	41.85	180	18.10	3.89	0.000	9.66	202	66.6	
15:20	41.85	180	17.79	3.89	0.000	9.63	200	66.7	
15:25	41.85	180	17.96	3.88	0.000	9.83	197	66.7	
15:30	41.85	180	17.22	3.88	0.000	9.92	197	66.5	
15:40									Sample 05 MW 12D collected
									Purged 3.8 gals

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs

AECOM

WELL NO. MW-13S

WELL SAMPLING FORM	PROJECT: Utility Manufacturing	PROJECT No.	SHEET 1 OF SHEETS 1
LOCATION: Westbury, NY	DATE WELL STARTED: May 11, 2010	DATE WELL COMPLETED: May 11, 2010	
CLIENT: NYSDEC	NAME OF INSPECTOR: Celest Foster (AECOM)/Pete Lawler (YEC Inc.)		
DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.	SIGNATURE OF INSPECTOR		

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (ºC)	pH	Conduct. (ms/cm)	DO (mg/L)	ORP (mV)	Turbidity (ntu)	REMARKS
									Static
9:17	39.92								Pump On
9:22	39.91	250	16.30	1.1	0.571	12.19	145	0.0	
9:32	39.87	200	16.30	1.91	0.566	10.70	214	0.0	
9:39	39.55	250	16.30	3.01	0.562	9.71	212	0.0	
9:42	39.85	205	16.40	1.78	0.562	10.03	217	0.0	
9:47	39.86	205	16.40	1.79	0.557	10.40	225	0.0	
9:52	39.86	205	16.40	3.57	0.554	9.69	223	0.0	
9:57	39.86	205	16.30	4.23	0.551	9.33	223	0.0	
10:02	39.86	195	16.40	3.31	0.545	10.78	231	0.0	
10:07	39.85	200	16.40	2.42	0.548	10.38	234	0.0	
10:12	39.86	450	16.10	2.64	0.541	10.22	240	0.0	Pump changed in attempt to change 13D
10:18	39.86	170	16.40	2.49	0.538	9.60	244	0.0	pump changed back
10:25	39.85	160	16.50	2.48	0.536	9.17	246	0.0	
10:30	39.84	170	16.50	1.92	0.535	11.32	250	0.0	
10:36	39.84	170	16.40	1.64	0.540	11.30	252	0.0	
10:40	39.85	170	16.60	1.53	0.539	10.10	254	0.0	
10:46	39.84	170	16.60	1.7	0.541	10.88	257	0.0	
10:56	39.85	170	16.60	2.46	0.534	11.08	257	0.0	
11:02	39.86	170	16.60	2.36	0.532	10.09	260	0.0	
11:07	39.85	170	16.70	2.45	0.532	10.09	262	0.0	
11:18									Sample 01 MW 13S collected
11:33									Sample MS MW 13S collected
11:48									Sample MSD MW 13S collected
									Purged 4.8 gals

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs

AECOM

WELL NO. MW-13D

WELL SAMPLING FORM	PROJECT: Utility Manufacturing	PROJECT No.	SHEET: 1 OF SHEETS: 1
LOCATION: Westbury, NY	DATE WELL STARTED: May 11, 2010	DATE WELL COMPLETED: May 11, 2010	
CLIENT: NYSDEC	NAME OF INSPECTOR: Celest Foster (AECOM)/Pete Lawler (YEC Inc.)		
DRILLING COMPANY: E.A.R./Clearwater Drilling, Inc.	SIGNATURE OF INSPECTOR:		

Time	Depth to Water (ft)	Purge Rate (ml/min)	FIELD MEASUREMENTS: Temp. (ºC)	pH	Conduct. (ms/cm)	DO (mg/L)	ORP (mV)	Turbidity (ntu)	REMARKS
									Static
10:01	40.10								Pump On
10:09	40.07	60	21.84	4.57	0.000	9.32	239	90.2	
10:16	40.08	100	19.96	4.18	0.000	9.85	231	99.4	Adjusted pump speed
10:23	40.12	125	19.15	3.88	0.000	10.12	2285	104.0	
10:28	40.13	140	18.95	3.92	0.000	10.00	224	104.0	
10:33	40.11	110	18.86	3.94	0.000	9.93	218	106.0	
10:38	40.12	120	18.74	3.89	0.000	9.91	215	88.5	
10:43	40.12	120	18.65	3.88	0.000	9.87	215	107.0	
10:54	40.13	120	18.60	3.91	0.000	9.87	214	105.0	
11:01	40.15	120	18.62	3.9	0.000	9.86	214	103.0	
11:06	40.15	120	18.56	3.9	0.000	9.98	214	103.0	
11:11	40.15	120	18.60	3.89	0.000	9.96	214	104.0	
11:23	40.11	120	18.66	3.89	0.000	10.18	213	101.0	
11:55	40.15	200	18.30	3.89	0.000	10.21	210	76.2	
12:00	40.19	200	18.27	3.88	0.000	10.15	209	73.7	
12:05	40.17	200	18.27	3.88	0.000	10.14	208	68.4	
12:07									Sample 02 MW 13D
									Purged 2.7 gals

Pump Type: Bladder pump with dedicated tubing for sampling

Analytical Parameters: VOCs

Summa Canister Sampling Field Data Sheet

Site: Utility Manufacturing (60134954), 624 Main St, Building 1

Samplers: Celeste Foster (AECOM), Kevin Seise (AECOM), Peter Lawler (YEC) at pickup					
Date: 1/26 to 1/27/2010					
Sample#	B01-SS1-20100126	B51-SS1-20100126	B01-FF2-20100126	B01-FF1-20100126	B01-OA-20100126
Location	Building 1 - SE corner subslab	Duplicate of B01-SS1-20100126	Building 1 - SE corner indoor air	Building 1 - SW corner, storage are, indoor air	Building 1 - South West corner, outdoor air
Summa Canister ID	2677	2683	3327	3273	2714
Flow Controler ID	3100	2582	3111	4102	4767
Additional Tubing Added	Yes	←	No	No	No
How much?	2 ft	←	N/A	N/A	N/A
Purge Time (Start)	1245	←	N/A	N/A	N/A
Purge Time (Stop)	1250	←	N/A	N/A	N/A
Total Purge Time (min)	5	←	N/A	N/A	N/A
Purge Volume	1 Liter	←	N/A	N/A	N/A
Trace Gas Results	300 ppm/ 60%	←	N/A	N/A	N/A
Pressure Gauge - Before Sampling (" Hg)	-30	-30	-28	-28	-28
Sample Time (Start)	1302	1303	1303	1304	1333
Sample Time (Stop)	1128	1234	1234	1245	1250
Total Sample Time (min)	1346	1411	1411	1421	1397
Pressure Gauge - After Sampling (" Hg)	-1	-8	-6	-6	-5
Sample Volume	6L	6L	6L	6L	6L
Canitster Pressure Went to Ambient Pressure?	No	No	No	No	No
Weather 24 hours before and during sampling	30-40 degrees F, sunny, wind from west northwest				

General Comments

Canister 2523 sent back unused

Flow controller 4526 malfunctioning, sent back unused

Flow controller 3100 needs to be checked

Canister 2683 was stuck open had to be closed with a screw driver

Summa Canister Sampling Field Data Sheet

Site: Utility Manufacturing (60134954), 58 State St, Building 13

Samplers: Celeste Foster (AECOM), Kevin Seise (AECOM)

Date: 1/26 to 1/27/2010

Sample#	B13-SS1-20100126	B13-FF1-20100126	B13-SS2-20100126	B13-FF2-20100126
Location	Building 13 -center W side (storefront), subslab	Building 13 -center, indoor air	Building 13 - SE storage area, subslab	Building 13 - SE storage area, indoor air
Summa Canister ID	2678	3760	3425	3506
Flow Controller ID	4505	3786	3965	3167
Additional Tubing Added	Yes	No	Yes	No
How much?	2 ft	N/A	2 ft	N/A
Purge Time (Start)	1547	N/A	1635	N/A
Purge Time (Stop)	1552	N/A	1640	N/A
Total Purge Time (min)	5	N/A	5	N/A
Purge Volume	1 Liter	N/A	1 Liter	N/A
Trace Gas Results	0/93.7%	N/A	0/95%	N/A
Pressure Gauge - Before Sampling (" Hg)	-28	-28	-29	-30
Sample Time (Start)	1646	1646	1648	1648
Sample Time (Stop)	1618	1622	1609	1135
Total Sample Time (min)	1412	1416	1401	1127
Pressure Gauge - After Sampling (" Hg)	-6	-6	-6	-2
Sample Volume	6L	6L	6L	6L
Canitster Pressure Went to Ambient Pressure?	No	No	No	No
Weather 24 hours before and during sampling	30-40 degrees F, sunny, wind from west northwest			

General Comments

Flow controller 3167 needs to be checked

Summa Canister Sampling Field Data Sheet

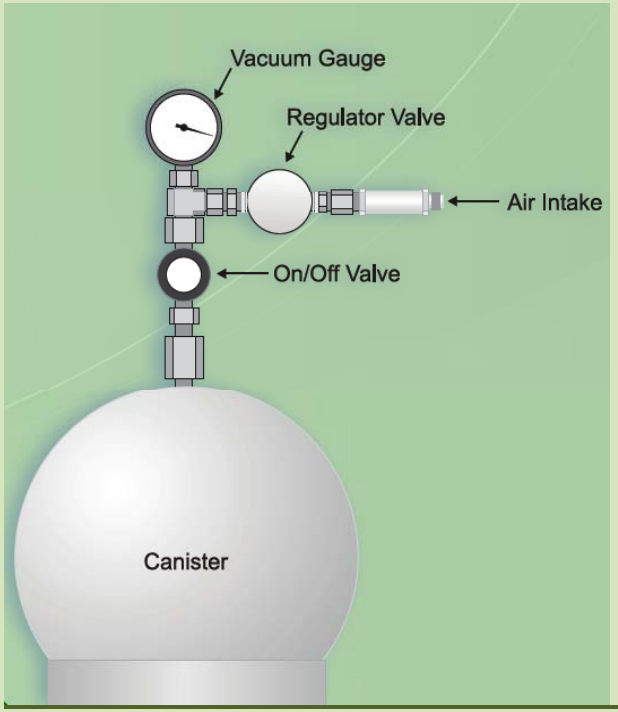
Site: Utility Manufacturing (60134954), 44 Bond Street, Building 7

Samplers: Celeste Foster (AECOM), Pete Lawler (YEC)					
Date: 1/27 to 1/28/2010					
Sample#	B07-SS2-20100127	B07-FF2-20100127	B07-SS1-20100127	B07-FF1-20100127	B07-OA-20100127
Location	Building 7 - NW Corner, indoor air	Building 7 - NW Corner, indoor air	Building 7 - NE Corner, subslab	Building 7 - NE Corner, indoor air	Building 7 - W side of N face, outdoor air
Summa Canister ID	3283	4161	3407	3160	3380
Flow Controler ID	4044	4754	4490	4199	4763
Additional Tubing Added	Yes	No	Yes	No	No
How much?	3 ft	N/A	3 ft	N/A	N/A
Purge Time (Start)	1143	N/A	1154	N/A	N/A
Purge Time (Stop)	1148	N/A	1159	N/A	N/A
Total Purge Time (min)	5	N/A	5	N/A	N/A
Purge Volume	1 Liter	N/A	1 Liter	N/A	N/A
Trace Gas Results	250 ppm/93%	N/A	350 ppm/92.4%	N/A	N/A
Pressure Gauge - Before Sampling (" Hg)	-30	-29	-27	-30+	-27
Sample Time (Start)	1207	1208	1211	1212	1221
Sample Time (Stop)	1139	1145	1153	1157	1202
Total Sample Time (min)	1412	1417	1422	1425	1421
Pressure Gauge - After Sampling (" Hg)	-4	-6	-5	-9	-6
Sample Volume	6L	6L	6L	6L	6L
Canitster Pressure Went to Ambient Pressure?	No	No	No	No	No
Weather 24 hours before and during sampling	30-40 degrees F, sunny, wind from west northwest, snow on the morning of 1/28				
General Comments					

Indoor Air Sampling

To avoid potential interferences and dilution effects, occupants should make a reasonable effort to avoid the following for 24 hours prior to and during sampling:

a. opening any windows, fireplace dampers, openings or vents;
b. operating ventilation fans unless special arrangements are made;
c. smoking in the building;
d. painting;
e. using a wood stove, fireplace or other auxiliary heating equipment (e.g., kerosene heater);
f. operating or storing automobile in an attached garage;
g. allowing containers of gasoline or oil to remain within the house or garage area, except for fuel oil tanks;
h. cleaning, waxing or polishing furniture, floors or other woodwork with petroleum- or oil-based products;
i. using air fresheners, scented candles or odor eliminators;
j. engaging in any hobbies that use materials containing volatile chemicals;
k. using cosmetics including hairspray, nail polish, nail polish removers, perfume/cologne, etc.;
l. lawn mowing, paving with asphalt, or snow blowing;
m. applying pesticides;
n. using building repair or maintenance products, such as caulk or roofing tar; and
o. bringing freshly dry-cleaned clothing or furnishings into the building.



Air Sampling Canister

The sampling canister uses vacuum pressure to draw air into the canister. Valves regulate the flow of air, allowing air to trickle into the canister over a 24-hour period. After 24 hours, technicians will close the valves, remove the canister from the building and ship it to a laboratory for analysis.

Occupant's Role

As a owner/occupant, you will not be required to do much, but there are a few things we will ask of you to ensure the sample is as accurate as possible.

What to do

You can do most of the things you would do on a normal day. You don't have to vacate the premises and, for the most part, won't have to take any special precautions.

Prior to the technicians arriving, it would be helpful to make sure they have access to the basement in order to install the monitoring point and place the canisters. If there is no basement, sampling will occur on the first floor.

When the technicians come to place the canister, they will ask you a few questions. This will help them determine where to place the canister and to find out what kind of chemical products are already in your home.

What NOT to do

Avoid having freshly dry-cleaned clothing in the home, if at all possible. If you have dry cleaning ready to be picked up, please wait until after the canister has been collected to pick it up.

Avoid using solvents or degreasers within 24 hrs of the air sample, if possible. Avoid working on hobby projects that would require the use of paint, glue or other chemicals. For a comprehensive list of other activities to avoid, please see the next page.

Avoid contact with the canister and sample setup.

Step-by-Step Air Sampling Process

- Agree to have air sampling done in your home by contacting the Department of Environment Conservation (DEC) as indicated in the cover letter.
- Someone from DEC will contact you and schedule a initial site visit to determine sampling locations. The tentative date for this is December 29-30, 2009.
- Someone from DEC will contact you and schedule a sampling appointment. We will attempt to set the appointment at a time that is convenient for you.
- You will receive a reminder, either by phone or mail, prior to your scheduled appointment as a courtesy.
- Technicians will arrive at the scheduled time and ask you some questions about chemical products in your home. They will install a monitoring point and place the air sampling canisters. The monitoring point will be a temporary point drilled through the concrete floor (basement or slab). Care will be taken during the initial site visit to select a point that will not disturb any floor finishes. Air sampling canisters will be placed using a folding stand. Photos have been included in this brochure to depict sample setup appearance.
- 24 hours later, the technicians will return to pick up the canisters and remove and patch the monitoring point. The canisters will be sent to a certified laboratory for analysis.
- You will receive a letter from DEC including a copy of your results.
- Further action will depend on your results.

Air Sampling Results

After your air sample is collected, you will receive a copy of the final lab results in the mail, along with a letter explaining your results and the action we recommend taking.

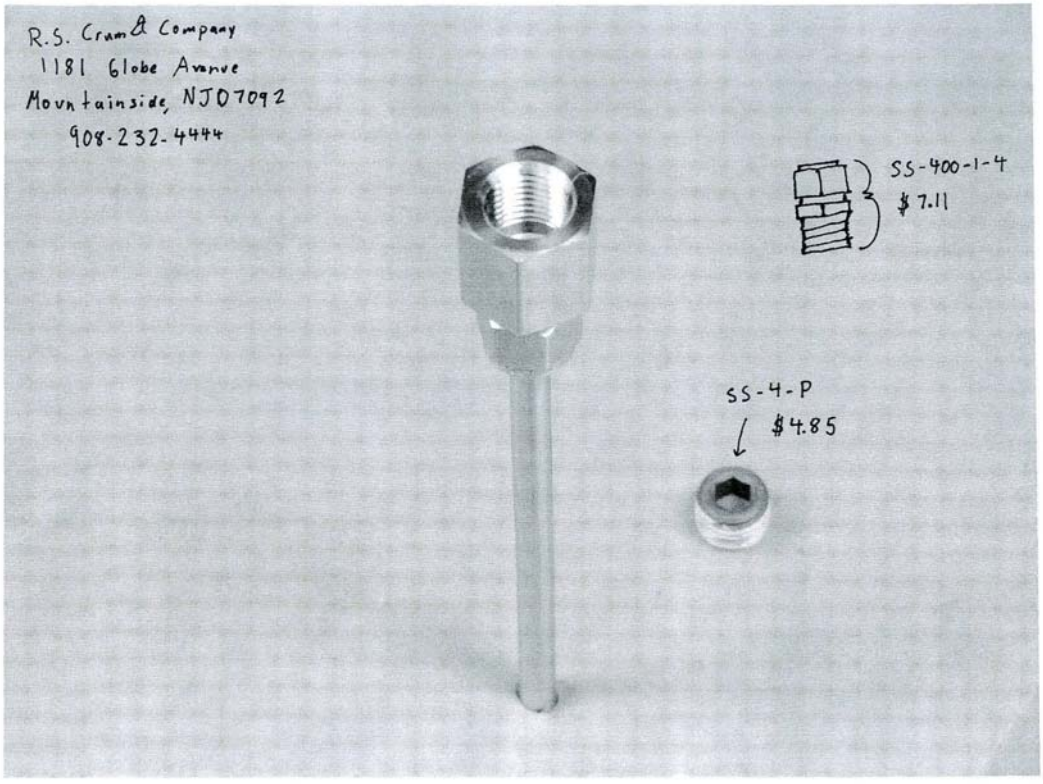
The New York State Department of Health (NYSDOH) and the New York State Department of Environmental Conservation (NYSDEC) have established action levels for select chemicals found in the groundwater. These action levels are the lowest levels at which we would recommend taking action to prevent vapors from entering the home. The action levels were established using a number of factors, including health risk and background levels.

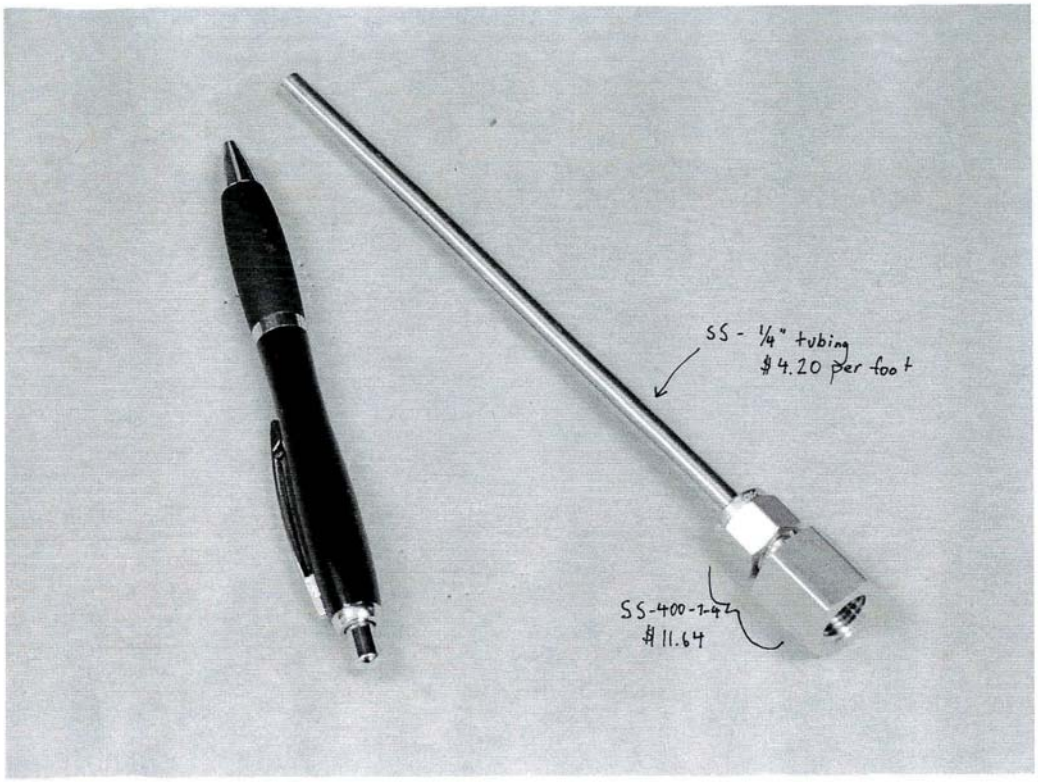
Sub-slab sample point (above), small hole drilled into concrete, patched after sample collection.
Indoor air sample point (right)

NOT DETECTED	• The NYSDEC will take no action at this time.
DETECTED, BELOW ACTION LEVEL	• The NYSDEC will take no immediate action but may recommend monitoring of the air in the home.
DETECTED, ABOVE ACTION LEVEL	• Additional action will be determined with input from the NYSDEC and NYSDOH.

- Operate your furnace and whole-house air conditioner as appropriate for the current weather conditions
- Do not use wood stoves, fireplaces or auxiliary heating equipment
- Do not open windows or keep doors open.
- Avoid using window air conditioners, fans or vents
- Do not smoke in the building
- Do not use air fresheners or odor eliminators
- Do not use paints or varnishes (up to a week in advance, if possible)
- Do not use cleaning products (e.g., bathroom cleaners, furniture polish, appliance cleaners, all-purpose cleaners, floor cleaners)
- Do not use cosmetics, including hair spray, nail polish remover, perfume, etc.
- Avoid bringing freshly dry-cleaned clothes into the building
- Do not partake in hobbies indoor that use solvents
- Do not apply pesticides
- Do not store containers of gasoline, oil or petroleum-based or other solvents within the building or attached garages (except for fuel oil tanks)
- Do not operate or store automobiles in an attached garage
- Do not operate gasoline-powered equipment within the building, attached garage or around the immediate perimeter of the building

Equipment for Permanent Soil Vapor Points





APPENDIX B

Indoor Air Quality Questionnaires and Building Inventories

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 Celeste Foster Date/Time Prepared 1/26/2010 9AM

Preparer's Affiliation AECOM Phone No. 973-338-6680

Purpose of Investigation Soil vapor investigation

1. OCCUPANT:

Interviewed: (Y) / N

Structure 1

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y / (N) Corporate RKJF Realty

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: _____

If the property is residential, type? (Circle appropriate response) N/A

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? N/A

If the property is commercial, type?

Business Type(s) OFFICE/WAREHOUSE Audio/video custom

Does it include residences (i.e., multi-use)? Y (N) If yes, how many? _____

Other characteristics:

Number of floors 1 + Storage Attic Building age ~50 yrs

Is the building insulated? (Y) N some How air tight? Tight (Average) Not Tight

4. AIRFLOW

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

Airflow between floors

N/A

Airflow near source

No cracks visible

Outdoor air infiltration

In from loading docks

Infiltration into air ducts

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	(brick) tenat unsure
b. Basement type:	full	crawlspace	slab	other N/A
c. Basement floor:	concrete	dirt	stone	other N/A
d. Basement floor:	uncovered	covered	covered with N/A	
e. Concrete floor:	unsealed	(sealed)	sealed with _____	
f. Foundation walls:	poured	block	stone	other Brick/poured tenant unsure
g. Foundation walls:	unsealed	(sealed)	sealed with _____	
h. The basement is:	wet	damp	dry	moldy N/A
i. The basement is:	finished	unfinished	partially finished	N/A
j. Sump present?	Y (N)			
k. Water in sump?	Y / N / (not applicable)			

Basement/Lowest level depth below grade: N/A (feet)

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

cracks in loading area do not appear to extend thru slab

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)

(Hot air circulation)	Heat pump	Hot water baseboard	
~~Space Heaters~~	Stream radiation	Radiant floor	
~~Electric baseboard~~	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

(Natural Gas)	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas main area hot air / fuel oil warehouse

Boiler/furnace located in: Basement Outdoors (Main Floor) Other_____

Air conditioning: (Central Air) Window units Open Windows None

Are there air distribution ducts present? (Y) / N

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

_____

_____

_____

_____

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
Basement	
1st Floor	OFFICE WAREHOUSE
2nd Floor	Storage Attic
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y (N)

b. Does the garage have a separate heating unit? Y / N (NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N (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 (N) Where?_____

f. Is there a workshop or hobby/craft area? (Y) N Where & Type? workshop

g. Is there smoking in the building? Y (N) How frequently?_____

h. Have cleaning products been used recently? (Y) N When & Type? ~~two~~ few days ago

i. Have cosmetic products been used recently? Y (N) When & Type?_____

j. Has painting/staining been done in the last 6 months? (Y) N Where & When? little painting, inside, back office last week

k. Is there new carpet, drapes or other textiles? (Y) N Where & When? Carpet 6mo. ago

l. Have air fresheners been used recently? (Y) N When & Type? Regular bathroom/wkly

m. Is there a kitchen exhaust fan? Y (N) If yes, where vented? _____

n. Is there a bathroom exhaust fan? (Y) N If yes, where vented? outside

o. Is there a clothes dryer? Y (N) If yes, is it vented outside? Y / N

p. Has there been a pesticide application? (Y) N When & Type? once a mo. For rodents

Are there odors in the building? Y (N)
If yes, please describe: _____

Do any of the building occupants use solvents at work? Y (N)
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y (N)

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)
Yes, use dry-cleaning infrequently (monthly or less)
Yes, work at a dry-cleaning service
~~No~~
(Unknown)

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: Bottled water for drinking

Sewage Disposal: (Public Sewer) Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency) N/A

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

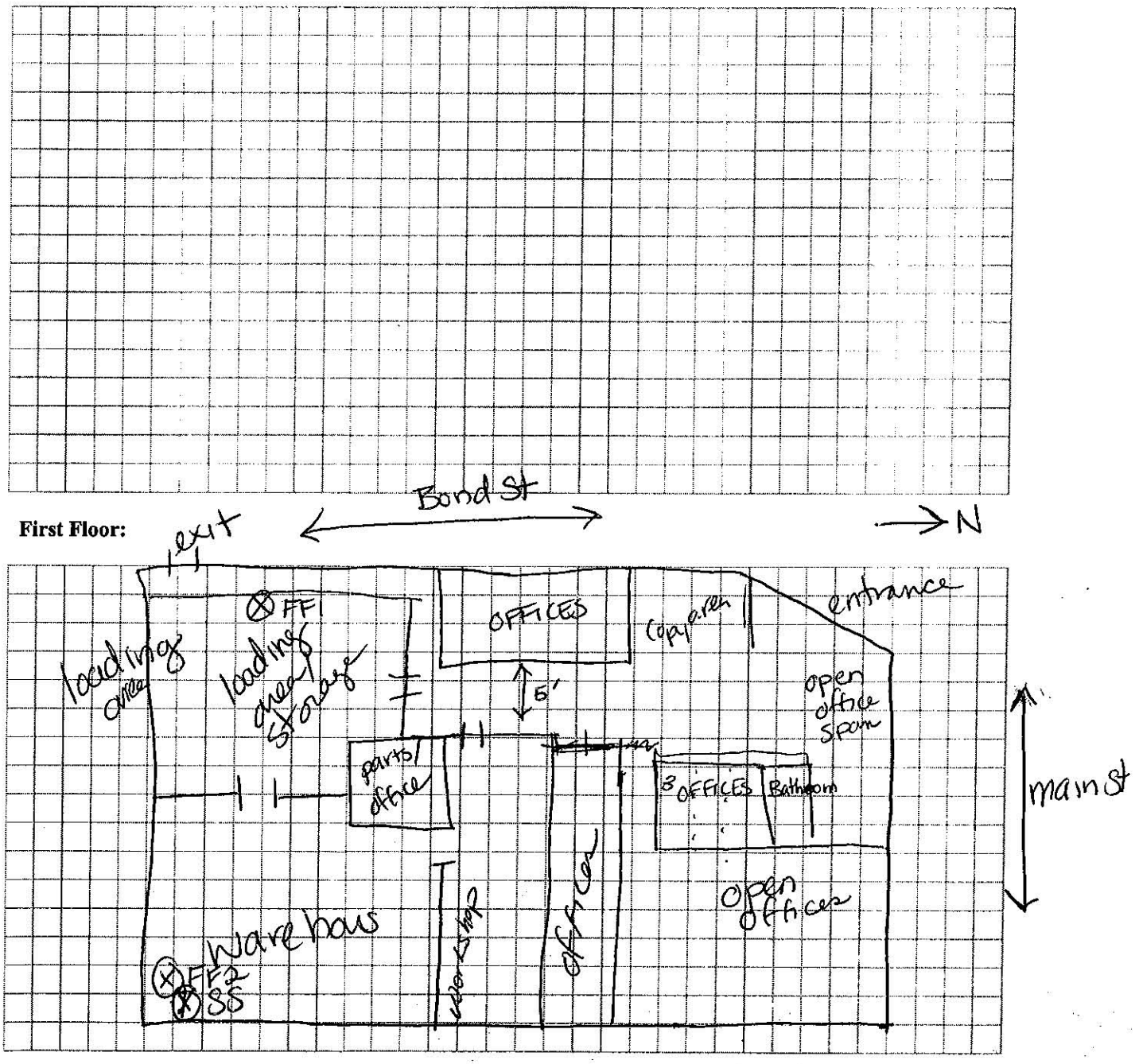
d. Relocation package provided and explained to residents? Y / N

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: N/A

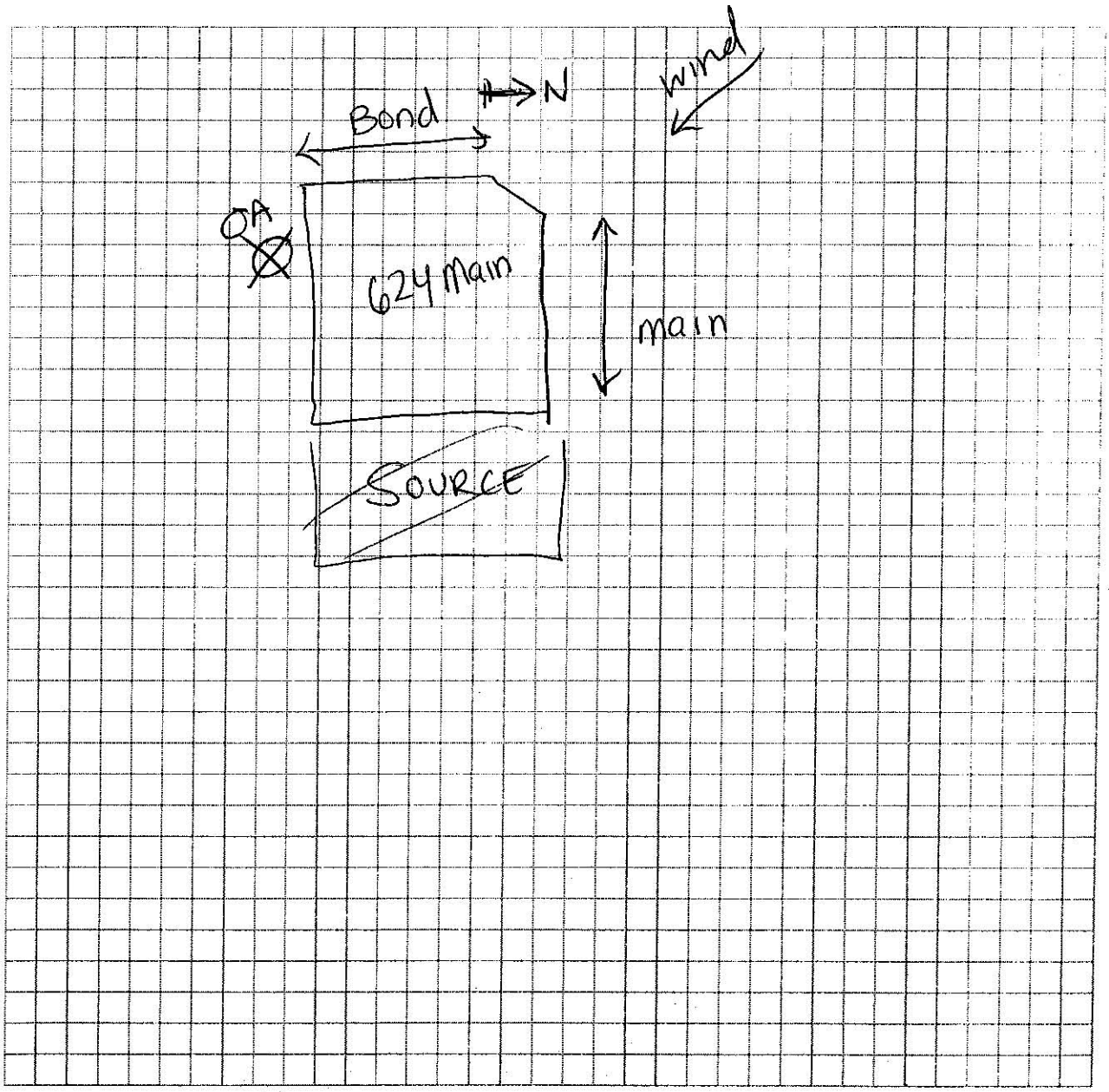
First Floor:



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.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
loading dock Warehouse	Paints X20	12 oz	U	↓	0	Y
	BEHR PREMIUM PLUS Interior flat	White 10 oz	U	ETHYLENE GLYCOL, Titanium dioxide, Silica, clay		
	Benjamin Moore & Co N221		U	titanium dioxide, Nepheline syenite, Limestone, silica earth, Coolin		
	Sheetrock All purpose Joint Cmpd	67.7 lbs 5 gal	U	Not listed	0	Y
	Elmers wood Filler	10 oz	U	Not listed	0	Y
	Benjamin Moore latex enamel	5 gal	U	Not listed	0	Y
	CRC Diesel Fuel therapy X10	14 oz	UO	Not listed	0	Y
	BARS LEAKS Hydraulic stop leak	32 oz	UO	NL	0	Y
	Preston D-icer	11 oz	U	NL	0	Y
	PVC cement	16 oz	U	tetrahydrofurane MEK, Acetone, cyclohexan	0	Y
	PEQUA drain opener	1 gal	U	Potassium Hydroxide	0	Y
	KleanStrip Paint Thinner	1 gal	U	100% Mineral	0	Y
Workshop	Rustoleum PAINTER TOUCH gloss X8	12 oz	U	Not Listed	0	Y
	Endust	10 oz	U	Not Listed	0	Y
	Goof off 2	2 oz	U	Not Listed	0	Y
	Goof off graffiti Remover	2 oz	U	NL	0	Y
	Wrench	4 oz	U	NL	0	Y
	American ACCENTS	12 oz	U	NL	0	Y
	GOO GONE	12 oz	U	NL	0	Y
	PNEUMATIC TOOL LUBRICANT 4 oz					

* 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.

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 Celeste Foster Date/Time Prepared 1/27/2010 10Am

Preparer's Affiliation AECOM Phone No. 973-338-6680

Purpose of Investigation Soil vapor monitoring

1. OCCUPANT:

Interviewed: (Y) / N

Structure 7

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y (N) Spiegel Associa

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: _____

If the property is residential, type? (Circle appropriate response) N/A

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? N/A

If the property is commercial, type?

Business Type(s) pharmaceuticals/compassionate care pharmacy

Does it include residences (i.e., multi-use)? Y (N) If yes, how many? _____

Other characteristics:

Number of floors 1 Building age ~20 yrs

Is the building insulated? Y / N How air tight? Tight / Average / Not Tight

4. AIRFLOW

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

Airflow between floors

N/A

Airflow near source

~~Swirls in from out~~ N/A

Outdoor air infiltration

Swirls in from outside

Infiltration into air ducts

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	(concrete)	stone	brick
b. Basement type:	full	crawlspace	slab	other N/A
c. Basement floor:	concrete	dirt	stone	other N/A
d. Basement floor:	uncovered	covered	covered with N/A	
e. Concrete floor:	unsealed	(sealed)	sealed with _____	
f. Foundation walls:	(poured)	block	stone	other _____
g. Foundation walls:	unsealed	(sealed)	sealed with _____	
h. The basement is:	wet	damp	dry	moldy N/A
i. The basement is:	finished	unfinished	partially finished N/A	
j. Sump present?	Y (N) Not visible			
k. Water in sump?	Y / N (not applicable)			

Basement/Lowest level depth below grade: N/A (feet)

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

None visible

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)

(Hot air circulation)	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

(Natural Gas)	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: gas

Boiler/furnace located in: Basement Outdoors (Main Floor) Other_____

Air conditioning: (Central Air) Window units Open Windows None

Are there air distribution ducts present? (Y) / N

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

Ceiling

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	N/A
1st Floor	office / storage / pharmacy, shipping dept
2nd Floor	—
3rd Floor	—
4th Floor	—

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y (N)

b. Does the garage have a separate heating unit? Y (N) / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / (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 (N) 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?_____

h. Have cleaning products been used recently? (Y) / N When & Type? lysol windex yesterday

i. Have cosmetic products been used recently? Y / (N) When & Type?_____

j. Has painting/staining been done in the last 6 months? (Y) / N Where & When? entire building Aug/Sep Aug/Sep

k. Is there new carpet, drapes or other textiles? (Y) / N Where & When? All new

l. Have air fresheners been used recently? Y / (N) When & Type? _____

m. Is there a kitchen exhaust fan? (Y) / N If yes, where vented? outside

n. Is there a bathroom exhaust fan? (Y) N If yes, where vented? outside

o. Is there a clothes dryer? Y / (N) If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / (N) When & Type? _____

Are there odors in the building? (Y) N
If yes, please describe: new carpet smell

Do any of the building occupants use solvents at work? Y / (N)
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / (N)

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)
Yes, use dry-cleaning infrequently (monthly or less)
Yes, work at a dry-cleaning service
(No)
Unknown

Is there a radon mitigation system for the building/structure? Y (N) Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: Drink Poland Spring

Sewage Disposal: (Public Sewer) Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

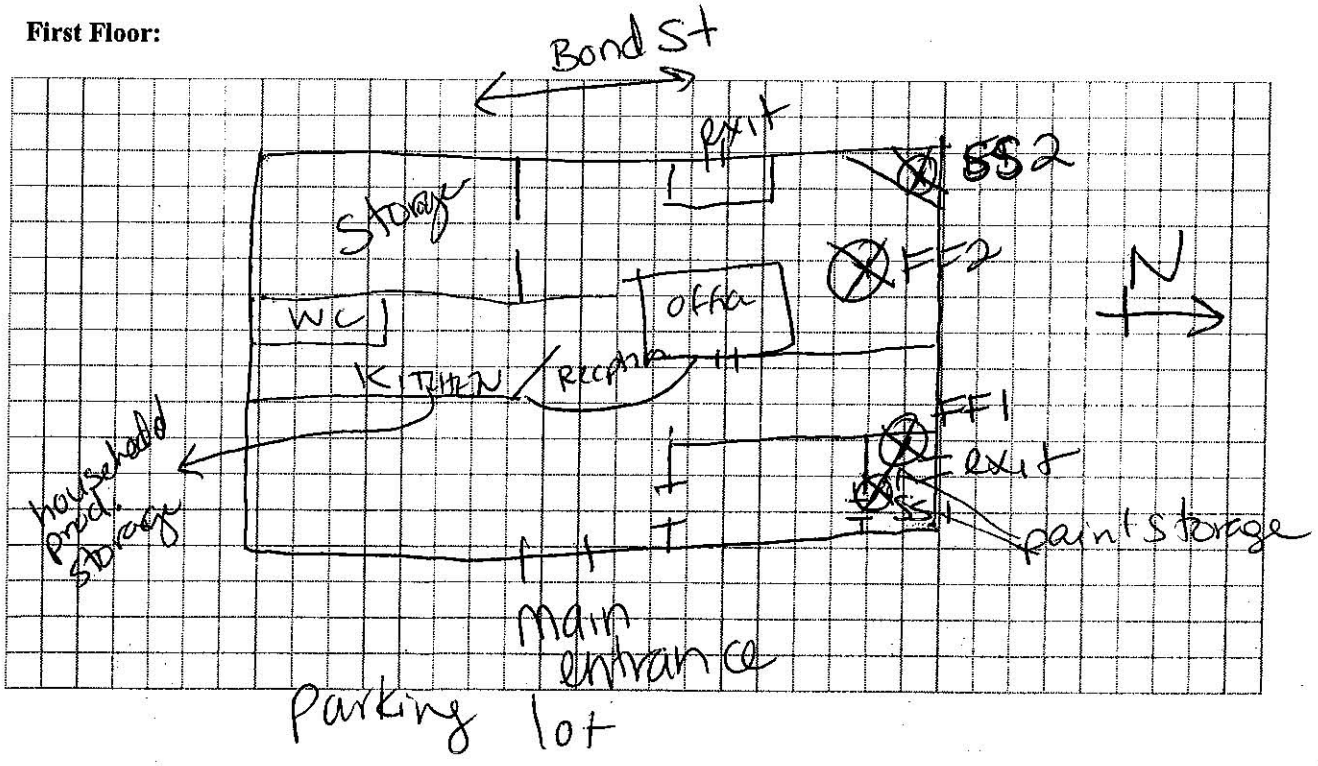
d. Relocation package provided and explained to residents? Y / N

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:

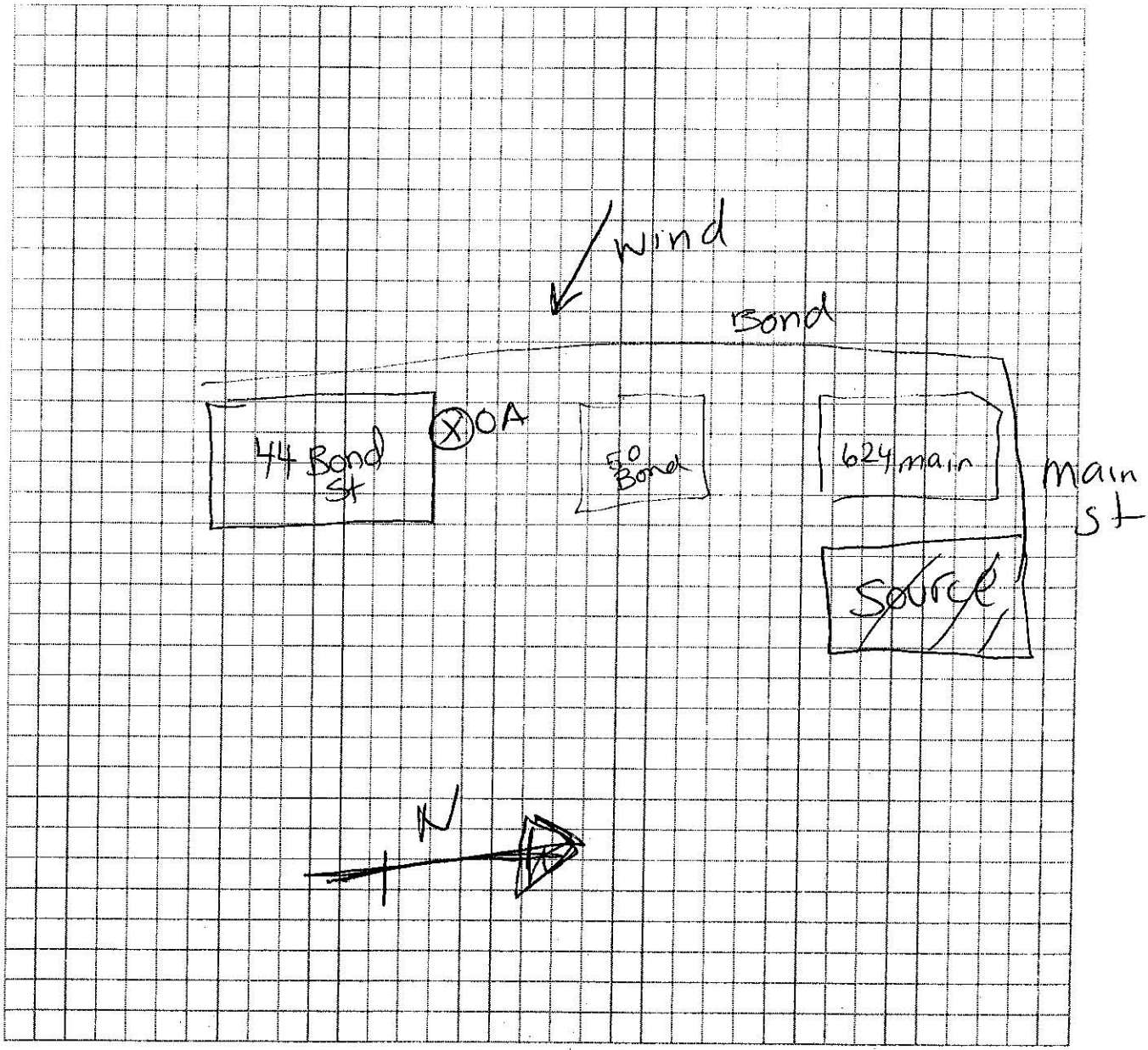
First Floor:



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.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: Mini Rae PID

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Kitchen	Lysol	12oz	U		0	Y
	Fantastik	32oz	U		0	Y
	Pine Glo	10oz	U		0	Y
	Acrylic Enamel Spray	16oz	Paint remover		0	Y
	Pledge	12.5oz	U		0	Y
	Germ X hand sanitizer	8oz	U		0	Y
	LAS TOTALLY AWESOME WINDOW CLEAR	32oz	UO		0	Y
	Windex	25oz	U		0	Y
	Windex Antibact. multi-surf	1gt	U		0	Y
	Raid Max Roach	14.5oz	U		0	Y
Exterior	Paints x3	12oz	U		0	Y
	Joint Compound x2	5gal	U		0	Y

* 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.

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 Celeste Foster Date/Time Prepared 1/26/2010 1400

Preparer's Affiliation AECOM Phone No. 973-338-6680

Purpose of Investigation Soil vapor Intrusion

1. OCCUPANT:

Interviewed: (Y) / N

Structure 13

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y (N) Spiegel & Associates

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: _____

If the property is residential, type? (Circle appropriate response) N/A

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? N/A

If the property is commercial, type?

Business Type(s) Retail

Does it include residences (i.e., multi-use)? Y / (N) If yes, how many? _____

Other characteristics:

Number of floors 1 Building age ~30yrs

Is the building insulated? Y / (N) How air tight? Tight / (Average) / Not Tight

4. AIRFLOW

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

Airflow between floors

N/A

Airflow near source

in from garage doors / entrances

some ~~[illegible]~~ cracks

Outdoor air infiltration

in from outside

Infiltration into air ducts

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	concrete	stone	(brick)
b. Basement type:	full	crawlspace	slab	other N/A
c. Basement floor:	concrete	dirt	stone	other N/A
d. Basement floor:	uncovered	covered	covered with N/A	
e. Concrete floor:	unsealed	(sealed)	sealed with _____	
f. Foundation walls:	poured	(block)	stone	other _____
g. Foundation walls:	unsealed	(sealed)	sealed with _____	
h. The basement is:	wet	damp	dry	moldy N/A
i. The basement is:	finished	unfinished	partially finished N/A	
j. Sump present?	Y (N)			
k. Water in sump?	Y / N / (not applicable)			

Basement/Lowest level depth below grade: N/A (feet)

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

Cracks in slab in grage, metal slab in center of building over large hole

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)

(Hot air circulation)	Heat pump	Hot water baseboard	
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene	
(Electric)	Propane	Solar	
Wood	Coal		

tenant said there was a heater on the roof that used gas?

Domestic hot water tank fueled by: Electric

Boiler/furnace located in:	Basement	Outdoors	(Main Floor)	Other _____
Air conditioning:	Central Air	(Window units)	Open Windows	None

Are there air distribution ducts present? Y / (N)

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

_____

_____

_____

_____

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	—
1st Floor	OFFICE/Retail/Storage
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

b. Does the garage have a separate heating unit? Y / N / (NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / (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 / (N) 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?_____

h. Have cleaning products been used recently? Y / (N) When & Type?_____

i. Have cosmetic products been used recently? Y / (N) When & Type?_____

j. Has painting/staining been done in the last 6 months? Y / (N) Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / (N) Where & When? _____

l. Have air fresheners been used recently? (Y) / N When & Type? lysol/Febreeze daily

m. Is there a kitchen exhaust fan? Y / (N) If yes, where vented? _____

n. Is there a bathroom exhaust fan? (Y) / N If yes, where vented? outside

o. Is there a clothes dryer? Y / (N) If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / (N) When & Type? _____

Are there odors in the building? Y / (N)
If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / (N)
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? None

If yes, are their clothes washed at work? Y / (N)

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)
Yes, use dry-cleaning infrequently (monthly or less)
Yes, work at a dry-cleaning service
(No)
Unknown

Is there a radon mitigation system for the building/structure? Y / (N) Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: (Public Sewer) Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

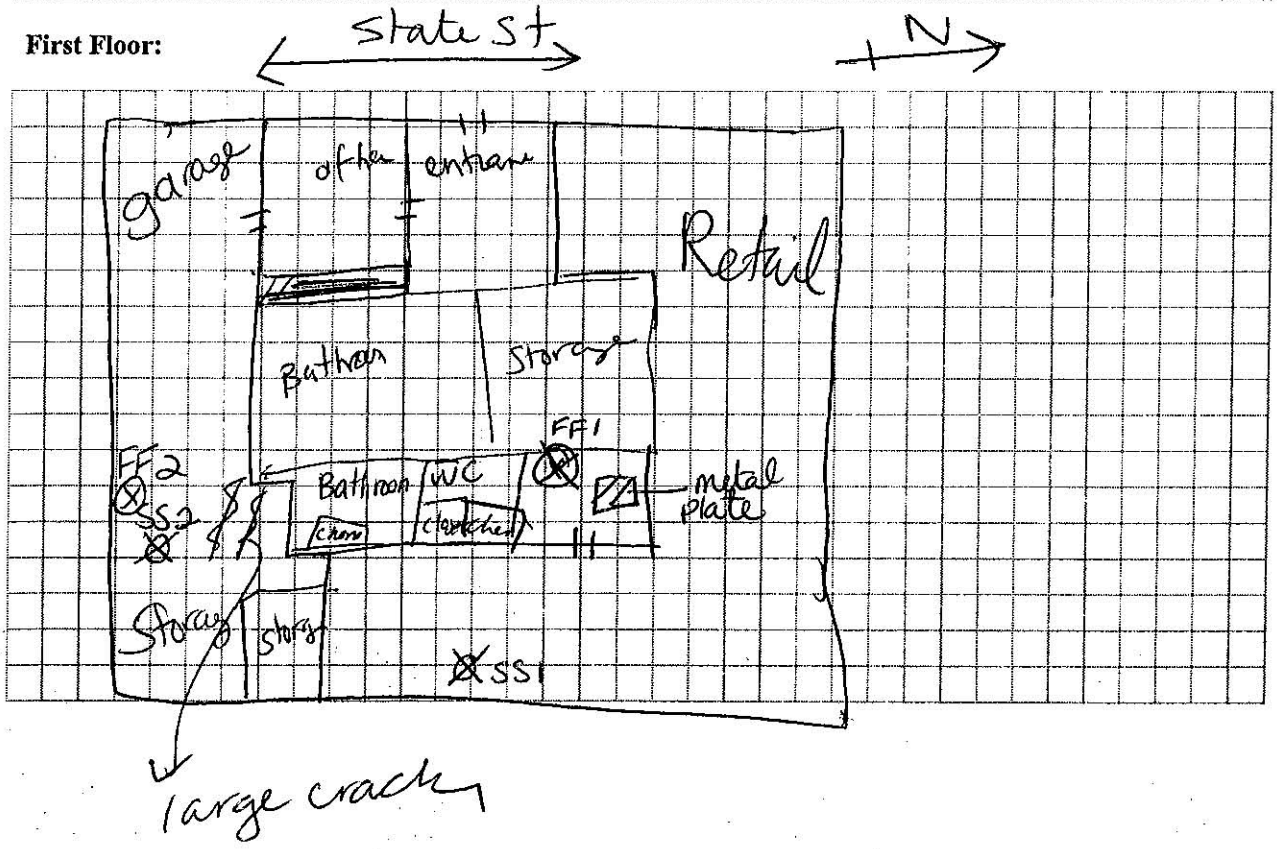
11. FLOOR PLANS

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:

N/A

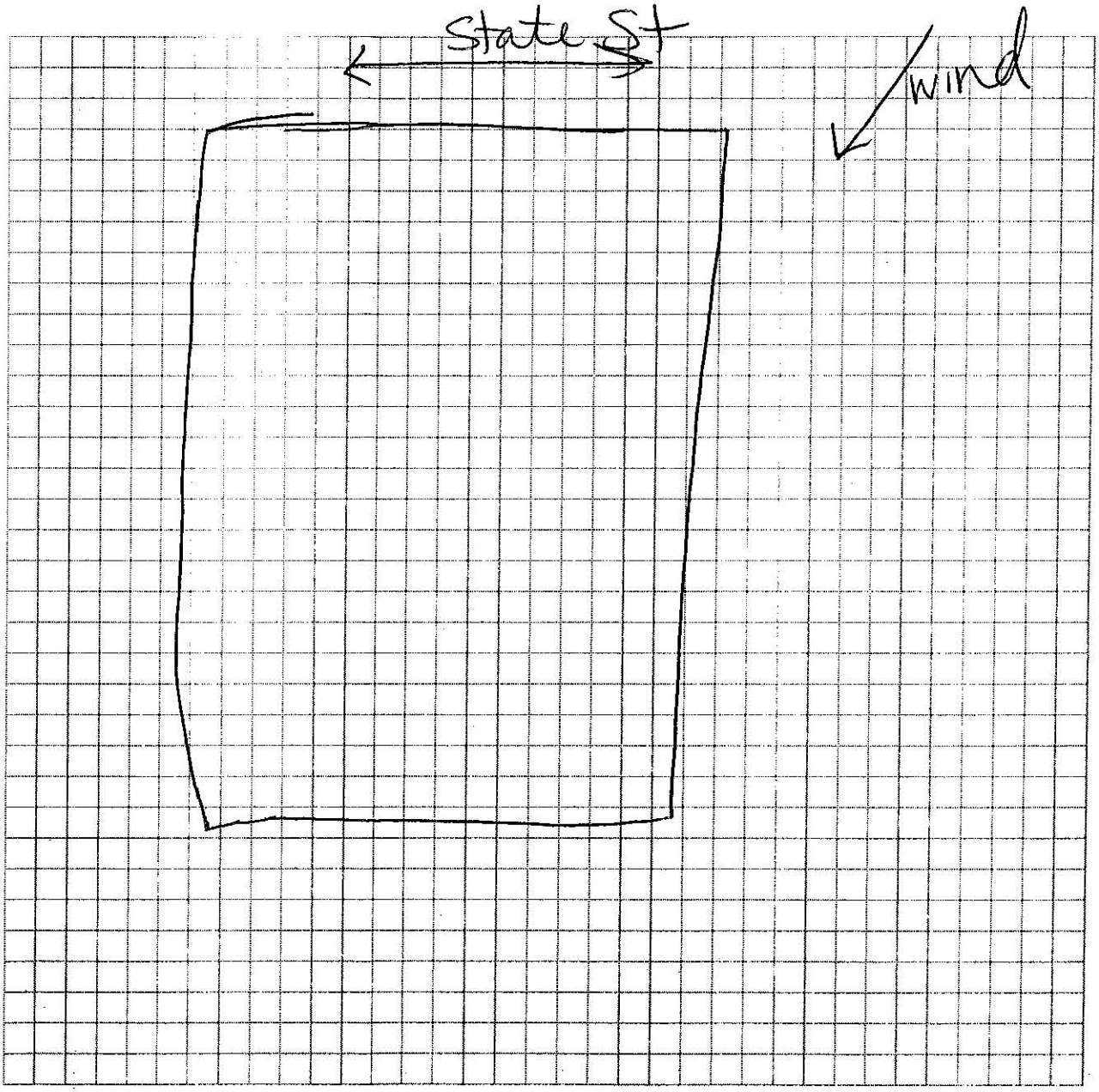
First Floor:



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.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
bathroom	Scrubbing bubbles	25oz	U	NL	0	Y
	Dial	1gal	U	TRICLOSAN water	0	Y
	Lysol X 4	12oz	U (3all)	NL	0	Y
	Clorox	2qt	U		0	Y
	CVS lemon bathroom cleaner	20oz	U		0	Y
	Rael Hose & Leader	16oz	U		0	Y
	Windex	1gal	U		0	Y
	Softsoap	1gal	U		0	Y
garage	Pledge	14oz	U			
By bedroom	Gunk Silicone spray	16oz	UO			
	Motor oil	32oz	UO			
	Minute de icer	X2	UO			
	Trailblazer X	1gal	UO			
	Paint x3 Behr	3cans	UO			
	Febreze	10oz	UO			
	Pledge	14oz	UO			
	Windex	1gal	UO			
	Clorox	24oz	UO			
	Scrubbing bubbles	25oz	UO			

* 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 C

Photo Log

Indoor Air Sampling – 2010

Sampling Structure 1 Sub-Slab

Sampling Structure 1 Indoor Air

Sampling Structure 1 Indoor Air

Sampling Structure 1 Outdoor Air

Sampling Structure 7 Sub-Slab and Indoor Air

Sampling Structure 7 Sub-Slab

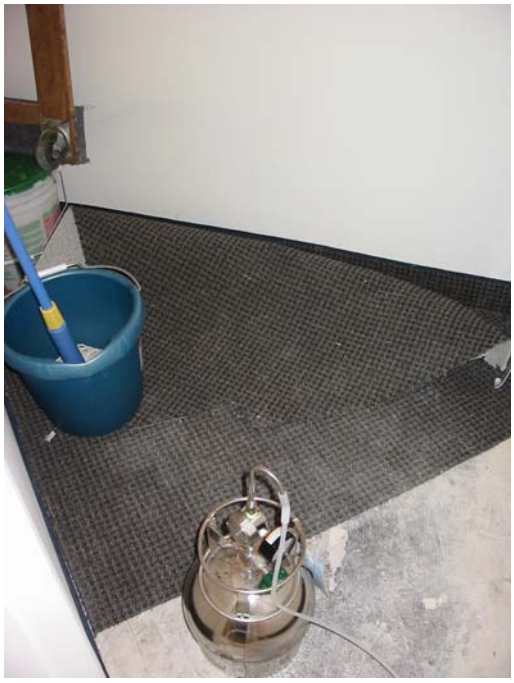
Sampling Structure 7 Sub-Slab

Sampling Structure 7 Indoor Air

Sampling Structure 7 Outdoor Air

Sampling Structure 13 Indoor Air

Sampling Structure 13 Indoor Air



Sampling Structure 13 Sub-Slab

Groundwater Sampling – 2010

Monitoring Well Installation

NC-12 Location - Not Sampled

APPENDIX D

Laboratory Data and
Data Usability Summary Reports on CD