DURHAM SCHOOL SERVICES
VAPOR INTRUSION (VI) SAMPLING REPORT

Former Norton Company/Nashua Tape Products Facility
2600 Seventh Avenue
Watervliet, New York
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SECTION 1.0
SUB-SLAB VAPOR MONITORING POINT (VMP) INSTALLATION

Per direction of NYSDEC/NYSDOH, a vapor intrusion (VI) study was required in the new Durham School Service (Durham) facilities at the Former Norton/Nashua site in Watervliet, NY (see Figure 1-1). Access was received from the current facility owner (Stone Management, Inc.; Stone) and Durham to install and sample two sub-slab vapor monitoring points (VMPs) and conduct a concurrent indoor and outdoor ambient air sampling event.

1.1 Pre-Installation Survey and Selection of VMP Locations

Durham and Stone requested that the VMPs not be placed in the Durham offices where new linoleum floors were recently installed. The proposed VMP locations (see Figure 1-2) were located: 1) in the bus repair area, adjacent to the Durham General Manager's office (DB-VMP-1); and 2) in Building #61, adjacent to the Durham "break room" and offices (DB-VMP-2). The concrete slab in these areas was inspected for water leaks, cracks, floor drains, and other penetrations, and field screened with a PID. No floor penetrations were noted. The proposed VMP locations were reviewed and approved by Stone, Durham, and NYSDEC/NYSDOH.

1.2 VMP Installation

Prior to VMP installation, facility inventory/equipment in the investigation areas was temporarily relocated. A 3.5-inch diameter "outer" hole was installed with a core saw through the concrete slab to accommodate a 3-inch diameter protective vault at each location. At DB-VMP-1, the protective vault extended to the base of the concrete slab (total thickness 6 inches); however, at DB-VMP-2, the concrete had a total thickness 11.75 inches, so the protective vault did not extend to the base of the concrete slab (see Appendix A for VMP construction diagrams).

A smaller diameter "inner" hole (3-inches in diameter) was installed with a core saw through the entire length of the slab at each location. At DB-VMP-1, the inner hole extended approximately 3.75 inches below the slab, and at DB-VMP-2, the inner hole extended approximately 2.75 inches below the slab (see Appendix A for VMP construction diagrams).

The VMP assembly generally followed the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006). However, for VMP durability, six-inch long, 0.50-inch outer diameter (OD), stainless-steel vapor implants were installed in each VMP (see Appendix A for manufacturer specifications). The bottom of the VMP assembly extended approximately three inches below the base of the slab at DB-VMP-1 and two inches below the base of the slab at DB-VMP-2 (i.e., the top of each implant was below the top of the slab). The top of each implant was connected to 0.25-inch inner diameter (ID) Teflon tubing (see Appendix A for VMP construction diagrams).

Porous, inert backfill (glass beads) was placed around and above the implants. Each VMP assembly (implant and tubing) was sealed in place with bentonite by filling the annular space between the VMP assembly and the sleeve of the protective vault (see Appendix A for VMP construction diagrams). The end of the VMP assembly tubing was sealed with a plug and placed inside the protective vault at each VMP. Temporarily relocated facility inventory/equipment was returned to its original location until sampling.

Photographs of the VMP locations are provided in Appendix B, which also includes photos obtained during the pre-sampling inspection of the Durham facility (see Section 2.1).

SECTION 2.0

SUB-SLAB VAPOR AND INDOOR/OUTDOOR AIR SAMPLING

Following a pre-sampling inspection and site walkover at the Durham facility on March 2, 2015, sub-slab vapor and ambient indoor/outdoor air samples were collected on March 3, 2015. (Note: the vapor regulator failed on the outdoor Summa canister, so a replacement sample was collected on March 4, 2015, under similar ambient air conditions.)

Sub-slab vapor and ambient air sampling protocol was based upon the 2006 NYSDOH Guidance document. The March 3 sampling date was within the general operation period for heating systems specific in the NYSDOH Guidance, and the heating systems in the Durham facility were active on the day of the sampling event. Following third-party validation, the final laboratory data will be forwarded to NYSDEC & NYSDOH for review and discussion to determine if additional sampling will be required.

2.1 Pre-Sampling Inspection

A pre-sampling inspection was conducted at the Durham facility on March 2, 2015. During the pre-sampling inspection, an Indoor Air Quality Questionnaire and Building Characteristics Inventory form (IAQQ/BCIF), as provided in the 2006 NYSDOH Guidance, was completed. A copy of the IAQQ/BCIF is presented in Appendix C.

The pre-sampling inspection included: 1) brief interviews with the property owner (Stone) and facility manager (Durham); 2) preparation of a general floor plan and tracer smoke testing to determine air flow in the Durham facility; 3) PID field screening of the proposed sampling areas; 4) an inventory of potentially contributing substances in the proposed sampling areas. Information provided during the interviews was incorporated into the IAQQ/BCIF.

In addition to a natural gas powered furnace, with inlet and outlet vents in each room, the Durham facility has overhead space heaters, indoor/outdoor air exchangers, and a portable oil heater. Tracer smoke testing indicated: 1) strong air currents in and out of the offices via the heating ventilation system when the furnace blower was running; 2) strong infiltration of outdoor air at the large overhead doors; 3) strong infiltration of outdoor air when the doors on the north and east sides of the building were opened; 4) general upward flow near DB-VMP-1; and 5) a slight upward air flow near DB-VMP-2.

PID screening results indicated volatile organic compound levels were minimal (less than 0.5 parts per million; ppmv) near DB-VMP-2 and in the outdoor ambient air sample area, but PID readings ranging from 4.0 to 5.0 ppmv were obtained at various locations within the Durham facility on March 2, 2015. (Similar, or slightly higher PID field screening readings were obtained in the Durham facility during sampling activities on March 3, 2015.)

The goal of the inventory was to identify products (or other substances stored or present in the facility) that could potentially interfere with the testing and/or contribute site-specific compounds of concern (COCs) to the vapor samples. Because toluene is the primary site-specific COC identified in groundwater at the former Norton/Nashua Site, the inventory focused on potential toluene sources. Several potential toluene sources were noted, and where possible, seals on small containers of toluene-containing products were tightened. However, the facility is a working bus maintenance/repair shop, and these activities continued on the day of sampling. Due to low outside ambient air temperatures, no supplemental ventilation activities were conducted during the pre-sampling inspection (or on the day of sampling).

Following the pre-sampling inspection, the proposed sampling appointment time was confirmed. Durham had previously been sent a handout (adopted from NYSDOH, 2006, and other references) describing the sampling and asking the facility to refrain from the following activities during the 24 hours prior to testing (a copy of the handout is provided in Appendix D):

- opening any windows or vents *(however, employees needed to use access doors to enter/leave the facility throughout the sampling period; extremely windy conditions were present on the afternoon of March 3)*
- operating ventilation fans unless special arrangements are made *(operation of auxiliary ventilation fans in the bus repair area was not observed during the sampling event)*
- using auxiliary heating equipment *(operation of a portable oil-fired heater in the bus repair area was not observed during the sampling event)*
- smoking in the facility *(smoking is not allowed in the facility, but employees smoke in outdoor areas and smoke odor on clothing was evident in the "break room")*
- painting in the facility *(bus parts were painted and paint odors were noticeable near DB-VMP-1 during the sampling event)*
- using cosmetics, including hair spray, nail polish, nail polish remover, etc.
- using perfume/cologne *(perfume odors were noted in the "break room")*
- cleaning, waxing, or polishing furniture or floors with petroleum or oil-based products
- using air fresheners or odor eliminators *(a scented candle was present in the office where DB-IA-1 was collected, which is adjacent to VMP-1)*
- engaging in any other activities that use materials containing volatile organic compounds (VOCs)
- applying pesticides
- allowing containers of gasoline or oil to remain within the facility *(there were open containers of oil and waste oil in the bus repair area during the sampling event)*
- operating or storing automobiles in an attached garage *(As previously noted, the Durham facility [DB-VMP-1, DB-IA1, DB-IA2] is an active bus maintenance/repair shop and these activities continued during the sampling event. The Stone facility [DB-VMP-2] is an active warehouse, and operation of propane-fueled forklifts and other equipment continued in the warehouse during the sampling event.)*

2.2 Sub-Slab VMP Sampling

On the day of VMP sampling, a final site inspection and PID field screening survey was performed to document conditions at the time of sampling. Ambient air PID readings on March 3, 2015 were approximately 4.4 parts per million by volume (ppmv) in the vicinity of DB-VMP-1 (but as high as 12.4 ppmv were observed in the bus repair area); 0.13 ppmv in the vicinity of DB-VMP-2; 2.5 ppmv in the vicinity of DB-IA1; 0.68 ppmv in the vicinity of DB-IA2; and 0.10 ppmv in the vicinity of DB-AA (see Figure 1-2 for sample locations).

The integrity of each VMP was inspected prior to sampling. Small cracks in the surface of the bentonite seal were noted at DB-VMP-1 (see photo in Appendix B). The plug was removed from each VMP assembly and several feet of dedicated 0.25-inch ID Teflon tubing was connected.

A particulate filter and an 8-hour regulator preset by the laboratory were attached to each 6-liter (6L) Summa canister. The pre-sample vacuum of each Summa canister, which was previously recorded by the laboratory prior to shipping, was recorded. No vacuum loss was noted in any of the Summa canisters and the pre-sampling vacuum of all Summa canisters was greater than 25 inches of mercury (inHg). Summa canister information is provided in Table 2-1.

Immediately prior to VMP sampling, tracer gas monitoring was conducted per the 2006 NYSDOH guidance document to confirm the integrity of each VMP (and associated fittings). A copy of the approved tracer gas monitoring protocol is provided in Appendix E (Appendix C in the original document). The flux chamber at each VMP was charged with helium (He) gas until a reading of at least 25% He was obtained. Additional tracer gas data is provided in Table 2-1.

A low-flow peristaltic pump (i.e., flow rate 0.2 liters per minute or less) was connected to the open end of the Teflon tubing to purge approximately 1.5 VMP assembly volumes (0.05 to 0.06 liters per volume) from each VMP location. Following purging, a small vapor sample was collected from each VMP for tracer gas monitoring and PID field screening.

After tracer gas monitoring was completed, the air purging pump was deactivated. Tracer gas readings at both VMP locations were less than 0.1% (i.e., both samples were below the tracer gas test screening limit of 20%). Pre-test PID readings were 7.36 ppmv at DB-VMP-1 and 2.77 ppmv at DB-VMP-2 (see Table 2-1).

The Teflon tubing from the VMP was attached to the Summa canister and the canister valve was opened to begin sub-slab vapor collection at each VMP location. The VMP sub-slab samples were recovered approximately 8 hours later by closing the Summa canister valves, disconnecting the Teflon tubing from the VMP, and recording the remaining vacuum. All vacuum readings exceeded the required 2 inHg to allow the laboratory to check for leaks. All final field Summa vacuums were within 1.5 inHg of the vacuums recorded in the laboratory prior to analysis (see Table 2-1).

Immediately after VMP sampling was completed, tracer gas monitoring was conducted as described above (see Appendix E), and the VMP was plugged. (However, the flux chamber at DB-VMP-2 still contained significant tracer gas at the end of the test and was not recharged for tracer gas screening.)

Tracer gas readings were 7.8% at DB-VMP-1 and less than 0.1% at DB-VMP-2 (see Table 2-1). The tracer gas detected at DB-VMP-1 may be related to the cracks in the bentonite seal; however, post-test tracer gas concentrations in both VMP samples were well below the screening limit of 20%. Post-test PID readings were 3.27 ppmv at VMP-1 and 0.00 ppmv at VMP-2 (see Table 2-1).

VMP sub-slab samples were submitted to Accutest Laboratories of Dayton, New Jersey (Accutest) for analysis of VOCs via EPA Method TO-15 plus tentatively identified compounds (TICs) with a target reporting limit of 5.0 micrograms per cubic meter ($\mu g/m^3$). Accutest is an NYSDOH – Environmental Laboratory Approval Program (NYSDOH-ELAP) certified laboratory. All vapor samples were analyzed following NYSDEC, ASP (June 2000) CLP procedures with complete NYSDEC CLP/Category B laboratory deliverables including TICs. Results are discussed in Section 3.0.

2.3 Indoor/Outdoor Air Sampling

In conjunction with VMP sampling, concurrent ambient indoor air samples were collected (see Figure 1-2 for sample locations). A field duplicate was collected by co-locating two Summa canisters (DB-IA2 & DUP) with approximately equal initial vacuums. A concurrent ambient outdoor air sample was collected outside the office area (however, as previously noted, the vapor regulator failed on the outdoor Summa canister, so a replacement sample was collected on March 4, 2015, under similar ambient conditions).

Ambient indoor air samples were collected by placing certified-clean 6L Summa canisters, equipped with particulate filters and 8-hour regulators preset by the laboratory, in the center of each sampling area approximately three feet off the floor (i.e., on a desk) to collect a representative "breathing air" sample. The Summa canisters were not attached to any tubing.

Pre-sample vacuums of each Summa canister, which were previously recorded by the laboratory prior to shipping, were recorded. No vacuum loss was noted in any of the Summa canisters and the pre-sampling vacuums of all Summa canisters were greater than 25 inHg. Summa canister information is provided in Table 2-1.

The Summa canister valves were opened to begin indoor ambient air collection. A similar procedure was followed for collection of the outdoor ambient air sample. Indoor/outdoor temperatures and barometric pressure were recorded along with current weather conditions. Normal business activities continued at Durham during the air sampling event and employees were often present in the active sampling areas. Also, as noted previously, employees frequently entered/exited the facility via adjacent access doors.

Ambient air samples were recovered approximately 8 hours later. Summa canister regulator valves were closed and the vacuum reading for each canister was recorded. All vacuum readings exceeded the required 2 inHg. All final Summa vacuums for the indoor air samples were within 1.5 inHg of the vacuums recorded in the laboratory prior to analysis (see Table 2-1); however, the vacuum in the outdoor air sample decreased by more than 1.5 inHg (see Table 2-1), and, therefore, the data from this sample is suitable for qualitative purposes only.

Ambient indoor/outdoor air samples were submitted for laboratory analysis of VOCs via EPA Method TO-15 plus TICs with a target reporting limit of 0.25 $\mu g/m^3$. All air samples were analyzed following NYSDEC, ASP (June 2000) CLP procedures with complete NYSDEC CLP/Category B laboratory deliverables including TICs.

2.4 QA/QC Air Samples

The QA/QC program included the collection of trip blank and field duplicate samples. One trip blank sample was analyzed for VOC target parameters and TICs. The vapor trip blank was a prepared gas sample (laboratory certified "clean air") provided in a laboratory supplied Summa canister. The blank was transported and handled in the same manner as other vapor sampling equipment (i.e., Summa canisters) before analysis by the laboratory.

Collection of the indoor air field duplicate was discussed in Section 2.3. Trip blank and duplicate sample results are discussed in Section 4.2.

SECTION 3.0

SUB-SLAB VAPOR AND INDOOR/OUTDOOR AIR SAMPLING RESULTS

Per the direction of NYSDEC & NYSDOH, sub-slab vapor and indoor air samples were collected from the new Durham facility in March 2015. Results are discussed below and summarized in Table 3-1.

Previously, on-site vapor/air samples were collected (see Figure 3-1 for sample locations) at: 1) three sewer bedding wells in Building #61 in February 2004; 2) ambient air locations in Buildings #58 & #61 in December 2004; and 3) sub-slab vapor and ambient air locations in Building #59 in March 2009 & February 2010. Vapor sampling details and results were presented in the December 2007 RFI Report and the July 2014 Corrective Measures Study (CMS) Report. Copies of the summary tables are provided herein as Tables 3-2 through 3-4.

3.1 March 2015 Sub-Slab Vapor Samples

Vapor-phase toluene concentrations in DB-VMP1 and DB-VMP-2 in March 2015 were 59.5 $\mu g/m^3$ & 37 $\mu g/m^3$, respectively. Vapor-phase heptane concentrations in DB-VMP1 and DB-VMP-2 in March 2015 were 13 $\mu g/m^3$ & 8.1 $\mu g/m^3$, respectively (see Table 3-1). Vapor-phase toluene and heptane concentrations reported in the March 2015 VMP samples were lower than the toluene and heptane concentrations reported in the February 2004 MW-11 sewer bed well sample (which is now located in the Durham facility; see Figure 3-1 & Table 3-2).

In general, other VOC concentrations in March 2015 were higher in DB-VMP-1 than DB-VMP-2 (see Table 3-1) with the most significant exception being propylene (concentration 60.6 $\mu g/m^3$ in DB-VMP-2, but not detected in DB-VMP-2). The source of the propylene detected at DB-VMP-1 is unknown, but propylene can be present in motor vehicle exhaust.

3.2 March 2015 Ambient Air Samples

Vapor-phase toluene concentrations in the March 2015 ambient indoor air samples (see Table 3-1) were 292 µg/m^3 (DB-IA1) & 298 µg/m^3 (DB-IA2/DUP). Vapor-phase heptane concentrations in the March 2015 ambient indoor air samples were 1,200 µg/m^3 (DB-IA1) & 1,910 µg/m^3 (DB-IA2/DUP). More VOC analytes were detected (25 vs. 20 or less), and the reported concentrations were generally higher, in the March 2015 indoor ambient air samples than in the 2003 & 2004 Stone warehouse ambient air samples and the 2009-2010 Stone office ambient air samples (see Figure 3-1 & Tables 3-2 through 3-4).

Overall, reported VOC concentrations were similar in DB-IA1 and DB-IA2 (see Table 3-1). However, the concentrations of cyclohexane: 223 µg/m^3 (DB-IA1) vs. non-detect (ND; DB-IA2); ethylbenzene: 30 µg/m^3 (DB-IA1) vs. 20 µg/m^3 (ND; DB-DUP); methyl isobutyl ketone (MIBK): 76.2 µg/m^3 (DB-IA1) vs. 48.8 µg/m^3 (ND; DB-DUP); and xylenes: 166 µg/m^3 (DB-IA1) vs. 108 µg/m^3 (ND; DB-DUP) were higher in DB-IA1 than in DB-IA2. In addition to motor fuels associated with the school buses, the pre-inventory survey identified products containing ethylbenzene, MIBK, and xylenes in the general vicinity of DB-IA1.

Conversely, the concentrations of ethanol: 618 µg/m^3 (DB-IA1) vs. 2,090 µg/m^3 (DB-IA2), isopropyl alcohol: ND (DB-IA1) vs. 49.9 µg/m^3 (DB-DUP), and tetrachloroethene (PCE): 8.1 µg/m^3 (DB-IA1) vs. 16 µg/m^3 (DB-IA2) were higher in DB-IA2 than in DB-IA1. Alcohols and PCE could be associated with office products and dry cleaned clothing, respectively.

As noted previously, due to a loss of vacuum during shipment, the results of the March 2015 outdoor ambient air sample are qualified and suitable for qualitative use only. A total of 12 VOC analytes were detected, including toluene (concentration 1.7 µg/m^3) and several other VOCs associated with motor fuel combustion (benzene, xylene, and trimethylbenzene), which occurred throughout the sampling period due to frequent school bus movement.

3.3 March 2015 Vapor/Air Sampling Review

Vapor-phase COC (and many other VOC) concentrations were significantly higher in the indoor air samples as compared to the sub-slab vapor samples indicating confounding source(s) are present at the Durham facility. This conclusion is supported by the pre-sample inventory, which indicates toluene and heptane are present in multiple products used at the facility, and PID screenings, which had background VOC concentrations ranging from 2 to 5 ppmv or higher.

March 2015 sub-slab vapor and indoor air samples were compared to the October 2006 NYSDOH Soil Vapor/Indoor Air Matrices. The March 2015 trichloroethene (TCE) results were compared to Matrix 1. (The other compounds assigned to Matrix 1, carbon tetrachloride and vinyl chloride, were not detected in any sub-slab vapor or indoor air samples, and therefore, no further action is indicated.) Sub-slab vapor TCE concentrations ranged from 6.4 $\mu g/m^3$ (DB-VMP2) to 9.7 $\mu g/m^3$ (DB-VMP1) and indoor air TCE concentrations results ranged from ND (DB-IA1) to 1.1 $\mu g/m^3$ (DB-IA2); however, the TCE concentration in the duplicate sample was ND. These results generate a Matrix 1 result of "monitor" or "no further action" using the duplicate sample. TCE has never been detected in the groundwater or soil at the Former Norton/Nashua site except for a trace soil detection of 12 micrograms per kilogram (µg/kg) in one boring in Building #58 (see Figure 3-1).

The March 2015 1,1,1-trichloroethane (1,1,1-TCA) and PCE data were compared to Matrix 2. (The other compounds assigned to Matrix 2; 1,1-dichloroethene and cis-1,2-dichloroethene, were not detected in any vapor or air samples, and therefore, no further action is indicated.) 1,1,1-TCA was not detected in the indoor air samples resulting in a Matrix 2 result of "no further action". PCE results were less than 100 $\mu g/m^3$ and indoor air PCE results were between 3 and 30 $\mu g/m^3$, generating a Matrix 2 result of "take reasonable and practical actions to identify source(s) and reduce exposures". PCE has never been detected in the groundwater or soil at the Former Norton/Nashua site. Durham and Stone will be informed of the PCE results.

A total of 32 other VOCs were detected in the March 2015 soil vapor and indoor air samples. These compounds were compared to Matrix 2. Sixteen analytes had soil vapor concentrations of less than less than 100 µg/m^3 and indoor air concentrations of less than 3 µg/m^3, generating a Matrix 2 result of "no further action".

As noted previously, vapor-phase COC (toluene and heptane) concentrations were significantly higher in the indoor air samples as compared to the sub-slab vapor samples (COC concentrations less than 100 µg/m^3) resulting in a Matrix 2 result of "take reasonable and practical actions to identify source(s) and reduce exposures". The same concentration relationship (less than 100 µg/m^3 sub-slab vapor concentration, greater than 3 µg/m^3 indoor air concentration) applies to 7 VOCs where the indoor air concentrations were greater than the sub-slab vapor concentrations, and 4 VOCs where the sub-slab vapor concentrations were greater than the indoor air concentrations. Many of these VOCs have documented utilization at the Durham facility. Durham and Stone will be informed of these results.

The remaining 3 VOC analytes had sub-slab vapor concentrations greater than 100 µg/m^3: acetone, ethanol, and isopropyl alcohol. (However, acetone and ethanol concentrations were significantly higher in the indoor samples.) The source of these compounds, which are not site-specific COCs for the Former Norton/Nashua site (although acetone has occasionally been detected as a suspected laboratory contaminant), is unknown. Therefore, no further action is recommended for these compounds with regards to the Former Norton/Nashua site.

In conclusion, based on the March 2015 sub-slab vapor and indoor air samples, there is currently no unacceptable exposure via migration of vapor-phase COCs from groundwater to the Durham facility and on-site workers. As previously noted, the March 2015 sub-slab vapor and indoor air results will be provided to Durham and Stone for possible action.

3.4 Contingent Sub-Slab Vapor/Indoor Air Sampling

The March 2015 sub-slab vapor and ambient indoor/outdoor air sampling data will be reviewed and discussed with project representatives from the NYSDEC and the NYSDOH. This data assessment will determine whether additional VMP and/or ambient indoor air sampling locations (or the collection of additional samples from the existing VMPs) are needed to complete the evaluation of the potential vapor intrusion exposure pathway at the Durham facility.

SECTION 4.0

LABORATORY ANALYSIS

All vapor samples were submitted to Accutest for analysis via standard turn around times. All samples were analyzed following NYSDEC, ASP (June 2000) CLP procedures with complete NYSDEC CLP/Category B laboratory deliverables including TICs. The final laboratory deliverables package for volatiles via Method TO-15 was requested to include the following:

1) Chain of custody forms;
2) Instrument run logs with time and date information;
3) A case narrative describing any QC problems encountered by the lab, in addition to a written statement with regard to sample holding times (30 days for Summa canisters);
4) CLP Form I for each sample analyzed plus total/extracted ion chromatographs;
5) CLP Form II, system monitoring compounds (surrogate recoveries);
6) CLP Form III, MS/MSD recoveries and RPDs;
7) CLP Form IV, system, field and trip blanks where applicable;
8) CLP Form V, GC/MS instrument performance check for bromofluorobenzene;
9) CLP Form VI, GC/MS initial calibration form;
10) CLP Form VII, GC/MS continuing calibration;
11) CLP Form VIII, internal standard area and retention time summaries; and
12) CLP Form IV, system, field and trip blanks where applicable.

4.1 Data Validation

Data validation will be performed by a third party reviewer retained by Saint-Gobain in accordance with the NYSDEC ASP (June 2000), the USEPA Region II document CLP Organics Data Review and Preliminary Review (SOP No. HW-6, Revision No. 8, January 1992), and USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (February 1994). The data validation will include a comparison of QC checks to prescribed acceptance criteria and compliance with applicable performance criteria for the following major elements: trip blank, field duplicate sample, laboratory qualifiers, holding times, detection limits (practical quantitation limits need to meet the Contract Required Quantitation Limit (CRQL) per NYSDEC ASP), surrogate recoveries, GC/MS calibrations, and system performance checks.

All data will also be reviewed for precision, accuracy, representativeness, completeness, and comparability (PARCC). The final data validation package was not available at the time of this report, but any changes to the data made during the data validation process will be incorporated into the EQuIS database.

As part of the internal data review, the analytical data package was compared with the list of analyses requested on the chain-of-custody record and the project workplan to ensure all analyses were performed as requested. No analytical samples exceeded the method-specific holding time. In several instances, the laboratory estimated analyte concentrations when samples were below quantification limits by qualifying these concentrations with a "J", indicating they represent the laboratory's "best" estimate of a specific analyte concentration.

4.2 Trip Blank and Duplicate Sample

The trip blank sample was analyzed for the full VOC analyte list. All results were ND except acetone, a laboratory contaminant frequently detected in Summa canister samples, which was detected at a concentration of 0.48 $\mu g/m^3$.

The field duplicate sample was collected by co-locating a second Summa canister at the IA2 location (see Figure 1-2). TCE was detected in DB-IA2 at a concentration of 1.1 $\mu g/m^3$, but was not detected in the duplicate sample at a method detection limit (MDL) of 0.16 $\mu g/m^3$, and carbon disulfide was detected in the duplicate sample at concentration of 1.1 $\mu g/m^3$, but was not detected in DB-IA2 at an MDL of 0.097 $\mu g/m^3$. Other results from the two samples were generally similar (see Table 3-1) except: acetone, which had a relative percent difference (RPD) of 28.7%; ethanol (RPD 16.6%); and isopropyl alcohol (RPD 44.1%). The reason for the variability in these three compounds, which are sometimes present as laboratory contaminants, is unknown. The average RPD for the indoor air sample pair without the above compounds was 6.1%, which is considered acceptable variation between Summa canister duplicate samples.

TABLES

Table 2-1
Vapor/Ambient Air Sampling Field Measurements
Former Norton/Nashua Tape Products Facility
Watervliet, New York

Sample Designation	Initial Summa Vacuum (inHg)	Post-Sample Summa Vacuum (inHg)	Post-Sample Laboratory Summa Vacuum (inHg)	Purge Volume (Liters)	Pre-Sample PID Screening (ppmv)	Post-Sample PID Screening (ppmv)	Tracer Gas (Helium) Monitoring			
							Pre-Sample Concentration (Flux Chamber) (%)	Pre-Sample Concentration (Tedlar Bag) (ppmv)	Post-Sample Concentration (Flux Chamber) (%)	Post-Sample Concentration (Tedlar Bag) (ppmv)
DB-VMP-1	30.0	7.5	6.5	0.05	7.361	3.267	26.1%	550 (<0.1%)	26.9%	2.1% (7.8%)
DB-VMP-2	30.0	7.0	5.5	0.06	2.772	0.000	36.2%	750 (<0.1%)	6.9%	1300 (<0.1%)
DB-IA1	30.0	6.5	7.5							
DB-IA-2	28.8	6.0	7.0							
DB-DUP	30.0	8.5	7.0							
DB-AA	30.0	9.0	5.5							
DB-TB	29.4	29.4	29.4							

PID = photoionization detector; inHg = inches of mercury; ppmv = parts per million by volume; VMP = vapor monitoring point; IA = indoor air; DUP = duplicate; AA = outdoor ambient air; TB = trip blank.
The purge volume of each VMP assembly (point and tubing) ranged from 0.05 to 0.06 liters. Therefore, prior to sampling, each VMP was purged at a rate of approximately 200 milliliters per minute for approximately 30 seconds (approximately 1.5-2 purge volumes).

Table 3-1
Durham School Services - March 2015 Vapor Analytical Data
Former Norton/Nashua Facility
Watervliet, NY

Sample ID:	DB-VMP1	DB-IA1	DB-VMP2	DB-IA2	DB-DUP	DB-AA	DB-TB
Date Sampled:	3/3/2015	3/3/2015	3/3/2015	3/3/2015	3/3/2015	3/4/2015	3/4/2015
Acetone	**129**	**4440**	**37.5**	**3970**	**5300**	**5.5**	**0.48**
Benzene	**4.5**	**2.0**	**2.9**	**2.8**	**2.3**	**0.73**	ND (0.080)
Carbon disulfide	**50.1**	**0.50 J**	**4.7**	ND (0.097)	**1.1**	ND (0.097)	ND (0.097)
Chloromethane	**0.39 J**	**1.2**	ND (0.64)	**1.5**	**1.5**	**1.0**	ND (0.16)
Cyclohexane	**2.7**	**223**	ND (0.38)	ND (0.093)	ND (0.093)	ND (0.093)	ND (0.093)
1,1-Dichloroethane	**0.61 J**	ND (0.11)	ND (0.45)	ND (0.11)	ND (0.11)	ND (0.11)	ND (0.11)
DCDFM	**2.2**	**2.3**	**2.2 J**	**2.3**	**2.3**	**2.6**	ND (0.15)
trans-1,2-DCE	**2.3**	ND (0.28)	ND (1.1)	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)
m-Dichlorobenzene	**7.8**	ND (0.20)	ND (0.78)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
p-Dichlorobenzene	ND (0.22)	ND (0.22)	**2.3 J**	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Ethanol	**614 E**	**618**	**252**	**2090**	**1770**	**3.2**	ND (0.32)
Ethylbenzene	**26**	**30**	**12**	**19**	**20**	ND (0.15)	ND (0.15)
Ethyl Acetate	**6.8**	**6.8**	**4.7**	**7.9**	**6.5**	**27**	ND (0.22)
4-Ethyltoluene	**9.3**	**4.6**	**3.6 J**	**4.1**	**4.3**	ND (0.16)	ND (0.16)
Heptane	**13**	**1200**	**8.2**	**1800**	**1910**	ND (0.086)	ND (0.086)
Hexane	**5.6**	**3.1**	**8.1**	**4.2**	**4.2**	ND (0.15)	ND (0.15)
2-Hexanone	**0.86**	ND (0.26)	ND (1.1)	ND (0.26)	ND (0.26)	ND (0.26)	ND (0.26)
Isopropyl alcohol	**897 E**	ND (0.16)	**415 E**	**45.2**	**49.9**	**1.1**	ND (0.16)
Methylene chloride	**1.0**	**0.73**	ND (1.9)	**0.83**	**1.3**	ND (0.45)	ND (0.45)
Methyl ethyl ketone	**61.3**	**7.4**	**9.4**	**6.2**	**6.8**	**1.1**	ND (0.12)
MIBK	**2.0**	**76.2**	ND (0.70)	**47.1**	**48.8**	ND (0.17)	ND (0.17)
Propylene	ND (0.082)	ND (0.082)	**60.6**	ND (0.082)	ND (0.082)	ND (0.082)	ND (0.082)
Styrene	**20**	**0.72 J**	**8.5**	**0.85**	**0.85**	ND (0.14)	ND (0.14)
1,1,1-TCA	**1.3**	ND (0.13)	ND (0.53)	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)
1,2,4-TMB	**41**	**20**	**15**	**18**	**19**	**1.1**	ND (0.14)
1,3,5-TMB	**9.8**	**5.4**	**3.6 J**	**4.9**	**5.4**	ND (0.14)	ND (0.14)
2,2,4-TMP	**6.5**	**9.8**	**4.2**	**12**	**12**	ND (0.12)	ND (0.12)
TBA	**4.5**	**1.2**	**1.8 J**	**1.9**	**1.9**	ND (0.13)	ND (0.13)
Tetrachloroethene	**38**	**8.1**	**17**	**16**	**16**	ND (0.25)	ND (0.25)
Tetrahydrofuran	**98.5**	**0.68**	**5.0**	**0.83**	**0.88**	ND (0.14)	ND (0.14)
Toluene	**59.5**	**292**	**37**	**274**	**298**	**1.7**	ND (0.11)
Trichloroethene	**9.7**	ND (0.16)	**6.4**	**1.1**	ND (0.16)	ND (0.16)	ND (0.16)
TCFM	**1.6**	**1.4**	ND (0.67)	**1.3**	**1.5**	**1.4**	ND (0.16)
m,p-Xylene	**80.8**	**118**	**40**	**72.5**	**76.9**	**1.5**	ND (0.30)
o-Xylene	**32**	**48.2**	**14**	**29**	**31**	ND (0.15)	ND (0.15)
Xylenes (total)	**112**	**166**	**53.9**	**102**	**108**	**1.5**	ND (0.15)
Total VOC TICs	**182 J**	**579 J**	**67 J**	**739 J**	**589 J**	**0**	**0**

All results presented in micrograms per cubic meter ($\mu g/m^3$) except total volatile organic compound (VOC) tentatively identified compounds (TICs), which are presented in parts per billion by volume (ppbv).

DCDFM = dichlorodifluoromethane; DCE = dichloroethene; MIBK = methyl isobutyl ketone; TCA = trichloroethane; TMB = trimethylbenzene; TMP = trimethylpentane; TBA= tertiar `

E = laboratory estimated concentration; J = estimated concentration, compound detected below the quantitation limit; ND = not detected (laboratory detection limit); detections in boldface. VMP = vapor monitoring point; IA = indoor air; DUP = duplicate sample; AA = outdoor ambient air; TB = trip blank.

All samples were analyzed for VOCs via EPA Method TO-15 plus TICs. Only detected analytes are listed above. A complete list of analytes is provided in the original laboratory report.

Table 3-2
Facility Monitoring Wells - 2004 Vapor Analytical Data
Former Norton/Nashua, Watervliet, NY

On-Site Vapor/Air Samples (2/18/04)	MW-11* (µg/m^3)	MW-12 (µg/m^3)	DGC-12 (µg/m^3)	MW-13 (µg/m^3)	Ambient (µg/m^3)	Blank (µg/m^3)
Heptane	**49**	<0.8	<0.8	**20**	<0.8	<0.8
Toluene	**83**	**8**	**8**	**4**	**8**	<0.8
Acetone	**26**	**14**	**14**	**10**	**10**	<2
Benzene	**10**	**1 J**	**2 J**	**2 J**	**0.6 J**	<0.6
2-Butanone	<1	**3**	**3**	<1	**2 J**	<1
Carbon Disulfide	**3**	<2	<2	**3 J**	<2	<2
Chloroethane	<0.5	<0.5	**1 J**	<0.5	<0.5	<0.5
Chloroform	**5**	<1	<1	**3 J**	<1	<1
Chloromethane	<0.4	**1 J**	**2 J**	**12**	**2**	<0.4
Dichlorodifluoromethane	**2 J**	**2 J**	**2 J**	**2 J**	**2 J**	<1
Ethylbenzene	**4 J**	**1 J**	**1 J**	**0.9 J**	<0.9	<0.9
4-Ethyltoluene	**3 J**	<1	**1 J**	**1 J**	<1	<1
Hexane	**18**	**2 J**	**1 J**	**28**	**0.7 J**	<0.7
Methyl Tertiary Butyl Ether	<0.7	<0.7	<0.7	**79**	<0.7	<0.7
Pentane	**44**	**6**	**3**	**118 D**	**3**	<0.6
Propene	**14**	**13**	**11**	**67 D**	**4**	<0.4
tert-Butyl Alcohol	<0.6	**6**	<0.6	<0.6	<0.6	<0.6
Tetrachloroethene	<1	**3 J**	**2 J**	**14**	<1	<1
1,1,1 Trichloroethane	<1	**4 J**	**3 J**	<1	<1	<1
Trichloroethene	**1 J**	<1	<1	<1	<1	<1
Trichlorofluoromethane	**2 J**	**1 J**	**2 J**	**2 J**	**2 J**	<1
1,2,4 Trimethylbenzene	**3 J**	**1 J**	**1 J**	**1 J**	<1	<1
m/p-Xylenes	**9**	**4 J**	**3 J**	**3 J**	<0.9	<0.9
o-Xylenes	**3 J**	**1 J**	**1 J**	**1 J**	<0.9	<0.9
Total VOC TICs	**2,322**	**1,115**	**496**	**1,080**	**15**	0
Total non-Methane VOCs	**2,469**	**1,178**	**549**	**1,427**	**41**	0
Methane	**4,527 J**	**2,362 J**	**2,493 J**	**15,745**	**2,755 J**	**2,362 J**

* also detected at MW-11: acrolein (5 µg/m^3); acetonitrile (12 µg/m^3); 1,2-dichloroethane (1 J µg/m^3); methylene chloride (3 J µg/m^3); octane (3 J µg/m^3); and styrene (3 J µg/m^3).

All results presented in µg/m^3. Parts per billion by volume (ppbv) results in the original laboratory report were converted to µg/m^3 by multiplying by the m.w. (molecular weight) and dividing by an STP (25°C) conversion factor of 24.45. An m.w. of 119 was assumed to convert the total VOC TIC concentration.

µg/m^3 = micrograms per cubic meter; TICs = tentatively identified compounds; VOCs = volatile organic compounds; D = laboratory qualified diluted sample; J = estimated concentration, compound detected below the quantitation limit; < ("less than") = analyte concentration below the laboratory detection limit.

DGC-12 was a blind field replicate of MW-12. The "ambient" sample was collected by placing the summa canister on the ground near MW-13.

All samples were analyzed for VOCs via EPA Method TO-15 plus TICs and methane via EPA Modified Method 18. Only detected analytes are listed above. A complete list of analytes is provided in the original laboratory report.

Table 3-3
Facility Ambient Air - 2003 Vapor Analytical Data
Former Norton/Nashua
Watervliet, NY

On-Site Air Samples (12/4/03)	M34-Bldg. 61 ($\mu g/m^3$)	P14-Bldg. 58 ($\mu g/m^3$)
Heptane	**3 J**	**3 J**
Toluene	**19**	**26**
Acetone	**12**	**7**
Acrolein	**5**	**2**
Benzene	**6**	**3**
2-Butanone	<1.5	**3**
Carbon Tetrachloride	<1.3	<1.3
Chloroform	<1.0	<1.0
Chloromethane	**1.0 J**	**1.2 J**
Dichlorodifluoromethane	**2 J**	**2 J**
Ethylbenzene	**3 J**	**4**
4-Ethyltoluene	**3 J**	**2 J**
Hexane	**4**	**2 J**
Isooctane	**2 J**	**2 J**
Methyl Tertiary Butyl Ether	<0.7	<0.7
Methylene Chloride	<1.7	<1.7
Octane	**1.9 J**	<0.9
Pentane	**9**	**6**
Propene	**103**	**86**
Styrene	**1.7 J**	**3 J**
Tetrachloroethene	**3 J**	**3 J**
1,1,1-Trichloroethane	<1.1	<1.1
Trichlorofluoromethane	**1.7 J**	**3 J**
1,2,4-Trimethylbenzene	**5**	**3 J**
1,3,5-Trimethylbenzene	**2 J**	<1
m/p-Xylenes	**9**	**17**
o-Xylene	**3 J**	**4**
Total VOC analytes	**199**	**182**
Total VOC TICs	NA	NA

All results presented in micrograms per cubic meter ($\mu g/m^3$). Parts per billion by volume (ppbv) results in the original laboratory report were converted to $\mu g/m^3$ by multiplying by the m.w. (molecular weight) and dividing by an STP (25°C) conversion factor of 24.45.

TICs = tentatively identified compounds; VOCs = volatile organic compounds; J = estimated concentration, compound detected below the quantitation limit; < ("less than") = analyte conc. below the laboratory detection limit; NA = not analyzed for the indicated parameter.

All samples were analyzed for VOCs via EPA Method TO-15. Only detected and selected analytes are listed above. A complete list of analytes is provided in the original laboratory report.

Table 3-4
Facility Office Area Ambient Air/Vapor - 2009/2010 Vapor Analytical Data
Former Norton/Nashua
Watervliet, NY

On-Site Air/Vapor Samples	VMP-2* 3/26/2009 (µg/m^3)	IA-1 / Dup. 3/26/2009 (µg/m^3)	VMP-2* 2/18/2010 (µg/m^3)	IA-1 / Dup.** 2/18/2010 (µg/m^3)	Outdoor*** 2/18/2010 (µg/m^3)
Heptane	**5.4**	<4.1 / <4.1	<0.82	**2.2 / <0.82**	<0.82
Toluene	**39**	**44 / 42**	**3.7**	**14 / 13**	**0.37 J**
Acetone	**25**	**22 / 9.7**	**2.9**	**11 / 13**	**2.6**
Benzene	**3.7**	<3.2 / <3.2	**0.51 J**	**2.3 / 2.7**	**0.54 J**
2-Butanone	**8.9**	<5.9 / <5.9	**0.35 J**	**2.1 / 2.8**	**0.35 J**
Carbon Tetrachloride	**8.5**	<6.3 / <6.3	**11**	**0.63 J / 0.69 J**	**0.69 J**
Chloromethane	<2.1	<2.1 / <2.1	**0.35 J**	**1.1 / 1.2**	**1.2**
Ethanol	NA	NA	**28.3**	**167 E / 190 E**	**2.4**
Dichlorodifluoromethane	<4.9	<4.9 / <4.9	**2.9**	**2.7 / 3.0**	**3.3**
Ethyl Acetate	<3.6	**7.2 / 7.1**	**3.4**	**1.2 / 1.3**	<0.72
Hexane	**8.4**	**3.8 / 4.1**	**0.67 J**	**5.3 / 5.3**	<0.70
Isopropyl Alcohol	NA	NA	**3.7**	**22 / 21**	<0.49
Methylene Chloride	<1.0	<1.0 / **1.1**	**1.3**	**2.1 / <0.69**	<0.69
Pentane	**15**	**12 / 12**	NA	NA	NA
Propene	**10**	**20 / 21**	NA	NA	NA
Tetrachloroethene	<6.8	<6.8 / <6.8	**1.3**	**14 / 12**	**0.75**
1,1,1-Trichloroethane	<5.5	<5.5 / <5.5	**0.60 J**	<1.1 / <1.1	<1.1
Trichlorofluoromethane	<5.6	<5.6 / <5.6	**1.9**	**2.2 / 2.4**	**1.8**
m/p-Xylenes	**8.6**	**6.2 / 7.2**	**0.74 J**	**6.9 / 7.8**	<0.87
o-Xylene	<4.3	<4.3 / <4.3	**0.74 J**	**2.9 / 3.4**	<0.87
Total VOC analytes	**143**	**130 / 133**	**66**	**274 / 299**	**15**
Total VOC TICs	**263 J**	**434 J / 438 J**	**87.1 J**	**218 J / 220 J**	**6.3 J**

* also detected at VMP-2 on 3/26/09: carbon disulfide (10 µg/m^3); on 2/18/10: propylene (1.9 µg/m^3).

** also detected at IA-1/Dup. on 2/18/10: cyclohexane (1.9/2.1 µg/m^3); ethylbenzene (3.0/3.6 µg/m^3); cyclohexane (1.9/2.1 µg/m^3); 4-ethyltoluene (1.6/1.4 µg/m^3); methyl isobutyl ketone (<0.82/0.70 J µg/m^3); methyl tert-butyl ether (<0.72/0.58 J µg/m^3); styrene (0.60 J/0.55 J µg/m^3); tert-butyl alcohol (0.73/2.7 µg/m^3); 1,2,4-trimethylbenzene (3.9/3.8 µg/m^3); 1,3.5-trimethylbenzene (1.4/1.4 µg/m^3); 2,2,4-trimethylpentane (1.2/1.2 µg/m^3); and vinyl acetate (<0.70/1.6 µg/m^3).

*** also detected in the 2/18/10 Outdoor Air sample: Freon 113 (0.77 J µg/m^3)

The only VOCs detected in the 3/26/09 Outdoor Ambient Air sample were: acetone (19 µg/m^3) and TICs (51.6 J µg/m^3). The only VOCs detected in the 3/26/09 Trip Blank sample were: TICs (11.2 J µg/m^3).

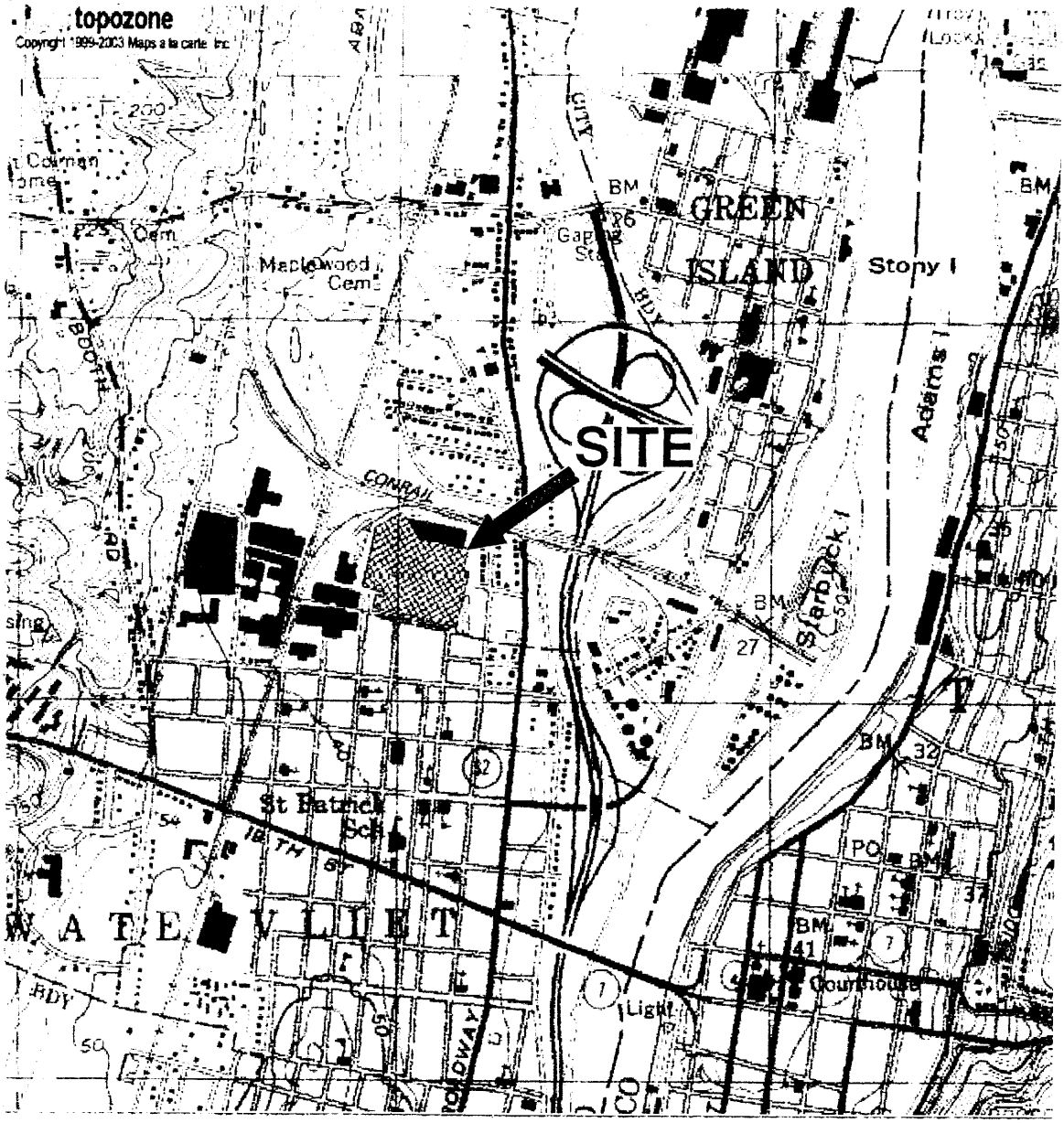
µg/m^3 = micrograms per cubic meter; VOC = volatile organic compound; TICs = tentatively identified compounds; TICs = tentatively identified compounds; E = laboratory estimated concentration; J = estimated concentration, compound detected below the quantitation limit; < ("less than") = analyte concentration below the laboratory detection limit.

Additional notes for Table 3-4:

All results presented in micrograms per cubic meter ($\mu g/m^{3)}$. An average TIC molecular weight of 119 was assumed to convert the laboratory reported parts per billion by volume (ppbv) values to $\mu g/m^3$.

All samples were analyzed for VOCs via EPA Method TO-15 plus TICs. Only detected analytes are listed above. A complete list of analytes is provided in the original laboratory report.

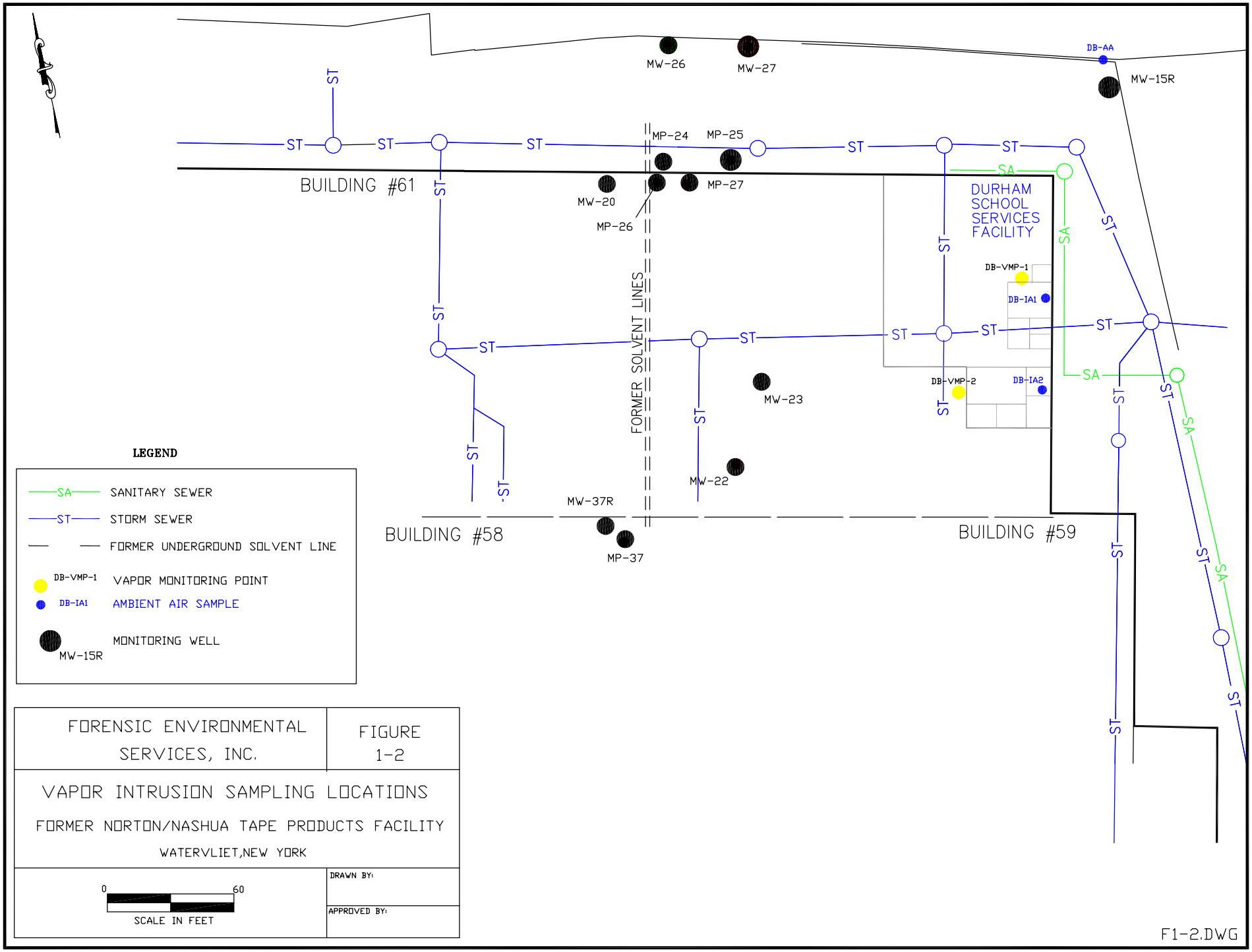
FIGURES

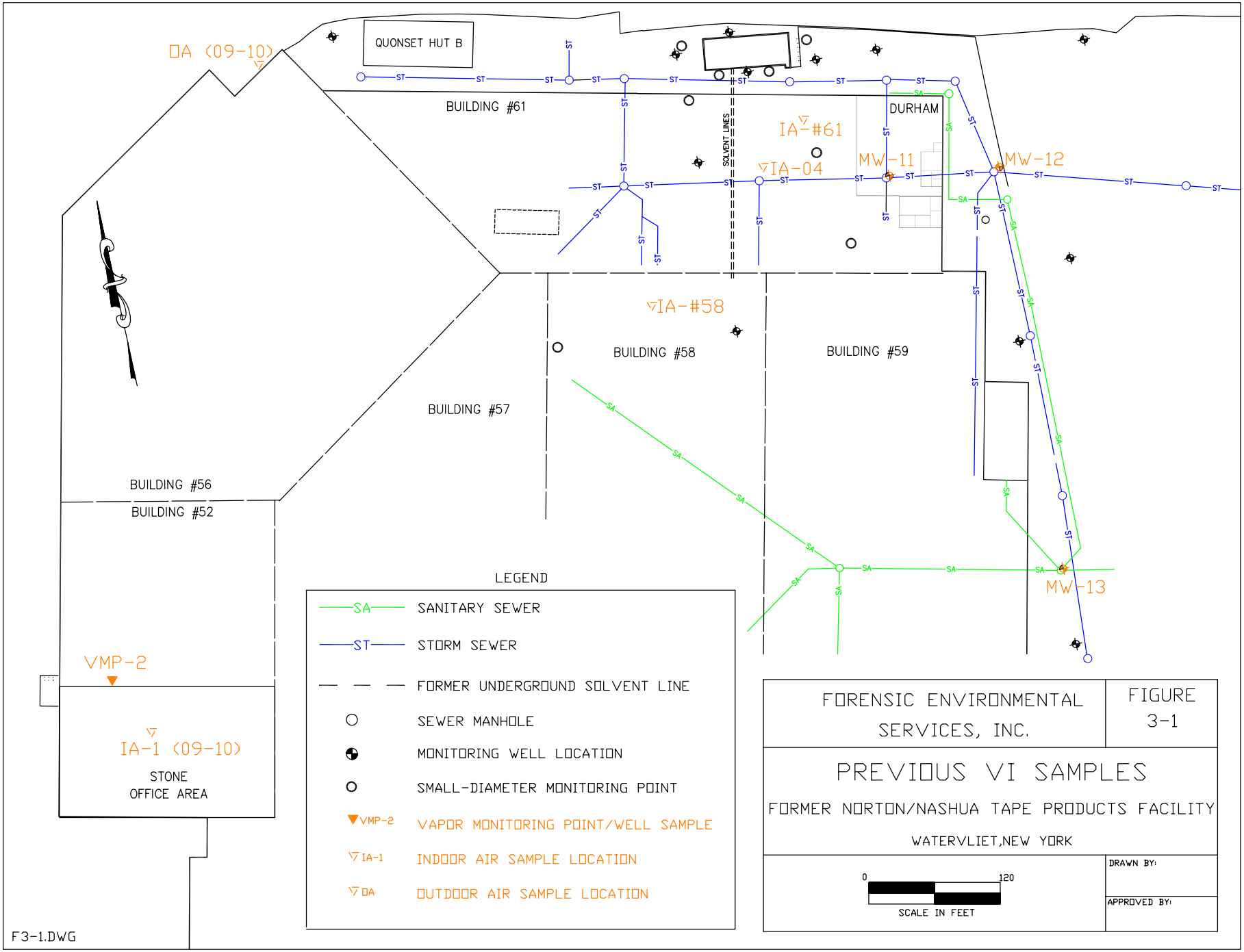


FORENSIC ENVIRONMENTAL SERVICES, INC.	FIGURE 1-1
SITE LOCATION MAP FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY WATERVLIET, NEW YORK	
0 1540 SCALE IN FEET	DRAWN BY: APPROVED BY:

DERIVED FROM THE TROY SOUTH QUADRANGLE
COMPILED BY THE U.S. GEOLOGICAL SURVEY.

WV-TOPO.DWG


MW-26
MW-27
DB-AA
MW-15R
MP-24
MP-25
MP-27
MW-20
MP-26
BUILDING #61
DURHAM SCHOOL SERVICES FACILITY
DB-VMP-1
DB-IA1
DB-VMP-2
DB-IA2
FORMER SOLVENT LINES
MW-23
MW-22
MW-37R
MP-37
BUILDING #58
BUILDING #59
ST
SA
LEGEND
SANITARY SEWER
STORM SEWER
FORMER UNDERGROUND SOLVENT LINE
VAPOR MONITORING POINT
AMBIENT AIR SAMPLE
MONITORING WELL
FORENSIC ENVIRONMENTAL SERVICES, INC.
FIGURE 1-2
VAPOR INTRUSION SAMPLING LOCATIONS
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET,NEW YORK
0
60
SCALE IN FEET
DRAWN BY:
APPROVED BY:
F1-2.DWG


DA (09-10)
QUONSET HUT B
BUILDING #61
DURHAM
SOLVENT LINES
IA-#61
IA-04
MW-11
MW-12
IA-#58
BUILDING #58
BUILDING #59
BUILDING #57
BUILDING #56
BUILDING #52
MW-13
VMP-2
IA-1 (09-10)
STONE
OFFICE AREA
LEGEND
SA SANITARY SEWER
ST STORM SEWER
FORMER UNDERGROUND SOLVENT LINE
SEWER MANHOLE
MONITORING WELL LOCATION
SMALL-DIAMETER MONITORING POINT
VMP-2 VAPOR MONITORING POINT/WELL SAMPLE
IA-1 INDOOR AIR SAMPLE LOCATION
DA OUTDOOR AIR SAMPLE LOCATION
FORENSIC ENVIRONMENTAL SERVICES, INC.
FIGURE 3-1
PREVIOUS VI SAMPLES
FORMER NORTON/NASHUA TAPE PRODUCTS FACILITY
WATERVLIET,NEW YORK
0
120
SCALE IN FEET
DRAWN BY:
APPROVED BY:
F3-1.DWG

APPENDIX A

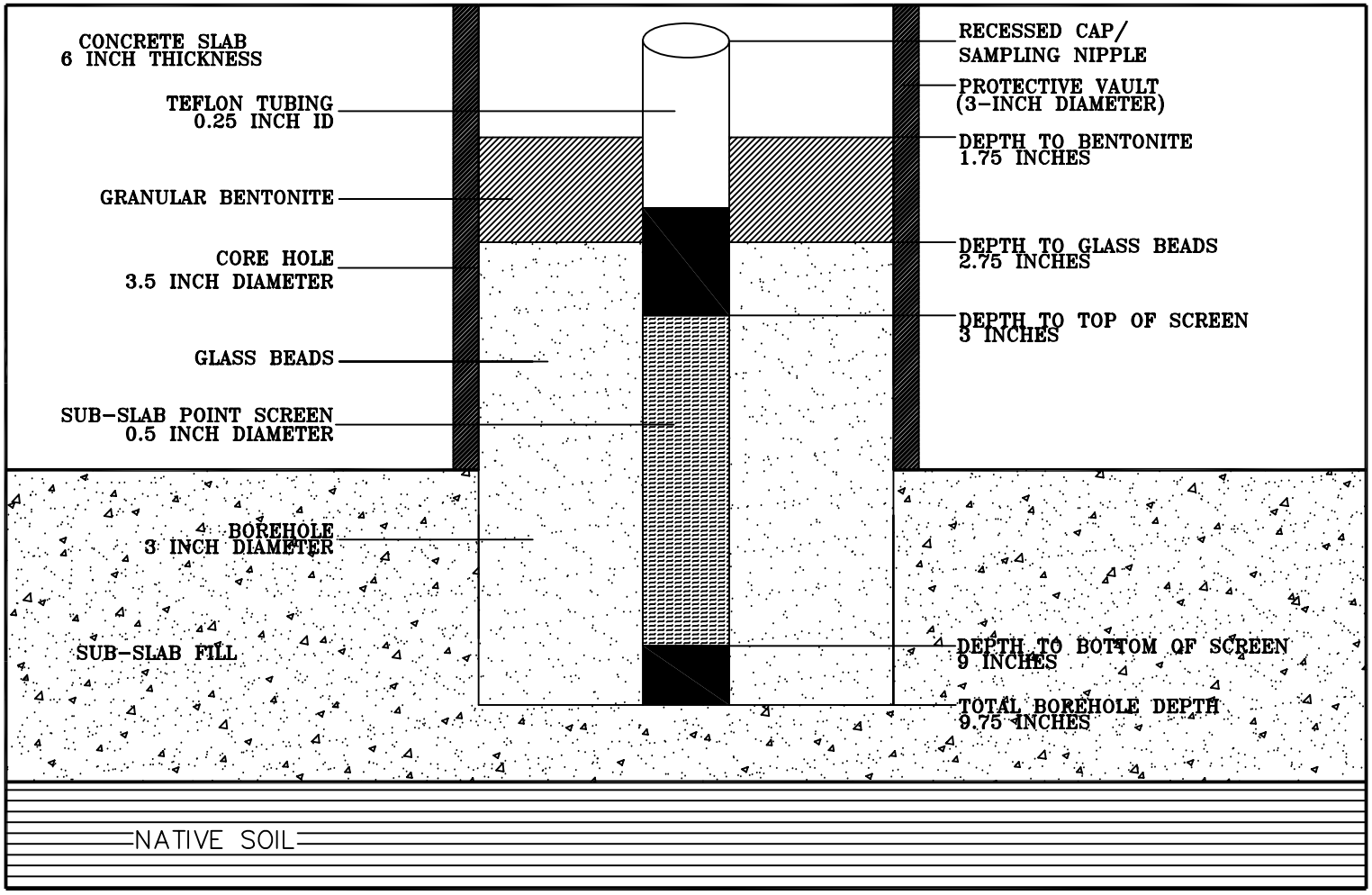
VMP CONSTRUCTION INFORMATION

VMP-1

SUB-SLAB VAPOR POINT SCHEMATIC

FORMER NORTON/NASHUA TAPE

WATERVLIET, NY



Note: Features not drawn to scale

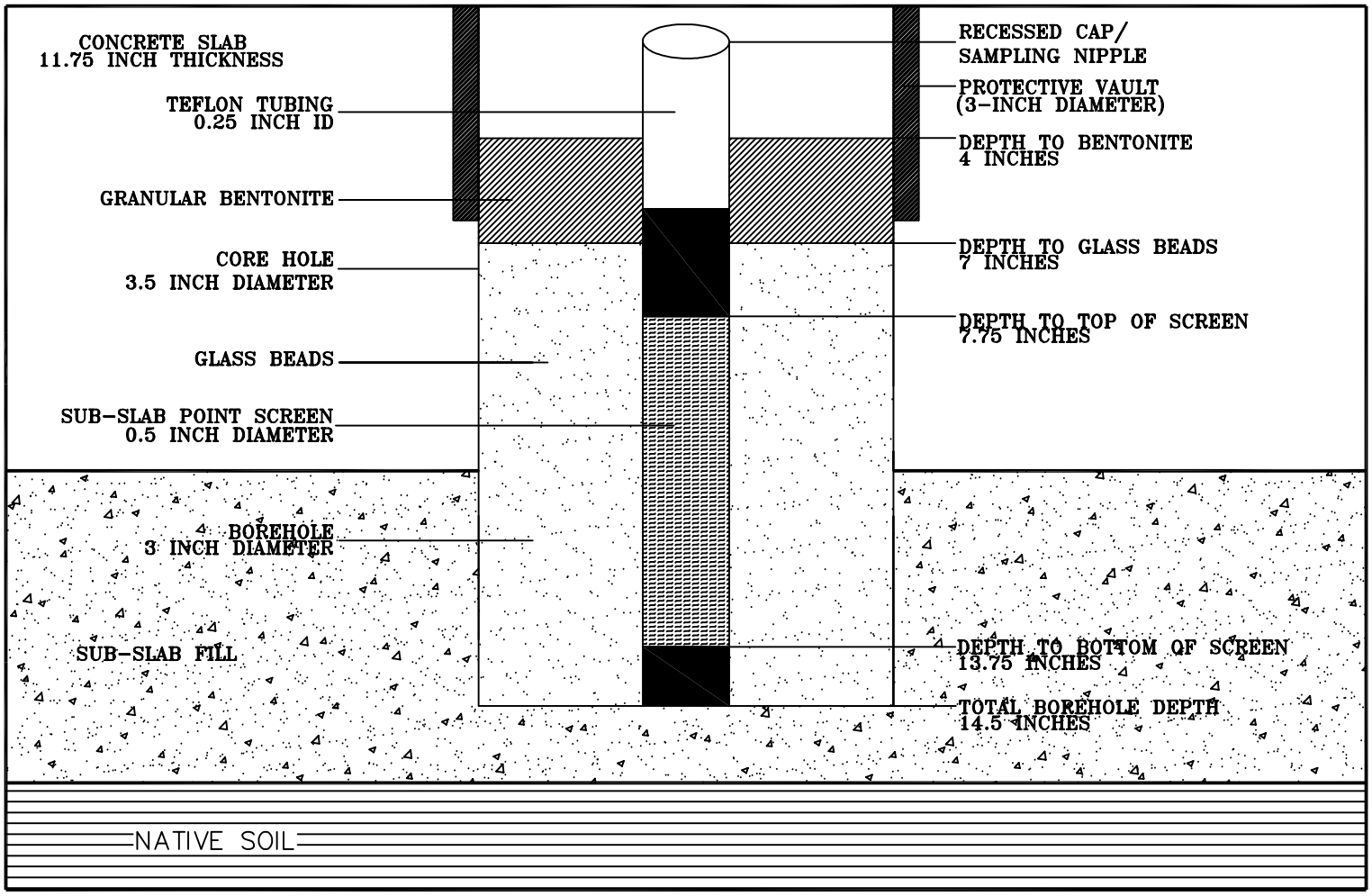
VMP-1_CONST

VMP-2

SUB-SLAB VAPOR POINT SCHEMATIC

FORMER NORTON/NASHUA TAPE

WATERVLIET, NY



Note: Features not drawn to scale

VMP-1_CONST

Stainless Steel Vapor Implant

- Universal Barbed Fitting Accepts Tubing ID Sizes: .17-in, .25-in and .50-in
- Swagelock Fitting Available Accepts .25-in OD Tubing
- Solid End Allows for Anchor Point and Open-Hole Placement
- Constructed of Double Woven Stainless Steel Wire Screen
- All End Fittings are Stainless Steel
- Custom Lengths Available

Applications:

•Permanent Soil Gas Monitoring
•UST Monitoring
•Groundwater Sampling
•Air Sparging
•Pressure Measurement Points in Vacuum Testing
•Vapor Extraction Monitoring

Specifications:

Implant Length:
6-inches (152mm)
Implant OD:
0.50-inch (12.7mm)
Screen Pore Size:
0.0057-inches (.15mm)
Max Depth:
100+ feet (30m)

APPENDIX B

PHOTOGRAPHIC LOG

DB-VMP-1. DB-IA-1 was located in the office on the opposite side of the wall.

Close-up of DB-VMP-1. Note cracks in bentonite seal around outside of point

DB-VMP-2 (looking northeast).

Ceiling ductwork in main hallway.

Fluid storage in NE corner of building.

Additional fluid storage (haz-waste cabinet on opposite site of partition).

School bus repair area (note high ceiling).

Fluid storage in school bus repair area.

APPENDIX C

INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING CHARACTERISTICS INVENTORY FORM, EQUIPMENT CALIBRATION DOCUMENTATION, and OTHER FIELD INFORMATION

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 ROBERT ZEI Date/Time Prepared 3/2/15 1:30PM

Preparer's Affiliation FES ON BEHALF OF SAINT-GOBAIN Phone No. (610) 594-3940

Purpose of Investigation NEW OFFICES IN VICINITY OF NORTON-NASHUA dissolved TOLUENE plume

1. OCCUPANT: DURHAM SCHOOL SERVICES

Interviewed: (Y)/N

Last Name: WIEGERS First Name: DEREK

Address: 2721 2ND AVE. BLDG 61E, WATERVLIET NY 12189

County: ALBANY

Home Phone: N/A Office Phone: (518) 266-9330

Number of Occupants/persons at this location 20 WORKERS Age of Occupants GENERALLY OVER 18 WORKERS but SOME CHILDREN PRESENT AFTER SCHOOL

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

Interviewed: (Y)/N

Last Name: HELF First Name: BRIAN

Address: 2622 SEVENTH AVE. WATERVLIET NY 12189

County: ALBANY

Home Phone: N/A Office Phone: (518) 272-2136 X113

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	(Commercial/Multi-use)
Industrial	Church	Other: ___

BUS REPAIR/OFFICES IN LARGER WAREHOUSE COMPLEX

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) BUS REPAIR / OFFICE IN WAREHOUSE COMPLEX

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

Other characteristics:

Number of floors 1 Building age 55+

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:

USED AIR CURRENT SMOKE TUBES

~~Airflow between floors~~ N/A

AT VMP-2 (OUTSIDE DB OFFICES) – TO NORTH (CORNER) AND UP IN CORNER – SWIRLS – UP

~~Airflow near source~~ N/A – OFFICES NEAR DR-VMP-1

TO SE CORNER BUT NOT UP – STAYS AT GROUND LEVEL
NE CORNER – UP WHEN HEAT ON SLIGHT UP WHEN HEAT OFF
BUS AREA – UP BUT NO CLEAR DIRECTION SLIGHT UP IN "KITCHEN"
LITTLE MOVEMENT IN RESTROOMS WHEN HEAT OFF

Outdoor air infiltration

– OVERHEAD DOORS – STRONG AIR FLOW IN
– SIDE DOOR – STRONG AIR FLOW IN – HUGH PEDESTRIAN TRAFFIC

Infiltration into air ducts

DUCTS ALONG CEILING TO OFFICES VIA MAIN HALLWAY
EACH OFFICE HAS OUTFLOW AND RETURN (INFLOW) VENT ON CEILING
LITTLE AIR MOVEMENT WHEN HEAT OFF, STRONG WHEN HEAT ON
(VENT → VENT)

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

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

Basement/Lowest level depth below grade: 0 (feet) MAIN FLOOR

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

THERE ARE NO VISIBLE CRACKS IN THE CONCRETE FLOOR, THERE IS A STORM SEWER MANHOLE IN THE BUS REPAIR AREA AND SEVERAL MONITORING WELLS (ALL HAVE LIDS AND WELL CAPS)

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	SEVERAL NATURAL GAS HEAT BANKS ON CEILING
(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	* PORTABLE OIL-FIRED HEATER NEAR BUSES
Electric	Propane	Solar	
Wood	Coal		

Domestic hot water tank fueled by: NATURAL GAS - "KITCHEN" MOUNTED ON CEILING

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.

- COLD/FRESH AIR INTERS ON EAST WALL NEAR NE BLDG CORNER
- EXHAUST VENT IN SW BLDG CORNER - MANUAL EXHAUST AS NEEDED
- MAIN DUCTWORK ON CEILING IN MAIN HALLWAY W/ DUCTS TO EACH OFFICE (COULD NOT TEST TIGHTNESS AT CEILING-HIGH)

7. OCCUPANCY

Is ~~basement~~/~~lowest level occupied~~? Full-time (8AM - 7PM M - F) Occasionally Seldom Almost Never

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	N/A
1st Floor	BUSINESS - BUS REPAIR AND OFFICES
2nd Floor	N/A
3rd Floor	N/A
4th Floor	N/A

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? N/A

e. Is a kerosene or unvented gas space heater present? (Y) / N Where? OIL - PORTABLE GAS - NE CORNER BUS REPAIR AREA NE CORNER

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

g. Is there smoking in the building? Y / (N) How frequently? BUT HEAVY SMOKING OUTSIDE FACILITY

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

i. Have cosmetic products been used recently? (Y) / N When & Type? PERFUME NOTED ON SOME EMPLOYEES

j. Has painting/staining been done in the last 6 months? (Y) / N Where & When? DRY WALL PAINTED IN LATE FALL

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

l. Have air fresheners been used recently? (Y) / N When & Type? SCENTED CANDLE IN VMP-1 OFFICE

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

n. Is there a bathroom exhaust fan? (Y) / N If yes, where vented? DIRECTLY ABOVE RESTROOM OPEN CEILING

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? N/A

Are there odors in the building? (Y) / N
If yes, please describe: FAINT diesel odor, other petroleum odors

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? see list - SMALL CANS of degreasers, lubricants

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) — weekly steam cleaning service
Unknown

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

9. WATER AND SEWAGE

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

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: N/A

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

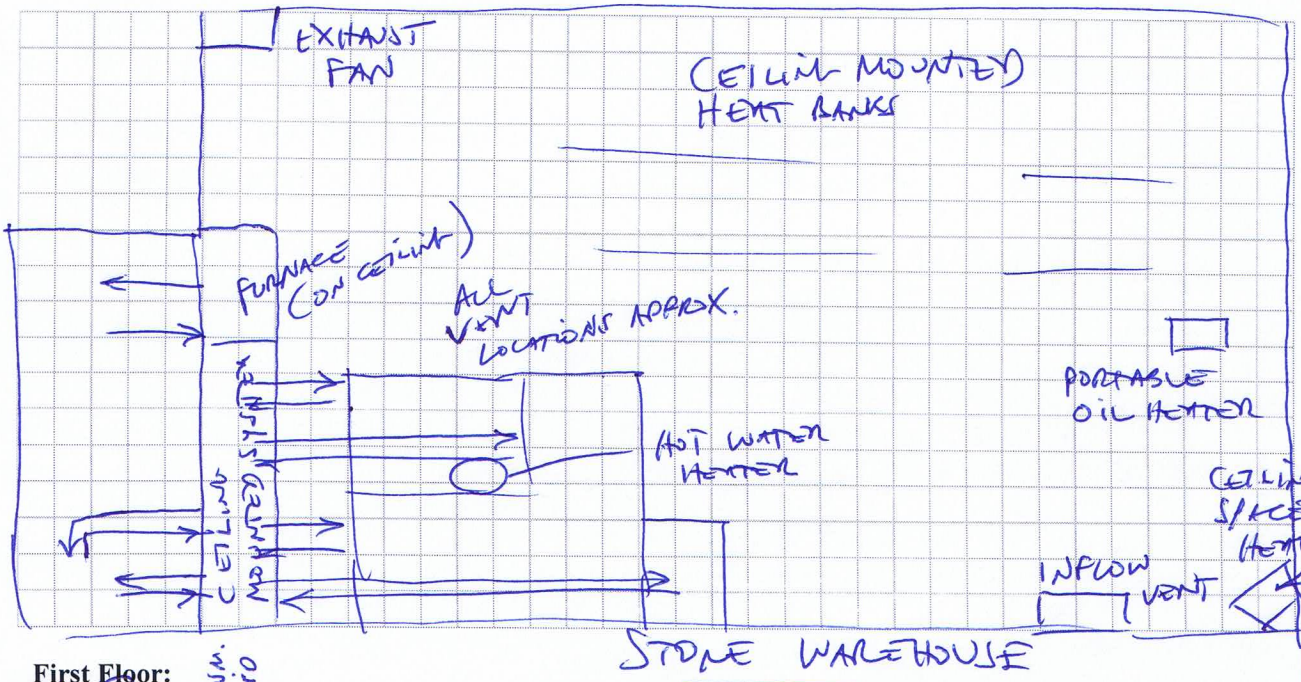
c. Responsibility for costs associated with reimbursement explained? Y / N

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

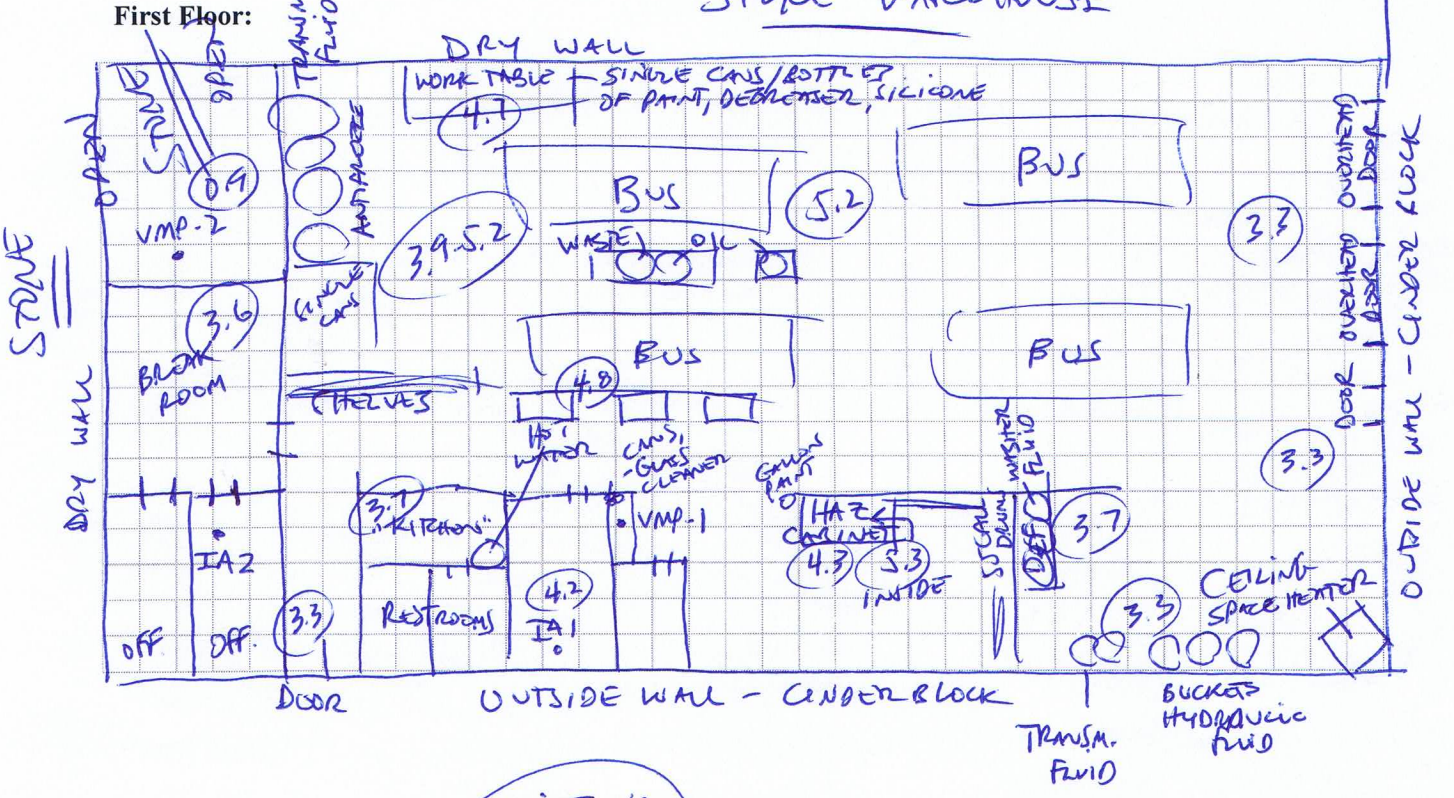
11. FLOOR PLANS

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:~~ HEATING + VENT SYSTEM - SAME CONFIGURATION AS BELOW



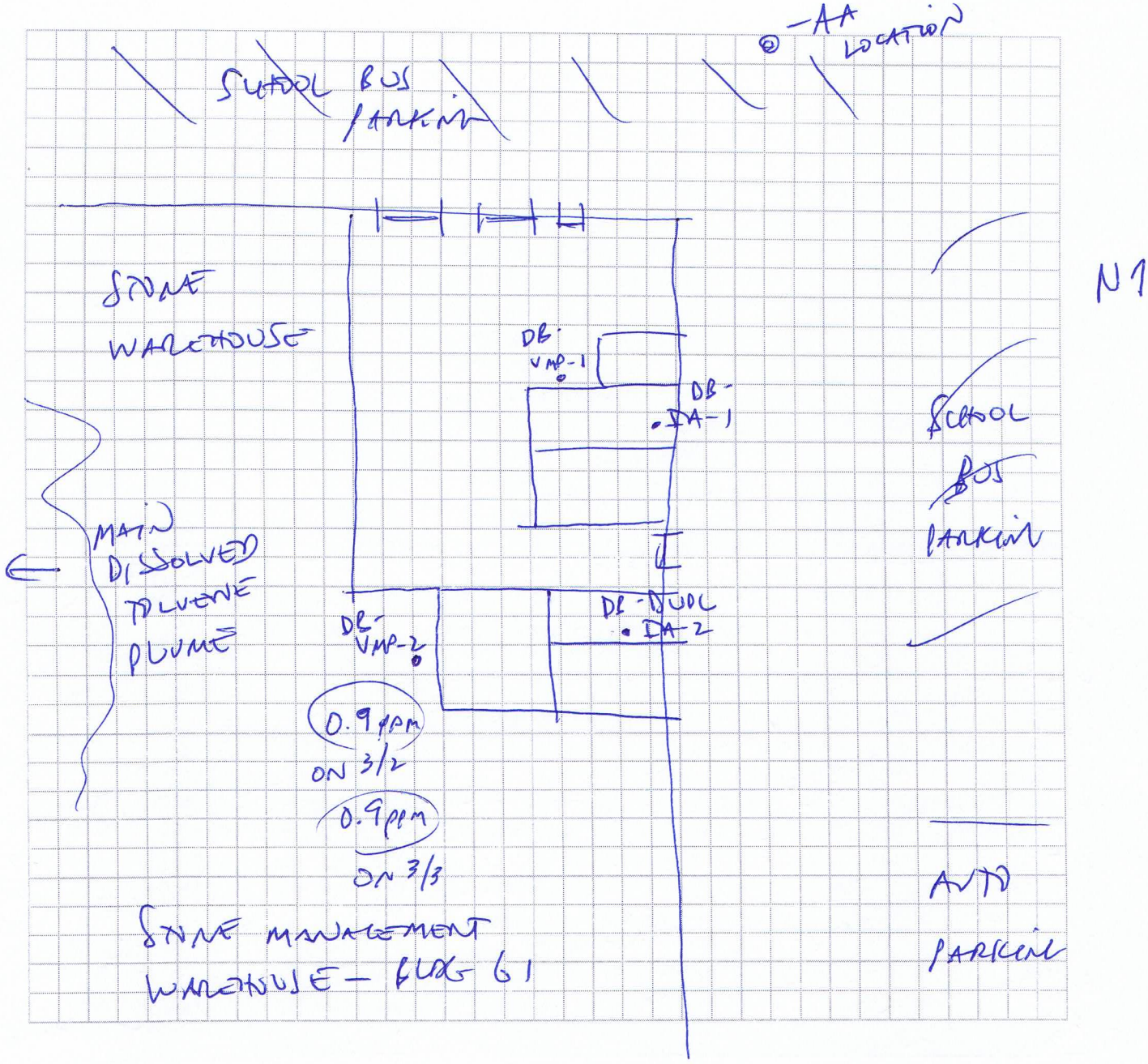
First Floor:



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: PPB RAE plus

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

See Attached list for additional details

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
NE CORNER	HYDRAULIC OIL	3 x 5 gall	U	oils	3.25	general photos only
"	TRANSMISSION FLUID	3 x 1 gal	U	oils	3.32	
"	VALVOLINE OIL	10 gall	U	oils	3.74	"
"	DEF ISO22241	2 x 55 gal	U	WATER, UREA-32.5%	3.71	"
"	WASHER FLUID	1 x 55 gall	U	WATER, methanol	3.10	"
HAZ-WASTE CABINET	DIESEL FUEL CONDITIONER	3-4 QTS.	UO/U	KEROSENE, solvent NAPHTHA, diesel fuel additive	3.28-inside 4.33-outside	"
"	DEGREASER + BRAKE CLEANER	6 CANS	UO/U	Acetone, heptane, CO2	"	"
"	ANTI-SEIZE LUBRICANT	8 CANS	UO/U	N-heptane / hydrotreated solvent, propane / isobutane / N-butane, oil	"	"
"	ECOSAFE ENAMEL	24 CANS	UO/U	Acetone, propane, butane, N-butyl acetate, xylene, MEK	"	"
"	VINYL CEMENT	2 CANS	UO/U	toluene, MEK, Acetone	"	"
"	ICE BLASTER	6 CANS	UO/U	Methanol, ethylene glycol, CO2	"	"
"	RUBBERIZED UNDERCOATING	10 CANS	DU/U	$CaCO_3$, toluene, methyl acetate, acetone, etc.	"	"
"	BATTERY PROTECTOR	4 CANS	UO/U	NAPHthenic oil, heptane, propane, butane, distillates	"	"
"	GLASS CLEANER	4 BTLS	UO/U	WATER, 2-butoxyethanol	"	"
"	STANADYNE WATER100	1 BTL	UO	N/A	"	"
"	BLACK INSTANT GASKET	1 CAN	U	dimethyl silicone, limestone, methyl tris, carbon black	"	"
"	PB PENETRATING CATALYST	1 CAN	U	Petroleum distillates, NAPH-sis, aromatic hydrocarbons	"	"
"	MISC. PAINTS	SEVERAL	UO/U	VARIOUS	"	"
"KITCHEN"	MOPSHINE, COMET, BLEACH, SOAP	SEVERAL	UO/U	VARIOUS	3.72	"

* 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.

Additional cans of the above located on desk next to office and throughout bus repair area

Book Tab #	Content	Location	Quantity
1	Engine oil / 15w40 motor oil	Shop spill pallet	2 of 55 gallon drums
2	Waste oil	In shop / spill pallet	2 of 55 gallon drums
3	Brake cleaner	Shop cabinet	24 of 1.3 Pounds
4	Yellow RTV Silicone	Shop cabinet	6 of 8 oz.
5	Black RTV Silicone	Shop cabinet	6 of 8 oz.
6	WD 40	Shop cabinet	12 of 12 oz.
7	Black spray paint	Shop cabinet	24 of 16 oz.
8	Yellow spray paint	Shop cabinet	24 of 16 oz.
9	windshield deicer	Shop cabinet	24 of16 oz.
10	80 / 90 gear oil	shop floor area	1 of 120 LB drums
11	Chassis grease	shop floor area	1 of 120 LB drums
12	Vandal remover	Shop cabinet	6 of 16 oz.
13	Diesel 911 fuel additive	Shop cabinet	24 of 1 qt.
14	Brake fluid	Shop cabinet	6 of 8 oz.
15	GOJO hand cleaner	Shop sink	2 of 1 gallon
16	PB blaster	Shop cabinet	12 of 16 oz.
17	Anti freeze	Shop spill pallet.	1 of 55 gallon drum
18	Transmission fluid	Shop spill pallet.	1 of 55 gallon drum
19	acetylene	Torch cart / shop	2 cylinders
20	Oxygen	Torch cart / shop	2 cylinders

MSDS / Table of Contents / Inventory

Book Tab #	Content	Location	Quantity
21	Permatex / spray adhesive	Flammable Cabinet	6 cans
22	Imperial / Copper spray gasket	Flammable Cabinet	6 cans
23	One-component polyurethane foam sealant	Flammable Cabinet	3 cans
24	PSI / Clear silicone	Flammable Cabinet	6 tubes
25	HVP108 / Vinyl Fabric	Flammable Cabinet	6 cans
26	Manus-bond / Adhesive / sealant	Flammable Cabinet	12 cans
27	Permatex / High tack	Flammable Cabinet	12 cans
28	Imperial Rubberized undercoating	Flammable Cabinet	12 cans
29	Permatex / Brake caliper lube	Flammable Cabinet	12 Tubes
30	Permatex / Anti seize / 8oz	Flammable Cabinet	6 Containers
31	Imperial / Battary Protector	Flammable Cabinet	6 cans
32	Imperial / Threadlocker	Flammable Cabinet	6 Bottles
33	Permatex / Pipe thread sealant	Flammable Cabinet	4 Bottles
34			
35			
36			
37			
38			
39			
40			

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services, Inc.

92 North Main St, Building 20
Windsor, NJ 08561
Toll-free: (800) 301-9663

Pine Environmental Services, Inc.

Instrument ID 10604
Description PPBRAE PLUS
Calibrated 2/25/2015 4:43:16PM

Manufacturer Rae Systems
Model Number PGM-7240
Serial Number/ Lot Number 250-103227
Location New Jersey
Department

State Certified
Status Pass
Temp °C 25.3
Humidity % 19

Calibration Specifications

Group # 1
Group Name Isobutylene
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.000

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
10.000 / 10.000	PPM	10.000	PPM	9.900	9.900	-1.00%	Pass

Test Instruments Used During the Calibration

(As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
NJ ISO 10 EAO-248-10-11	NJ ISO 10 EAO-248-10-11	Airgas	GP11006	EAO-248-10-11		4/24/2018

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Cesar Sanchez

All instruments are calibrated by Pine Environmental Services, Inc. according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services, Inc. of any defect within 24 hours of receipt of equipment
Please call 866-960-7463 for Technical Assistance

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services, Inc.
92 North Main St, Building 20
Windsor, NJ 08561
Toll-free: (800) 301-9663

Pine Environmental Services, Inc.

Instrument ID 15520
Description Radiodetection MGD-2002 Multi-Gas Leak Locator
Calibrated 2/25/2015 9:19:54AM

Manufacturer Radiodetection
Model Number MGD-2002
Serial Number/ Lot Number 041372
Location New Jersey
Department

State Certified
Status Pass
Temp °C 18.8
Humidity % 21

Calibration Specifications

Group # 1
Group Name Functional Test
Test Performed: Yes **As Found Result: Pass** **As Left Result: Pass**

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Standard ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date/ Opened Date	Next Cal Date / Expiration Date
NJ HELIUM - 0303FF14	UHP Helium 103 Liters 0303FF14	American Gas Group	GP12636	0303FF14		3/3/2018

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Daniel Teller

All instruments are calibrated by Pine Environmental Services, Inc. according to the manufacturer's specifications, but it is the customer's responsibility to calibrate and maintain this unit in accordance with the manufacturer's specifications and/or the customer's own specific needs.

Notify Pine Environmental Services, Inc. of any defect within 24 hours of receipt of equipment
Please call 866-960-7463 for Technical Assistance

METHOD TO-15 CANISTER SAMPLING FIELD TEST DATA SHEET

A. GENERAL INFORMATION

Site Location: Fmr Norton / Nashua Tape
Site Address: 7600 7th Ave, Walnut NY
Field ID No: DB-VMP1 Size of Canister: 6L
Sampling Date(s): 3/3/15 Canister Serial No: A1025
Shipping Date: 3/6/15 Flow Controller No: 6735

B. SAMPLING INFORMATION

TEMPERATURE (Fahrenheit)

	Interior	Ambient	Maximum	Minimum
Start	68	16	27	16
Stop	66	24	-	-

PRESSURE (inches of Hg)

	Ambient	Maximum	Minimum
Start	30.29	30.29	29.99
Stop	29.99		

CANISTER PRESSURE (inches of Hg) FROM GAUGE

Start	30+	-
Stop	7.5	-

SAMPLING TIMES (24 hour clock)

	Local Times	Elapsed Time Meter Reading
Start	900	8 hrs
Stop	1700	

Signature/Title of Investigator

C. LABORATORY INFORMATION

FLOW RATES (ml/min)

	Flow Controller Readout	
Shipping out from Lab		required (from lab record log) after return
Receiving in Lab		(if applicable)

CANISTER PRESSURE

	Inches of Hg	
Initial Pressure (to field)		required (from lab record log) after return
Final Pressure (from field)		required (from lab record log) after return

Data Shipped: _____
Date Received: _____
Individual Canister Certification (provide File #): _____
Batch Certification (provide Batch ID#): _____

_____
Signature/Title
GC/MS Analyst for TO-15

METHOD TO-15 CANISTER SAMPLING FIELD TEST DATA SHEET

A. GENERAL INFORMATION

Site Location: FW Northw / Nashua Tape
Site Address: 7600 7th Ave. Wahulet NY
Field ID No: D13-VMP2 — Size of Canister: 6L
Sampling Date(s): 3/3/15 — Canister Serial No:
Shipping Date: 3/6/15 — Flow Controller No:

B. SAMPLING INFORMATION

TEMPERATURE (Fahrenheit)

	Interior	Ambient	Maximum	Minimum
Start	48 48	16	27	16
Stop	48 48	24	-	-

PRESSURE (inches of Hg)

	Ambient	Maximum	Minimum
Start	30.29	30.29	29.99
Stop	29.99	-	-

CANISTER PRESSURE (inches of Hg) FROM GAUGE

Start	30	-
Stop	7.0	-

SAMPLING TIMES (24 hour clock)

	Local Times	Elapsed Time Meter Reading
Start		8 hrs
Stop		

Signature/Title of Investigator

C. LABORATORY INFORMATION

FLOW RATES (ml/min)

	Flow Controller Readout	
Shipping out from Lab		required (from lab record log) after return
Receiving in Lab		(if applicable)

CANISTER PRESSURE

	Inches of Hg	
Initial Pressure (to field)		required (from lab record log) after return
Final Pressure (from field)		required (from lab record log) after return

Data Shipped: _____
Date Received: _____
Individual Canister Certification (provide File #): _____
Batch Certification (provide Batch ID#): _____

_____
Signature/Title
GC/MS Analyst for TO-15

METHOD TO-15 CANISTER SAMPLING FIELD TEST DATA SHEET

A. GENERAL INFORMATION

Site Location: Fair Norton / Nashua Type
Site Address: 2600 7th Ave. Watervliet NY
Field ID No: DB-IA1 Size of Canister: 6L
Sampling Date(s): 3/3/15 Canister Serial No:
Shipping Date: 3/6/15 Flow Controller No:

B. SAMPLING INFORMATION

TEMPERATURE (Fahrenheit)

	Interior	Ambient	Maximum	Minimum
Start	~~68~~ 72	16	27	16
Stop	~~64~~ 72	24	-	-

PRESSURE (inches of Hg)

	Ambient	Maximum	Minimum
Start	30.29	30.29	29.99
Stop	29.99		

CANISTER PRESSURE (inches of Hg) FROM GAUGE

Start	30	-
Stop	6.5	-

SAMPLING TIMES (24 hour clock)

	Local Times	Elapsed Time Meter Reading
Start		8-hr
Stop		

Signature/Title of Investigator

C. LABORATORY INFORMATION

FLOW RATES (ml/min)

	Flow Controller Readout	
Shipping out from Lab		required (from lab record log) after return
Receiving in Lab		(if applicable)

CANISTER PRESSURE

	Inches of Hg	
Initial Pressure (to field)		required (from lab record log) after return
Final Pressure (from field)		required (from lab record log) after return

Data Shipped: _____
Date Received: _____
Individual Canister Certification (provide File #): _____
Batch Certification (provide Batch ID#): _____

Signature/Title
GC/MS Analyst for TO-15

METHOD TO-15 CANISTER SAMPLING FIELD TEST DATA SHEET

A. GENERAL INFORMATION

Site Location: FMr Norton / Nashua Tape
Site Address: 2600 7th Ave, Watervliet NY
Field ID No: DB-IA2 Size of Canister: 6L
Sampling Date(s): 3/3/15 Canister Serial No: _____
Shipping Date: 3/6/15 Flow Controller No: _____

B. SAMPLING INFORMATION

TEMPERATURE (Fahrenheit)

	Interior	Ambient	Maximum	Minimum
Start	72	16	27	16
Stop	72	24	-	-

PRESSURE (inches of Hg)

	Ambient	Maximum	Minimum
Start	30.24	30.24	29.99
Stop	29.99	-	-

CANISTER PRESSURE (inches of Hg) FROM GAUGE

Start	28.8	-
Stop	6.0	-

SAMPLING TIMES (24 hour clock)

	Local Times	Elapsed Time Meter Reading
Start		8-hrs
Stop		

Signature/Title of Investigator

C. LABORATORY INFORMATION

FLOW RATES (ml/min)

	Flow Controller Readout	
Shipping out from Lab		required (from lab record log) after return
Receiving in Lab		(if applicable)

CANISTER PRESSURE

	Inches of Hg	
Initial Pressure (to field)		required (from lab record log) after return
Final Pressure (from field)		required (from lab record log) after return

Data Shipped: _____
Date Received: _____
Individual Canister Certification (provide File #): _____
Batch Certification (provide Batch ID#): _____

_____
Signature/Title
GC/MS Analyst for TO-15

METHOD TO-15 CANISTER SAMPLING FIELD TEST DATA SHEET

A. GENERAL INFORMATION

Site Location: Fmr Norton/Nashua Tape
Site Address: 2600 7th Ave Watervliet NY
Field ID No: DB-DUP
Size of Canister: 6L
Sampling Date(s): 3/3/15
Canister Serial No:
Shipping Date: 3/6/15
Flow Controller No:

B. SAMPLING INFORMATION

TEMPERATURE (Fahrenheit)

	Interior	Ambient	Maximum	Minimum
Start	72	16	27	16
Stop	72	24	-	-

PRESSURE (inches of Hg)

	Ambient	Maximum	Minimum
Start	30.29	30.29	29.99
Stop	29.99	-	-

CANISTER PRESSURE (inches of Hg) FROM GAUGE

Start	30+	-
Stop	8.5	-

SAMPLING TIMES (24 hour clock)

	Local Times	Elapsed Time Meter Reading
Start		8 hrs
Stop		

Signature/Title of Investigator

C. LABORATORY INFORMATION

FLOW RATES (ml/min)

	Flow Controller Readout	
Shipping out from Lab		required (from lab record log) after return
Receiving in Lab		(if applicable)

CANISTER PRESSURE

	Inches of Hg	
Initial Pressure (to field)		required (from lab record log) after return
Final Pressure (from field)		required (from lab record log) after return

Data Shipped:
Date Received:
Individual Canister Certification (provide File #):
Batch Certification (provide Batch ID#):

Signature/Title
GC/MS Analyst for TO-15

METHOD TO-15 CANISTER SAMPLING FIELD TEST DATA SHEET

A. GENERAL INFORMATION

Site Location: FW. Norton / Nashua Type
Site Address: 2600 7th Ave. Watervliet NY
Field ID No: DB-AA
Sampling Date(s): 3/4/15
Shipping Date: 3/6/15
Size of Canister: 6L
Canister Serial No:
Flow Controller No:

B. SAMPLING INFORMATION

TEMPERATURE (Fahrenheit)

	Interior	Ambient	Maximum	Minimum
Start	-	37	37	33
Stop	-	33	-	-

PRESSURE (inches of Hg)

	Ambient	Maximum	Minimum
Start	29.84	29.90	29.82
Stop	29.90	-	-

CANISTER PRESSURE (inches of Hg) FROM GAUGE

Start	30+	
Stop	9.0	

SAMPLING TIMES (24 hour clock)

	Local Times	Elapsed Time Meter Reading
Start	12:18	8-hrs
Stop	20:18	

Signature/Title of Investigator

C. LABORATORY INFORMATION

FLOW RATES (ml/min)

	Flow Controller Readout	
Shipping out from Lab		required (from lab record log) after return
Receiving in Lab		(if applicable)

CANISTER PRESSURE

	Inches of Hg	
Initial Pressure (to field)		required (from lab record log) after return
Final Pressure (from field)		required (from lab record log) after return

Data Shipped:
Date Received:
Individual Canister Certification (provide File #):
Batch Certification (provide Batch ID#):

Signature/Title
GC/MS Analyst for TO-15

Sub-Slab Sampling Field Readings
Former Norton/Nashua Tape Products Facility
Watervliet, New York

Sample Designation	Location	Purge Volume (Liters)	Pre-Sample PID Screening (ppb)	Post-Sample PID Screening (ppb)	Initial SUMMA Vacuum (in/Hg)	Post-Sample SUMMA Vacuum (in/Hg)	Pre-Sample Temperature °F	Post-Sample Temperature °F
Vapor Intrusion Investigation (Durham Bus / Fmr Norton Nashua)								
DB-VMP-1	Durham Bus Maintenance Area	6L	7.361	3.267	30+	7.5	68	66
DB-VMP2	Stone Warehouse Adjacent to Bus office	6L	2.772	0.000	30	7.0	48	48
DB-IA1	Durham Bus office 1	6L	-	2.400	30	6.5	72	72
DB-IA2	Durham Bus office 2	6L	0.680	5.670	28.8	6.0	72	72
DB-DUP	Durham Bus office 2	6L	0.680	5.670	30+	8.5	72	72
DB-TB	Trip Blank	6L	-	-	N/A	N/A	N/A	N/A
DB-AA	Bus Staging Area Ambient Air	6L	0.130	0	30+	9.0	37	33

Notes:
1. NA = Not Applicable.
2. NM = Not Measured.
3. ppb = parts per billion.

APPENDIX D

PRE-SAMPLING
INFORMATIONAL HANDOUT

Representatives of _____ will be collecting one or more indoor air samples from your building in the near future. Your assistance is requested during the sampling program in order to collect an indoor air sample that is both representative of indoor conditions and avoids the common background indoor air sources associated with occupant activities and consumer products.

Please follow the instructions below starting at least 48 hours prior to and during the indoor air sampling event:

- ☑ 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 engage in hobbies indoors 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

You will be asked a series of questions about the structure, consumer products you store in your building, and occupant activities typically occurring in the building. These questions are designed to identify "background" sources of indoor air contamination. While this investigation is looking for a select number of chemicals related to the subsurface contamination, the laboratory will be analyzing the indoor air samples for a wide variety of chemicals. As a result, chemicals such as tetrachloroethene that is commonly used in dry cleaning or acetone found in nail polish remover might be detected in your sample results.

Typical air sampling canister

Your cooperation is greatly appreciated.

If you have any questions about these instructions, please feel free to contact

_____ at _____.

APPENDIX E

TRACER GAS MONITORING PROTOCOL
(Appendix C of 2008 CMS Workplan)

APPENDIX C

Tracer Gas Monitoring Protocol

Tracer gas monitoring will be performed per the 2006 NYSDOH guidance document immediately before and immediately after collection of environmental samples from the sub-slab VMP to confirm the integrity of the VMP (and associated fittings). Pre-sampling tracer gas monitoring will be performed as follows:

- Remove the VMP plug and connect the open end of approximately two to three feet of dedicated ¼-inch ID Teflon tubing to the VMP compression fitting (or nipple). Use the VMP plug to seal the open end of the tubing.

- Insert the plugged end of the Teflon tubing through the opening on the top of the tracer gas flux chamber. Seal the tubing penetration with beeswax.

- Place a piece of plastic sheeting measuring approximately 2 feet by 2 feet over the VMP and seal the sheeting to the slab/floor with duct tape. Puncture the plastic sheeting to expose the VMP compression fitting (or nipple). Seal the flux chamber to the surface with beeswax.

- Open the inlet valve and outlet valve on the flux chamber and connect a short length of Teflon tubing to each.

- Connect the helium source to the inlet valve tubing and open the valve on the helium source allowing helium to enter the flux chamber. Any excess vapor pressure will be relieved via the outlet valve (see above).

- Activate the helium detector and connect it to the outlet valve tubing. Continue to introduce helium into the flux chamber until helium is detected at the outlet valve. Close the helium source valve and flux chamber inlet valve.

- Record the % helium in the flux chamber. Close the outlet valve.

- Unplug the sample tubing and connect to a low-flow peristaltic pump. Collect a one-liter (L) Tedlar bag sample at a flow rate of less than 0.2 liters per minute (lpm).

- After the Tedlar bag is filled, deactivate the pump, and seal the Tedlar bag.

- Connect the sample tubing to a 6L Summa canister positioned adjacent to the flux chamber in preparation for later sampling.

- Screen the Tedlar bag sample for helium by connecting it to the helium detector.

- If no helium is detected in the Tedlar bag sample (or if the ratio of the helium in the Tedlar bag versus the flux chamber is less than 1:5), seal the Tedlar bag sample and set it aside for later volatile organic compound (VOC) screening with a photoionization detector (PID). Proceed with VMP sampling.

- If pre-sampling tracer gas monitoring indicates a 20% leak by volume or greater, check the integrity of the VMP and all fittings, correct if possible, and return to the first step of pre-sampling tracer gas monitoring. If the integrity of the fitting cannot be corrected in the field (i.e., the VMP needs to be resealed or is defective), terminate VMP sampling (and any concurrent indoor air sampling) until the problem is corrected.

Post-sampling tracer gas monitoring will be performed as follows:

- Terminate VMP sampling by recording the post-sample vacuum, closing the Summa canister sample valve, and disconnecting and plugging the sampling tubing.

- Screen the flux chamber by connecting the helium detector to the outlet valve tubing and opening the outlet valve. If helium is not detected, recharge the flux chamber until helium is detected at the outlet valve. Close the helium source valve and flux chamber inlet and outlet valves.

- Unplug the VMP sample tubing and connect to a low-flow peristaltic pump. Collect a 1-L Tedlar bag sample at a flow rate of less than 0.2 lpm.

- After the Tedlar bag is filled, deactivate the pump, and seal the VMP and Tedlar bag.

- Screen the Tedlar bag sample for helium by connecting it to the helium detector.

- If no helium is detected in the Tedlar bag sample (or if the ratio of the helium in the Tedlar bag versus the flux chamber is less than 1:5), tracer gas monitoring is complete. Seal the Tedlar bag sample and set it aside for later VOC screening.

- Remove the sample tubing and plug the VMP. Restore the floor to its previous condition to the extent practicable. Submit the Summa canister for laboratory analysis.

- If post-sampling tracer gas monitoring indicates a 20% leak by volume or greater, set aside the Summa canister (and any concurrent ambient indoor air samples) for optional lab submittal. Check the integrity of the VMP and all fittings, correct if possible, and begin collection of a replacement VMP sample starting with pre-sample tracer gas monitoring (or schedule a follow-up sampling date). If the integrity of the fittings cannot be corrected in the field (i.e., the VMP needs to be resealed or is defective), postpone additional sampling until the problem is corrected, and restore the sampling area as described above.

APPENDIX F

LABORATORY REPORT

New Jersey
ACCUTEST LABORATORIES

03/27/15

Technical Report for

Forensic Environmental Services

Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

029.08

Accutest Job Number: JB89441

Sampling Dates: 03/03/15 - 03/04/15

Report to:

Forensic Environmental Services

forensic@chesco.com

ATTN: Robert Zei

Total number of pages in report: **47**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Kelly Patterson 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TN, VA, WV, DoD ELAP (L-A-B L2248)

Sections: 1 2 3 4 5

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Accutest LabLink@09:02 27-Mar-2015

Sample Summary

Forensic Environmental Services

Job No: JB89441

Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY
Project No: 029.08

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JB89441-1	03/03/15	17:00	RW	03/06/15	AIR	Soil Vapor Comp.	DB-VMP1
JB89441-2	03/03/15	17:40	RW	03/06/15	AIR	Soil Vapor Comp.	DB-VMP2
JB89441-3	03/03/15	16:25	RW	03/06/15	AIR	Indoor Air Comp.	DB-IA1
JB89441-4	03/03/15	16:20	RW	03/06/15	AIR	Indoor Air Comp.	DB-IA2
JB89441-5	03/03/15	16:20	RW	03/06/15	AIR	Indoor Air Comp.	DB-DUP
JB89441-6	03/04/15	20:18	RW	03/06/15	AIR	Trip Blank Air	DB-TB
JB89441-7	03/04/15	20:18	RW	03/06/15	AIR	Ambient Air Comp.	DB-AA

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Forensic Environmental Services	**Job No**	JB89441
Site:	Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY	**Report Date**	3/26/2015 3:51:23 PM

On 03/06/2015, 6 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB89441 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method TO-15

Matrix: AIR **Batch ID:** V3W1758

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB90005-1DUP were used as the QC samples indicated.
- Sample(s) JB89441-1 have compounds reported with "E" qualifiers indicating estimated value exceeding calibration range.

Matrix: AIR **Batch ID:** V3W1759

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB90036-1DUP were used as the QC samples indicated.

Matrix: AIR **Batch ID:** V5W403

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB89360-3DUP were used as the QC samples indicated.
- Sample(s) JB89441-2 have compounds reported with "E" qualifiers indicating estimated value exceeding calibration range.

Matrix: AIR **Batch ID:** V5W404

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB89635-1DUP were used as the QC samples indicated.
- RPD(s) for Duplicate for cis-1,2-Dichloroethylene are outside in house control limits for sample JB89635-1DUP.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: JB89441
Account: Forensic Environmental Services
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY
Collected: 03/03/15 thru 03/04/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB89441-1	**DB-VMP1**					
Acetone		54.3	0.40	0.21	ppbv	TO-15
Benzene		1.4	0.20	0.025	ppbv	TO-15
Carbon disulfide		16.1	0.20	0.031	ppbv	TO-15
Chloromethane		0.19 J	0.20	0.079	ppbv	TO-15
Cyclohexane		0.77	0.20	0.027	ppbv	TO-15
1,1-Dichloroethane		0.15 J	0.20	0.027	ppbv	TO-15
Dichlorodifluoromethane		0.44	0.20	0.030	ppbv	TO-15
trans-1,2-Dichloroethylene		0.59	0.20	0.070	ppbv	TO-15
m-Dichlorobenzene		1.3	0.20	0.033	ppbv	TO-15
Ethanol		326 E	1.0	0.33	ppbv	TO-15
Ethylbenzene		6.1	0.20	0.035	ppbv	TO-15
Ethyl Acetate		1.9	0.20	0.061	ppbv	TO-15
4-Ethyltoluene		1.9	0.20	0.032	ppbv	TO-15
Heptane		3.1	0.20	0.021	ppbv	TO-15
Hexane		1.6	0.20	0.042	ppbv	TO-15
2-Hexanone		0.21	0.20	0.064	ppbv	TO-15
Isopropyl Alcohol		365 E	0.40	0.13	ppbv	TO-15
Methylene chloride		0.30	0.20	0.13	ppbv	TO-15
Methyl ethyl ketone		20.8	0.20	0.040	ppbv	TO-15
Methyl Isobutyl Ketone		0.49	0.20	0.042	ppbv	TO-15
Styrene		4.6	0.20	0.033	ppbv	TO-15
1,1,1-Trichloroethane		0.24	0.20	0.024	ppbv	TO-15
1,2,4-Trimethylbenzene		8.3	0.20	0.029	ppbv	TO-15
1,3,5-Trimethylbenzene		2.0	0.20	0.029	ppbv	TO-15
2,2,4-Trimethylpentane		1.4	0.20	0.025	ppbv	TO-15
Tertiary Butyl Alcohol		1.5	0.20	0.044	ppbv	TO-15
Tetrachloroethylene		5.6	0.040	0.037	ppbv	TO-15
Tetrahydrofuran		33.4	0.20	0.049	ppbv	TO-15
Toluene		15.8	0.20	0.030	ppbv	TO-15
Trichloroethylene		1.8	0.040	0.030	ppbv	TO-15
Trichlorofluoromethane		0.29	0.20	0.029	ppbv	TO-15
m,p-Xylene		18.6	0.20	0.069	ppbv	TO-15
o-Xylene		7.3	0.20	0.034	ppbv	TO-15
Xylenes (total)		25.9	0.20	0.034	ppbv	TO-15
Acetone		129	0.95	0.50	ug/m3	TO-15
Benzene		4.5	0.64	0.080	ug/m3	TO-15
Carbon disulfide		50.1	0.62	0.097	ug/m3	TO-15
Chloromethane		0.39 J	0.41	0.16	ug/m3	TO-15
Cyclohexane		2.7	0.69	0.093	ug/m3	TO-15
1,1-Dichloroethane		0.61 J	0.81	0.11	ug/m3	TO-15
Dichlorodifluoromethane		2.2	0.99	0.15	ug/m3	TO-15
trans-1,2-Dichloroethylene		2.3	0.79	0.28	ug/m3	TO-15
m-Dichlorobenzene		7.8	1.2	0.20	ug/m3	TO-15

Summary of Hits

Job Number: JB89441
Account: Forensic Environmental Services
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY
Collected: 03/03/15 thru 03/04/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Ethanol		614 E	1.9	0.62	ug/m3	TO-15
Ethylbenzene		26	0.87	0.15	ug/m3	TO-15
Ethyl Acetate		6.8	0.72	0.22	ug/m3	TO-15
4-Ethyltoluene		9.3	0.98	0.16	ug/m3	TO-15
Heptane		13	0.82	0.086	ug/m3	TO-15
Hexane		5.6	0.70	0.15	ug/m3	TO-15
2-Hexanone		0.86	0.82	0.26	ug/m3	TO-15
Isopropyl Alcohol		897 E	0.98	0.32	ug/m3	TO-15
Methylene chloride		1.0	0.69	0.45	ug/m3	TO-15
Methyl ethyl ketone		61.3	0.59	0.12	ug/m3	TO-15
Methyl Isobutyl Ketone		2.0	0.82	0.17	ug/m3	TO-15
Styrene		20	0.85	0.14	ug/m3	TO-15
1,1,1-Trichloroethane		1.3	1.1	0.13	ug/m3	TO-15
1,2,4-Trimethylbenzene		41	0.98	0.14	ug/m3	TO-15
1,3,5-Trimethylbenzene		9.8	0.98	0.14	ug/m3	TO-15
2,2,4-Trimethylpentane		6.5	0.93	0.12	ug/m3	TO-15
Tertiary Butyl Alcohol		4.5	0.61	0.13	ug/m3	TO-15
Tetrachloroethylene		38	0.27	0.25	ug/m3	TO-15
Tetrahydrofuran		98.5	0.59	0.14	ug/m3	TO-15
Toluene		59.5	0.75	0.11	ug/m3	TO-15
Trichloroethylene		9.7	0.21	0.16	ug/m3	TO-15
Trichlorofluoromethane		1.6	1.1	0.16	ug/m3	TO-15
m,p-Xylene		80.8	0.87	0.30	ug/m3	TO-15
o-Xylene		32	0.87	0.15	ug/m3	TO-15
Xylenes (total)		112	0.87	0.15	ug/m3	TO-15
Total TIC, Volatile		182.2 J			ppbv	
JB89441-2	**DB-VMP2**					
Acetone		15.8	0.80	0.43	ppbv	TO-15
Benzene		0.92	0.80	0.099	ppbv	TO-15
Carbon disulfide		1.5	0.80	0.12	ppbv	TO-15
Dichlorodifluoromethane		0.45 J	0.80	0.12	ppbv	TO-15
p-Dichlorobenzene		0.38 J	0.80	0.15	ppbv	TO-15
Ethanol		134	2.0	0.66	ppbv	TO-15
Ethylbenzene		2.7	0.80	0.14	ppbv	TO-15
Ethyl Acetate		1.3	0.80	0.24	ppbv	TO-15
4-Ethyltoluene		0.74 J	0.80	0.13	ppbv	TO-15
Heptane		2.0	0.80	0.086	ppbv	TO-15
Hexane		2.3	0.80	0.17	ppbv	TO-15
Isopropyl Alcohol		169 E	0.80	0.27	ppbv	TO-15
Methyl ethyl ketone		3.2	0.80	0.16	ppbv	TO-15
Propylene		35.3	2.0	0.19	ppbv	TO-15
Styrene		2.0	0.80	0.13	ppbv	TO-15
1,2,4-Trimethylbenzene		3.0	0.80	0.12	ppbv	TO-15

Summary of Hits

Job Number: JB89441
Account: Forensic Environmental Services
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY
Collected: 03/03/15 thru 03/04/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
1,3,5-Trimethylbenzene		0.74 J	0.80	0.11	ppbv	TO-15
2,2,4-Trimethylpentane		0.89	0.80	0.10	ppbv	TO-15
Tertiary Butyl Alcohol		0.58 J	0.80	0.17	ppbv	TO-15
Tetrachloroethylene		2.5	0.16	0.15	ppbv	TO-15
Tetrahydrofuran		1.7	0.80	0.20	ppbv	TO-15
Toluene		9.8	0.80	0.12	ppbv	TO-15
Trichloroethylene		1.2	0.16	0.12	ppbv	TO-15
m,p-Xylene		9.1	0.80	0.28	ppbv	TO-15
o-Xylene		3.3	0.80	0.14	ppbv	TO-15
Xylenes (total)		12.4	0.80	0.14	ppbv	TO-15
Acetone		37.5	1.9	1.0	ug/m3	TO-15
Benzene		2.9	2.6	0.32	ug/m3	TO-15
Carbon disulfide		4.7	2.5	0.37	ug/m3	TO-15
Dichlorodifluoromethane		2.2 J	4.0	0.59	ug/m3	TO-15
p-Dichlorobenzene		2.3 J	4.8	0.90	ug/m3	TO-15
Ethanol		252	3.8	1.2	ug/m3	TO-15
Ethylbenzene		12	3.5	0.61	ug/m3	TO-15
Ethyl Acetate		4.7	2.9	0.86	ug/m3	TO-15
4-Ethyltoluene		3.6 J	3.9	0.64	ug/m3	TO-15
Heptane		8.2	3.3	0.35	ug/m3	TO-15
Hexane		8.1	2.8	0.60	ug/m3	TO-15
Isopropyl Alcohol		415 E	2.0	0.66	ug/m3	TO-15
Methyl ethyl ketone		9.4	2.4	0.47	ug/m3	TO-15
Propylene		60.6	3.4	0.33	ug/m3	TO-15
Styrene		8.5	3.4	0.55	ug/m3	TO-15
1,2,4-Trimethylbenzene		15	3.9	0.59	ug/m3	TO-15
1,3,5-Trimethylbenzene		3.6 J	3.9	0.54	ug/m3	TO-15
2,2,4-Trimethylpentane		4.2	3.7	0.47	ug/m3	TO-15
Tertiary Butyl Alcohol		1.8 J	2.4	0.52	ug/m3	TO-15
Tetrachloroethylene		17	1.1	1.0	ug/m3	TO-15
Tetrahydrofuran		5.0	2.4	0.59	ug/m3	TO-15
Toluene		37	3.0	0.45	ug/m3	TO-15
Trichloroethylene		6.4	0.86	0.64	ug/m3	TO-15
m,p-Xylene		40	3.5	1.2	ug/m3	TO-15
o-Xylene		14	3.5	0.61	ug/m3	TO-15
Xylenes (total)		53.9	3.5	0.61	ug/m3	TO-15
Total TIC, Volatile		67 J			ppbv	
JB89441-3	**DB-IA1**					
Acetone		1870	25	13	ppbv	TO-15
Benzene		0.63	0.20	0.025	ppbv	TO-15
Carbon disulfide		0.16 J	0.20	0.031	ppbv	TO-15
Chloromethane		0.59	0.20	0.079	ppbv	TO-15
Cyclohexane		64.7	25	3.4	ppbv	TO-15

Summary of Hits

Job Number: JB89441
Account: Forensic Environmental Services
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY
Collected: 03/03/15 thru 03/04/15

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Dichlorodifluoromethane	0.46	0.20	0.030	ppbv	TO-15
Ethanol	328	62	20	ppbv	TO-15
Ethylbenzene	6.8	0.20	0.035	ppbv	TO-15
Ethyl Acetate	1.9	0.20	0.061	ppbv	TO-15
4-Ethyltoluene	0.94	0.20	0.032	ppbv	TO-15
Heptane	292	25	2.7	ppbv	TO-15
Hexane	0.89	0.20	0.042	ppbv	TO-15
Methylene chloride	0.21	0.20	0.13	ppbv	TO-15
Methyl ethyl ketone	2.5	0.20	0.040	ppbv	TO-15
Methyl Isobutyl Ketone	18.6	0.20	0.042	ppbv	TO-15
Styrene	0.17 J	0.20	0.033	ppbv	TO-15
1,2,4-Trimethylbenzene	4.1	0.20	0.029	ppbv	TO-15
1,3,5-Trimethylbenzene	1.1	0.20	0.029	ppbv	TO-15
2,2,4-Trimethylpentane	2.1	0.20	0.025	ppbv	TO-15
Tertiary Butyl Alcohol	0.41	0.20	0.044	ppbv	TO-15
Tetrachloroethylene	1.2	0.040	0.037	ppbv	TO-15
Tetrahydrofuran	0.23	0.20	0.049	ppbv	TO-15
Toluene	77.4	25	3.7	ppbv	TO-15
Trichlorofluoromethane	0.25	0.20	0.029	ppbv	TO-15
m,p-Xylene	27.1	0.20	0.069	ppbv	TO-15
o-Xylene	11.1	0.20	0.034	ppbv	TO-15
Xylenes (total)	38.2	0.20	0.034	ppbv	TO-15
Acetone	4440	59	31	ug/m3	TO-15
Benzene	2.0	0.64	0.080	ug/m3	TO-15
Carbon disulfide	0.50 J	0.62	0.097	ug/m3	TO-15
Chloromethane	1.2	0.41	0.16	ug/m3	TO-15
Cyclohexane	223	86	12	ug/m3	TO-15
Dichlorodifluoromethane	2.3	0.99	0.15	ug/m3	TO-15
Ethanol	618	120	38	ug/m3	TO-15
Ethylbenzene	30	0.87	0.15	ug/m3	TO-15
Ethyl Acetate	6.8	0.72	0.22	ug/m3	TO-15
4-Ethyltoluene	4.6	0.98	0.16	ug/m3	TO-15
Heptane	1200	100	11	ug/m3	TO-15
Hexane	3.1	0.70	0.15	ug/m3	TO-15
Methylene chloride	0.73	0.69	0.45	ug/m3	TO-15
Methyl ethyl ketone	7.4	0.59	0.12	ug/m3	TO-15
Methyl Isobutyl Ketone	76.2	0.82	0.17	ug/m3	TO-15
Styrene	0.72 J	0.85	0.14	ug/m3	TO-15
1,2,4-Trimethylbenzene	20	0.98	0.14	ug/m3	TO-15
1,3,5-Trimethylbenzene	5.4	0.98	0.14	ug/m3	TO-15
2,2,4-Trimethylpentane	9.8	0.93	0.12	ug/m3	TO-15
Tertiary Butyl Alcohol	1.2	0.61	0.13	ug/m3	TO-15
Tetrachloroethylene	8.1	0.27	0.25	ug/m3	TO-15
Tetrahydrofuran	0.68	0.59	0.14	ug/m3	TO-15
Toluene	292	94	14	ug/m3	TO-15

Summary of Hits

Job Number: JB89441
Account: Forensic Environmental Services
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY
Collected: 03/03/15 thru 03/04/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Trichlorofluoromethane		1.4	1.1	0.16	ug/m3	TO-15
m,p-Xylene		118	0.87	0.30	ug/m3	TO-15
o-Xylene		48.2	0.87	0.15	ug/m3	TO-15
Xylenes (total)		166	0.87	0.15	ug/m3	TO-15
Total TIC, Volatile		579 J			ppbv	
JB89441-4	**DB-IA2**					
Acetone		1670	25	13	ppbv	TO-15
Benzene		0.88	0.20	0.025	ppbv	TO-15
Chloromethane		0.74	0.20	0.079	ppbv	TO-15
Dichlorodifluoromethane		0.47	0.20	0.030	ppbv	TO-15
Ethanol		1110	16	5.1	ppbv	TO-15
Ethylbenzene		4.3	0.20	0.035	ppbv	TO-15
Ethyl Acetate		2.2	0.20	0.061	ppbv	TO-15
4-Ethyltoluene		0.83	0.20	0.032	ppbv	TO-15
Heptane		439	6.2	0.66	ppbv	TO-15
Hexane		1.2	0.20	0.042	ppbv	TO-15
Isopropyl Alcohol		18.4	0.20	0.066	ppbv	TO-15
Methylene chloride		0.24	0.20	0.13	ppbv	TO-15
Methyl ethyl ketone		2.1	0.20	0.040	ppbv	TO-15
Methyl Isobutyl Ketone		11.5	0.20	0.042	ppbv	TO-15
Styrene		0.20	0.20	0.033	ppbv	TO-15
1,2,4-Trimethylbenzene		3.6	0.20	0.029	ppbv	TO-15
1,3,5-Trimethylbenzene		1.0	0.20	0.029	ppbv	TO-15
2,2,4-Trimethylpentane		2.5	0.20	0.025	ppbv	TO-15
Tertiary Butyl Alcohol		0.64	0.20	0.044	ppbv	TO-15
Tetrachloroethylene		2.4	0.040	0.037	ppbv	TO-15
Tetrahydrofuran		0.28	0.20	0.049	ppbv	TO-15
Toluene		72.8	6.2	0.94	ppbv	TO-15
Trichloroethylene		0.21	0.040	0.030	ppbv	TO-15
Trichlorofluoromethane		0.24	0.20	0.029	ppbv	TO-15
m,p-Xylene		16.7	0.20	0.069	ppbv	TO-15
o-Xylene		6.7	0.20	0.034	ppbv	TO-15
Xylenes (total)		23.5	0.20	0.034	ppbv	TO-15
Acetone		3970	59	31	ug/m3	TO-15
Benzene		2.8	0.64	0.080	ug/m3	TO-15
Chloromethane		1.5	0.41	0.16	ug/m3	TO-15
Dichlorodifluoromethane		2.3	0.99	0.15	ug/m3	TO-15
Ethanol		2090	30	9.6	ug/m3	TO-15
Ethylbenzene		19	0.87	0.15	ug/m3	TO-15
Ethyl Acetate		7.9	0.72	0.22	ug/m3	TO-15
4-Ethyltoluene		4.1	0.98	0.16	ug/m3	TO-15
Heptane		1800	25	2.7	ug/m3	TO-15
Hexane		4.2	0.70	0.15	ug/m3	TO-15

Summary of Hits

Job Number: JB89441
Account: Forensic Environmental Services
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY
Collected: 03/03/15 thru 03/04/15

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	RL	MDL	Units	Method
Isopropyl Alcohol	45.2	0.49	0.16	ug/m3	TO-15
Methylene chloride	0.83	0.69	0.45	ug/m3	TO-15
Methyl ethyl ketone	6.2	0.59	0.12	ug/m3	TO-15
Methyl Isobutyl Ketone	47.1	0.82	0.17	ug/m3	TO-15
Styrene	0.85	0.85	0.14	ug/m3	TO-15
1,2,4-Trimethylbenzene	18	0.98	0.14	ug/m3	TO-15
1,3,5-Trimethylbenzene	4.9	0.98	0.14	ug/m3	TO-15
2,2,4-Trimethylpentane	12	0.93	0.12	ug/m3	TO-15
Tertiary Butyl Alcohol	1.9	0.61	0.13	ug/m3	TO-15
Tetrachloroethylene	16	0.27	0.25	ug/m3	TO-15
Tetrahydrofuran	0.83	0.59	0.14	ug/m3	TO-15
Toluene	274	23	3.5	ug/m3	TO-15
Trichloroethylene	1.1	0.21	0.16	ug/m3	TO-15
Trichlorofluoromethane	1.3	1.1	0.16	ug/m3	TO-15
m,p-Xylene	72.5	0.87	0.30	ug/m3	TO-15
o-Xylene	29	0.87	0.15	ug/m3	TO-15
Xylenes (total)	102	0.87	0.15	ug/m3	TO-15
Total TIC, Volatile	739.1 J			ppbv	
JB89441-5 DB-DUP					
Acetone	2230	24	13	ppbv	TO-15
Benzene	0.73	0.20	0.025	ppbv	TO-15
Carbon disulfide	0.35	0.20	0.031	ppbv	TO-15
Chloromethane	0.71	0.20	0.079	ppbv	TO-15
Dichlorodifluoromethane	0.47	0.20	0.030	ppbv	TO-15
Ethanol	941	59	20	ppbv	TO-15
Ethylbenzene	4.5	0.20	0.035	ppbv	TO-15
Ethyl Acetate	1.8	0.20	0.061	ppbv	TO-15
4-Ethyltoluene	0.88	0.20	0.032	ppbv	TO-15
Heptane	466	5.9	0.63	ppbv	TO-15
Hexane	1.2	0.20	0.042	ppbv	TO-15
Isopropyl Alcohol	20.3	0.20	0.066	ppbv	TO-15
Methylene chloride	0.36	0.20	0.13	ppbv	TO-15
Methyl ethyl ketone	2.3	0.20	0.040	ppbv	TO-15
Methyl Isobutyl Ketone	11.9	0.20	0.042	ppbv	TO-15
Styrene	0.20	0.20	0.033	ppbv	TO-15
1,2,4-Trimethylbenzene	3.8	0.20	0.029	ppbv	TO-15
1,3,5-Trimethylbenzene	1.1	0.20	0.029	ppbv	TO-15
2,2,4-Trimethylpentane	2.5	0.20	0.025	ppbv	TO-15
Tertiary Butyl Alcohol	0.63	0.20	0.044	ppbv	TO-15
Tetrachloroethylene	2.4	0.040	0.037	ppbv	TO-15
Tetrahydrofuran	0.30	0.20	0.049	ppbv	TO-15
Toluene	79.1	5.9	0.89	ppbv	TO-15
Trichlorofluoromethane	0.26	0.20	0.029	ppbv	TO-15

Summary of Hits

Job Number: JB89441
Account: Forensic Environmental Services
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY
Collected: 03/03/15 thru 03/04/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
m,p-Xylene		17.7	0.20	0.069	ppbv	TO-15
o-Xylene		7.2	0.20	0.034	ppbv	TO-15
Xylenes (total)		24.9	0.20	0.034	ppbv	TO-15
Acetone		5300	57	31	ug/m3	TO-15
Benzene		2.3	0.64	0.080	ug/m3	TO-15
Carbon disulfide		1.1	0.62	0.097	ug/m3	TO-15
Chloromethane		1.5	0.41	0.16	ug/m3	TO-15
Dichlorodifluoromethane		2.3	0.99	0.15	ug/m3	TO-15
Ethanol		1770	110	38	ug/m3	TO-15
Ethylbenzene		20	0.87	0.15	ug/m3	TO-15
Ethyl Acetate		6.5	0.72	0.22	ug/m3	TO-15
4-Ethyltoluene		4.3	0.98	0.16	ug/m3	TO-15
Heptane		1910	24	2.6	ug/m3	TO-15
Hexane		4.2	0.70	0.15	ug/m3	TO-15
Isopropyl Alcohol		49.9	0.49	0.16	ug/m3	TO-15
Methylene chloride		1.3	0.69	0.45	ug/m3	TO-15
Methyl ethyl ketone		6.8	0.59	0.12	ug/m3	TO-15
Methyl Isobutyl Ketone		48.8	0.82	0.17	ug/m3	TO-15
Styrene		0.85	0.85	0.14	ug/m3	TO-15
1,2,4-Trimethylbenzene		19	0.98	0.14	ug/m3	TO-15
1,3,5-Trimethylbenzene		5.4	0.98	0.14	ug/m3	TO-15
2,2,4-Trimethylpentane		12	0.93	0.12	ug/m3	TO-15
Tertiary Butyl Alcohol		1.9	0.61	0.13	ug/m3	TO-15
Tetrachloroethylene		16	0.27	0.25	ug/m3	TO-15
Tetrahydrofuran		0.88	0.59	0.14	ug/m3	TO-15
Toluene		298	22	3.4	ug/m3	TO-15
Trichlorofluoromethane		1.5	1.1	0.16	ug/m3	TO-15
m,p-Xylene		76.9	0.87	0.30	ug/m3	TO-15
o-Xylene		31	0.87	0.15	ug/m3	TO-15
Xylenes (total)		108	0.87	0.15	ug/m3	TO-15
Total TIC, Volatile		588.5 J			ppbv	
JB89441-6	**DB-TB**					
Acetone		0.20	0.20	0.11	ppbv	TO-15
Acetone		0.48	0.48	0.26	ug/m3	TO-15
JB89441-7	**DB-AA**					
Acetone		2.3	0.20	0.11	ppbv	TO-15
Benzene		0.23	0.20	0.025	ppbv	TO-15
Chloromethane		0.49	0.20	0.079	ppbv	TO-15
Dichlorodifluoromethane		0.53	0.20	0.030	ppbv	TO-15
Ethanol		1.7	0.50	0.17	ppbv	TO-15
Ethyl Acetate		7.4	0.20	0.061	ppbv	TO-15

Summary of Hits

Job Number: JB89441
Account: Forensic Environmental Services
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY
Collected: 03/03/15 thru 03/04/15

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Isopropyl Alcohol		0.43	0.20	0.066	ppbv	TO-15
Methyl ethyl ketone		0.38	0.20	0.040	ppbv	TO-15
1,2,4-Trimethylbenzene		0.23	0.20	0.029	ppbv	TO-15
Toluene		0.46	0.20	0.030	ppbv	TO-15
Trichlorofluoromethane		0.25	0.20	0.029	ppbv	TO-15
m,p-Xylene		0.34	0.20	0.069	ppbv	TO-15
Xylenes (total)		0.34	0.20	0.034	ppbv	TO-15
Acetone		5.5	0.48	0.26	ug/m3	TO-15
Benzene		0.73	0.64	0.080	ug/m3	TO-15
Chloromethane		1.0	0.41	0.16	ug/m3	TO-15
Dichlorodifluoromethane		2.6	0.99	0.15	ug/m3	TO-15
Ethanol		3.2	0.94	0.32	ug/m3	TO-15
Ethyl Acetate		27	0.72	0.22	ug/m3	TO-15
Isopropyl Alcohol		1.1	0.49	0.16	ug/m3	TO-15
Methyl ethyl ketone		1.1	0.59	0.12	ug/m3	TO-15
1,2,4-Trimethylbenzene		1.1	0.98	0.14	ug/m3	TO-15
Toluene		1.7	0.75	0.11	ug/m3	TO-15
Trichlorofluoromethane		1.4	1.1	0.16	ug/m3	TO-15
m,p-Xylene		1.5	0.87	0.30	ug/m3	TO-15
Xylenes (total)		1.5	0.87	0.15	ug/m3	TO-15

New Jersey ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: DB-VMP1
Lab Sample ID: JB89441-1
Matrix: AIR - Soil Vapor Comp. Summa ID: A1025
Method: TO-15
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

Date Sampled: 03/03/15
Date Received: 03/06/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W10239.D	1	03/13/15	ML	n/a	n/a	V5W404
Run #2	3W46248.D	1	03/14/15	YMH	n/a	n/a	V3W1758

	Initial Volume
Run #1	400 ml
Run #2	200 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	54.3 [a]	0.40	0.21	ppbv		129 [a]	0.95	0.50	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.034	ppbv		ND	0.44	0.075	ug/m3
71-43-2	78.11	Benzene	1.4	0.20	0.025	ppbv		4.5	0.64	0.080	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.029	ppbv		ND	1.3	0.19	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.035	ppbv		ND	2.1	0.36	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.033	ppbv		ND	0.78	0.13	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.035	ppbv		ND	0.87	0.15	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.047	ppbv		ND	1.0	0.24	ug/m3
75-15-0	76.14	Carbon disulfide	16.1	0.20	0.031	ppbv		50.1	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.034	ppbv		ND	0.92	0.16	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.042	ppbv		ND	0.53	0.11	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.024	ppbv		ND	0.98	0.12	ug/m3
74-87-3	50.49	Chloromethane	0.19	0.20	0.079	ppbv	J	0.39	0.41	0.16	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.037	ppbv		ND	0.63	0.12	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.032	ppbv		ND	1.0	0.17	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.025	ppbv		ND	1.3	0.16	ug/m3
110-82-7	84.16	Cyclohexane	0.77	0.20	0.027	ppbv		2.7	0.69	0.093	ug/m3
75-34-3	98.96	1,1-Dichloroethane	0.15	0.20	0.027	ppbv	J	0.61	0.81	0.11	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.052	ppbv		ND	0.79	0.21	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv		ND	1.5	0.21	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.023	ppbv		ND	0.81	0.093	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.029	ppbv		ND	0.92	0.13	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.12	ppbv		ND	0.72	0.43	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.44	0.20	0.030	ppbv		2.2	0.99	0.15	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.038	ppbv		ND	1.7	0.32	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	0.59	0.20	0.070	ppbv		2.3	0.79	0.28	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.023	ppbv		ND	0.79	0.091	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.025	ppbv		ND	0.91	0.11	ug/m3
541-73-1	147	m-Dichlorobenzene	1.3	0.20	0.033	ppbv		7.8	1.2	0.20	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.029	ppbv		ND	1.2	0.17	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.037	ppbv		ND	1.2	0.22	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.025	ppbv		ND	0.91	0.11	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DB-VMP1
Lab Sample ID: JB89441-1
Matrix: AIR - Soil Vapor Comp. Summa ID: A1025
Method: TO-15
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

Date Sampled: 03/03/15
Date Received: 03/06/15
Percent Solids: n/a

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	326 [a]	1.0	0.33	ppbv	E	614 [a]	1.9	0.62	ug/m3
100-41-4	106.2	Ethylbenzene	6.1	0.20	0.035	ppbv		26	0.87	0.15	ug/m3
141-78-6	88	Ethyl Acetate	1.9	0.20	0.061	ppbv		6.8	0.72	0.22	ug/m3
622-96-8	120.2	4-Ethyltoluene	1.9	0.20	0.032	ppbv		9.3	0.98	0.16	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.040	ppbv		ND	1.5	0.31	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	0.22	ug/m3
142-82-5	100.2	Heptane	3.1	0.20	0.021	ppbv		13	0.82	0.086	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.051	ppbv		ND	2.1	0.54	ug/m3
110-54-3	86.17	Hexane	1.6	0.20	0.042	ppbv		5.6	0.70	0.15	ug/m3
591-78-6	100	2-Hexanone	0.21	0.20	0.064	ppbv		0.86	0.82	0.26	ug/m3
67-63-0	60.1	Isopropyl Alcohol	365 [a]	0.40	0.13	ppbv	E	897 [a]	0.98	0.32	ug/m3
75-09-2	84.94	Methylene chloride	0.30	0.20	0.13	ppbv		1.0	0.69	0.45	ug/m3
78-93-3	72.11	Methyl ethyl ketone	20.8	0.20	0.040	ppbv		61.3	0.59	0.12	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.49	0.20	0.042	ppbv		2.0	0.82	0.17	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.041	ppbv		ND	0.72	0.15	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.036	ppbv		ND	0.82	0.15	ug/m3
115-07-1	42	Propylene	ND	0.50	0.048	ppbv		ND	0.86	0.082	ug/m3
100-42-5	104.1	Styrene	4.6	0.20	0.033	ppbv		20	0.85	0.14	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	0.24	0.20	0.024	ppbv		1.3	1.1	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.040	ppbv		ND	1.4	0.27	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.035	ppbv		ND	1.1	0.19	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.061	ppbv		ND	1.5	0.45	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	8.3	0.20	0.029	ppbv		41	0.98	0.14	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	2.0	0.20	0.029	ppbv		9.8	0.98	0.14	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	1.4	0.20	0.025	ppbv		6.5	0.93	0.12	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	1.5	0.20	0.044	ppbv		4.5	0.61	0.13	ug/m3
127-18-4	165.8	Tetrachloroethylene	5.6	0.040	0.037	ppbv		38	0.27	0.25	ug/m3
109-99-9	72.11	Tetrahydrofuran	33.4	0.20	0.049	ppbv		98.5	0.59	0.14	ug/m3
108-88-3	92.14	Toluene	15.8	0.20	0.030	ppbv		59.5	0.75	0.11	ug/m3
79-01-6	131.4	Trichloroethylene	1.8	0.040	0.030	ppbv		9.7	0.21	0.16	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.29	0.20	0.029	ppbv		1.6	1.1	0.16	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.031	ppbv		ND	0.51	0.079	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.095	ppbv		ND	0.70	0.33	ug/m3
	106.2	m,p-Xylene	18.6	0.20	0.069	ppbv		80.8	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	7.3	0.20	0.034	ppbv		32	0.87	0.15	ug/m3
1330-20-7	106.2	Xylenes (total)	25.9	0.20	0.034	ppbv		112	0.87	0.15	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	114%	106%	65-128%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DB-VMP1		
Lab Sample ID:	JB89441-1	**Date Sampled:**	03/03/15
Matrix:	AIR - Soil Vapor Comp. Summa ID: A1025	**Date Received:**	03/06/15
Method:	TO-15	**Percent Solids:**	n/a
Project:	Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY		

VOA TO15 List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	carbon dioxide	3.83	630	ppbv	J
	alkane	4.31	15	ppbv	J
	system artifact	15.97	8.7	ppbv	J
	C3 alkyl benzene	19.78	5.1	ppbv	J
104-76-7	1-Hexanol, 2-ethyl-	20.97	6.2	ppbv	JN
5989-27-5	D-Limonene	21.28	150	ppbv	JN
1120-21-4	alkane - Undecane	22.32	5.9	ppbv	JN
	system artifact	23.01	77	ppbv	J
	Total TIC, Volatile		182.2	ppbv	J

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DB-VMP2
Lab Sample ID: JB89441-2 **Date Sampled:** 03/03/15
Matrix: AIR - Soil Vapor Comp. Summa ID: A1175 **Date Received:** 03/06/15
Method: TO-15 **Percent Solids:** n/a
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W10215.D	1	03/13/15	ML	n/a	n/a	V5W403
Run #2							

	Initial Volume
Run #1	100 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	15.8	0.80	0.43	ppbv		37.5	1.9	1.0	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.14	ppbv		ND	1.8	0.31	ug/m3
71-43-2	78.11	Benzene	0.92	0.80	0.099	ppbv		2.9	2.6	0.32	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.12	ppbv		ND	5.4	0.80	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.14	ppbv		ND	8.3	1.4	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.13	ppbv		ND	3.1	0.50	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.14	ppbv		ND	3.5	0.61	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.19	ppbv		ND	4.1	0.98	ug/m3
75-15-0	76.14	Carbon disulfide	1.5	0.80	0.12	ppbv		4.7	2.5	0.37	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.14	ppbv		ND	3.7	0.64	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.17	ppbv		ND	2.1	0.45	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.095	ppbv		ND	3.9	0.46	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.31	ppbv		ND	1.7	0.64	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.15	ppbv		ND	2.5	0.47	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	0.67	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.10	ppbv		ND	5.0	0.63	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.11	ppbv		ND	2.8	0.38	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.11	ppbv		ND	3.2	0.45	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.21	ppbv		ND	3.2	0.83	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.11	ppbv		ND	6.1	0.85	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.091	ppbv		ND	3.2	0.37	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.11	ppbv		ND	3.7	0.51	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.49	ppbv		ND	2.9	1.8	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.45	0.80	0.12	ppbv	J	2.2	4.0	0.59	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.15	ppbv		ND	6.8	1.3	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.28	ppbv		ND	3.2	1.1	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.093	ppbv		ND	3.2	0.37	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.10	ppbv		ND	3.6	0.45	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.13	ppbv		ND	4.8	0.78	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.12	ppbv		ND	4.8	0.72	ug/m3
106-46-7	147	p-Dichlorobenzene	0.38	0.80	0.15	ppbv	J	2.3	4.8	0.90	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.10	ppbv		ND	3.6	0.45	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DB-VMP2
Lab Sample ID: JB89441-2
Matrix: AIR - Soil Vapor Comp. Summa ID: A1175
Method: TO-15
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

Date Sampled: 03/03/15
Date Received: 03/06/15
Percent Solids: n/a

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	134	2.0	0.66	ppbv		252	3.8	1.2	ug/m3
100-41-4	106.2	Ethylbenzene	2.7	0.80	0.14	ppbv		12	3.5	0.61	ug/m3
141-78-6	88	Ethyl Acetate	1.3	0.80	0.24	ppbv		4.7	2.9	0.86	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.74	0.80	0.13	ppbv	J	3.6	3.9	0.64	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.16	ppbv		ND	6.1	1.2	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.12	ppbv		ND	5.6	0.84	ug/m3
142-82-5	100.2	Heptane	2.0	0.80	0.086	ppbv		8.2	3.3	0.35	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.20	ppbv		ND	8.5	2.1	ug/m3
110-54-3	86.17	Hexane	2.3	0.80	0.17	ppbv		8.1	2.8	0.60	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.26	ppbv		ND	3.3	1.1	ug/m3
67-63-0	60.1	Isopropyl Alcohol	169	0.80	0.27	ppbv	E	415	2.0	0.66	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.54	ppbv		ND	2.8	1.9	ug/m3
78-93-3	72.11	Methyl ethyl ketone	3.2	0.80	0.16	ppbv		9.4	2.4	0.47	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.17	ppbv		ND	3.3	0.70	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.16	ppbv		ND	2.9	0.58	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.14	ppbv		ND	3.3	0.57	ug/m3
115-07-1	42	Propylene	35.3	2.0	0.19	ppbv		60.6	3.4	0.33	ug/m3
100-42-5	104.1	Styrene	2.0	0.80	0.13	ppbv		8.5	3.4	0.55	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.098	ppbv		ND	4.4	0.53	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.16	ppbv		ND	5.5	1.1	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.14	ppbv		ND	4.4	0.76	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.24	ppbv		ND	5.9	1.8	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	3.0	0.80	0.12	ppbv		15	3.9	0.59	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	0.74	0.80	0.11	ppbv	J	3.6	3.9	0.54	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.89	0.80	0.10	ppbv		4.2	3.7	0.47	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.58	0.80	0.17	ppbv	J	1.8	2.4	0.52	ug/m3
127-18-4	165.8	Tetrachloroethylene	2.5	0.16	0.15	ppbv		17	1.1	1.0	ug/m3
109-99-9	72.11	Tetrahydrofuran	1.7	0.80	0.20	ppbv		5.0	2.4	0.59	ug/m3
108-88-3	92.14	Toluene	9.8	0.80	0.12	ppbv		37	3.0	0.45	ug/m3
79-01-6	131.4	Trichloroethylene	1.2	0.16	0.12	ppbv		6.4	0.86	0.64	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.12	ppbv		ND	4.5	0.67	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.12	ppbv		ND	2.0	0.31	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.38	ppbv		ND	2.8	1.3	ug/m3
	106.2	m,p-Xylene	9.1	0.80	0.28	ppbv		40	3.5	1.2	ug/m3
95-47-6	106.2	o-Xylene	3.3	0.80	0.14	ppbv		14	3.5	0.61	ug/m3
1330-20-7	106.2	Xylenes (total)	12.4	0.80	0.14	ppbv		53.9	3.5	0.61	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	108%		65-128%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DB-VMP2		
Lab Sample ID:	JB89441-2	**Date Sampled:**	03/03/15
Matrix:	AIR - Soil Vapor Comp. Summa ID: A1175	**Date Received:**	03/06/15
Method:	TO-15	**Percent Solids:**	n/a
Project:	Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY		

VOA TO15 List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	3.83	2600	ppbv	JNB
5989-27-5	D-Limonene	21.28	67	ppbv	JN
	system artifact	23.00	19	ppbv	J
	Total TIC, Volatile		67	ppbv	J

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DB-IA1
Lab Sample ID: JB89441-3 **Date Sampled:** 03/03/15
Matrix: AIR - Indoor Air Comp. Summa ID: A1061,A492 **Date Received:** 03/06/15
Method: TO-15 **Percent Solids:** n/a
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W10216.D	1	03/13/15	ML	n/a	n/a	V5W403
Run #2	5W10240.D	62	03/13/15	ML	n/a	n/a	V5W404

	Initial Volume
Run #1	400 ml
Run #2	200 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	1870 [a]	25	13	ppbv		4440 [a]	59	31	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.034	ppbv		ND	0.44	0.075	ug/m3
71-43-2	78.11	Benzene	0.63	0.20	0.025	ppbv		2.0	0.64	0.080	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.029	ppbv		ND	1.3	0.19	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.035	ppbv		ND	2.1	0.36	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.033	ppbv		ND	0.78	0.13	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.035	ppbv		ND	0.87	0.15	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.047	ppbv		ND	1.0	0.24	ug/m3
75-15-0	76.14	Carbon disulfide	0.16	0.20	0.031	ppbv	J	0.50	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.034	ppbv		ND	0.92	0.16	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.042	ppbv		ND	0.53	0.11	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.024	ppbv		ND	0.98	0.12	ug/m3
74-87-3	50.49	Chloromethane	0.59	0.20	0.079	ppbv		1.2	0.41	0.16	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.037	ppbv		ND	0.63	0.12	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.032	ppbv		ND	1.0	0.17	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.025	ppbv		ND	1.3	0.16	ug/m3
110-82-7	84.16	Cyclohexane	64.7 [a]	25	3.4	ppbv		223 [a]	86	12	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.027	ppbv		ND	0.81	0.11	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.052	ppbv		ND	0.79	0.21	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv		ND	1.5	0.21	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.023	ppbv		ND	0.81	0.093	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.029	ppbv		ND	0.92	0.13	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.12	ppbv		ND	0.72	0.43	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.46	0.20	0.030	ppbv		2.3	0.99	0.15	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.038	ppbv		ND	1.7	0.32	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.070	ppbv		ND	0.79	0.28	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.023	ppbv		ND	0.79	0.091	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.025	ppbv		ND	0.91	0.11	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.033	ppbv		ND	1.2	0.20	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.029	ppbv		ND	1.2	0.17	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.037	ppbv		ND	1.2	0.22	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.025	ppbv		ND	0.91	0.11	ug/m3

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DB-IA1
Lab Sample ID: JB89441-3 **Date Sampled:** 03/03/15
Matrix: AIR - Indoor Air Comp. Summa ID: A1061,A492 **Date Received:** 03/06/15
Method: TO-15 **Percent Solids:** n/a
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	328 [a]	62	20	ppbv		618 [a]	120	38	ug/m3
100-41-4	106.2	Ethylbenzene	6.8	0.20	0.035	ppbv		30	0.87	0.15	ug/m3
141-78-6	88	Ethyl Acetate	1.9	0.20	0.061	ppbv		6.8	0.72	0.22	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.94	0.20	0.032	ppbv		4.6	0.98	0.16	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.040	ppbv		ND	1.5	0.31	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	0.22	ug/m3
142-82-5	100.2	Heptane	292 [a]	25	2.7	ppbv		1200 [a]	100	11	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.051	ppbv		ND	2.1	0.54	ug/m3
110-54-3	86.17	Hexane	0.89	0.20	0.042	ppbv		3.1	0.70	0.15	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.064	ppbv		ND	0.82	0.26	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	0.20	0.066	ppbv		ND	0.49	0.16	ug/m3
75-09-2	84.94	Methylene chloride	0.21	0.20	0.13	ppbv		0.73	0.69	0.45	ug/m3
78-93-3	72.11	Methyl ethyl ketone	2.5	0.20	0.040	ppbv		7.4	0.59	0.12	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	18.6	0.20	0.042	ppbv		76.2	0.82	0.17	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.041	ppbv		ND	0.72	0.15	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.036	ppbv		ND	0.82	0.15	ug/m3
115-07-1	42	Propylene	ND	0.50	0.048	ppbv		ND	0.86	0.082	ug/m3
100-42-5	104.1	Styrene	0.17	0.20	0.033	ppbv	J	0.72	0.85	0.14	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.040	ppbv		ND	1.4	0.27	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.035	ppbv		ND	1.1	0.19	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.061	ppbv		ND	1.5	0.45	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	4.1	0.20	0.029	ppbv		20	0.98	0.14	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	1.1	0.20	0.029	ppbv		5.4	0.98	0.14	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	2.1	0.20	0.025	ppbv		9.8	0.93	0.12	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.41	0.20	0.044	ppbv		1.2	0.61	0.13	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.2	0.040	0.037	ppbv		8.1	0.27	0.25	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.23	0.20	0.049	ppbv		0.68	0.59	0.14	ug/m3
108-88-3	92.14	Toluene	77.4 [a]	25	3.7	ppbv		292 [a]	94	14	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.030	ppbv		ND	0.21	0.16	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.25	0.20	0.029	ppbv		1.4	1.1	0.16	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.031	ppbv		ND	0.51	0.079	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.095	ppbv		ND	0.70	0.33	ug/m3
	106.2	m,p-Xylene	27.1	0.20	0.069	ppbv		118	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	11.1	0.20	0.034	ppbv		48.2	0.87	0.15	ug/m3
1330-20-7	106.2	Xylenes (total)	38.2	0.20	0.034	ppbv		166	0.87	0.15	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	109%	107%	65-128%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DB-IA1		
Lab Sample ID:	JB89441-3	**Date Sampled:**	03/03/15
Matrix:	AIR - Indoor Air Comp. Summa ID: A1061,A492	**Date Received:**	03/06/15
Method:	TO-15	**Percent Solids:**	n/a
Project:	Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY		

VOA TO15 List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	carbon dioxide	3.81	490	ppbv	JNB
	alkane	4.31	6.8	ppbv	J
106-97-8	alkane - Butane	4.58	140	ppbv	JN
562-49-2	alkane - Pentane, 3,3-dimethyl-	10.54	9.9	ppbv	JN
565-59-3	alkane - Pentane, 2,3-dimethyl-	11.03	50	ppbv	JN
589-34-4	alkane - Hexane, 3-methyl-	11.25	230	ppbv	JN
2453-00-1	Cyclopentane, 1,3-dimethyl-	11.53	13	ppbv	JN
	alkane	11.61	39	ppbv	J
108-87-2	Cyclohexane, methyl-	12.88	35	ppbv	JN
	alkene	13.24	15	ppbv	J
123-86-4	Acetic acid, butyl ester	15.27	15	ppbv	JN
124-18-5	alkane - Decane	20.69	6.8	ppbv	JN
1120-21-4	alkane - Undecane	22.32	9.3	ppbv	JN
	system artifact	23.00	23	ppbv	J
	C4 alkyl benzene	23.08	3.4	ppbv	J
112-40-3	alkane - Dodecane	23.59	5.8	ppbv	JN
	Total TIC, Volatile		579	ppbv	J

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DB-IA2
Lab Sample ID: JB89441-4 **Date Sampled:** 03/03/15
Matrix: AIR - Indoor Air Comp. Summa ID: A243,A542 **Date Received:** 03/06/15
Method: TO-15 **Percent Solids:** n/a
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W10241.D	1.55	03/14/15	ML	n/a	n/a	V5W404
Run #2	3W46270.D	1.55	03/16/15	YMH	n/a	n/a	V3W1759
Run #3	3W46273.D	62	03/16/15	YMH	n/a	n/a	V3W1759

	Initial Volume
Run #1	620 ml
Run #2	20.0 ml
Run #3	200 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	1670 [a]	25	13	ppbv		3970 [a]	59	31	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.034	ppbv		ND	0.44	0.075	ug/m3
71-43-2	78.11	Benzene	0.88	0.20	0.025	ppbv		2.8	0.64	0.080	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.029	ppbv		ND	1.3	0.19	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.035	ppbv		ND	2.1	0.36	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.033	ppbv		ND	0.78	0.13	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.035	ppbv		ND	0.87	0.15	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.047	ppbv		ND	1.0	0.24	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.034	ppbv		ND	0.92	0.16	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.042	ppbv		ND	0.53	0.11	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.024	ppbv		ND	0.98	0.12	ug/m3
74-87-3	50.49	Chloromethane	0.74	0.20	0.079	ppbv		1.5	0.41	0.16	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.037	ppbv		ND	0.63	0.12	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.032	ppbv		ND	1.0	0.17	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.025	ppbv		ND	1.3	0.16	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	0.027	ppbv		ND	0.69	0.093	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.027	ppbv		ND	0.81	0.11	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.052	ppbv		ND	0.79	0.21	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv		ND	1.5	0.21	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.023	ppbv		ND	0.81	0.093	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.029	ppbv		ND	0.92	0.13	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.12	ppbv		ND	0.72	0.43	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.47	0.20	0.030	ppbv		2.3	0.99	0.15	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.038	ppbv		ND	1.7	0.32	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.070	ppbv		ND	0.79	0.28	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.023	ppbv		ND	0.79	0.091	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.025	ppbv		ND	0.91	0.11	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.033	ppbv		ND	1.2	0.20	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.029	ppbv		ND	1.2	0.17	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DB-IA2
Lab Sample ID: JB89441-4 **Date Sampled:** 03/03/15
Matrix: AIR - Indoor Air Comp. Summa ID: A243,A542 **Date Received:** 03/06/15
Method: TO-15 **Percent Solids:** n/a
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.037	ppbv		ND	1.2	0.22	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.025	ppbv		ND	0.91	0.11	ug/m3
64-17-5	46.07	Ethanol	1110 [b]	16	5.1	ppbv		2090 [b]	30	9.6	ug/m3
100-41-4	106.2	Ethylbenzene	4.3	0.20	0.035	ppbv		19	0.87	0.15	ug/m3
141-78-6	88	Ethyl Acetate	2.2	0.20	0.061	ppbv		7.9	0.72	0.22	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.83	0.20	0.032	ppbv		4.1	0.98	0.16	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.040	ppbv		ND	1.5	0.31	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	0.22	ug/m3
142-82-5	100.2	Heptane	439 [b]	6.2	0.66	ppbv		1800 [b]	25	2.7	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.051	ppbv		ND	2.1	0.54	ug/m3
110-54-3	86.17	Hexane	1.2	0.20	0.042	ppbv		4.2	0.70	0.15	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.064	ppbv		ND	0.82	0.26	ug/m3
67-63-0	60.1	Isopropyl Alcohol	18.4	0.20	0.066	ppbv		45.2	0.49	0.16	ug/m3
75-09-2	84.94	Methylene chloride	0.24	0.20	0.13	ppbv		0.83	0.69	0.45	ug/m3
78-93-3	72.11	Methyl ethyl ketone	2.1	0.20	0.040	ppbv		6.2	0.59	0.12	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	11.5	0.20	0.042	ppbv		47.1	0.82	0.17	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.041	ppbv		ND	0.72	0.15	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.036	ppbv		ND	0.82	0.15	ug/m3
115-07-1	42	Propylene	ND	0.50	0.048	ppbv		ND	0.86	0.082	ug/m3
100-42-5	104.1	Styrene	0.20	0.20	0.033	ppbv		0.85	0.85	0.14	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.040	ppbv		ND	1.4	0.27	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.035	ppbv		ND	1.1	0.19	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.061	ppbv		ND	1.5	0.45	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	3.6	0.20	0.029	ppbv		18	0.98	0.14	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	1.0	0.20	0.029	ppbv		4.9	0.98	0.14	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	2.5	0.20	0.025	ppbv		12	0.93	0.12	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.64	0.20	0.044	ppbv		1.9	0.61	0.13	ug/m3
127-18-4	165.8	Tetrachloroethylene	2.4	0.040	0.037	ppbv		16	0.27	0.25	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.28	0.20	0.049	ppbv		0.83	0.59	0.14	ug/m3
108-88-3	92.14	Toluene	72.8 [b]	6.2	0.94	ppbv		274 [b]	23	3.5	ug/m3
79-01-6	131.4	Trichloroethylene	0.21	0.040	0.030	ppbv		1.1	0.21	0.16	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.24	0.20	0.029	ppbv		1.3	1.1	0.16	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.031	ppbv		ND	0.51	0.079	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.095	ppbv		ND	0.70	0.33	ug/m3
	106.2	m,p-Xylene	16.7	0.20	0.069	ppbv		72.5	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	6.7	0.20	0.034	ppbv		29	0.87	0.15	ug/m3
1330-20-7	106.2	Xylenes (total)	23.5	0.20	0.034	ppbv		102	0.87	0.15	ug/m3

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DB-IA2		
Lab Sample ID:	JB89441-4	**Date Sampled:**	03/03/15
Matrix:	AIR - Indoor Air Comp. Summa ID: A243,A542	**Date Received:**	03/06/15
Method:	TO-15	**Percent Solids:**	n/a
Project:	Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY		

VOA TO15 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
460-00-4	4-Bromofluorobenzene	106%	94%	89%	65-128%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	3.82	600	ppbv	JNB
	alkane	4.32	6.2	ppbv	J
	alkane	4.58	100	ppbv	J
	alkane	10.55	12	ppbv	J
	alkane	10.94	160	ppbv	J
	alkane	11.03	60	ppbv	J
	alkene	11.17	5.9	ppbv	J
	alkane	11.26	250	ppbv	J
	alkene	11.53	16	ppbv	J
	alkane	11.61	46	ppbv	J
108-87-2	Cyclohexane, methyl-	12.88	43	ppbv	JN
	alkene	13.24	17	ppbv	J
123-86-4	Acetic acid, butyl ester	15.27	8.1	ppbv	JN
	alkane	20.69	6.3	ppbv	J
	alkane	22.32	8.6	ppbv	J
	system artifact	23.01	36	ppbv	J
	Total TIC, Volatile		739.1	ppbv	J

(a) Result is from Run# 3
(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DB-DUP
Lab Sample ID: JB89441-5
Matrix: AIR - Indoor Air Comp. Summa ID: A731,A727
Method: TO-15
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

Date Sampled: 03/03/15
Date Received: 03/06/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W10245.D	1	03/14/15	ML	n/a	n/a	V5W404
Run #2	3W46271.D	1.48	03/16/15	YMH	n/a	n/a	V3W1759
Run #3	3W46275.D	59.2	03/16/15	YMH	n/a	n/a	V3W1759

	Initial Volume
Run #1	400 ml
Run #2	20.0 ml
Run #3	200 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	2230 [a]	24	13	ppbv		5300 [a]	57	31	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.034	ppbv		ND	0.44	0.075	ug/m3
71-43-2	78.11	Benzene	0.73	0.20	0.025	ppbv		2.3	0.64	0.080	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.029	ppbv		ND	1.3	0.19	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.035	ppbv		ND	2.1	0.36	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.033	ppbv		ND	0.78	0.13	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.035	ppbv		ND	0.87	0.15	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.047	ppbv		ND	1.0	0.24	ug/m3
75-15-0	76.14	Carbon disulfide	0.35	0.20	0.031	ppbv		1.1	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.034	ppbv		ND	0.92	0.16	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.042	ppbv		ND	0.53	0.11	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.024	ppbv		ND	0.98	0.12	ug/m3
74-87-3	50.49	Chloromethane	0.71	0.20	0.079	ppbv		1.5	0.41	0.16	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.037	ppbv		ND	0.63	0.12	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.032	ppbv		ND	1.0	0.17	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.025	ppbv		ND	1.3	0.16	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	0.027	ppbv		ND	0.69	0.093	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.027	ppbv		ND	0.81	0.11	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.052	ppbv		ND	0.79	0.21	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv		ND	1.5	0.21	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.023	ppbv		ND	0.81	0.093	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.029	ppbv		ND	0.92	0.13	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.12	ppbv		ND	0.72	0.43	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.47	0.20	0.030	ppbv		2.3	0.99	0.15	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.038	ppbv		ND	1.7	0.32	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.070	ppbv		ND	0.79	0.28	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.023	ppbv		ND	0.79	0.091	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.025	ppbv		ND	0.91	0.11	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.033	ppbv		ND	1.2	0.20	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.029	ppbv		ND	1.2	0.17	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DB-DUP
Lab Sample ID: JB89441-5
Matrix: AIR - Indoor Air Comp. Summa ID: A731,A727
Method: TO-15
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

Date Sampled: 03/03/15
Date Received: 03/06/15
Percent Solids: n/a

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.037	ppbv		ND	1.2	0.22	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.025	ppbv		ND	0.91	0.11	ug/m3
64-17-5	46.07	Ethanol	941 [a]	59	20	ppbv		1770 [a]	110	38	ug/m3
100-41-4	106.2	Ethylbenzene	4.5	0.20	0.035	ppbv		20	0.87	0.15	ug/m3
141-78-6	88	Ethyl Acetate	1.8	0.20	0.061	ppbv		6.5	0.72	0.22	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.88	0.20	0.032	ppbv		4.3	0.98	0.16	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.040	ppbv		ND	1.5	0.31	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	0.22	ug/m3
142-82-5	100.2	Heptane	466 [b]	5.9	0.63	ppbv		1910 [b]	24	2.6	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.051	ppbv		ND	2.1	0.54	ug/m3
110-54-3	86.17	Hexane	1.2	0.20	0.042	ppbv		4.2	0.70	0.15	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.064	ppbv		ND	0.82	0.26	ug/m3
67-63-0	60.1	Isopropyl Alcohol	20.3	0.20	0.066	ppbv		49.9	0.49	0.16	ug/m3
75-09-2	84.94	Methylene chloride	0.36	0.20	0.13	ppbv		1.3	0.69	0.45	ug/m3
78-93-3	72.11	Methyl ethyl ketone	2.3	0.20	0.040	ppbv		6.8	0.59	0.12	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	11.9	0.20	0.042	ppbv		48.8	0.82	0.17	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.041	ppbv		ND	0.72	0.15	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.036	ppbv		ND	0.82	0.15	ug/m3
115-07-1	42	Propylene	ND	0.50	0.048	ppbv		ND	0.86	0.082	ug/m3
100-42-5	104.1	Styrene	0.20	0.20	0.033	ppbv		0.85	0.85	0.14	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.040	ppbv		ND	1.4	0.27	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.035	ppbv		ND	1.1	0.19	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.061	ppbv		ND	1.5	0.45	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	3.8	0.20	0.029	ppbv		19	0.98	0.14	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	1.1	0.20	0.029	ppbv		5.4	0.98	0.14	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	2.5	0.20	0.025	ppbv		12	0.93	0.12	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.63	0.20	0.044	ppbv		1.9	0.61	0.13	ug/m3
127-18-4	165.8	Tetrachloroethylene	2.4	0.040	0.037	ppbv		16	0.27	0.25	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.30	0.20	0.049	ppbv		0.88	0.59	0.14	ug/m3
108-88-3	92.14	Toluene	79.1 [b]	5.9	0.89	ppbv		298 [b]	22	3.4	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.030	ppbv		ND	0.21	0.16	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.26	0.20	0.029	ppbv		1.5	1.1	0.16	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.031	ppbv		ND	0.51	0.079	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.095	ppbv		ND	0.70	0.33	ug/m3
	106.2	m,p-Xylene	17.7	0.20	0.069	ppbv		76.9	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	7.2	0.20	0.034	ppbv		31	0.87	0.15	ug/m3
1330-20-7	106.2	Xylenes (total)	24.9	0.20	0.034	ppbv		108	0.87	0.15	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DB-DUP		
Lab Sample ID:	JB89441-5	**Date Sampled:**	03/03/15
Matrix:	AIR - Indoor Air Comp. Summa ID: A731,A727	**Date Received:**	03/06/15
Method:	TO-15	**Percent Solids:**	n/a
Project:	Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY		

VOA TO15 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
460-00-4	4-Bromofluorobenzene	109%	94%	90%	65-128%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	3.81	620	ppbv	JNB
	alkane	4.32	6.3	ppbv	J
	alkane	4.58	100	ppbv	J
	alkane	10.55	13	ppbv	J
	alkane	11.03	62	ppbv	J
	alkene	11.18	5.5	ppbv	J
	alkane	11.26	250	ppbv	J
	alkene	11.53	16	ppbv	J
	alkane/alkene	11.62	48	ppbv	J
108-87-2	Cyclohexane, methyl-	12.88	42	ppbv	JN
	alkene	13.24	18	ppbv	J
123-86-4	Acetic acid, butyl ester	15.27	8.3	ppbv	JN
	alkane	20.69	6.6	ppbv	J
	alkane	22.32	8.4	ppbv	J
	system artifact	23.01	27	ppbv	J
	alkane	23.59	4.4	ppbv	J
	Total TIC, Volatile		588.5	ppbv	J

(a) Result is from Run# 3
(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DB-TB
Lab Sample ID: JB89441-6
Matrix: AIR - Trip Blank Air Summa ID: A1080
Method: TO-15
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

Date Sampled: 03/04/15
Date Received: 03/06/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W10243.D	1	03/14/15	ML	n/a	n/a	V5W404
Run #2							

	Initial Volume
Run #1	400 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	0.20	0.20	0.11	ppbv		0.48	0.48	0.26	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.034	ppbv		ND	0.44	0.075	ug/m3
71-43-2	78.11	Benzene	ND	0.20	0.025	ppbv		ND	0.64	0.080	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.029	ppbv		ND	1.3	0.19	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.035	ppbv		ND	2.1	0.36	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.033	ppbv		ND	0.78	0.13	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.035	ppbv		ND	0.87	0.15	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.047	ppbv		ND	1.0	0.24	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.034	ppbv		ND	0.92	0.16	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.042	ppbv		ND	0.53	0.11	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.024	ppbv		ND	0.98	0.12	ug/m3
74-87-3	50.49	Chloromethane	ND	0.20	0.079	ppbv		ND	0.41	0.16	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.037	ppbv		ND	0.63	0.12	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.032	ppbv		ND	1.0	0.17	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.025	ppbv		ND	1.3	0.16	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	0.027	ppbv		ND	0.69	0.093	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.027	ppbv		ND	0.81	0.11	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.052	ppbv		ND	0.79	0.21	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv		ND	1.5	0.21	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.023	ppbv		ND	0.81	0.093	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.029	ppbv		ND	0.92	0.13	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.12	ppbv		ND	0.72	0.43	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	0.20	0.030	ppbv		ND	0.99	0.15	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.038	ppbv		ND	1.7	0.32	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.070	ppbv		ND	0.79	0.28	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.023	ppbv		ND	0.79	0.091	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.025	ppbv		ND	0.91	0.11	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.033	ppbv		ND	1.2	0.20	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.029	ppbv		ND	1.2	0.17	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.037	ppbv		ND	1.2	0.22	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.025	ppbv		ND	0.91	0.11	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DB-TB
Lab Sample ID: JB89441-6
Matrix: AIR - Trip Blank Air Summa ID: A1080
Method: TO-15
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

Date Sampled: 03/04/15
Date Received: 03/06/15
Percent Solids: n/a

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	ND	0.50	0.17	ppbv		ND	0.94	0.32	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.20	0.035	ppbv		ND	0.87	0.15	ug/m3
141-78-6	88	Ethyl Acetate	ND	0.20	0.061	ppbv		ND	0.72	0.22	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.032	ppbv		ND	0.98	0.16	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.040	ppbv		ND	1.5	0.31	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	0.22	ug/m3
142-82-5	100.2	Heptane	ND	0.20	0.021	ppbv		ND	0.82	0.086	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.051	ppbv		ND	2.1	0.54	ug/m3
110-54-3	86.17	Hexane	ND	0.20	0.042	ppbv		ND	0.70	0.15	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.064	ppbv		ND	0.82	0.26	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	0.20	0.066	ppbv		ND	0.49	0.16	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.20	0.13	ppbv		ND	0.69	0.45	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	0.20	0.040	ppbv		ND	0.59	0.12	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.042	ppbv		ND	0.82	0.17	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.041	ppbv		ND	0.72	0.15	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.036	ppbv		ND	0.82	0.15	ug/m3
115-07-1	42	Propylene	ND	0.50	0.048	ppbv		ND	0.86	0.082	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.033	ppbv		ND	0.85	0.14	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.040	ppbv		ND	1.4	0.27	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.035	ppbv		ND	1.1	0.19	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.061	ppbv		ND	1.5	0.45	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.20	0.029	ppbv		ND	0.98	0.14	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.029	ppbv		ND	0.98	0.14	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.20	0.025	ppbv		ND	0.93	0.12	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.044	ppbv		ND	0.61	0.13	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	0.040	0.037	ppbv		ND	0.27	0.25	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	0.049	ppbv		ND	0.59	0.14	ug/m3
108-88-3	92.14	Toluene	ND	0.20	0.030	ppbv		ND	0.75	0.11	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.030	ppbv		ND	0.21	0.16	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.20	0.029	ppbv		ND	1.1	0.16	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.031	ppbv		ND	0.51	0.079	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.095	ppbv		ND	0.70	0.33	ug/m3
	106.2	m,p-Xylene	ND	0.20	0.069	ppbv		ND	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	ND	0.20	0.034	ppbv		ND	0.87	0.15	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.20	0.034	ppbv		ND	0.87	0.15	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	107%		65-128%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DB-TB		
Lab Sample ID:	JB89441-6	**Date Sampled:**	03/04/15
Matrix:	AIR - Trip Blank Air Summa ID: A1080	**Date Received:**	03/06/15
Method:	TO-15	**Percent Solids:**	n/a
Project:	Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY		

VOA TO15 List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	3.79	110	ppbv	JN
	Total TIC, Volatile		0	ppbv	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DB-AA
Lab Sample ID: JB89441-7
Matrix: AIR - Ambient Air Comp. Summa ID: A1074
Method: TO-15
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

Date Sampled: 03/04/15
Date Received: 03/06/15
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W10244.D	1	03/14/15	ML	n/a	n/a	V5W404
Run #2							

	Initial Volume
Run #1	400 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	2.3	0.20	0.11	ppbv		5.5	0.48	0.26	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.034	ppbv		ND	0.44	0.075	ug/m3
71-43-2	78.11	Benzene	0.23	0.20	0.025	ppbv		0.73	0.64	0.080	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.029	ppbv		ND	1.3	0.19	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.035	ppbv		ND	2.1	0.36	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.033	ppbv		ND	0.78	0.13	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.035	ppbv		ND	0.87	0.15	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.047	ppbv		ND	1.0	0.24	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.034	ppbv		ND	0.92	0.16	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.042	ppbv		ND	0.53	0.11	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.024	ppbv		ND	0.98	0.12	ug/m3
74-87-3	50.49	Chloromethane	0.49	0.20	0.079	ppbv		1.0	0.41	0.16	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.037	ppbv		ND	0.63	0.12	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.032	ppbv		ND	1.0	0.17	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.025	ppbv		ND	1.3	0.16	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	0.027	ppbv		ND	0.69	0.093	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.027	ppbv		ND	0.81	0.11	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.052	ppbv		ND	0.79	0.21	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.027	ppbv		ND	1.5	0.21	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.023	ppbv		ND	0.81	0.093	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.029	ppbv		ND	0.92	0.13	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.12	ppbv		ND	0.72	0.43	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.53	0.20	0.030	ppbv		2.6	0.99	0.15	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.038	ppbv		ND	1.7	0.32	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.070	ppbv		ND	0.79	0.28	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.023	ppbv		ND	0.79	0.091	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.025	ppbv		ND	0.91	0.11	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.033	ppbv		ND	1.2	0.20	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.029	ppbv		ND	1.2	0.17	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.037	ppbv		ND	1.2	0.22	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.025	ppbv		ND	0.91	0.11	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DB-AA
Lab Sample ID: JB89441-7
Matrix: AIR - Ambient Air Comp. Summa ID: A1074
Method: TO-15
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY

Date Sampled: 03/04/15
Date Received: 03/06/15
Percent Solids: n/a

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	1.7	0.50	0.17	ppbv		3.2	0.94	0.32	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.20	0.035	ppbv		ND	0.87	0.15	ug/m3
141-78-6	88	Ethyl Acetate	7.4	0.20	0.061	ppbv		27	0.72	0.22	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.032	ppbv		ND	0.98	0.16	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.040	ppbv		ND	1.5	0.31	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	0.22	ug/m3
142-82-5	100.2	Heptane	ND	0.20	0.021	ppbv		ND	0.82	0.086	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.051	ppbv		ND	2.1	0.54	ug/m3
110-54-3	86.17	Hexane	ND	0.20	0.042	ppbv		ND	0.70	0.15	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.064	ppbv		ND	0.82	0.26	ug/m3
67-63-0	60.1	Isopropyl Alcohol	0.43	0.20	0.066	ppbv		1.1	0.49	0.16	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.20	0.13	ppbv		ND	0.69	0.45	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.38	0.20	0.040	ppbv		1.1	0.59	0.12	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.042	ppbv		ND	0.82	0.17	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.041	ppbv		ND	0.72	0.15	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.036	ppbv		ND	0.82	0.15	ug/m3
115-07-1	42	Propylene	ND	0.50	0.048	ppbv		ND	0.86	0.082	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.033	ppbv		ND	0.85	0.14	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.040	ppbv		ND	1.4	0.27	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.035	ppbv		ND	1.1	0.19	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.061	ppbv		ND	1.5	0.45	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.23	0.20	0.029	ppbv		1.1	0.98	0.14	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.029	ppbv		ND	0.98	0.14	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.20	0.025	ppbv		ND	0.93	0.12	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.044	ppbv		ND	0.61	0.13	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	0.040	0.037	ppbv		ND	0.27	0.25	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	0.049	ppbv		ND	0.59	0.14	ug/m3
108-88-3	92.14	Toluene	0.46	0.20	0.030	ppbv		1.7	0.75	0.11	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.030	ppbv		ND	0.21	0.16	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.25	0.20	0.029	ppbv		1.4	1.1	0.16	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.031	ppbv		ND	0.51	0.079	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.095	ppbv		ND	0.70	0.33	ug/m3
	106.2	m,p-Xylene	0.34	0.20	0.069	ppbv		1.5	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	ND	0.20	0.034	ppbv		ND	0.87	0.15	ug/m3
1330-20-7	106.2	Xylenes (total)	0.34	0.20	0.034	ppbv		1.5	0.87	0.15	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	108%		65-128%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DB-AA		
Lab Sample ID:	JB89441-7	**Date Sampled:**	03/04/15
Matrix:	AIR - Ambient Air Comp. Summa ID: A1074	**Date Received:**	03/06/15
Method:	TO-15	**Percent Solids:**	n/a
Project:	Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY		

VOA TO15 List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	carbon dioxide	3.79	760	ppbv	J
	Total TIC, Volatile		0	ppbv	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New Jersey ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Summa Canister and Flow Controller Log

CERT AIR (ALL)

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

Air Sampling Field Data Sheet

FED-EX Tracking #

Bottle Order Control # MP-2/19/2015-7

PAGE 1 OF 1

Lab Quote #

Lab Job # JB89441

Client / Reporting Information

Company Name: Forensic Environmental Services

Address: 113 John Robert Thomas Dr.

City: Exton State: PA Zip:

Project Contact: Bob Zei E-mail: forensic@chesco.com

Phone #: 610-594-3940 Fax #:

Sampler(s) Name(s): Bob Zei, Jeff Christyhw

Project Name: Fmr Norton/Nashua Tape

Street: 2600 Seventh Ave

City: Watervliet State: NY

Project #:

Client Purchase Order #: 029.09

Weather Parameters

Temperature (Fahrenheit) Start: 10° Maximum: 40 Stop: 33 Minimum: 3°

Atmoshpheric Pressure (inches of Hg) Start: 30.29 Maximum: 30.29 Stop: 29.99 Minimum: 29.99

Other weather comment: Lt. Precip/Snow in PM

Lab Sample #	Field ID / Point of Collection	Air Type: Indoor(I) Soil Vap(SV) Ambient(A)	Sampling Equipment Info: Canister Serial #	Canister Size 6L or 1L	Flow Controller Serial #	Start Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Interior Temp (F)	Sampler Init.	Stop Sampling Information: Date	Time (24hr clock)	Canister Pressure ("Hg)	Interior Temp (F)	Sampler Init.	Standard TO-15 Reporting List	+ TICs
1	DB-VMP1	SV	A1025	6L	C235	3-3-15	0900	30+	68°	RWZ	3-3-15	1700	7.5	66°	RWZ	X	X
2 ☆	DB-VMP2 FC652	SV	A1175	6L	FC364	3-3-15	0940	30.0	48°	RWZ	3-3-15	1740	7.0	48°	RWZ	X	X
3	DB-IA1	I	A1061	6L	FC364	3-3-15	0825	30.0	72°	RWZ	3-3-15	1625	6.5	72°	RWZ	X	X
4	DB-IA2	I	A243	6L	FC635	3-3-15	0820	28.8	72°	RWZ	3-3-15	1620	6.0	72°	RWZ	X	X
5	DB-DUP	I	A731	6L	FC277	3-3-15	0820	30+	72°	RWZ	3-3-15	1620	8.5	72°	RWZ	X	X
	DB-AA	A	A759	6L	C243	3-3-15	0830	23	10°	RWZ	3-3-15	1000	0	11°	RWZ		
6	DB-TB	TB	A1080	6L	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	X	X
7	DB-AA	A	A1074	6L	FC355	3-4-15	1218	30+	37°	JWC	3-4-15	2018	9.0	33°	JWC	X	X

Turnaround Time (Business days)

Standard - 15 Days: X

10 Day

5 Day

3 Day

2 Day

1 Day

Other

Approved By:

Date:

Data Deliverable Information

All NJDEP TO-15 is mandatory ~~Full T1~~

Comm A

Comm B

Reduced T2

Full T1

Other: ✓

Full Category B Report NYSDEC

Comments / Remarks

Do not run DB-AA canister #A759, faulty regulator led to inaccurate collection.

☆ FC652 @ 3/6/15

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Laboratory: 1 Clay Mansard	Date Time: 2/27/15 12:10	Received By: 1	Relinquished By: 2	Date Time: 3/6/15 1300	Received By: 2
Relinquished by: 3	Date Time: 3/6/15 1823	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #		

INITIAL ASESSMENT

LABEL VERIFICATION

JB89441: Chain of Custody

Page 1 of 11

Unused Summa Canister Return Form

Client: Forensic Env. Job # JB89441

# of Summas: 1 # of Flow Controllers:

Summa Canister Numbers	Flow Controller Numbers
-8 A759	

Received via: Accutest Courier
(Attach any client paperwork, documentation, or airbills if available)

Received by: [signature] Date/Time: 3/6/15 1823

Notes:

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB89441 **Client:** **Project:**

Date / Time Received: 3/6/2015 6:23:00 PM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Initial/Adjusted):

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:			
3. Cooler media:			
4. No. Coolers:	0		

Quality Control Preservatio	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories

CANISTERS PREPARATION AND CERTIFICATION LOG

PREP BATCH #: CP7551

CANISTER TYPE: (check one)		
	TO-15	LL
	TO-3	
	MINI-CAN	

Test Gauge ID: TG- 4

	CANISTER LEAK CERTIFICATION										FINAL VACUUM (1)		
	CANISTER SERIAL #	INITIAL PSIG	INITIAL DATE	INITIAL TIME	FINAL PSIG (2)	FINAL DATE	FINAL TIME (3)	INITIALS	DIFF PSIG	PRIOR SAMPLE ID	Oven ID	DATE	INIT	mtorr(1)
1	A478	21	2/12/15	3:00PM	7	2/20/15	9:00AM	ML	14	JB87853-17	10-			
2	A342				4				17	-6	10-			
3	A585				21				0	-21	10-	2/20/15	ML	10
4	A663				11				10	-15	10-			
5	A665				19				2	-11	10-	2/20/15	ML	10
6	A1097				19				2	-16	10-			
7	A759				19	2/16/15	3:30PM	YH	2	-1	10-			
8	A861				21	2/20/15	9:00AM	ML	0	-3	10-			
9	A231				19				2	-7	10-			
10	A1160				14				7	-8	10-			
11	A672				20				1	-5	10-			
12	A245				19				2	-4	10-			
13											10-			
14											10-			
15											10-			
16											10-			
17											10-			
18											10-			
19											10-			
20											10-			
21											10-			

All strikeouts must be initialed, dated and a reason code applied as follows: # 1= Reviewer Correction Error; # 2 = Transcription; # 3 = Computer Miscalculation; # 4 = Analyst's Correction Error.

CERTIFICATION CANISTER ID: A759 COMMENTS:

(1) Final Vacuum must be < 50 mtorr. Note that 50 mtorr is equivalent to 0.05mm Hg as per EPA TO15 protocol for final vacuum.
(2) The difference between the Initial psig and Final psig must be < 2psig.
(3) Final time must be at least 24 hours from the initial time.

Form: AT006-05, Rev Date: 08/14/13

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JB89441: Chain of Custody
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Accutest Laboratories

CANISTERS PREPARATION AND CERTIFICATION LOG

PREP BATCH #: CP7554

CANISTER TYPE: (check one)		
	TO-15	6L
	TO-3	
	MINI-CAN	

Test Gauge ID: TG- 4

	CANISTER SERIAL #	CANISTER LEAK CERTIFICATION: INITIAL PSIG	INITIAL DATE	INITIAL TIME	FINAL PSIG (2)	FINAL DATE	FINAL TIME (3)	INITIALS	DIFF PSIG	PRIOR SAMPLE ID	Oven ID	FINAL VACUUM (1): DATE	INIT	mtorr(1)
1	A252	22	2/13/15	9:30am	22	2/19/15	12:00PM	ML	0	JB87879-8	10- F	2/19/15	ML	10
2	A1054				22				0	JB87856-1	10- F			
3	A877				22				0	-4	10- F			
4	A677				21				1	JB87681-3	10- F			
5	A283				22				0	-1	10- F			
6	A1039				21				1	-2	10- F			
7	A367				21				1	JB87664-15	10- F			
8	A337				21				1	-13	10- F			
9	A181				22				0	-25	10- F			
10	A1162				21				1	JB87539-1	10- F			
11	A1175				22	2/17/15	4:00pm	YH	0	JB87664-19	10- F			
12	A305	↓	↓	↓	21	2/19/15	12:00PM	ML	1	none	10- F	↓	↓	↓
13											10-			
14											10-			
15											10-			
16											10-			
17											10-			
18											10-			
19											10-			
20											10-			
21											10-			

All strikeouts must be initialed, dated and a reason code applied as follows: # 1= Reviewer Correction Error; # 2 = Transcription; # 3 = Computer Miscalculation; # 4 = Analyst's Correction Error.

CERTIFICATION CANISTER ID: A1175 COMMENTS:

(1) Final Vacuum must be < 50 mtorr. Note that 50 mtorr is equivalent to 0.05mm Hg as per EPA TO15 protocol for final vacuum.
(2) The difference between the Initial psig and Final psig must be < 2psig.
(3) Final time must be at least 24 hours from the initial time.

Form: AT008-05, Rev Date: 08/14/13

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JB89441: Chain of Custody
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PREP BATCH #: CP7558

CANISTER TYPE: (check one)	TO-15	LL
	TO-3	
	MINI-CAN	

Test Gauge ID: TG-

	CANISTER SERIAL #	CANISTER LEAK CERTIFICATION: INITIAL PSIG	INITIAL DATE	INITIAL TIME	FINAL PSIG (2)	FINAL DATE	FINAL TIME (3)	INITIALS	DIFF PSIG	PRIOR SAMPLE ID	Oven ID	FINAL VACUUM (1): DATE	INIT	mtorr(1)
1	A250	22.5	2/17/15	9:00AM	21.5	2/20/15	5:00PM	RD	1		10- E	2/25/15	RD	10
2	A485				19				3.5		10- E			
3	A1033				20.5				2		10- E			
4	A731				22	2/19/15	5:00PM	YH	0.5		10- E			
5	A388				20.5	2/20/15	5:00PM	RD	2		10- E			
6	A484				14				8.5		10- E			
7	A856				16				6.5		10- E			
8	A288				10.5				12		10- E			
9	A736				22.5				6		10- E			
10	A710				13				9.5		10- E			
11	A1087				16				6.5		10- E			
12	A449	↓	↓	↓	16				6.5		10- E			
13											10-			
14											10-			
15											10-			
16											10-			
17											10-			
18											10-			
19											10-			
20											10-			
21											10-			

All strikeouts must be initialed, dated and a reason code applied as follows: # 1= Reviewer Correction Error; # 2 = Transcription; # 3 = Computer Miscalculation; # 4 = Analyst's Correction Error.

CERTIFICATION CANISTER ID: A731 COMMENTS:

(1) Final Vacuum must be < 50 mtorr. Note that 50 mtorr is equivalent to 0.05mm Hg as per EPA TO15 protocol for final vacuum.
(2) The difference between the Initial psig and Final psig must be < 2psig.
(3) Final time must be at least 24 hours from the initial time.

Accutest Laboratories

CANISTERS PREPARATION AND CERTIFICATION LOG

PREP BATCH #: CP7559

CANISTER TYPE:	TO-15	6L
(check one)	TO-3	
	MINI-CAN	

Test Gauge ID: TG-

CANISTER LEAK CERTIFICATION

	CANISTER SERIAL #	INITIAL PSIG	INITIAL DATE	INITIAL TIME	FINAL PSIG (2)	FINAL DATE	FINAL TIME (3)	INITIALS	DIFF PSIG	PRIOR SAMPLE ID	Oven ID
1	A664	23	2/17/15	5:00PM	23	2/23/15	4:00PM	RD	0	JB87507-9	10- F
2	A350				23				0	-5	10- F
3	A253				22				1	-19	10- F
4	A1066				23				0	-16	10- F
5	A1174				23				0	-13	10- F
6	A347				21				2	JB88119-3 (OL)	10- F
7	~~A1060~~ A1110				23				0	~~JB87716-1~~ None	10- F
8	A208				23				0	MC 2/17 JB87716-3	10- F
9	A774				21				2	JB87716-4	10- F
10	A647				23				0	-5	10- F
11	A1025				23	2/19/15	5:00PM	YH	0	-2	10- F
12	A655				23	2/27/15	4:00PM	RD	0	JB88318-14	10- F
13											10-
14											10-
15											10-
16											10-
17											10-
18											10-
19											10-
20											10-
21											10-

FINAL VACUUM (1)

DATE	INIT	mtorr(1)
2/23/15	RD	10

All strikeouts must be initialed, dated and a reason code applied as follows: # 1= Reviewer Correction Error; # 2 = Transcription; # 3 = Computer Miscalculation; # 4 = Analyst's Correction Error.

CERTIFICATION CANISTER ID: A1025 COMMENTS: A1060 replaced w/ A1110; A1060 removed due to water in summa

(1) Final Vacuum must be < 50 mtorr. Note that 50 mtorr is equivalent to 0.05mm Hg as per EPA TO15 protocol for final vacuum.
(2) The difference between the Initial psig and Final psig must be < 2psig.
(3) Final time must be at least 24 hours from the initial time.

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JB89441: Chain of Custody
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Accutest Laboratories

CANISTERS PREPARATION AND CERTIFICATION LOG

PREP BATCH #: CP7561

CANISTER TYPE: (check one)		
	TO-15	LL
	TO-3	
	MINI-CAN	

Test Gauge ID: TG-

	CANISTER SERIAL #	CANISTER LEAK CERTIFICATION: INITIAL PSIG	INITIAL DATE	INITIAL TIME	FINAL PSIG (2)	FINAL DATE	FINAL TIME (3)	INITIALS	DIFF PSIG	PRIOR SAMPLE ID	Oven ID	FINAL VACUUM (1): DATE	INIT	mtorr(1)
1	A196	23	2/17/15	5:00AM	23	2/23/15	5:00PM	ED	0	JB887871-6	10-E	2/23/15	ED	10
2	A1028	"	"	"	22.5	"	"	"	0.5	JB887999-1	10-E	"	"	"
3	A369	"	"	"	23	"	"	"	0	JB888202-12	10-E			
4	A249	"	"	"	9	"	"	"	14	none	10-E			
5	A1187	"	"	"	23	"	"	"	0	L	10-E	2/23/15	ED	10
6	A1095	"	"	"	23	"	"	"	0	JB888318-16	10-E	"	"	"
7	A905	"	"	"	23	"	"	"	0	-9	10-E			
8	A1201	"	"	"	23	"	"	"	0	-15	10-E			
9	A754	"	"	"	23	"	"	"	0	-11	10-E			
10	A1052	"	"	"	23	"	"	"	0	-10	10-E			
11	A768	"	"	"	23	"	"	"	0	-13	10-E			
12	A1061	"	"	"	23	2/19/15	4:20PM	TH	0	JB888036-2	10-E			
13											10-			
14											10-			
15											10-			
16											10-			
17											10-			
18											10-			
19											10-			
20											10-			
21											10-			

All strikeouts must be initialed, dated and a reason code applied as follows: # 1= Reviewer Correction Error; # 2 = Transcription; # 3 = Computer Miscalculation; # 4 = Analyst's Correction Error.

CERTIFICATION CANISTER ID: A1061 COMMENTS:

(1) Final Vacuum must be < 50 mtorr. Note that 50 mtorr is equivalent to 0.05mm Hg as per EPA TO15 protocol for final vacuum.
(2) The difference between the Initial psig and Final psig must be < 2psig.
(3) Final time must be at least 24 hours from the initial time.

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JB89441: Chain of Custody
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Accutest Laboratories

CANISTERS PREPARATION AND CERTIFICATION LOG

PREP BATCH #: CP7563

CANISTER TYPE: (check one)		
	TO-15	6L
	TO-3	
	MINI-CAN	

Test Gauge ID: TG- 4

	CANISTER LEAK CERTIFICATION									
	CANISTER SERIAL #	INITIAL PSIG	INITIAL DATE	INITIAL TIME	FINAL PSIG (2)	FINAL DATE	FINAL TIME (3)	INITIALS	DIFF PSIG	PRIOR SAMPLE ID	Oven ID
1	A1161	23	2/18/15	9:00AM	19	2/20/15	1:00pm	RD	4	JB87920-1	10-E
2	A1186	"	"	"	21	"	"	"	2	JB88036-1	10-E
3	A1030	"	"	"	22	"	"	"	1	-4	10-E
4	A841	"	"	"	22	"	"	"	1	-3	10-E
5	A447	"	"	"	18	"	"	"	5	JB87879-1	10-E
6	A216	"	"	"	15	"	"	"	8	-3	10-E
7	A364	"	"	"	19	"	"	"	4	-2	10-E
8	A243	"	"	"	22	2/20/15	3:20pm	YH	1	JB88000-1	10-E
9	A843	"	"	"	22	2/23/15	11:00AM	RD	1	-8	10-E
10	A1072	"	"	"	23	"	"	"	0	-7	10-E
11	A473	"	"	"	21	"	"	"	2	-4	10-E
12	A311	"	"	"	23	"	"	"	0	-9	10-E
13											10-
14											10-
15											10-
16											10-
17											10-
18											10-
19											10-
20											10-
21											10-

FINAL VACUUM (1)		
DATE	INIT	mtorr(1)
2/23/15	RD	10
"	"	"
2/23/15	RD	10
"	"	"
"	"	"
"	"	"

All strikeouts must be initialed, dated and a reason code applied as follows: # 1= Reviewer Correction Error; # 2 = Transcription; # 3 = Computer Miscalculation; # 4 = Analyst's Correction Error.

CERTIFICATION CANISTER ID: A243 COMMENTS:

(1) Final Vacuum must be < 50 mtorr. Note that 50 mtorr is equivalent to 0.05mm Hg as per EPA TO15 protocol for final vacuum.
(2) The difference between the Initial psig and Final psig must be < 2psig.
(3) Final time must be at least 24 hours from the initial time.

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Accutest Laboratories

CANISTERS PREPARATION AND CERTIFICATION LOG

PREP BATCH #: CP7573

CANISTER TYPE: (check one)		
	TO-15	
	TO-3	
	MINI-CAN	

Test Gauge ID: TG-

	CANISTER SERIAL #	CANISTER LEAK CERTIFICATION: INITIAL PSIG	INITIAL DATE	INITIAL TIME	FINAL PSIG (2)	FINAL DATE	FINAL TIME (3)	INITIALS	DIFF PSIG	PRIOR SAMPLE ID	Oven ID	FINAL VACUUM (1): DATE	INIT	mtorr(1)
1	A1000	24	2/23/15	3:00PM	23.5	2/26/15	8:00am	RD	0.5	JB88346-4	10- E	2/26/15	RO	10
2	A831				23.5	2/26	2:00	RD	0.5	-1	10-			
3	A1086				24	2/26/15	1:00 PM	RD	0	-3	10-			
4	A740				24				0	-2	10-			
5	A854				23.5				0.5	-5	10-			
6	A235				23.5				0.5	-6	10-			
7	A1099				23.5				0.5	JB88262-1	10-			
8	A857				23.5				0.5	JB88293-3	10-			
9	A1089				24				0	-1	10-			
10	A671				24				0	-4	10-			
11	A778				23				1	-2	10-			
12	A342				24				0	none	10-			
13											10-			
14											10-			
15											10-			
16											10-			
17											10-			
18											10-			
19											10-			
20											10-			
21											10-			

All strikeouts must be initialed, dated and a reason code applied as follows: # 1= Reviewer Correction Error; # 2 = Transcription; # 3 = Computer Miscalculation; # 4 = Analyst's Correction Error.

CERTIFICATION CANISTER ID: A831 COMMENTS:

(1) Final Vacuum must be < 50 mtorr. Note that 50 mtorr is equivalent to 0.05mm Hg as per EPA TO15 protocol for final vacuum.
(2) The difference between the Initial psig and Final psig must be < 2psig.
(3) Final time must be at least 24 hours from the initial time.

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JB89441: Chain of Custody
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Accutest Laboratories

CANISTERS PREPARATION AND CERTIFICATION LOG

PREP BATCH #: CP7586

CANISTER TYPE: (check one)		
	TO-15	
	TO-3	
	MINI-CAN	

Test Gauge ID: TG-

	CANISTER LEAK CERTIFICATION									
	CANISTER SERIAL #	INITIAL PSIG	INITIAL DATE	INITIAL TIME	FINAL PSIG (2)	FINAL DATE	FINAL TIME (3)	INITIALS	DIFF PSIG	PRIOR SAMPLE ID	Oven ID
1	A868	23	2/27/15	7:00Am	22.5	3/6/15	1:00Pm	RD	0.5	JB88452-5	10-
2	A1059	″	″	″	22.5	″	″	″	0.5	-3	10-
3	A483	″	″	″	22.5	″	″	″	0.5	-6	10-
4	A816	″	″	″	22	″	″	″	1	-4	10-
5	A359	″	″	″	23	″	″	″	0	JB88305-2	10-
6	A1071	″	″	″	22	″	″	″	1	-1	10-
7	A887	″	″	″	23	″	″	″	0	JB88879-9	10-
8	A877	″	″	″	22.5	″	″	″	0.5	JB88778-26	10-
9	A829	″	″	″	22.5	″	″	″	0.5	JB88641-1	10-
10	A1074	″	″	″	22.5	3/2/15	12:00pm	YK	0.5	JB87959-1	10-
11	A638	″	″	″	22.5	3/6/15	1:00Am	RD	0.5	———	10-
12	A1123	″	″	″	22.5	″	″	″	0.5	———	10-
13											10-
14											10-
15											10-
16											10-
17											10-
18											10-
19											10-
20											10-
21											10-

FINAL VACUUM (1)		
DATE	INIT	mtorr(1)
3/6/15	RD	10
″	″	″
″	″	″
″	″	″
″	″	″
″	″	″
″	″	″
″	″	″
3/2/15	RD	″
3/6/15	RD	10
″	″	″

All strikeouts must be initialed, dated and a reason code applied as follows: # 1= Reviewer Correction Error; # 2 = Transcription; # 3 = Computer Miscalculation; # 4 = Analyst's Correction Error.

CERTIFICATION CANISTER ID: A1074 COMMENTS:

(1) Final Vacuum must be < 50 mtorr. Note that 50 mtorr is equivalent to 0.05mm Hg as per EPA TO15 protocol for final vacuum.
(2) The difference between the Initial psig and Final psig must be < 2psig.
(3) Final time must be at least 24 hours from the initial time.

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JB89441: Chain of Custody
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Summa Canister and Flow Controller Log

Job Number: JB89441
Account: FESPAE Forensic Environmental Services
Project: Watervliet, NY, 2600 Seventh Avenue, Watervliet, NY
Received: 03/06/15

SUMMA CANISTERS

Shipping							Receiving					
Summa ID	L	Vac " Hg	Date Out	By	SCC Batch	SCC FileID	Sample Number	Date In	By	Vac " Hg	Pres psig	Final psig	Dil Fact
A1025	6	29.4	02/27/15	RD	CP7559	5W9737.D	JB89441-1	03/06/15	RD	6.5			1
A1175	6	29.4	02/27/15	RD	CP7554	3W45689.D	JB89441-2	03/06/15	RD	5.5			1
A1061	6	29.4	02/27/15	RD	CP7561	W50315.D	JB89441-3	03/06/15	RD	7.5			1
A243	6	29.4	02/27/15	RD	CP7563	3W45772.D	JB89441-4	03/06/15	RD	7			1
A731	6	29.4	02/27/15	RD	CP7558	3W45749.D	JB89441-5	03/06/15	RD	7			1
A1080	6	29.4	02/27/15	RD	CP7573	5W9851.D	JB89441-6	03/06/15	RD	29.4		1	1
A1074	6	29.4	03/03/15	RD	CP7586	3W45980.D	JB89441-7	03/06/15	RD	5.5			1

FLOW CONTROLLERS / OTHER

Shipping					Receiving			
Flow Crtl ID	Date Out	By	cc/ min	Time hrs.	Date In	By	cc/ min	Equipment Type
FC235	02/27/15	RD	9.4	8	03/06/15	RD	10.5	Flow Controller
FC248	02/27/15	RD	9.4	8	03/06/15	RD	9.9	Flow Controller
FC277	02/27/15	RD	9.4	8	03/06/15	RD	9.5	Flow Controller
FC355	03/03/15	RD	9.4	8	03/06/15	RD	9.6	Flow Controller
FC364	02/27/15	RD	9.4	8	03/06/15	RD	9.7	Flow Controller
FC635	02/27/15	RD	9.4	8	03/06/15	RD	9.9	Flow Controller
FC652	02/27/15	RD	9.4	8	03/06/15	RD	9.8	Flow Controller

Accutest Bottle Order(s):
MP-2/19/2015-7
MP-3/3/2015-8

Prep Date	Room Temp(F)	Bar Pres "Hg
02/27/15	70	29.92
03/03/15	70	29.92