2020 SOIL VAPOR INTRUSION MITIGATION SYSTEM ANNUAL REPORT and PROPOSED SYSTEM MODIFICATIONS FOR

REMEDIAL ACTION AT THE DEFENSE NATIONAL STOCKPILE CENTER SCOTIA DEPOT GLENVILLE, NEW YORK

Prepared For:

U.S. Army Corps of Engineers

Prepared By:

AECOM Technical Services

May 2021

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1 INTRODUCTION

This report has been prepared by AECOM on behalf of the United States Army Corps of Engineers (USACE) to document the fifth year of operation, maintenance and monitoring (O&M) of the soil vapor intrusion (SVI) mitigation systems at the Former Scotia Navy Depot (FSND) (Site). The Site is adjacent to the north side of New York State (NYS) Route 5 (Amsterdam Road) in the Town of Glenville, Schenectady County, New York. A Site location map is provided in Figure 1-1. After operating the SVI mitigation systems for five years, an evaluation was performed to determine if it is necessary to continue to operate the systems. This report presents the results of the recent SVI mitigation system monitoring and proposed system modifications for continued operation.

1.1 Site History

The Scotia Depot was built between 1942 and 1943 and was commissioned as a United States Navy facility on March 30, 1943. It served as a storage and supply depot for naval forces along the Atlantic coast and Europe, and as a storage and distribution point for National Stockpile materials. On January 1, 1960 the Navy turned the facility over to the General Services Administration (GSA). During the period between early 1966 and approximately 1973, the USACE/Army Material Command (AMC) leased buildings from the Navy for the fabrication and storage of vehicles as well as other military equipment. Additionally, between 1967 and 1969, the GSA and the Navy leased to the United States Army/Defense Supply Agency, buildings 202 and 203. The agreement indicates these buildings were used for the preservation and rail loading of trucks, and storage of trucks and vehicles.

Details on the groundwater portion of the remedy are provided in the Final Engineering Report (FER) (AECOM, 2017a) for the Site.

SVI investigations were conducted at off-Site and on-Site structures in relation to the groundwater impacts. An investigation was conducted to determine potential sources of the Trichloroethene (TCE) and detections of volatile organic compounds (VOCs) in some of the tested residential wells were consistent with the known groundwater contamination concentrations at the Defense National Stockpile Center Scotia Depot Site. The SVI evaluations conducted during the Expanded Site Investigation (ESI) performed by the New York State Department of Environmental Conservation (NYSDEC) (NYSDEC, 2007) included passive soil gas sampling on-Site and indoor air sampling at 10 off-Site properties. The results of the ESI SVI sampling indicated off-Site groundwater containing TCE was not influencing the quality of indoor air at homes that directly overlie or that are along the margins of the TCE groundwater plume.

1.2 Pre-Design Investigation for SSDS System Design

The 2010 Record of Decision (ROD) (NYSDEC, 2010) required monitoring and mitigation (if necessary) of soil vapor intrusion for the on-Site commercial buildings (buildings 201 through 204) that were over the volatile organic compound (VOC) plumes. A predesign investigation (PDI) was conducted by Stone Environmental in 2013 and 2014 to quantify the data gap and obtain information pertinent to any future remedial design to address SVI issues at the Site.

The first round of on-Site SVI sampling in 2013 collected 15 sub-slab samples from target

locations in buildings 201 through 204 and vacant buildings 403 and 404 and 11 co-located indoor air samples (including background ambient air samples). The analytical results of the SVI sampling were evaluated using the air guidelines provided in the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York (dated October 2006). The NYSDOH recommended strategies (no-action, monitoring, and/or mitigation), based upon NYSDOH Guidance, are presented in Figure 5 of the Final SVI Report (Stone, 2013) and included in Appendix A of this report. Areas of mitigation were recommended in each of buildings 201 through 204.

The second round of on-Site SVI sampling was performed in 2014 to replicate the 2013 SVI sampling in the 200-block buildings (Stone, 2014a). In March 2014, sub-slab and indoor air samples were collected from 11 sub-slab vapor locations, 10 indoor air sample locations, and in addition one background ambient outdoor location. In general, the samples were collected at the same locations as the 2013 sampling event. The analytical results of the 2014 SVI sampling were again evaluated using the air guidelines provided in the NYSDOH Guidance. Results indicated that carbon tetrachloride, 1-1-1-TCA, TCE, and PCE were present in the soil vapor and indoor air. Analytical results from these samples are presented on Figures 4 to 7 of the 2014 Stone Letter Report (Stone, 2014b) and included in this report as Appendix A.

The analytical results of the 2014 samples were similar to the 2013 results and indicated similar recommendations when compared to the NYSDOH Guidance, however there were three differences:

- Based on the results at location SV06/IA06, the western end of Building 201 was recommended for reasonable and practical actions in 2013, but for monitoring in 2014.
- Based on the results at locations SV09/IA09 and SV10/IA10, the eastern and western ends of Building 203 were recommended for monitoring in 2013, but for monitoring / mitigation in 2014.
- Based on the results at locations SV14/IA14 and SV15/IA15, the eastern and office area of Building 204 were recommended for monitoring in 2013, but for reasonable and practical actions in 2014.

The relative positions of NYSDOH recommended strategies for analytical results from the March 2014 sampling event, based upon NYSDOH guidance, are presented in Figure 8 of the 2014 Stone Letter Report (Stone, 2014a) and included in Appendix A.

All of the indoor air samples collected during the 2013 and 2014 PDI SVI samples were below the NYSDOH chemical specific air guideline values available at that time. In August 2015, the NYSDOH guideline values for TCE indoor air was updated reducing the value from 5 $\mu g/m^3$ to 2 $\mu g/m^3$. During the PDI SVI sampling events, TCE was detected in indoor air at 2.52 $\mu g/m^3$ in Building 203 in 2013 and 3.92 $\mu g/m^3$ in Building 204 but have since been reduced by the mitigation systems that were subsequently installed. However, the 2013 and 2014 sub-slab soil vapor concentrations exceeded the indoor air concentrations at every paired location. Based on the 2013 and 2014 PDI SVI sampling results, the sub-slab concentrations of carbon tetrachloride were identified as the primary compound driving the need for soil vapor intrusion mitigation in the buildings. A sub-slab concentration of TCE was also detected at one location requiring mitigation. Since no products containing carbon tetrachloride were identified in any of the buildings, soil vapor is assumed to be the source of carbon tetrachloride. A low concentration carbon

tetrachloride groundwater plume had been identified in earlier groundwater investigations, although no source was identified. In terms of groundwater impacts, the PDI reported only one well (MW-12) was slightly above the groundwater standard of 5 µg/L at 6.2 µg/L. More recent groundwater testing continues to report carbon tetrachloride at or slightly above the 5 µg/L groundwater standard (4.8 µg/L in 2019 and 8.0 µg/L in 2020) in MW-12R, a replacement well installed near the original location of MW-12 in 2018.

1.3 Remedial Action Implementation

In response to the ROD and subsequent monitoring, sub-slab depressurization systems (SSDSs) were installed in the on-site buildings 201, 202, 203 and 204 in order to mitigate the potential impacts of SVI from groundwater constituents of concern (COCs) on the indoor air quality in the buildings.

The SSDSs mitigate SVI by redirecting the soil vapor from the sub-slab area to the suction points and then into ambient air above the building, rather than through the slab into the building.

A Site layout map showing the locations of the groundwater plumes and buildings where SSDSs were installed is provided in Figure 1-2. Although the results of data comparison to the NYSDOH decision matrices indicated that mitigation was not required in all areas of each of the four buildings, SSDS systems were installed throughout each of the 200-block buildings as an additional precautionary measure. The Stone PDI results were the basis of the design for the SSDSs. Design and implementation details are provided in the SVI-Remedial Action Work Plan (SVI-RAWP) (AECOM, 2016). Installations of these SSDSs were completed from February 2016 through June 2016. All SSDSs were completed and operational by June 21, 2016. As an additional preventative measure, cracks in the building slabs were filled with caulk and sealed with an abrasion resistant coating. Crack sealing was completed in Building 201 on June 8, 2016, Building 202 on June 6, 2016, Building 203 on June 21, 2016, and Building 204 on June 9, 2016. Construction details and final system layout figures and are documented in the FER (AECOM, 2017a).

After the installations of the SSDSs were completed, the systems were turned on and underwent a communication test on June 30, 2016 to ensure that a sufficient vacuum was being generated. Each sub-slab vacuum monitoring point (8 locations per building) was tested for vacuum using a digital micro-manometer to ensure that the SSDSs were creating a pressure differential beneath the building slabs. A vacuum reading of negative 0.004 inches of water or greater indicated that the SSDSs were creating enough of a pressure differential to provide sufficient system operation to mitigate the potential SVI impacts. Initial vacuum monitoring results indicated that the SSDSs were creating a sufficient pressure differential to be considered operational. U-Tube manometer readings showing the sub-slab suction for each system were also recorded at this time. Results of the communication testing and U-Tube manometer readings are provided in Table 1-1.

2 OPERATION AND MAINTENANCE

2.1 On-Site System Monitoring

During the June 2020 monitoring event pressure readings were taken with a digital micro-manometer at each confirmation testing sub-slab vacuum monitoring point and U-tube manometers readings were recorded at the suction points throughout the building (see locations on Figure 1-2). The results of these readings are provided in Table 2-1.

In accordance with the Final Site Management Plan (SMP), dated November 2017 (revised September 2018, AECOM, 2017b), the SSDS was turned off six months prior to the December 2020 monitoring event. The SSD systems in all four buildings were turned off immediately following the June 2020 inspection event. Lack of vacuum was verified by spot checking the U-tube monometers and select sub-slab monitoring points in all four buildings. No pressure readings were collected during the December 2020 monitoring event.

The June 2020 U-Tube manometer readings produced stable results with one exception where the pressure was unable to be monitored due to damage to the system. Sub-slab pressure differential monitoring showed stable readings indicating that sufficient suction (minimum of negative 0.004 inches of water column) was being generated at 28 out of 30 accessible monitoring locations. Locations where U-Tube or sub-slab readings were not able to be obtained are indicated in Table 2-1. Lack of sufficient suction at the other locations could be due to doors and windows being opened in the buildings; however, overall a vacuum was being generated under the slab in June 2020 prior to the systems being turned off.

2.2 Off-Site Residential System

During the PDI (2013), offers for sampling were made by GSA to the four potentially impacted off-site residential properties; however, two property owners refused sampling and two did not respond to the offers. In 2015 the offer to sample was extended to the residents again given that one of the homes had changed owners since 2013. This new owner agreed to have his residence sampled and monitored. It was noted that the homeowner that agreed to sampling already had a mitigation system (radon) in place; therefore, no sampling was undertaken. Documentation of the offers and responses, or lack thereof, was provided to NYSDEC/DOH in separate correspondences.

In response to the homeowner's agreement to monitoring, AECOM performed an inspection of the homeowner's radon system and installed a vacuum gauge to allow for vacuum monitoring to ensure system functionality. During the first year of the SVI monitoring program this system was monitored for proper operation by AECOM on a monthly basis while AECOM personnel were on-Site during remedial action construction activities. Going forward the off-Site residential will be inspected/monitored on an annual basis in accordance with the Final Site Management Plan (SMP) (AECOM 2017b). During the December 2020 event the system was observed to be on and drawing a vacuum of negative 1.4" H_2O.

2.3 Annual Operation and Maintenance

The SSDSs operated without shutdown from when installation was completed in 2016

throughout the inspection event in June 2020. As described in Section 1.3, when the system was installed an initial communication test was performed to ensure adequate sub-slab vacuum and the U-tube manometer readings were recorded. No general maintenance to the systems was required during the first three years of operation other than repair of occasional damage caused by operations conducted by building tenants (additional details provided below).

In December of 2016, one SSDS suction point in Building 202 was noticed to have a fluctuating manometer. When this manometer was monitored during the June 2017 and June 2018 Site inspections, the fluctuation had stopped. This fluctuation was again observed during the December 2017, December 2018 and January 2020 sampling events, and appears to occur on a seasonal basis in the winter. Vacuum readings were taken at the nearby vacuum monitoring points to confirm that the suction point was still producing a sufficient sub-slab vacuum.

During the December 2018 Site inspection of the SVI mitigation systems located in buildings 201, 202, 203, and 204, AECOM observed damage to several systems likely due to tenant activities. On April 15 and 16, 2019 AECOM personnel mobilized to the Site with a subcontractor (Precision Environmental Services, PES) to repair the observed damages. A summary of the repairs conducted on the SVI mitigation systems is presented below:

- Building 201: Repaired broken PVC and replaced missing manometer at extraction point 12A; replaced broken manometer at extraction point 6A.
- Building 202: Repaired broken PVC at extraction point 6B; PES replaced the Radon Away fan on system 11 due to observed seasonal fluctuations of manometer readings (fluctuations only observed during winter monitoring).
- Building 204: Repaired broken PVC and adjusted gate valve at extraction point 5A; adjusted gate valve at extraction point 10A.

A broken manometer at extraction point 11A, and broken vapor pin at monitoring point 204-6 within Building 204 could not be repaired at this time due to lack of access within the required areas. These two locations were not accessible during the April 2019 repair event due to storage of materials within the area and were repaired during the June 2019 inspection and monitoring event.

Additional system damages in buildings 203, 202 and 201 were observed during the January 2020 monitoring event and most were able to be repaired during the week prior to indoor air sampling collection. In Building 203 suction point 203-9A was damaged at the base and two manometers were walled in due to some construction activities in the building. The suction point was repaired, and holes were cut in the wall by the property owner so that the manometers could be observed, and vacuum readings recorded, however the full PVC pipe is no longer visible due to being walled in. In Building 202 suction point 202-5A was broken at the base. In Building 201 vacuum monitoring point 202-7 was sheared off and unable to be repaired.

In June 2020, additional system damages were noted but no repairs were made at that time since the systems were being turned off in preparation for the December 2020 sampling/system evaluation event. The following damages were noted in June 2020:

- Building 201:
    - Suction point 201-5A is damaged at bottom

    - Suction point 201-6A is broken at the gate valve
    - Suction point 201-12A is missing a monometer
    - Monitoring point 201-7 is stripped from forklift damage and unable to be opened
    - Monitoring point 201-5 is missing
- Building 203:
    - Suction point 203-7A is damaged at the bottom
    - Suction point 203-8B is damaged at the bottom
    - Suction point 203-1B has a broken monometer
- Building 204:
    - Suction point 204-10A is damaged at the bottom

3 ANNUAL INDOOR AIR MONITORING

Indoor air samples and sub-slab pressure differential monitoring readings are collected from buildings 201-204 on a regular scheduled basis in accordance with the Final SMP, dated November 2017 (revised September 2018). Indoor air sampling occurs annually during the heating season (November 15 through March 15) and sub-slab differential readings are collected semi-annually. The fifth monitoring event was conducted between December 8, 2020 and December 10, 2020 and included indoor air samples, and sub-slab air samples The purpose of this sampling event was to continue monitoring concentrations of the targeted volatile organic compounds (VOCs) in order to assess the need for continued use of the SSDSs with the intention to mitigate the potential for impacted soil vapor intrusion into the building. Sub slab samples were co-located with indoor air samples and collected via the permanently installed vapor pin sample collection points installed at the Site.

In addition to the indoor air and sub-slab vapor samples, one outdoor ambient air sample was collected concurrently to determine the background levels and extent to which outdoor sources may be influencing indoor air quality within the sampling area. Figure 3-1 provides the location of the outdoor air sample. The outdoor air sample location was placed upwind of the buildings in the vicinity of the previous (Stone Environmental) outdoor air sample locations. The weather conditions at the time of the sampling event, including the prevailing wind direction at the time of the outdoor canister placement, are included in Appendix B.

3.1 Sample Collection Methods

The December 2020 monitoring event was conducted in accordance with the SMP (AECOM, 2017b) and in accordance with the NYSDOH *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (NYSDOH October 2006; updated September 2013 and August 2015). A New York State Department of Health Indoor Air Quality Questionnaire and Building Inventory form was completed for each building prior to sample collection. A Photoionization detector (PID) was used to record the VOC level in parts per billion (ppb) at each chemical inventory location. Copies of the completed questionnaires are provided in Appendix C. Questionnaire findings did not indicate any substances in the buildings that would impact the air sampling results; however, there are some tenant activities in the buildings that may impact the air sample results. These tenant activities involve the use of heavy machinery in Buildings 201, 202 and 203. The NYSDOH recommends the collection of indoor air samples during the heating season, defined as November 15 through March 31. Air samples are collected when HVAC systems are active because their operation may cause negative pressures which can draw impacted vapors into the building. At the time of sampling, heating ventilation and air conditioning (HVAC) systems were in use in occupied sections of buildings 201, 202, 203 and 204.

A sample log sheet indicating the canister/regulator identification, sample start and stop time and canister vacuum readings of the canister before and after sampling is included in Appendix D. A PID was used to record the VOC level in ambient air at each sample location. Results of these readings are provided in Table 3-1. All samples were collected in a certified pre-evacuated 6-L Summa canister with a 24-hour regulator provided by the laboratory. Sample canisters were set up in designated locations consistent with previous sampling events and allowed to collect

the sample for a 24-hour period. Sample locations are identified on Figures 3-1 through Figure 3-5. Indoor Air sample canisters were set up with flexible tubing mechanically attached to the laboratory-provided flow regulator (compression fitting). The tubing was then attached to a stand that held the end of the tubing within the breathing zone. To test the integrity of the permanent sub-slab sampling ports, one sub-slab sampling port in each building was tested by conducting a helium leak test. All sub-slab sampling ports tested passed the helium leak test. Sub Slab samples were collected by attaching flexible tubing to the sample canister and attaching tubing to the designated sub slab sample collection ports. A detail of the sub-slab air monitoring port is provided in Figure 3-6. After the allotted sample collection period the sample canisters were retrieved, closed, and packaged for shipment to ALS Laboratory in Simi Valley, CA for analysis for targeted VOCs via EPA method TO-15 SIM.

3.2 Air Sample Results

Laboratory results for the indoor and outdoor air samples are presented in Table 3-1. Laboratory results for sub-slab vapor samples are presented in Table 3-2. The laboratory results were validated by an AECOM chemist and a full data usability summary report (DUSR) was prepared. The DUSR, included in Appendix F, indicated that all data points were usable, with some qualifications, and no data points were rejected. Full laboratory analytical results are included in Appendix E. Results obtained from the AECOM December 2020 sampling event were compared to the results obtained during previous sampling events conducted by AECOM (after the SSDS installation) and Stone Environmental (prior to the SSDS installation; Stone, 2014a). As shown in Tables 3-1 and 3-2, overall concentrations of chlorinated volatile organic compounds (CVOC) are lower than in the pre system installation (2014) indicating that the SSDSs are functioning as designed. Results from outdoor air monitoring have always shown consistently low concentrations of all CVOCs.

Table 3-2 includes a comparison to the May 2017 New York State Department of Health Soil Vapor/Indoor Air Matrices for soil vapor intrusion evaluation (DOH Decision Matrix) using the December 2020 indoor air and sub-slab vapor sampling results. Compared to the soil vapor intrusion evaluation conducted by Stone Environmental (the basis for design of the SSDS), the results of the December 2020 soil vapor intrusion evaluation are summarized below.

- Building 201:
    - In Building 201, the SSDS design was based upon carbon tetrachloride in both the sub-slab soil vapor and indoor air. Since 2014, sub-slab and indoor air concentrations of carbon tetrachloride have declined. Indoor air concentrations of carbon tetrachloride are equivalent to outdoor air concentrations. One sub-slab soil gas monitoring location exhibits carbon tetrachloride concentrations high enough to warrant continued mitigation (201SS-3). PID readings at the indoor air sample locations ranged from 64-110ppb and the highest reading at the chemical inventory locations was 263ppb.
- Building 202:
    - In Building 202, the SSDS design was based upon carbon tetrachloride in both the sub-slab vapor and indoor air. Results from the 2020 monitoring show a decline in carbon tetrachloride in sub-slab soil vapor compared to results from the 2014 monitoring and in indoor air to levels equivalent to the outdoor air; however,

compared to the DOH Decision Matrix, mitigation is still warranted in the area around 202SS-2 with continued monitoring in the remainder of the building based upon current sub-slab soil vapor concentrations at 202SS-1 and 202SS-3. PID readings at the indoor air sample locations ranged from 95-1163ppb and the highest reading at the chemical inventory locations was 607ppb.

  - Two sampling locations (202IA-2 and 202IA-3) had levels of tetrachloroethene (PCE) in indoor air exceeding the PCE concentration found in the background outdoor air sample. In both locations machinery is present that could influence the sampling results. No source of PCE was recorded during the building inventory survey.

- Building 203:
  - In Building 203, the SSDS design was based upon carbon tetrachloride and trichloroethene in both the sub-slab vapor and indoor air. Results from the 2020 monitoring show a decline in carbon tetrachloride in sub-slab soil vapor compared to results from the 2014 monitoring. In indoor air, levels of both carbon tetrachloride and tetrachloroethene have been reduced to concentrations equivalent to their respective outdoor air concentrations. Based upon the DOH Decision Matrix, mitigation is still warranted in parts of the building due to carbon tetrachloride in the sub-slab (203SS-2) and trichloroethene (203SS-3). PID readings at the indoor air sample locations ranged from 250-1024ppb and the highest reading at the chemical inventory locations was 7654ppb.
  - Two sampling locations (203IA-1 and 203IA-2) had levels of tetrachloroethene (PCE) in indoor air exceeding the PCE concentration found in the background outdoor air sample. In both locations machinery is present that could influence the sampling results. No source of PCE was recorded during the building inventory survey.
- Building 204:
  - In Building 204, the SSDS design was based upon carbon tetrachloride in sub-slab soil vapor and trichloroethene in indoor air. Since 2014, both carbon tetrachloride and trichloroethene concentrations in sub-slab and indoor air have declined. Indoor air concentrations of both compounds are at levels equivalent to outdoor air concentrations in 2020. No further action is required for Building 204 based upon the results from the December 2020 monitoring. PID readings at the indoor air sample locations ranged from 30-153ppb and the highest reading at the chemical inventory locations was 59ppb.

4 SUMMARY AND RECOMMENDATIONS

This report presents data from the fifth round of indoor air and first round of sub slab vapor sampling since installation of the SSDSs was completed in 2016. In accordance with the SMP, after five years of operation of the SSDSs, the indoor air and sub-slab vapor was evaluated to determine if continued mitigation is necessary. Based upon this evaluation, the following actions are recommended:

- Building 201:
    - As discussed in Section 3.2, this evaluation indicates the need for continued mitigation based upon the carbon tetrachloride results obtained from sampling sub-slab vapor at sampling location 201SS-3. To address the need for continued mitigation in this area, the four SSDSs located at the eastern end of the building designated as 201-5, 201-6, 201-11 and 201-12 (as shown on Figure 3-7) will continue to operate. These four SSDSs are all located within one contiguous space currently occupied by one tenant. Operation of the SSDS and monitoring of the building will continue in accordance with the SMP using vacuum monitoring points 201-5, 201-6, 201-7 and 201-8 and air sampling location 201IA-3. Operation of the remaining SSDSs in Building 201 will be discontinued.
- Building 202:
    - As discussed in Section 3.2, this evaluation indicates the need for continued mitigation based upon the carbon tetrachloride results obtained from sampling sub-slab vapor at sampling location 202SS-2 and continued monitoring based upon the results obtained at sampling locations 202SS-1 and 202SS-3. To address the need for continued mitigation and monitoring, the four SSDSs located at the eastern end of the building designated as 202-5, 202-6, 202-11 and 202-12 (as shown on Figure 3-8) will continue to operate. These four SSDSs are all located within one contiguous space currently occupied by one tenant. Operation of the SSDS and monitoring of the building will continue in accordance with the SMP using vacuum monitoring points 202-5, 202-6, 202-7 and 202-8 and air sampling locations 202IA-1, 202IA-2 and 202IA-3. Operation of the remaining SSDSs in Building 202 will be discontinued.
- Building 203:
    - As discussed in Section 3.2, this evaluation indicates the need for continued mitigation based upon carbon tetrachloride and trichloroethene results obtained from sampling sub-slab vapor at sampling locations 203SS-2 and 203SS-3, respectively. To address the need for continued mitigation and monitoring, the following SSDSs will be operated: 203-2, 203-3, 203-4, 203-5, 203-6, 203-11 and 203-12. These systems are shown on Figure 3-9. Operation of the SSDS and monitoring of the building will continue in accordance with the SMP using vacuum monitoring points 203-3, 203-4, 203-6, 203-7 and 203-8 and air sampling locations 203IA-2 and 203IA-3. Operation of the remaining SSDSs in Building 203 will be discontinued.
- Building 204:
    - No further action is required for Building 204 based upon the results from the

December 2020 monitoring; therefore, operation of all SSDSs in Building 204 will be discontinued.

All SSDSs will remain in place, including those recommended to be discontinued. Each individual SSDS has its own circuit breaker. Systems where operation will be discontinued will have their breaker removed and the breaker box will be tagged.

Two sampling locations in Buildings 202 (202IA-2 and 202IA-3) and two sampling locations in Building 203 (203IA-1 and 203IA-2) had levels of PCE in indoor air exceeding the PCE concentration found in the background outdoor air sample. In all four locations machinery is present that could influence the sampling results. No source of PCE was recorded during the building inventory survey and a review of groundwater data from wells located with the groundwater plume beneath these buildings shows PCE at non-detect or at levels estimated to be between the method detection limit and the practical quantitation limit. Because these detections of PCE in indoor air are likely due to activities currently being conducted within the building, it is recommended that investigation to determine and eliminate the source be conducted by the building owner.

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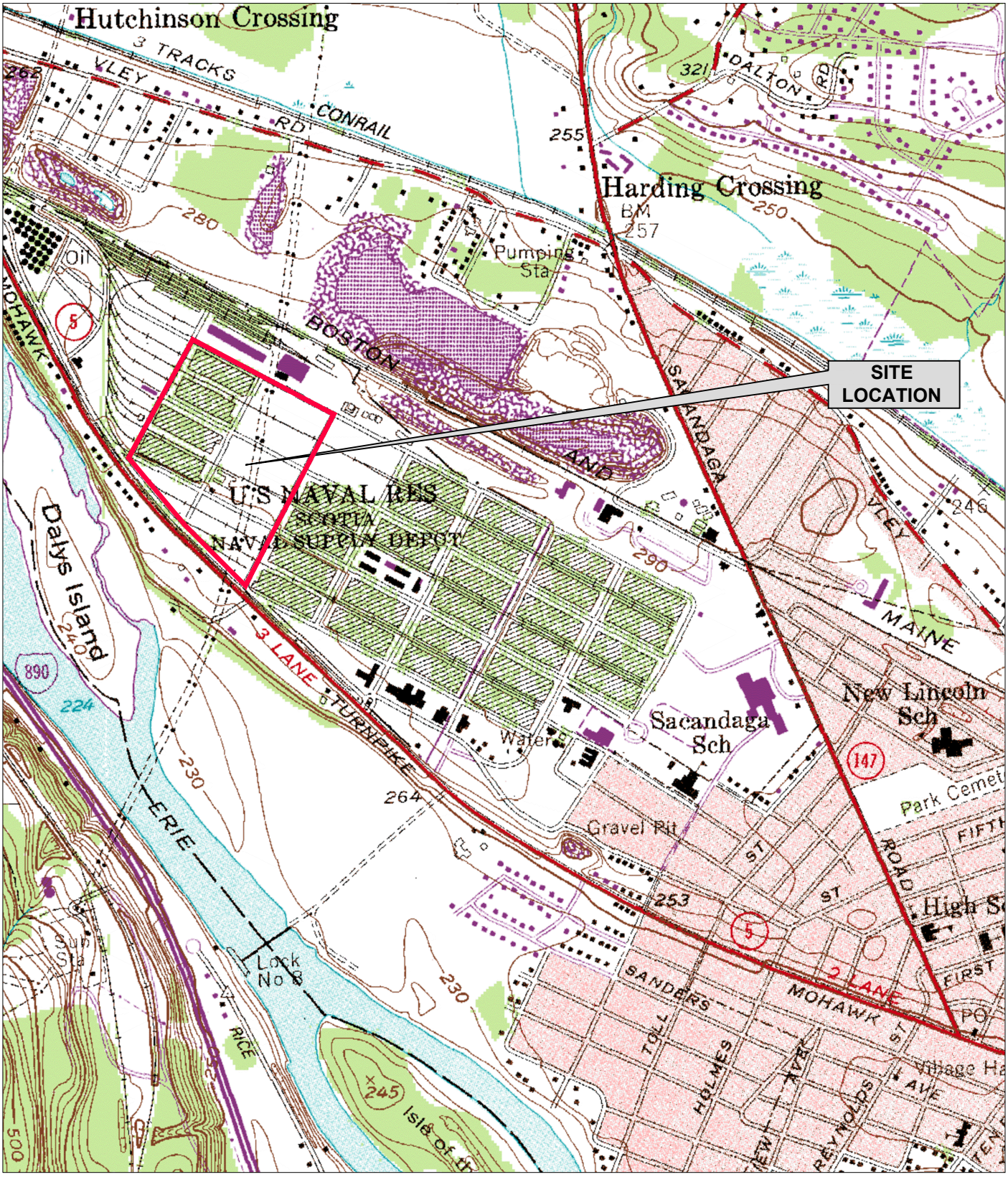
FIGURES



SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: JANUARY 2020

US ARMY Corps of Engineers

SITE LOCATION PLAN

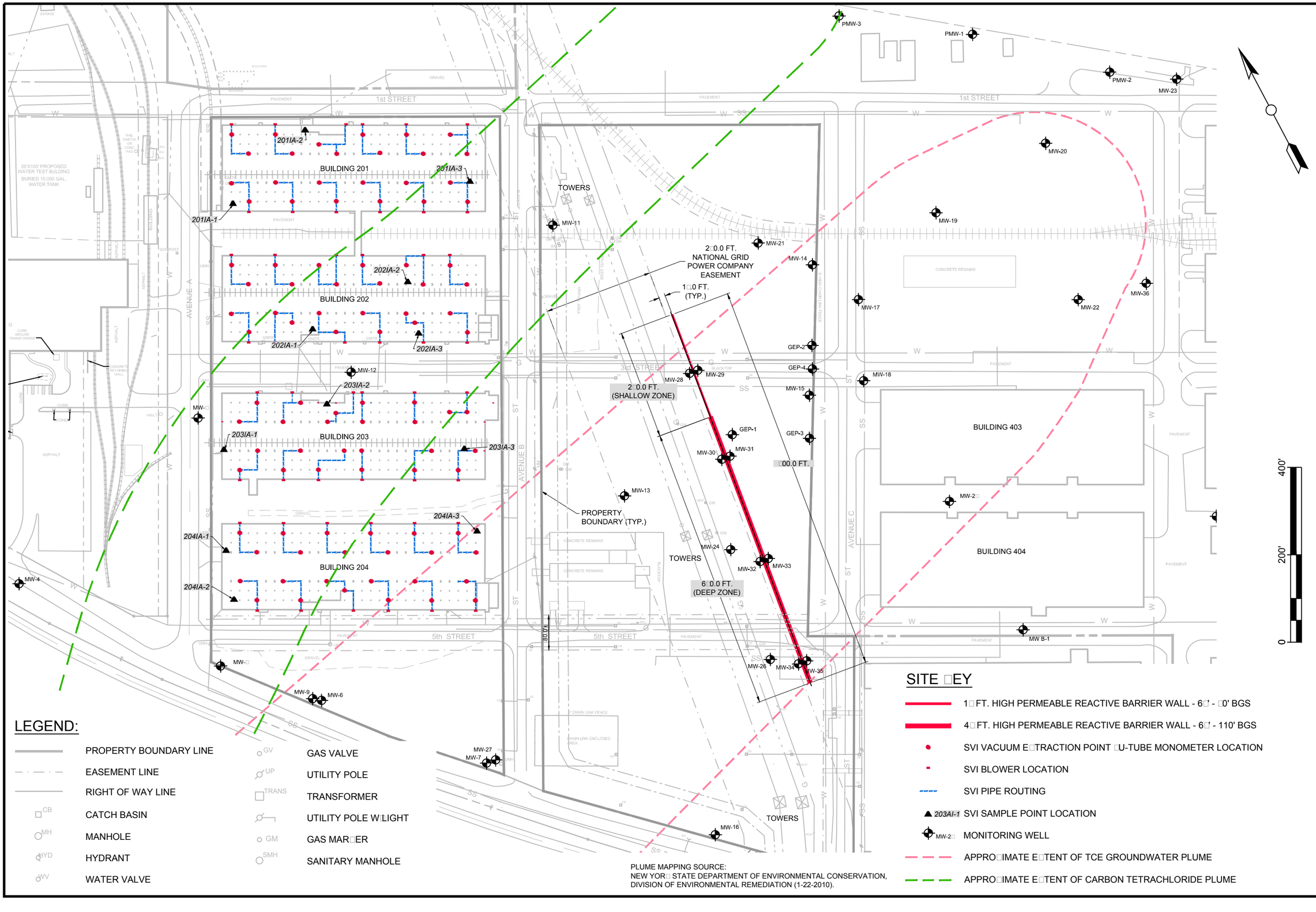
AECOM

Figure: 1-1

AECOM

Figure: 1-2

SITE LAYOUT PLAN



LEGEND:

- PROPERTY BOUNDARY LINE
- EASEMENT LINE
- RIGHT OF WAY LINE
- CB — CATCH BASIN
- MH — MANHOLE
- HYD — HYDRANT
- WV — WATER VALVE
- GV — GAS VALVE
- UP — UTILITY POLE
- TRANS — TRANSFORMER
- UTILITY POLE W□LIGHT
- GM — GAS MAR□ER
- SMH — SANITARY MANHOLE

SITE □EY

- 1□ FT. HIGH PERMEABLE REACTIVE BARRIER WALL - 6□' - □0' BGS
- 4□ FT. HIGH PERMEABLE REACTIVE BARRIER WALL - 6□' - 110' BGS
- SVI VACUUM E□TRACTION POINT □U-TUBE MONOMETER LOCATION
- SVI BLOWER LOCATION
- SVI PIPE ROUTING
- 203/A-1 SVI SAMPLE POINT LOCATION
- MW-2□ MONITORING WELL
- APPRO□IMATE E□TENT OF TCE GROUNDWATER PLUME
- APPRO□IMATE E□TENT OF CARBON TETRACHLORIDE PLUME

PLUME MAPPING SOURCE:
NEW YOR□ STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION (1-22-2010).

US ARMY Corps of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: January 2020

Figure: 3-1

OUTSIDE
AIR MONITORING LOCATIONS

AECOM

SAMPLE KEY

SAMPLE ID

201IA-1				
	Concentration (µg/m³)			
Analyte	Dec 2014	Dec 2016	Dec 2017	Dec 2018
1,1,1-Trichloroethane	0.38 J	0.015 J	0.0096 J	0.0078 J
Carbon Tetrachloride	0.692	0.49 J	0.40	0.32 J
Tetrachloroethene	0.068 J	0.054 J	0.044	0.053 J
Trichloroethene	0.107 U	0.037 J	0.031 U	0.025 UJ

DATE: MONTH / YEAR

ANALYTICAL RESULT

SAMPLE NOTES:

1. ALL RESULTS ARE PRESENTED IN ug/m³
2. U - THIS ANALYTE WAS ANALYZED FOR BUT NOT DETECTED AT THE SPECIFIED DETECTION LIMIT.
3. J - THE RESULT IS AN ESTIMATED CONCENTRATION THAT IS LESS THAN THE LIMIT OF QUANTIFICATION BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT.
4. SSDS SYSTEMS WERE INSTALLED IN 2016 AND OPERATIONAL BY THE 2016 SAMPLING EVENT.

AVENUE A

AVENUE B

BUILDING 201

BUILDING 202

OA-1

IABG-2-B

OA-1							
	Concentration (µg/m³)						
Analyte	Dec 2014	Dec 2016	Dec 2017	2/28/18 Resample	Dec 2018	Jan 2020	Dec 2020
1,1,1-Trichloroethane	0.109 J	0.014 J	0.01 J	0.014 J	0.012 J	0.015 U	0.019 J
Carbon Tetrachloride	0.434	0.49	0.41	0.48	0.34 J	0.41	0.37
Tetrachloroethene	0.075	0.054	0.041	0.079	0.087 J	0.069	0.38
Trichloroethene	0.107 U	0.001 J	0.029 U	0.11	0.078 J	0.025 J	0.051 J

PLAN

0 60' 120'

LEGEND

IA06 — OUTSIDE AIR SAMPLING LOCATION (STONE)

201IA-1 — OUTSIDE AIR SAMPLING LOCATION (AECOM)

US ARMY Corps of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: FEBRUARY 2021

AECOM

Figure: 3-2

BUILDING 201
AIR MONITORING LOCATIONS

US ARMY Corps of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: MARCH 2021

201IA-2						
	Concentration (µg/m³)					
Analyte	Dec 2014	Dec 2016	Dec 2017	Dec 2018	Jan 2020	Dec 2020
1,1,1-Trichloroethane	0.109 U	0.014 J	0.011 J	0.0086 J	0.025 J	0.12 U
Carbon Tetrachloride	0.673	0.51	0.39	0.34 J	2.1	0.57
Tetrachloroethene	0.136	0.05	0.16	0.088 J	0.10	0.13 J
Trichloroethene	0.107 U	0.023 J	0.023 J	0.022 J	0.020 J	0.12 U

201SS-2		
	Concentration (µg/m³)	
Analyte	Dec 2014	Dec 2020
1,1,1-Trichloroethane	0.737	0.026 J
Carbon Tetrachloride	122	1.2
Tetrachloroethene	0.542 J	0.17
Trichloroethene	1.05	0.078 U

201IA-3						
	Concentration (µg/m³)					
Analyte	Dec 2014	Dec 2016	Dec 2017	Dec 2018	Jan 2020	Dec 2020
1,1,1-Trichloroethane	0.109 U	0.015 J	0.01 J	0.0079 J	0.011 J	0.10 U
Carbon Tetrachloride	2.64	0.59	0.43	0.34 J	0.43	0.4
Tetrachloroethene	0.258	0.094	0.11	0.14 J	0.11	0.15
Trichloroethene	0.107 U	0.046	0.082	0.019 J	0.026 J	0.10 U

BUILDING INTERIOR WALL (TYP.)

201-1 201-2 201-3 201-4 201-5 201-6

201-7 201-8 201-9 201-10 201-11 201-12

A B B A

201IA-2 201_3 IA05 201_2 201_4 201IA-1 IA06 201_1 201_5 201_6 201IA-3 IA07 201_7 201_8

OFFICE STORAGE

UNOCCUPIED UNOCCUPIED OCCUPIED (CHEP RECYCLING)

CONCRETE SLAB

AVENUE A AVENUE B

201SS-3		
	Concentration (µg/m³)	
Analyte	Dec 2014	Dec 2020
1,1,1-Trichloroethane	1.39	0.046 J
Carbon Tetrachloride	1120	60
Tetrachloroethene	0.868	0.12
Trichloroethene	0.349	0.045 J

201SS-1		
	Concentration (µg/m³)	
Analyte	Dec 2014	Dec 2020
1,1,1-Trichloroethane	27.3	0.38 J
Carbon Tetrachloride	10.1	0.54 J
Tetrachloroethene	3.44	0.13 J
Trichloroethene	2.82	0.053 UJ

201IA-1						
	Concentration (µg/m³)					
Analyte	Dec 2014	Dec 2016	Dec 2017	Dec 2018	Jan 2020	Dec 2020
1,1,1-Trichloroethane	0.38 J	0.015 J	0.0096 J	0.0078 J	0.011 U	0.099 U
Carbon Tetrachloride	0.692	0.49 J	0.40	0.32 J	0.39	0.62
Tetrachloroethene	0.068 J	0.054 J	0.044	0.053 J	0.30	0.11 J
Trichloroethene	0.107 U	0.037 J	0.031 U	0.025 UJ	0.025 J	0.099 U

BUILDING 201
PLAN

SAMPLE KEY

SAMPLE ID

201IA-1				
	Concentration (µg/m³)			
Analyte	Dec 2014	Dec 2016	Dec 2017	Dec 2018
1,1,1-Trichloroethane	0.38 J	0.015 J	0.0096 J	0.0078 J
Carbon Tetrachloride	0.692	0.49 J	0.40	0.32 J
Tetrachloroethene	0.068 J	0.054 J	0.044	0.053 J
Trichloroethene	0.107 U	0.037 J	0.031 U	0.025 UJ

DATE: MONTH / YEAR

ANALYTICAL RESULT

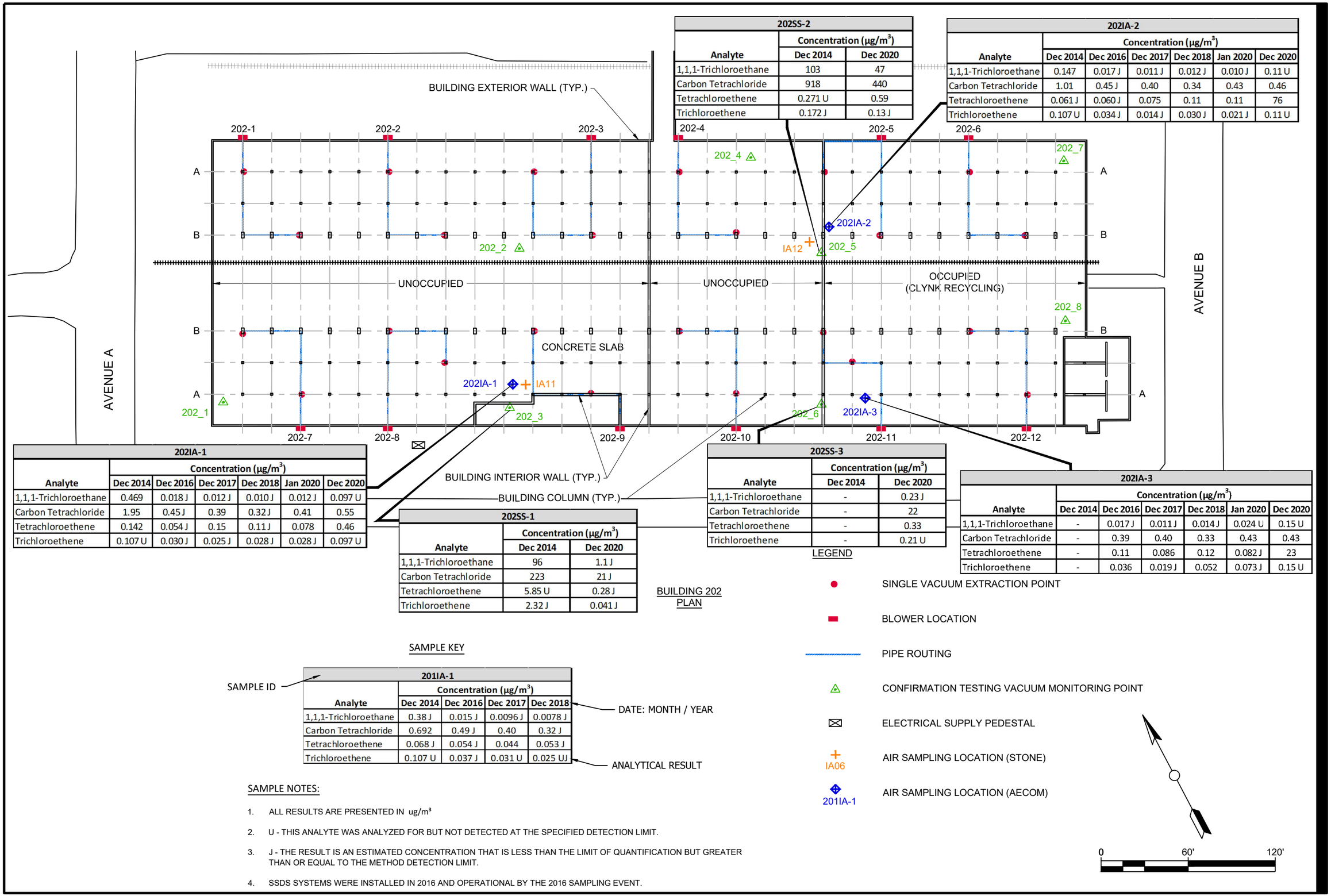
LEGEND

- SINGLE VACUUM EXTRACTION POINT
- BLOWER LOCATION
- PIPE ROUTING
- CONFIRMATION TESTING VACUUM MONITORING POINT
- ELECTRICAL SUPPLY PEDESTAL
- IA06 — AIR SAMPLING LOCATION (STONE)
- 201IA-1 — AIR SAMPLING LOCATION (AECOM)

0 60' 120'

SAMPLE NOTES:

1. ALL RESULTS ARE PRESENTED IN ug/m³
2. U - THIS ANALYTE WAS ANALYZED FOR BUT NOT DETECTED AT THE SPECIFIED DETECTION LIMIT.
3. J - THE RESULT IS AN ESTIMATED CONCENTRATION THAT IS LESS THAN THE LIMIT OF QUANTIFICATION BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT.
4. SSDS SYSTEMS WERE INSTALLED IN 2016 AND OPERATIONAL BY THE 2016 SAMPLING EVENT.



202SS-2

Analyte	Concentration (µg/m³) Dec 2014	Dec 2020
1,1,1-Trichloroethane	103	47
Carbon Tetrachloride	918	440
Tetrachloroethene	0.271 U	0.59
Trichloroethene	0.172 J	0.13 J

202IA-2

Analyte	Concentration (µg/m³) Dec 2014	Dec 2016	Dec 2017	Dec 2018	Jan 2020	Dec 2020
1,1,1-Trichloroethane	0.147	0.017 J	0.011 J	0.012 J	0.010 J	0.11 U
Carbon Tetrachloride	1.01	0.45 J	0.40	0.34	0.43	0.46
Tetrachloroethene	0.061 J	0.060 J	0.075	0.11	0.11	76
Trichloroethene	0.107 U	0.034 J	0.014 J	0.030 J	0.021 J	0.11 U

202IA-1

Analyte	Concentration (µg/m³) Dec 2014	Dec 2016	Dec 2017	Dec 2018	Jan 2020	Dec 2020
1,1,1-Trichloroethane	0.469	0.018 J	0.012 J	0.010 J	0.012 J	0.097 U
Carbon Tetrachloride	1.95	0.45 J	0.39	0.32 J	0.41	0.55
Tetrachloroethene	0.142	0.054 J	0.15	0.11 J	0.078	0.46
Trichloroethene	0.107 U	0.030 J	0.025 J	0.028 J	0.028 J	0.097 U

202SS-3

Analyte	Concentration (µg/m³) Dec 2014	Dec 2020
1,1,1-Trichloroethane	-	0.23 J
Carbon Tetrachloride	-	22
Tetrachloroethene	-	0.33
Trichloroethene	-	0.21 U

202SS-1

Analyte	Concentration (µg/m³) Dec 2014	Dec 2020
1,1,1-Trichloroethane	96	1.1 J
Carbon Tetrachloride	223	21 J
Tetrachloroethene	5.85 U	0.28 J
Trichloroethene	2.32 J	0.041 J

202IA-3

Analyte	Concentration (µg/m³) Dec 2014	Dec 2016	Dec 2017	Dec 2018	Jan 2020	Dec 2020
1,1,1-Trichloroethane	-	0.017 J	0.011 J	0.014 J	0.024 U	0.15 U
Carbon Tetrachloride	-	0.39	0.40	0.33	0.43	0.43
Tetrachloroethene	-	0.11	0.086	0.12	0.082 J	23
Trichloroethene	-	0.036	0.019 J	0.052	0.073 J	0.15 U

BUILDING 202
PLAN

LEGEND

- SINGLE VACUUM EXTRACTION POINT
- BLOWER LOCATION
- PIPE ROUTING
- CONFIRMATION TESTING VACUUM MONITORING POINT
- ELECTRICAL SUPPLY PEDESTAL
- IA06 — AIR SAMPLING LOCATION (STONE)
- 201IA-1 — AIR SAMPLING LOCATION (AECOM)

SAMPLE KEY

SAMPLE ID

201IA-1

Analyte	Concentration (µg/m³) Dec 2014	Dec 2016	Dec 2017	Dec 2018
1,1,1-Trichloroethane	0.38 J	0.015 J	0.0096 J	0.0078 J
Carbon Tetrachloride	0.692	0.49 J	0.40	0.32 J
Tetrachloroethene	0.068 J	0.054 J	0.044	0.053 J
Trichloroethene	0.107 U	0.037 J	0.031 U	0.025 UJ

DATE: MONTH / YEAR

ANALYTICAL RESULT

SAMPLE NOTES:

1. ALL RESULTS ARE PRESENTED IN ug/m³
2. U - THIS ANALYTE WAS ANALYZED FOR BUT NOT DETECTED AT THE SPECIFIED DETECTION LIMIT.
3. J - THE RESULT IS AN ESTIMATED CONCENTRATION THAT IS LESS THAN THE LIMIT OF QUANTIFICATION BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT.
4. SSDS SYSTEMS WERE INSTALLED IN 2016 AND OPERATIONAL BY THE 2016 SAMPLING EVENT.

0 60' 120'

AECOM

Figure: 3-3

BUILDING 202
AIR MONITORING LOCATIONS

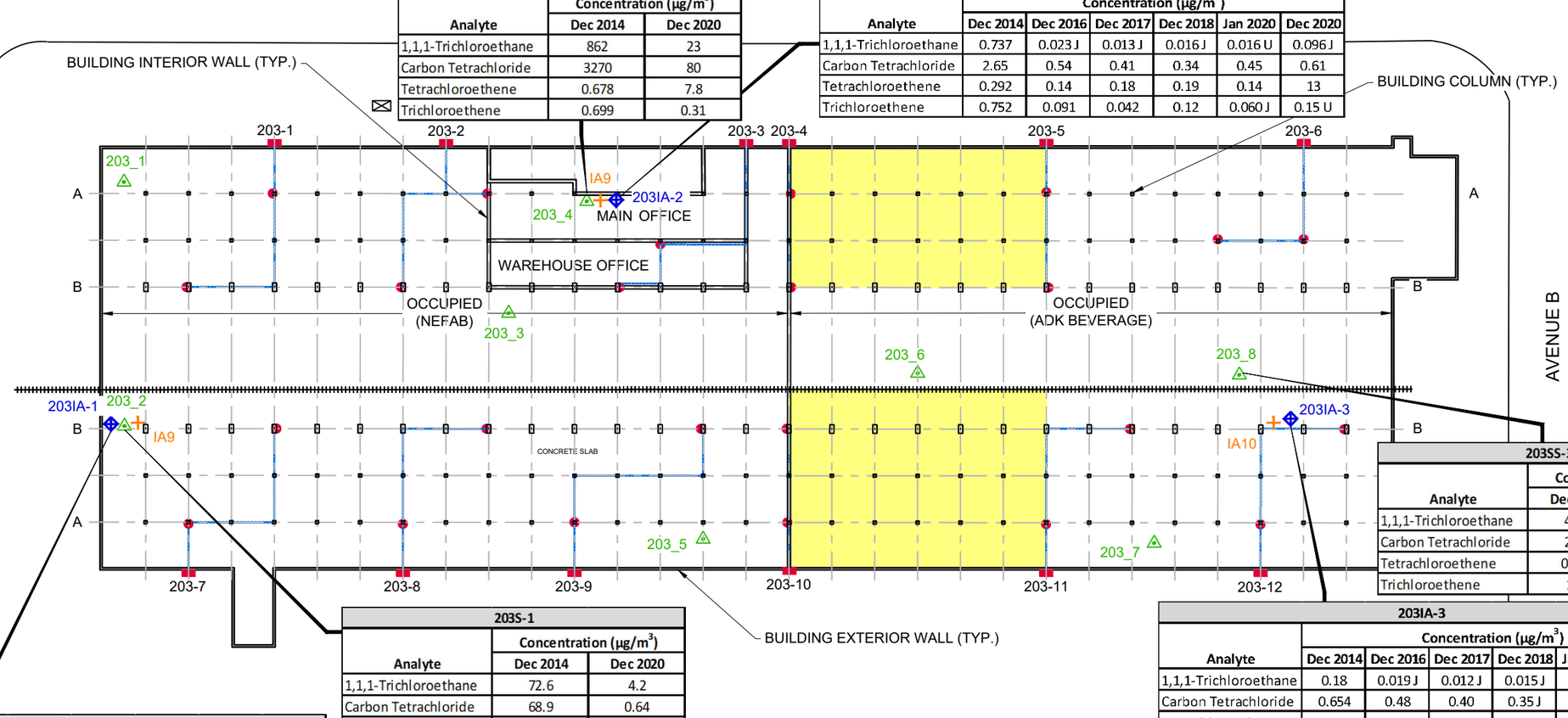
US ARMY Corps
of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: MARCH 2021

AECOM

Figure: 3-4

BUILDING 203
AIR MONITORING LOCATIONS



203SS-2

Analyte	Concentration (µg/m³) Dec 2014	Dec 2020
1,1,1-Trichloroethane	862	23
Carbon Tetrachloride	3270	80
Tetrachloroethene	0.678	7.8
Trichloroethene	0.699	0.31

203IA-2

Analyte	Dec 2014	Dec 2016	Dec 2017	Dec 2018	Jan 2020	Dec 2020
	Concentration (µg/m³)					
1,1,1-Trichloroethane	0.737	0.023 J	0.013 J	0.016 J	0.016 U	0.096 J
Carbon Tetrachloride	2.65	0.54	0.41	0.34	0.45	0.61
Tetrachloroethene	0.292	0.14	0.18	0.19	0.14	13
Trichloroethene	0.752	0.091	0.042	0.12	0.060 J	0.15 U

203SS-3

Analyte	Concentration (µg/m³) Dec 2014	Dec 2020
1,1,1-Trichloroethane	45.7	39
Carbon Tetrachloride	22.3	13
Tetrachloroethene	0.231	1.3
Trichloroethene	132	140

203S-1

Analyte	Concentration (µg/m³) Dec 2014	Dec 2020
1,1,1-Trichloroethane	72.6	4.2
Carbon Tetrachloride	68.9	0.64
Tetrachloroethene	0.339	5.3
Trichloroethene	0.333	0.14 U

203IA-3

Analyte	Dec 2014	Dec 2016	Dec 2017	Dec 2018	Jan 2020	Dec 2020
	Concentration (µg/m³)					
1,1,1-Trichloroethane	0.18	0.019 J	0.012 J	0.015 J	0.014 J	0.072 J
Carbon Tetrachloride	0.654	0.48	0.40	0.35 J	0.42	0.46
Tetrachloroethene	0.156	0.075	0.068	0.087 J	0.092	1.7
Trichloroethene	0.623	0.076	0.027J	0.085 J	0.083	0.23

203IA-1

Analyte	Dec 2014	Dec 2016	Dec 2017	Dec 2018	Jan 2020	Dec 2020
	Concentration (µg/m³)					
1,1,1-Trichloroethane	0.196	0.380 U	0.011 J	0.075 U	0.012 J	0.051 J
Carbon Tetrachloride	0.692	0.42 J	0.37	0.33	0.40	0.46
Tetrachloroethene	0.17	0.380 U	0.073	0.15	0.074	11
Trichloroethene	0.683	0.380 U	0.019 J	0.099	0.045	0.073 J

BUILDING 203
PLAN

LEGEND

- SINGLE VACUUM EXTRACTION POINT
- BLOWER LOCATION
- PIPE ROUTING
- AREA INACCESSIBLE
- CONFIRMATION TESTING VACUUM MONITORING POINT
- ELECTRICAL SUPPLY PEDESTAL
- IA06 — AIR SAMPLING LOCATION (STONE)
- 201IA-1 — AIR SAMPLING LOCATION (AECOM)

SAMPLE KEY

201IA-1

Analyte	Concentration (µg/m³) Dec 2014	Dec 2016	Dec 2017	Dec 2018
1,1,1-Trichloroethane	0.38 J	0.015 J	0.0096 J	0.0078 J
Carbon Tetrachloride	0.692	0.49 J	0.40	0.32 J
Tetrachloroethene	0.068 J	0.054 J	0.044	0.053 J
Trichloroethene	0.107 U	0.037 J	0.031 U	0.025 UJ

SAMPLE ID — DATE: MONTH / YEAR — ANALYTICAL RESULT

SAMPLE NOTES:

1. ALL RESULTS ARE PRESENTED IN ug/m³
2. U - THIS ANALYTE WAS ANALYZED FOR BUT NOT DETECTED AT THE SPECIFIED DETECTION LIMIT.
3. J - THE RESULT IS AN ESTIMATED CONCENTRATION THAT IS LESS THAN THE LIMIT OF QUANTIFICATION BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT.
4. SSDS SYSTEMS WERE INSTALLED IN 2016 AND OPERATIONAL BY THE 2016 SAMPLING EVENT.

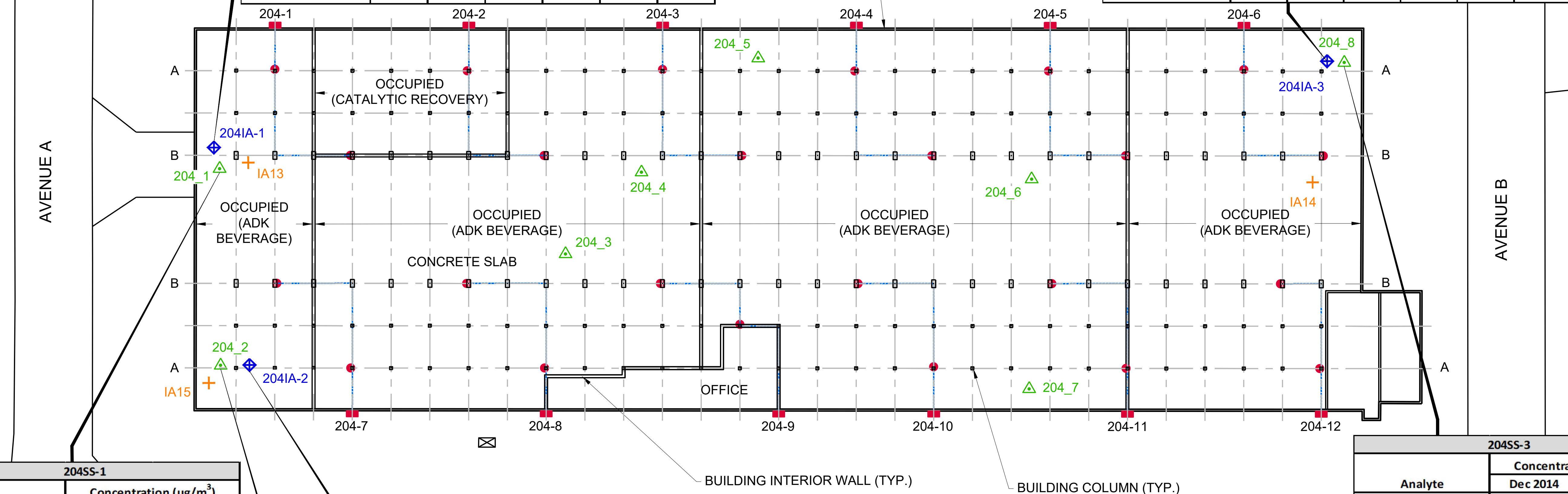
0 60' 120'

US ARMY Corps of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: MARCH 2021

204IA-1						
Analyte	Concentration (µg/m³)					
	Dec 2014	Dec 2016	Dec 2017	Dec 2018	Jan 2020	Dec 2020
1,1,1-Trichloroethane	-	0.029 J	0.0091 J	0.098 U	0.015 U	0.22 U
Carbon Tetrachloride	-	0.5	0.40	0.37	0.43	0.43
Tetrachloroethene	-	0.072	0.99	0.087 J	0.075	0.22 U
Trichloroethene	-	0.089	0.038	0.069 J	0.045 J	0.13 J

204IA-3						
Analyte	Concentration (µg/m³)					
	Dec 2014	Dec 2016	Dec 2017	Dec 2018	Jan 2020	Dec 2020
1,1,1-Trichloroethane	0.038 J	0.018 J	0.012 J	0.012 J	0.0099 J	0.084 U
Carbon Tetrachloride	0.516	0.5	0.40	0.31	0.40	0.37
Tetrachloroethene	0.142	0.043	0.059	0.057	0.084	0.075 J
Trichloroethene	0.21	0.059	0.035	0.067	0.057	0.084 U



204SS-3		
Analyte	Concentration (µg/m³)	
	Dec 2014	Dec 2020
1,1,1-Trichloroethane	2.35	0.20
Carbon Tetrachloride	1.99	0.34
Tetrachloroethene	63.4	0.50
Trichloroethene	3.12	0.090 U

204SS-1		
Analyte	Concentration (µg/m³)	
	Dec 2014	Dec 2020
1,1,1-Trichloroethane	8.07	0.070 J
Carbon Tetrachloride	937	0.81
Tetrachloroethene	3.76	0.51
Trichloroethene	1630	1.8

204IA-2						
Analyte	Concentration (µg/m³)					
	Dec 2014	Dec 2016	Dec 2017	Dec 2018	Jan 2020	Dec 2020
1,1,1-Trichloroethane	0.044 J	0.016 J	0.017J	0.062 UJ	0.094 U	0.14 U
Carbon Tetrachloride	0.572	0.47	0.46	0.36 J	0.56	0.45
Tetrachloroethene	0.149	0.057	0.29	0.063 J	0.083 J	0.063 J
Trichloroethene	3.92	0.061	0.2	0.096 J	0.079 U	0.14 U

BUILDING 204
PLAN

204SS-2		
Analyte	Concentration (µg/m³)	
	Dec 2014	Dec 2020
1,1,1-Trichloroethane	0.109 U	0.12 U
Carbon Tetrachloride	0.774	0.19
Tetrachloroethene	0.075 J	0.070 J
Trichloroethene	0.065 J	0.12 U

SAMPLE KEY

SAMPLE ID

201IA-1				
Analyte	Concentration (µg/m³)			
	Dec 2014	Dec 2016	Dec 2017	Dec 2018
1,1,1-Trichloroethane	0.38 J	0.015 J	0.0096 J	0.0078 J
Carbon Tetrachloride	0.692	0.49 J	0.40	0.32 J
Tetrachloroethene	0.068 J	0.054 J	0.044	0.053 J
Trichloroethene	0.107 U	0.037 J	0.031 U	0.025 UJ

DATE: MONTH / YEAR

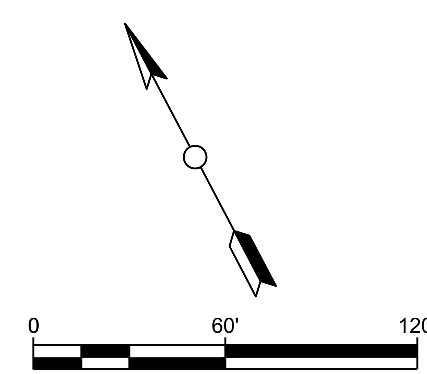
ANALYTICAL RESULT

LEGEND

- SINGLE VACUUM EXTRACTION POINT
- BLOWER LOCATION
- PIPE ROUTING
- CONFIRMATION TESTING VACUUM MONITORING POINT
- ELECTRICAL SUPPLY PEDESTAL
- IA06 — AIR SAMPLING LOCATION (STONE)
- 201IA-1 — AIR SAMPLING LOCATION (AECOM)

SAMPLE NOTES:

1. ALL RESULTS ARE PRESENTED IN ug/m³
2. U - THIS ANALYTE WAS ANALYZED FOR BUT NOT DETECTED AT THE SPECIFIED DETECTION LIMIT.
3. J - THE RESULT IS AN ESTIMATED CONCENTRATION THAT IS LESS THAN THE LIMIT OF QUANTIFICATION BUT GREATER THAN OR EQUAL TO THE METHOD DETECTION LIMIT.
4. SSDS SYSTEMS WERE INSTALLED IN 2016 AND OPERATIONAL BY THE 2016 SAMPLING EVENT.



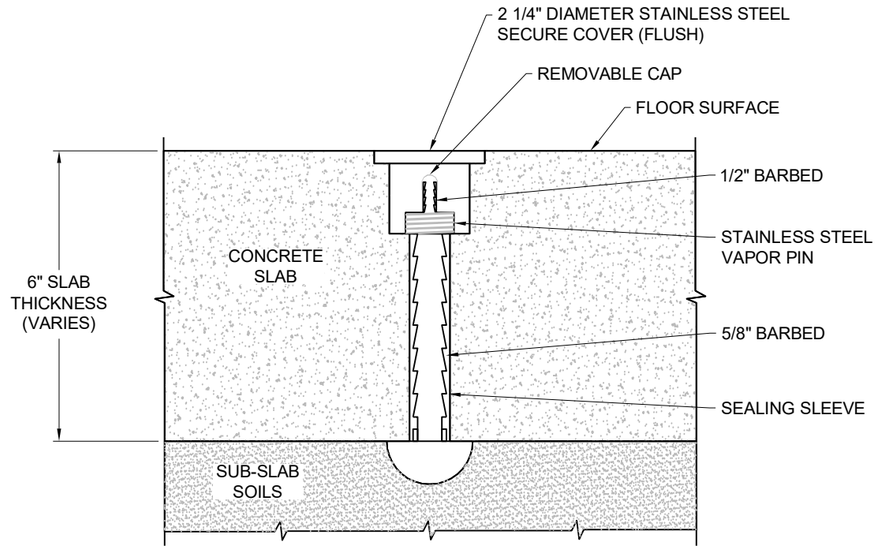
AECOM

Figure: 3-5

BUILDING 204
AIR MONITORING LOCATIONS

US ARMY Corps
of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: MARCH 2021



INTERIOR SOIL VAPOR SAMPLING POINT DETAIL

NTS

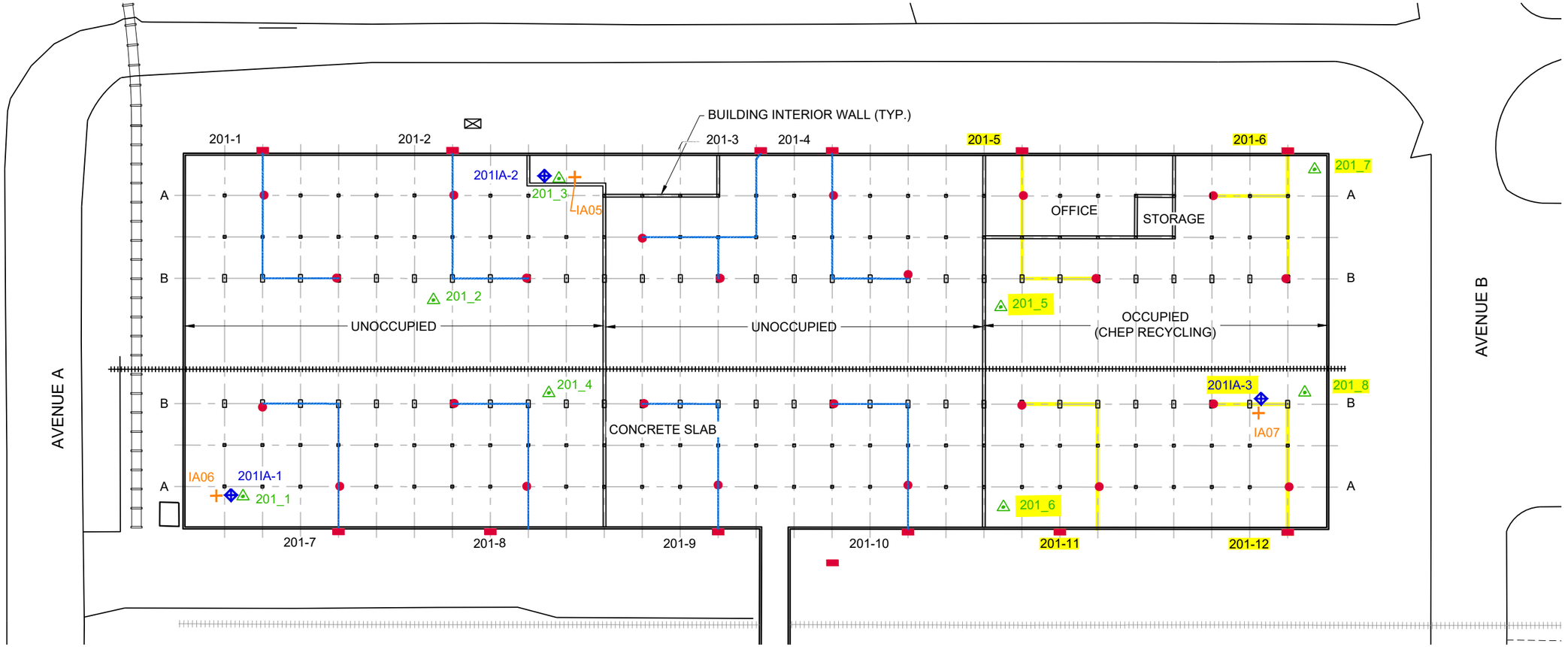
AECOM

Figure: 3-6

AIR MONITORING
DETAIL

US ARMY Corps
of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: FEBRUARY 2021



BUILDING 201
PLAN

NOTES:

1. AS DISCUSSED IN SECTION 3.2, THIS EVALUATION INDICATES THE NEED FOR CONTINUED MITIGATION BASED UPON THE CARBON TETRACHLORIDE RESULTS OBTAINED FROM SAMPLING SUB-SLAB VAPOR AT SAMPLING LOCATION 201SS-3. TO ADDRESS THE NEED FOR CONTINUED MITIGATION IN THIS AREA, THE FOUR SSDSS LOCATED AT THE EASTERN END OF THE BUILDING DESIGNATED AS 201-5, 201-6, 201-11 AND 201-12 (AS SHOWN ON FIGURE 3-7) WILL CONTINUE TO OPERATE. THESE FOUR SSDSS ARE ALL LOCATED WITHIN ONE CONTIGUOUS SPACE CURRENTLY OCCUPIED BY ONE TENANT. OPERATION OF THE SSDS AND MONITORING OF THE BUILDING WILL CONTINUE IN ACCORDANCE WITH THE SMP USING VACUUM MONITORING POINTS 201-5, 201-6, 201-7 AND 201-8 AND AIR SAMPLING LOCATION 201IA-3. OPERATION OF THE REMAINING SSDSS IN BUILDING 201 WILL BE DISCONTINUED.

LEGEND

- SINGLE VACUUM EXTRACTION POINT
- BLOWER LOCATION
- PIPE ROUTING
- CONFIRMATION TESTING VACUUM MONITORING POINT
- ELECTRICAL SUPPLY PEDESTAL
- IA06 — AIR SAMPLING LOCATION (STONE)
- 201IA-1 — AIR SAMPLING LOCATION (AECOM)
- 201-11 — PROPOSED SYSTEM COMPONENTS FOR CONTINUED MITIGATION AND MONITORING

0 60' 120'

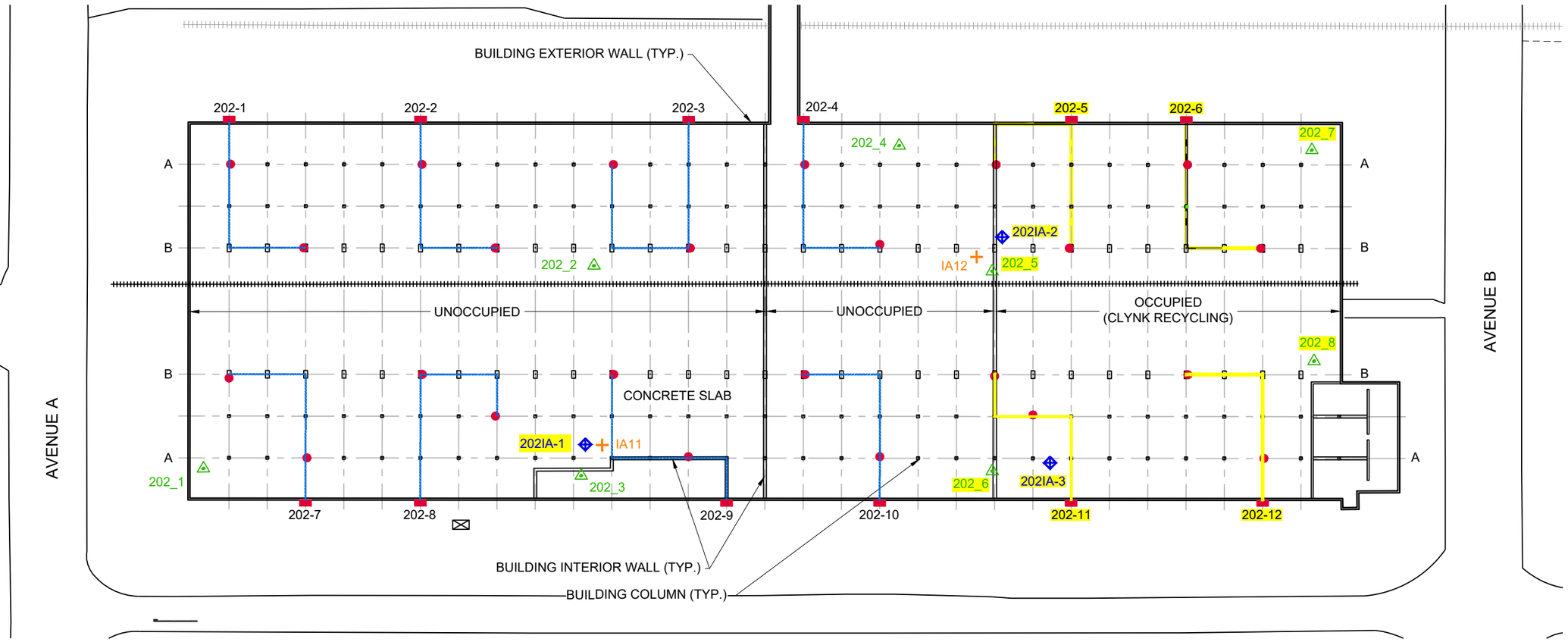
AECOM

Figure: 3-7

BUILDING 201
PROPOSED SSDS OPERATIONS

US ARMY Corps of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: MAY 2021



BUILDING 202
PLAN

NOTES:

1. AS DISCUSSED IN SECTION 3.2, THIS EVALUATION INDICATES THE NEED FOR CONTINUED MITIGATION BASED UPON THE CARBON TETRACHLORIDE RESULTS OBTAINED FROM SAMPLING SUB-SLAB VAPOR AT SAMPLING LOCATION 202SS-2 AND CONTINUED MONITORING BASED UPON THE RESULTS OBTAINED AT SAMPLING LOCATIONS 202SS-1 AND 202SS-3. TO ADDRESS THE NEED FOR CONTINUED MITIGATION AND MONITORING, THE FOUR SSDSS LOCATED AT THE EASTERN END OF THE BUILDING DESIGNATED AS 202-5, 202-6, 202-11 AND 202-12 (AS SHOWN ON FIGURE 3-8) WILL CONTINUE TO OPERATE. THESE FOUR SSDSS ARE ALL LOCATED WITHIN ONE CONTIGUOUS SPACE CURRENTLY OCCUPIED BY ONE TENANT. OPERATION OF THE SSDS AND MONITORING OF THE BUILDING WILL CONTINUE IN ACCORDANCE WITH THE SMP USING VACUUM MONITORING POINTS 202-5, 202-6, 202-7 AND 202-8 AND AIR SAMPLING LOCATIONS 202IA-1, 202IA-2 AND 202IA-3. OPERATION OF THE REMAINING SSDSS IN BUILDING 202 WILL BE DISCONTINUED.

LEGEND

- SINGLE VACUUM EXTRACTION POINT
- BLOWER LOCATION
- PIPE ROUTING
- CONFIRMATION TESTING VACUUM MONITORING POINT
- ELECTRICAL SUPPLY PEDESTAL
- IA06 — AIR SAMPLING LOCATION (STONE)
- 201IA-1 — AIR SAMPLING LOCATION (AECOM)
- 201-11 — PROPOSED SYSTEM COMPONENTS FOR CONTINUED MITIGATION AND MONITORING

0 60' 120'

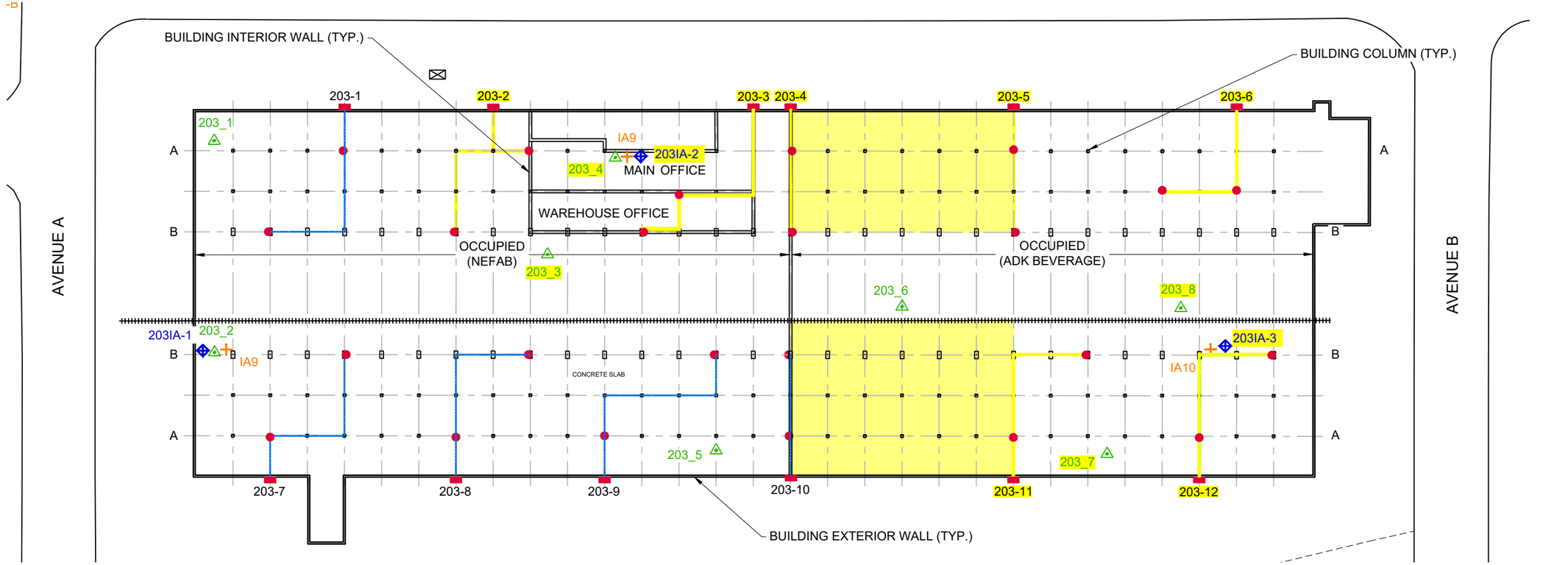
AECOM

Figure: 3-8

BUILDING 202
PROPOSED SSDS OPERATIONS

US ARMY Corps
of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: MAY 2021



BUILDING 203
PLAN

NOTES:

1. AS DISCUSSED IN SECTION 3.2, THIS EVALUATION INDICATES THE NEED FOR CONTINUED MITIGATION BASED UPON CARBON TETRACHLORIDE AND TRICHLOROETHENE RESULTS OBTAINED FROM SAMPLING SUB-SLAB VAPOR AT SAMPLING LOCATIONS 203SS-2 AND 203SS-3, RESPECTIVELY. TO ADDRESS THE NEED FOR CONTINUED MITIGATION AND MONITORING, THE FOLLOWING SSDSS WILL BE OPERATED: 203-2, 203-3, 203-4, 203-5, 203-6, 203-11 AND 203-12. THESE SYSTEMS ARE SHOWN ON FIGURE 3-9. OPERATION OF THE SSDS AND MONITORING OF THE BUILDING WILL CONTINUE IN ACCORDANCE WITH THE SMP USING VACUUM MONITORING POINTS 203-3, 203-4, 203-6, 203-7 AND 203-8 AND AIR SAMPLING LOCATIONS 203IA-2 AND 203IA-3. OPERATION OF THE REMAINING SSDSS IN BUILDING 203 WILL BE DISCONTINUED.

LEGEND

- SINGLE VACUUM EXTRACTION POINT
- BLOWER LOCATION
- PIPE ROUTING
- AREA INACCESSIBLE
- 203_1 — CONFIRMATION TESTING VACUUM MONITORING POINT
- ELECTRICAL SUPPLY PEDESTAL
- IA06 — AIR SAMPLING LOCATION (STONE)
- 201IA-1 — AIR SAMPLING LOCATION (AECOM)
- 201-11 — PROPOSED SYSTEM COMPONENTS FOR CONTINUED MITIGATION AND MONITORING

0 60' 120'

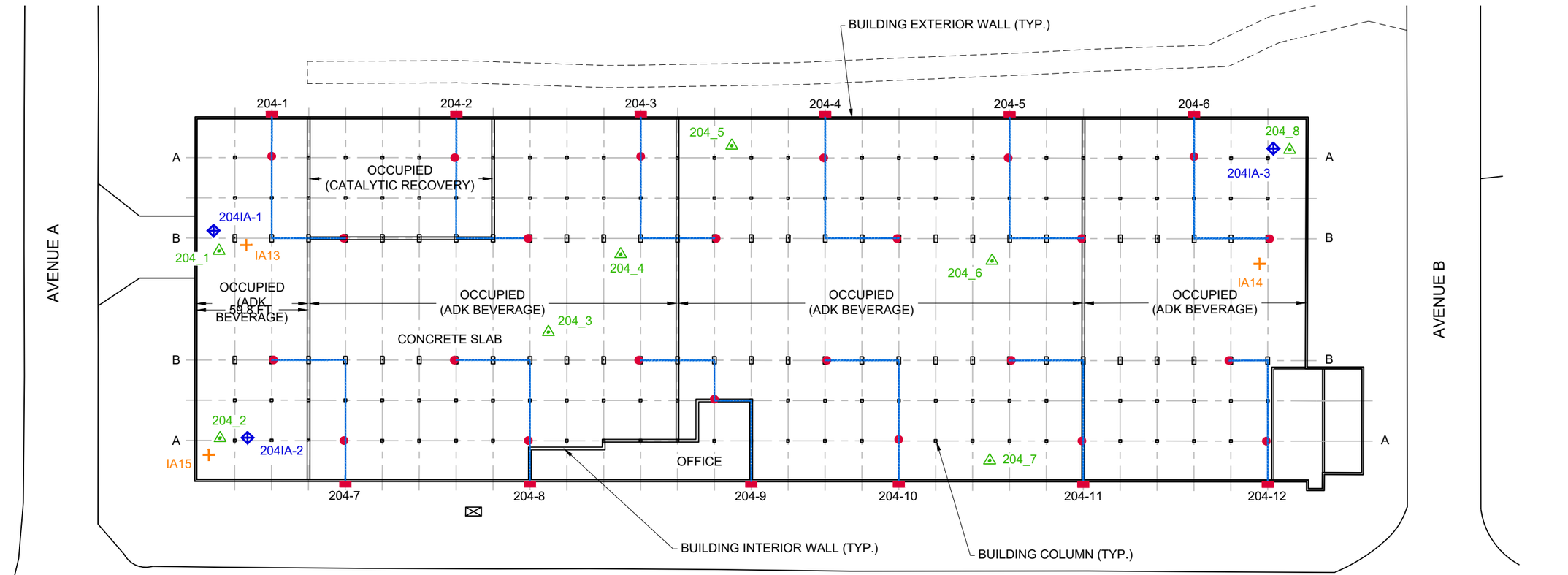
AECOM

Figure: 3-9

BUILDING 203
PROPOSED SSDS OPERATIONS

US ARMY Corps of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: MAY 2021



NOTES:

1. NO FURTHER ACTION IS REQUIRED FOR BUILDING 204 BASED UPON THE RESULTS FROM THE DECEMBER 2020 MONITORING; THEREFORE, OPERATION OF ALL SSDSS IN BUILDING 204 WILL BE DISCONTINUED.

BUILDING 204
PLAN

LEGEND

- SINGLE VACUUM EXTRACTION POINT
- BLOWER LOCATION
- PIPE ROUTING
- CONFIRMATION TESTING VACUUM MONITORING POINT
- ELECTRICAL SUPPLY PEDESTAL
- IA06 — AIR SAMPLING LOCATION (STONE)
- 201IA-1 — AIR SAMPLING LOCATION (AECOM)

0 60' 120'

AECOM

Figure: 3-10

BUILDING 204
PROPOSED SSDS OPERATIONS

US ARMY Corps of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: MAY 2021

TABLES

Table 1-1
Field Readings System Startup Communication Test (June 2016)
Former Scotia Naval Depot
Glenville, NY

COMMUNICATION TESTING

BUILDING 204			BUILDING 202			BUILDING 201			BUILDING 203		
MP	Before	After	MP	Before	After	MP	Before	After	MP	Before	After
1	NM	-0.017	1	-0.016	-0.029	1	-0.030	-0.033	1	-0.002	-0.004
2	NM	-0.005	2	-0.048	-0.087	2	-0.049	-0.051	2	-0.004	-0.005
3	NM	-0.027	3	-0.017	-0.036	3	-0.014	-0.018	3	-0.008	-0.054
4	NM	-0.047	4	-0.045	-0.069	4	-0.060	-0.085	4	NM	-0.007
5	NM	-0.011	5	-0.049	-0.090	5	-0.025	NM	5	-0.001	-0.002
6	NM	-0.034	6	-0.054	-0.093	6	-0.014	NM	6	-0.025	-0.038
7	NM	-0.021	7	-0.020	-0.018	7	-0.006	NM	7	-0.010	-0.045
8	-0.002	-0.031	8	-0.014	-0.037	8	-0.028	NM	8	-0.015	-0.065

MONOMETER READINGS

BUILDING 204			BUILDING 202			BUILDING 201			BUILDING 203		
Point	Before	After	Point	Before	After	Point	Before	After	Point	Before	After
1A	NM	3.5	1A	3.0	3.3	1A	3.0	3.2	1A	2.3	2.9
1B	NM	3.4	1B	2.9	3.3	1B	2.7	3.0	1B	2.3	2.7
2A	NM	3.3	2A	3.4	3.7	2A	2.5	3.0	2A	2.3	3.1
2B	NM	3.6	2B	3.3	3.5	2B	2.5	3.0	2B	2.3	3.0
3A	NM	3.6	3A	2.9	3.4	3A	2.7	NM	3A	1.1	2.5
3B	NM	3.6	3B	2.9	3.4	3B	2.7	NM	3B	0.9	2.8
4A	NM	3.9	4A	3.1	3.3	4A	2.8	NM	4A	2.8	3.2
4B	NM	3.8	4B	3.0	3.3	4B	MNI	MNI	4B	2.1	3.1
5A	NM	3.3	5A	3.3	3.3	5A	2.9	NM	5A	1.8	2.5
5B	NM	3.3	5B	3.3	3.4	5B	2.9	NM	5B	1,7	2.4
6A	NM	2.9	6A	3.5	3.5	6A	3.0	NM	6A	1.6	2.8
6B	NM	2.8	6B	3.4	3.4	6B	3.2	NM	6B	1.7	2.9
7A	NM	4.0	7A	3.3	3.6	7A	3.0	3.2	7A	1.7	3.4
7B	NM	3.8	7B	3.3	3.6	7B	2.7	2.9	7B	1.6	3.4
8A	NM	3.2	8A	3.7	3.8	8A	3.1	3.4	8A	1.9	3.4
8B	NM	3.1	8B	3.6	3.7	8B	3.3	3.6	8B	2	3.5
9A	NM	3.6	9A	3.0	3.1	9A	2.9	NM	9A	2.4	3.5
9B	NM	3.6	9B	2.8	3.0	9B	2.9	NM	9B	2.1	3.3
10A	NM	3.5	10A	3.5	3.6	10A	3.0	NM	10A	1.3	3.1
10B	NM	3.5	10B	3.3	3.4	10B	3.3	NM	10B	1.1	3.0
11A	NM	3.1	11A	3.4	3.0	11A	2.9	NM	11A	1.7	2.9
11B	NM	2.8	11B	3.3	3.3	11B	3.2	NM	11B	0.8	2.3
12A	NM	3.8	12A	3.4	3.4	12A	3.5	NM	12A	1.8	2.3
12B	NM	3.4	12B	3.2	3.2	12B	3.5	NM	12B	2.7	2.7

Notes:
*All Readings measured in inches of water column
MP - Monitoring Point
NM - Not Measured
MNI - Monometer Not Installed

Table 2-1
Field Readings During June 2020 Monitoring Event
Former Scotia Naval Depot

VACUUM READINGS

BUILDING 201		BUILDING 202		BUILDING 203		BUILDING 204	
MP	Reading	MP	Reading	MP	Reading	MP	Reading
1	-0.046	1	-0.045	1	0.000	1	0.023
2	-0.048	2	-	2	0.001	2	0.001
3	-0.016	3	-0.043	3	-0.031	3	-
4	-0.09	4	-0.079	4	0.006	4	-
5	-	5	-0.119	5	-0.005	5	-0.005
6	-0.043	6	-0.088	6	-0.024	6	-0.042
7	-	7	-0.015	7	-0.038	7	-0.006
8	-0.036	8	-0.032	8	-0.038	8	-0.037

MONOMETER READINGS

BUILDING 201		BUILDING 202		BUILDING 203		BUILDING 204	
Point	Reading	Point	Reading	Point	Reading	Point	Reading
1A	3.2	1A	3.0	1A	2.3	1A	3.0
1B	2.9	1B	3.2	1B	2.3	1B	3.2
2A	3.0	2A	2.3	2A	2.2	2A	3.4
2B	3.1	2B	3.5	2B	3.5	2B	3.7
3A	3.5	3A	3.4	3A	2.9	3A	3.5
3B	3.5	3B	3.5	3B	2.9	3B	3.6
4A	3.4	4A	3.5	4A	3.5	4A	-
4B	3.0	4B	3.4	4B	3.0	4B	3.7
5A	-	5A	3.5	5A	3.5	5A	3.4
5B	1.4	5B	3.5	5B	2.5	5B	3.5
6A	-	6A	3.3	6A	2.5	6A	3
6B	1.0	6B	3.3	6B	2.5	6B	2.8
7A	3.2	7A	3.4	7A	0.0	7A	3.5
7B	3.0	7B	3.4	7B	0.0	7B	3.8
8A	3.5	8A	3.6	8A	2.0	8A	3.7
8B	3.5	8B	3.9	8B	0.0	8B	4
9A	3.6	9A	3.2	9A	3.5	9A	4.0
9B	3.4	9B	3.1	9B	3.4	9B	4
10A	3.4	10A	3.6	10A	0.5	10A	-
10B	3.6	10B	3.5	10B	0.5	10B	0.5
11A	3.5	11A	3.3	11A	3.0	11A	3.7
11B	5.5	11B	3.5	11B	2.2	11B	3.7
12A	2.8	12A	3.0	12A	2.7	12A	3.3
12B	-	12B	3.1	12B	3.5	12B	3.5

Notes:
* Point removed, unable to take reading
** Reading decreasing overtime steadily, started higher than when recorded
1 to 3 : System readings were bouncing between that range

Table 3-1
Air Sample Analytical Results
Former Scotia Naval Depot
Glenville, NY

Stone 3/2014	AECOM	Carbon Tetrachloride (µg/m^3)												1,1,1-Trichloroethane (µg/m^3)											
		Stone 2014		AECOM 2016		AECOM 2017		AECOM 2018		AECOM Jan 2020		AECOM Dec 2020		Stone 2014		AECOM 2016		AECOM 2017		AECOM 2018		AECOM Jan 2020		AECOM Dec 2020	
Sample ID	**Sample ID**																								
IA06-1-B	**201IA-1**	0.692		0.49	J	0.40		0.32	J	0.39		0.62		0.038	J	0.015	J	0.0096	J	0.0078	J	0.042	U	0.099	U
IA05-1-B	**201IA-2**	0.673		0.51		0.39		0.34	J	2.1		0.57		0.109	U	0.014	J	0.011	J	0.0086	J	0.025	J	0.12	U
IA07-1-B	**201IA-3**	2.64		0.59		0.43		0.34	J	0.43	J	0.40		0.109	U	0.015	J	0.010	J	0.0079	J	0.011	J	0.10	U
IA11-1-B	**202IA-1**	1.95		0.45	J	0.39		0.32	J	0.41	J	0.55		0.469		0.018	J	0.012	J	0.010	J	0.012	J	0.097	U
IA12-1-B	**202IA-2**	1.01		0.45	J	0.40		0.34		0.43	J	0.46		0.147		0.017	J	0.011	J	0.012	J	0.010	J	0.11	U
NS	**202IA-3**	-		0.39		0.40		0.33		0.43	J	0.43		-		0.017	J	0.011	J	0.014	J	0.091	UJ	0.15	U
IA09-1-B	**203IA-1**	0.692		0.42	J	0.37		0.33		0.40	J	0.46		0.196		0.380	U	0.011	J	0.075	U	0.012	J	0.051	J
IA08-1-B	**203IA-2**	2.65		0.54		0.41		0.34		0.45		0.61		0.737		0.023	J	0.012	J	0.016	J	0.059	U	0.096	J
IA10-1-B	**203IA-3**	0.654		0.48		0.40		0.35	J	0.42	J	0.46		0.180		0.019	J	0.012	J	0.015	J	0.014	J	0.072	J
NS	**204IA-1**	-		0.50		0.40		0.37		0.43	J	0.43		-		0.029	J	0.0091	J	0.098	U	0.054	UJ	0.22	U
IA15-1-B	**204IA-2**	0.572		0.47		0.46		0.36	J	0.56	J	0.45		0.044	J	0.016	J	0.017	J	0.062	UJ	0.094	UJ	0.14	U
IA14-1-B	**204IA-3**	0.516		0.50		0.40		0.31		0.40	J	0.37		0.038	J	0.018	J	0.012	J	0.012	J	0.0099	J	0.084	U
IABG-1-B	**NS**	0.447		-		-		-		-		-		0.109	U	-		-		-		-		-	
IABG-2-B	**OA-1**	0.434		0.490	J	0.41		0.34	J	0.41	J	0.37		0.109	U	0.014	J	0.010	J	0.012	J	0.054	UJ	0.019	J
	2017 OA-1 Resample	-		-		0.48		-		-		-		-		-		0.014	J	-		-		-	
	3/26/20 IA201-2 Resample	-		-		-		-		0.38	J	-		-		-		-		-		0.009	J	-	
	3/26/20 OA-1 Resample	-		-		-		-		0.39		-		-		-		-		-		0.028	U	-	

Notes:
NS - No equivalent sample at this location
"-" - Not Sampled
IA - Indoor Air
IABG - Stone 2014 Outdoor Air Sample
OA - Outdoor Air
U - Qualifier denotes non-detect.
J - Qualifier denotes estimated value.
UJ - Qualifier denotes the analyte was analyzed for, but was not detected. The reported quantitation limit is approximated and may be imprecise.

Table 3-1
Air Sample Analytical Results
Former Scotia Naval Depot
Glenville, NY

Stone 3/2014	AECOM	Tetrachloroethene (µg/m^3)												Trichloroethene (µg/m^3)											
		Stone 2014		AECOM 2016		AECOM 2017		AECOM 2018		AECOM Jan 2020		AECOM Dec 2020		Stone 2014		AECOM 2016		AECOM 2017		AECOM 2018		AECOM Jan 2020		AECOM Dec 2020	
Sample ID	**Sample ID**																								
IA06-1-B	**201IA-1**	0.068	J	0.054	J	0.044		0.053	J	0.30	J	0.11	J	0.107	U	0.037	J	0.031	U	0.025	UJ	0.025	J	0.099	U
IA05-1-B	**201IA-2**	0.136		0.050		0.16		0.088	J	0.10		0.13	J	0.107	U	0.023	J	0.023	J	0.022	J	0.020	J	0.12	U
IA07-1-B	**201IA-3**	0.258		0.094		0.11		0.14	J	0.11	J	0.15		0.107	U	0.046		0.082		0.019	J	0.026	J	0.10	U
IA11-1-B	**202IA-1**	0.142		0.054	J	0.15		0.11	J	0.078	J	0.46		0.107	U	0.030	J	0.025	J	0.028	J	0.028	J	0.097	U
IA12-1-B	**202IA-2**	0.061	J	0.060	J	0.075		0.11		0.11	J	76		0.107	U	0.034	J	0.014	J	0.030	J	0.021	J	0.11	U
NS	**202IA-3**	-		0.110		0.086		0.12		0.082	J	23		-		0.036		0.019		0.052		0.073	J	0.15	U
IA09-1-B	**203IA-1**	0.170		0.380	U	0.073		0.15		0.074	J	11		0.683		0.380	U	0.019	J	0.099		0.045	J	0.073	J
IA08-1-B	**203IA-2**	0.292		0.140		0.18		0.19		0.14		13		0.752		0.091		0.042		0.12		0.060	J	0.15	U
IA10-1-B	**203IA-3**	0.156		0.075		0.068		0.087	J	0.092	J	1.7		0.623		0.076		0.027	J	0.085	J	0.083	J	0.23	
NS	**204IA-1**	-		0.072		0.99		0.087	J	0.075	J	0.22	U	-		0.089		0.038		0.069	J	0.045	J	0.13	J
IA15-1-B	**204IA-2**	0.149		0.057		0.29		0.063	J	0.083	J	0.063	J	3.92		0.061		0.20		0.096	J	0.079	J	0.14	U
IA14-1-B	**204IA-3**	0.142		0.043		0.059		0.057		0.084	J	0.075	J	0.210		0.059		0.035		0.067		0.057	J	0.084	U
IABG-1-B	**NS**	0.054	J	-		-		-		-		-		0.107	U	-		-		-		-		-	
IABG-2-B	**OA-1**	0.075	J	0.054	J	0.041		0.087	J	0.069	J	0.38		0.107	U	0.011	J	0.029	U	0.078	J	0.025	J	0.051	J
	2017 OA-1 Resample	-		-		0.079		-		-		-		-		-		0.11		-		-		-	
	3/26/20 IA201-2 Resample	-		-		-		-		0.098	J	-		-		-		-		-		0.021	J	-	
	3/26/20 OA-1 Resample	-		-		-		-		0.074		-		-		-		-		-		0.028	U	-	

Notes:
NS - No equivalent sample at this location
"-" - Not Sampled
IA - Indoor Air
IABG - Stone 2014 Outdoor Air Sample
OA - Outdoor Air
U - Qualifier denotes non-detect.
J - Qualifier denotes estimated value.
UJ - Qualifier denotes the analyte was analyzed for, but was not detected. The reported quantitation limit is approximated and may be imprecise.

Table 3-1
Air Sample Analytical Results
Former Scotia Naval Depot
Glenville, NY

Stone 3/2014	AECOM	Vinyl Chloride (µg/m^3)												1,1-Dichloroethene (µg/m^3)											
		Stone 2014		AECOM 2016		AECOM2017		AECOM 2018		AECOM Jan 2020		AECOM Dec 2020		Stone		Stone 2014		AECOM2017		AECOM 2018		AECOM Jan 2020		AECOM Dec 2020	
Sample ID	**Sample ID**																								
IA06-1-B	**201IA-1**	0.051	U	0.025	UJ	0.031	U	0.025	UJ	0.040	U	0.10	U	0.079	U	0.012	J	0.031	U	0.025	UJ	0.040	U	0.10	U
IA05-1-B	**201IA-2**	0.051	U	0.027	U	0.029	U	0.027	UJ	0.032	U	0.12	U	0.079	U	0.029	U	0.029	U	0.027	UJ	0.032	U	0.12	U
IA07-1-B	**201IA-3**	0.051	U	0.030	U	0.031	U	0.026	UJ	0.025	UJ	0.11	U	0.079	U	0.031	U	0.031	U	0.026	UJ	0.025	UJ	0.11	U
IA11-1-B	**202IA-1**	0.051	U	0.025	UJ	0.031	U	0.025	UJ	0.026	UJ	0.10	U	0.079	U	0.026	UJ	0.031	U	0.025	UJ	0.026	UJ	0.10	U
IA12-1-B	**202IA-2**	0.051	U	0.024	UJ	0.032	U	0.035	U	0.026	UJ	0.11	U	0.079	U	0.026	UJ	0.032	U	0.035	U	0.026	UJ	0.11	U
NS	**202IA-3**	-		0.022	U	0.034	U	0.034	U	0.087	UJ	0.15	U	-		0.023	U	0.034	U	0.034	U	0.087	UJ	0.15	U
IA09-1-B	**203IA-1**	0.051	U	0.360	U	0.032	U	0.071	U	0.027	UJ	0.15	U	0.079	U	0.380	U	0.032	U	0.071	U	0.027	UJ	0.15	U
IA08-1-B	**203IA-2**	0.051	U	0.030	U	0.032	U	0.034	U	0.057	U	0.16	U	0.079	U	0.031	U	0.032	U	0.034	U	0.057	U	0.16	U
IA10-1-B	**203IA-3**	0.051	U	0.027	U	0.033	U	0.050	UJ	0.026	UJ	0.16	U	0.079	U	0.029	U	0.033	U	0.050	UJ	0.026	UJ	0.16	U
NS	**204IA-1**	-		0.028	U	0.032	U	0.093	U	0.052	UJ	0.23	U	-		0.020	J	0.032	J	0.093	U	0.052	UJ	0.23	U
IA15-1-B	**204IA-2**	0.051	U	0.028	U	0.032	U	0.059	UJ	0.090	UJ	0.14	U	0.079	U	0.029	U	0.032	U	0.059	UJ	0.090	UJ	0.14	U
IA14-1-B	**204IA-3**	0.051	U	0.027	U	0.028	U	0.033	U	0.0250	UJ	0.088	U	0.079	U	0.028	U	0.028	U	0.033	U	0.025	UJ	0.088	U
IABG-1-B	**NS**	0.051	U	-		-		-		-		-		0.079	U	-		-		-		-		-	
IABG-2-B	**OA-1**	0.051	U	0.023	UJ	0.029	U	0.026	UJ	0.052	UJ	0.058	U	0.079	U	0.024	UJ	0.029	U	0.026	UJ	0.052	UJ	0.058	U
	2017 OA-1 Resample	-		-		0.032	U	-		-		-		-		-		0.032	U	-		-		-	
	3/26/20 IA201-2 Resample	-		-		-		-		0.028	UJ	-		-		-		-		-		0.028	UJ	-	
	3/26/20 OA-1 Resample	-		-		-		-		0.03	U	-		-		-		-		-		0.030	U	-	

Notes:
NS - No equivalent sample at this location
"-" - Not Sampled
IA - Indoor Air
IABG - Stone 2014 Outdoor Air Sample
OA - Outdoor Air
U - Qualifier denotes non-detect.
J - Qualifier denotes estimated value.
UJ - Qualifier denotes the analyte was analyzed for, but was not detected. The reported quantitation limit is approximated and may be imprecise.

Table 3-1
Air Sample Analytical Results
Former Scotia Naval Depot
Glenville, NY

Stone 3/2014	AECOM	cis-1,2-Dichloroethene (µg/m^3)											
		Stone 2014		AECOM 2016		AECOM2017		AECOM 2018		AECOM Jan 2020		AECOM Dec 2020	
Sample ID	Sample ID												
IA06-1-B	201IA-1	0.079	U	0.043	J	0.031	U	0.025	UJ	0.040	U	0.099	U
IA05-1-B	201IA-2	0.079	U	0.029	U	0.029	U	0.027	UJ	0.032	U	0.12	U
IA07-1-B	201IA-3	0.079	U	0.031	U	0.031	U	0.026	UJ	0.025	UJ	0.10	U
IA11-1-B	202IA-1	0.079	U	0.026	UJ	0.031	U	0.025	UJ	0.026	UJ	0.097	U
IA12-1-B	202IA-2	0.079	U	0.026	UJ	0.032	U	0.035	U	0.026	UJ	0.11	U
NS	202IA-3	-		0.023	U	0.034	U	0.034	U	0.087	UJ	0.15	U
IA09-1-B	203IA-1	0.079	U	0.380	U	0.032	U	0.071	U	0.027	UJ	0.14	U
IA08-1-B	203IA-2	0.079	U	0.031	U	0.032	U	0.034	U	0.057	U	0.15	U
IA10-1-B	203IA-3	0.079	U	0.029	U	0.033	U	0.050	UJ	0.026	UJ	0.16	U
NS	204IA-1	-		0.039		0.032		0.093	U	0.052	UJ	0.22	U
IA15-1-B	204IA-2	0.079	U	0.029	U	0.032	U	0.059	UJ	0.090	UJ	0.14	U
IA14-1-B	204IA-3	0.079	U	0.028	U	0.028	U	0.033	U	0.025	UJ	0.084	U
IABG-1-B	NS	0.079	U	-		-		-		-		-	
IABG-2-B	OA-1	0.079	U	0.024	UJ	0.029	U	0.026	UJ	0.052	UJ	0.030	J
	2017 OA-1 Resample	-		-		0.032	U	-		-		-	
	3/26/20 IA201-2 Resample	-		-		-		-		0.022	J	-	
	3/26/20 OA-1 Resample	-		-		-		-		0.028	U	-	

Notes:
NS - No equivalent sample at this location
"-" - Not Sampled
IA - Indoor Air
IABG - Stone 2014 Outdoor Air Sample
OA - Outdoor Air
U - Qualifier denotes non-detect.
J - Qualifier denotes estimated value.
UJ - Qualifier denotes the analyte was analyzed for, but was not detected. The reported quantitation limit is approximated and may be imprecise.

Table 3-2
NYSDOH Guidance Decision Matrix Outcomes
January 2020
Former Scotia Naval Depot
Glenville NY

Location ID Stone (Indoor Air/Soil Vapor)	Location ID AECOM (Indoor Air/Soil Vapor)	Analyte	Soil Vapor Concentration 2014 (µg/m^3)	Soil Vapor Concentration Jan 2020 (µg/m^3)	Indoor Air Concentration 2014 (µg/m^3)	Indoor Air Concentration 2016 (µg/m^3)	Indoor Air Concentration 2017 (µg/m^3)	Indoor Air Concentration 2018 (µg/m^3)	Indoor Air Concentration Jan 2020 (µg/m^3)	Indoor Air Concentration Dec 2020 (µg/m^3)	New York State Department of Health Guidance/Decision Matrix Outcome[1]
IA05/SV05	201IA-2/201SS-2	1,1,1-Trichloroethane	0.737	0.026 J	0.109 U	0.014 J	0.011 J	0.0086 J	0.025 J / 0.009 J	0.12 U	No Further Action
		Carbon Tetrachloride	122	1.2	0.673	0.51	0.39	0.34 J	2.1 / 0.38 J	0.57	No Further Action
		Tetrachloroethene	0.542 J	0.17	0.136	0.05	0.16	0.088 J	0.1 / 0.098	0.13 J	No Further Action
		Trichloroethene	1.05	0.078 U	0.107 U	0.023 J	0.023 J	0.022 J	0.020 J / 0.021 J	0.12 U	No Further Action
IA06/SV06	201IA-1/201SS-1	1,1,1-Trichloroethane	27.3	0.38 J	0.038 J	0.015 J	0.0096 J	0.0078 J	0.011 U	0.099 U	No Further Action
		Carbon Tetrachloride	10.1	0.54 J	0.692	0.49 J	0.4	0.32 J	0.39	0.62	No Further Action
		Tetrachloroethene	3.44	0.13 J	0.068 J	0.054 J	0.044	0.053 J	0.30	0.11 J	No Further Action
		Trichloroethene	2.82	0.053 UJ	0.107 U	0.037 J	0.031 U	0.025 UJ	0.025 J	0.099 U	No Further Action
IA07/SV07	201IA-3/201SS-3	1,1,1-Trichloroethane	1.39	0.046 J	0.109 U	0.015 J	0.01 J	0.0079 J	0.011 J	0.10 U	No Further Action
		Carbon Tetrachloride	1,120	60	2.64	0.59	0.43	0.34 J	0.43	0.40	Mitigate
		Tetrachloroethene	0.868	0.12	0.258	0.094	0.11	0.14 J	0.11	0.15	No Further Action
		Trichloroethene	0.349	0.045 J	0.107 U	0.046	0.082	0.019 J	0.026 J	0.10 U	No Further Action
IA11/SV11	202IA-1/202SS-1	1,1,1-Trichloroethane	96	1.1 J	0.469	0.018 J	0.012 J	0.010 J	0.012 J	0.097 U	No Further Action
		Carbon Tetrachloride	223	21 J	1.95	0.45 J	0.39	0.32 J	0.41	0.55	Monitor
		Tetrachloroethene	5.85 U	0.28 J	0.142	0.054	0.15	0.11 J	0.078	0.46	No Further Action
		Trichloroethene	2.32 J	0.041 J	0.107 U	0.030 J	0.025 J	0.028 J	0.028 J	0.097 U	No Further Action
IA12/SV12	202IA-2/202SS-2	1,1,1-Trichloroethane	103	47	0.147	0.017 J	0.011 J	0.012 J	0.010 J	0.11 U	No Further Action
		Carbon Tetrachloride	918	440	1.01	0.45 J	0.4	0.34	0.43	0.46	Mitigate
		Tetrachloroethene	0.271 U	0.59	0.061 J	0.060 J	0.075	0.11	0.11	76	Identify Source(s) and Resample Or Mitigate
		Trichloroethene	0.172 J	0.13 J	0.107 U	0.034 J	0.014 J	0.030 J	0.021 J	0.11 U	No Further Action
No sample	202IA-3/202SS-3	1,1,1-Trichloroethane	-	0.23 J	-	0.017 J	.011 J	0.014 J	0.024 U	0.15 U	No Further Action
		Carbon Tetrachloride	-	22	-	0.39	0.4	0.33	0.43	0.43	Monitor
		Tetrachloroethene	-	0.33	-	0.11	0.086	0.12	0.082 J	23	Identify Source(s) and Resample Or Mitigate
		Trichloroethene	-	0.21 U	-	0.036	.019 J	0.052	0.073 J	0.15 U	No Further Action
IA08/SV08	203IA-2/203SS-2	1,1,1-Trichloroethane	862	23	0.737	0.023 J	0.011 J	0.016 J	0.016 U	0.096 J	No Further Action
		Carbon Tetrachloride	3,270	80	2.65	0.54	0.37	0.34	0.45	0.61	Mitigate
		Tetrachloroethene	0.678	7.8	0.292	0.14	0.073	0.19	0.14	13	Identify Source(s) and Resample Or Mitigate
		Trichloroethene	0.699	0.31	0.752	0.091	0.019 J	0.12	0.060 J	0.15 U	No Further Action
IA09/SV09	203IA-1/203SS-1	1,1,1-Trichloroethane	72.6	4.2	0.196	0.380 U	0.013 J	0.075 U	0.012 J	0.051 J	No Further Action
		Carbon Tetrachloride	68.9	0.64	0.692	0.42 J	0.41	0.33	0.40	0.46	No Further Action
		Tetrachloroethene	0.339	5.3	0.17	0.380 U	0.18	0.15	0.074	11	Identify Source(s) and Resample Or Mitigate
		Trichloroethene	0.333	0.14U	0.683	0.380 U	0.042	0.099	0.045	0.073 J	No Further Action
IA10/SV10	203IA-3/203SS-3	1,1,1-Trichloroethane	45.7	39	0.18	0.019 J	0.012 J	0.015 J	0.014 J	0.072 J	No Further Action
		Carbon Tetrachloride	22.3	13	0.654	0.48	0.4	0.35 J	0.42	0.46	Monitor
		Tetrachloroethene	0.231	1.3	0.156	0.075	0.068	0.087 J	0.092	1.7	No Further Action
		Trichloroethene	132	140	0.623	0.076	0.027J	0.085 J	0.083	0.23	Mitigate
SV13 No indoor air sample	204IA-1/204SS-1	1,1,1-Trichloroethane	8.07	0.070 J	Not Available	0.029 J	0.0091 J	0.098 U	0.015 U	0.22 U	No Further Action
		Carbon Tetrachloride	937	0.81	Not Available	0.5	0.4	0.37	0.43	0.43	No Further Action
		Tetrachloroethene	3.76	0.51	Not Available	0.072	0.99	0.087 J	0.075	0.22 U	No Further Action
		Trichloroethene	1,630	1.8	Not Available	0.089	0.038	0.069 J	0.045 J	0.13 J	No Further Action
IA14/SV14	204IA-3/204SS-3	1,1,1-Trichloroethane	2.35	0.20	0.038 J	0.018 J	0.012 J	0.012 J	0.0099 J	0.084 U	No Further Action
		Carbon Tetrachloride	1.99	0.34	0.516	0.5	0.4	0.31	0.40	0.37	No Further Action
		Tetrachloroethene	63.4	0.50	0.142	0.043	0.059	0.057	0.084	0.075 J	No Further Action
		Trichloroethene	3.12	0.090 U	0.21	0.059	0.035	0.067	0.057	0.084 U	No Further Action
IA15/SV15	204IA-2/204SS-2	1,1,1-Trichloroethane	0.109 U	0.12 U	0.044 J	0.016 J	0.017 J	0.062 UJ	0.094 U	0.14 U	No Further Action
		Carbon Tetrachloride	0.774	0.19	0.572	0.47	0.46	0.36 J	0.56	0.45	No Further Action
		Tetrachloroethene	0.075 J	0.070 J	0.149	0.057	0.29	0.063 J	0.083 J	0.063 J	No Further Action
		Trichloroethene	0.065 J	0.12 U	3.92	0.061	0.20	0.096 J	0.079 J	0.14 U	No Further Action

Note:
[1] - Matrix outcome determined by 2020 sub-slab vapor concentrations and 2020 indoor air concentrations.

APPENDICES

APPENDIX A: Stone PDI Results 2013 and 2014 Air Sampling Events

Figure 4: Carbon Tetrachloride Sub-Slab Soil Vapor Concentration Map

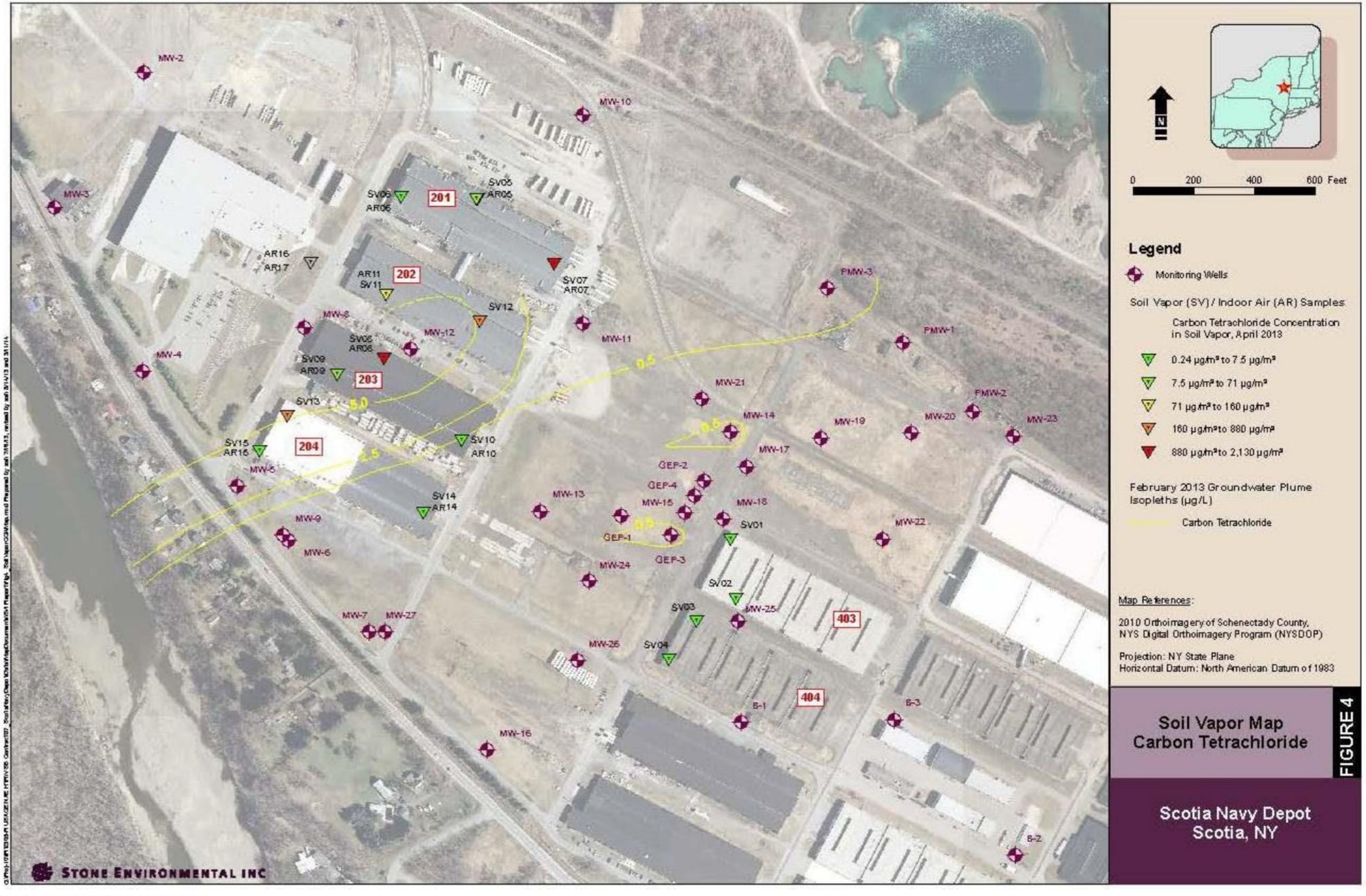


Figure 5: 1,1,1-Trichloroethane Sub-Slab Soil Vapor Concentration Map

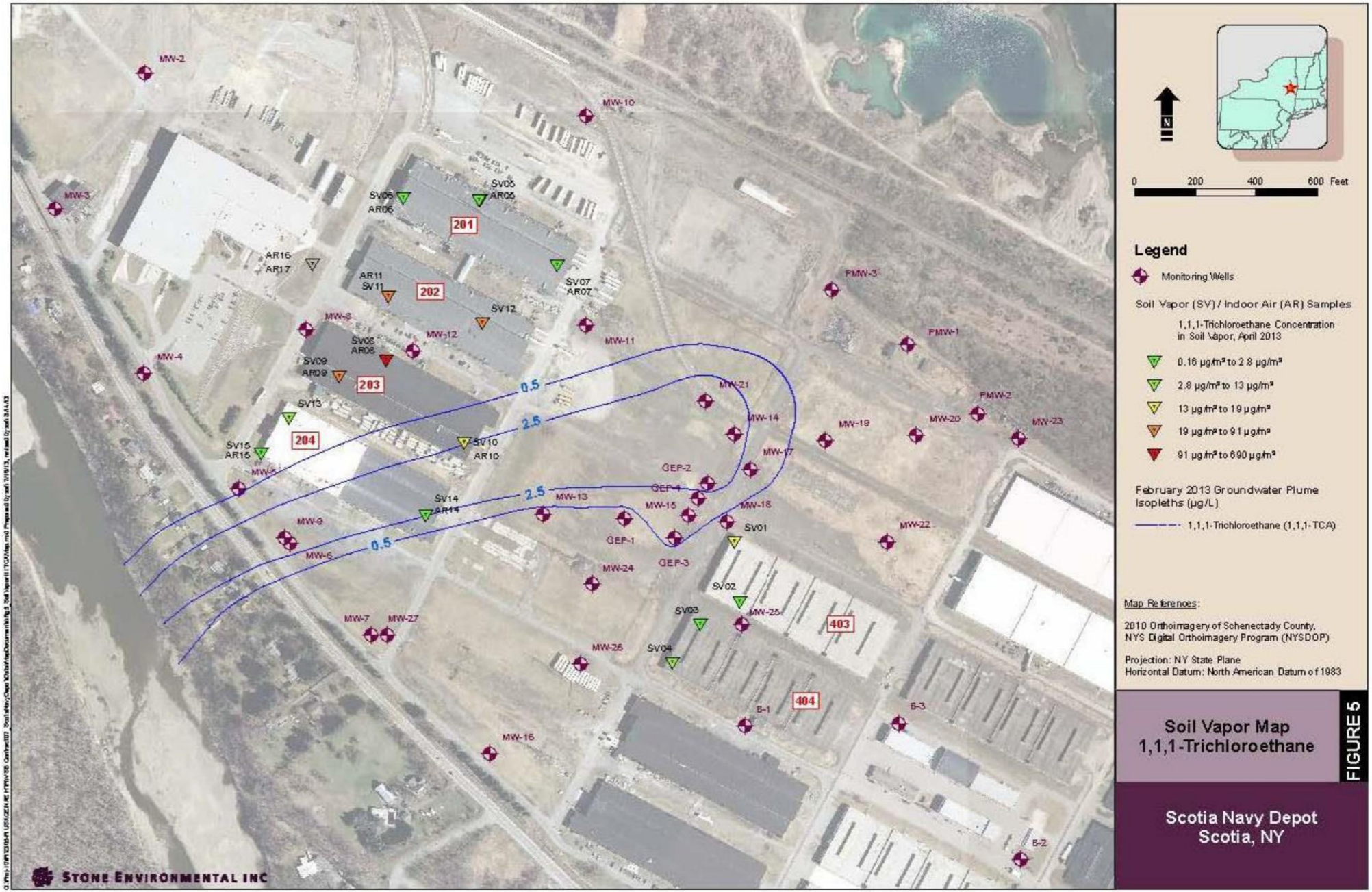


Figure 6: Tetrachloroethene Sub-Slab Soil Vapor Concentration Map

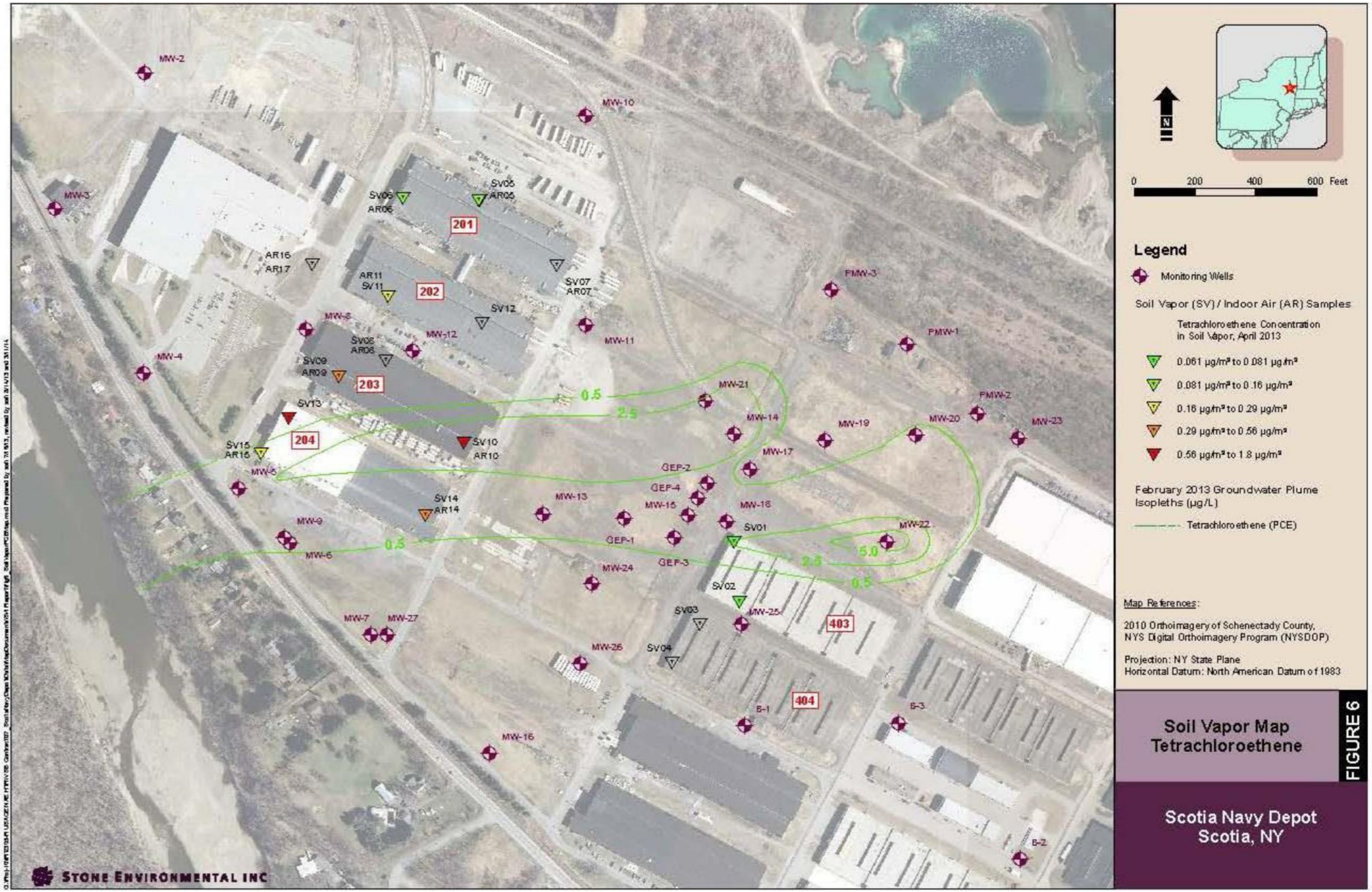
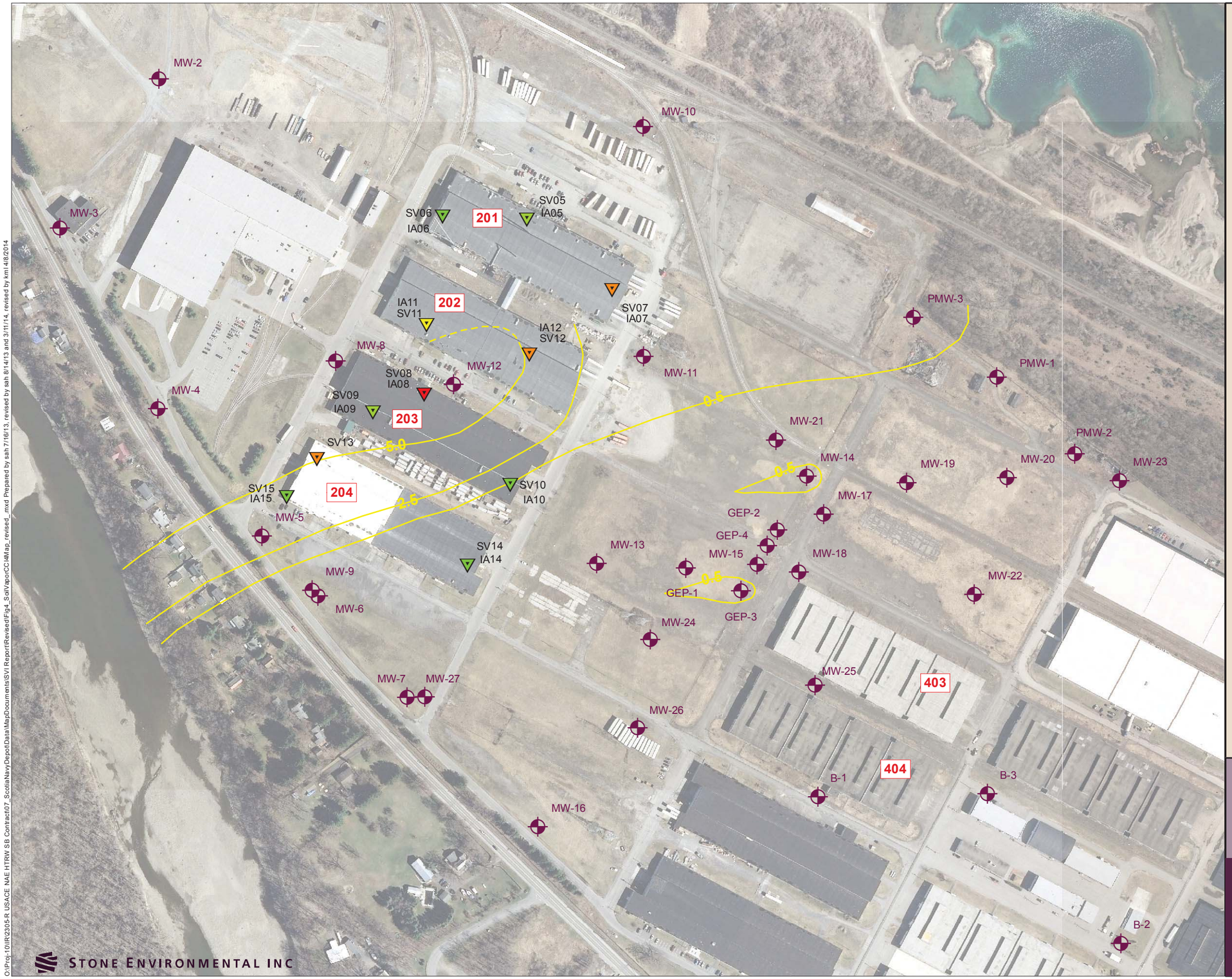


Figure 7: Trichloroethene Sub-Slab Soil Vapor Concentration Map



0 200 400 600 Feet

Legend

Monitoring Wells

Sub-SlabSoil Vapor (SV) / Indoor Air (IA) Samples

Carbon Tetrachloride Concentration in Sub-Slab Soil Vapor, March 2014

- Non-detect
- 0.77 µg/m^3 to 22.3 µg/m^3
- 22.3 µg/m^3 to 122 µg/m^3
- 122 µg/m^3 to 223 µg/m^3
- 223 µg/m^3 to 1,210 µg/m^3
- 1,210 µg/m^3 to 3,270 µg/m^3

February 2013 Groundwater Plume Isopleths (µg/L)

- Carbon Tetrachloride

Map References:

2010 Orthoimagery of Schenectady County, NYS Digital Orthoimagery Program (NYSDOP)

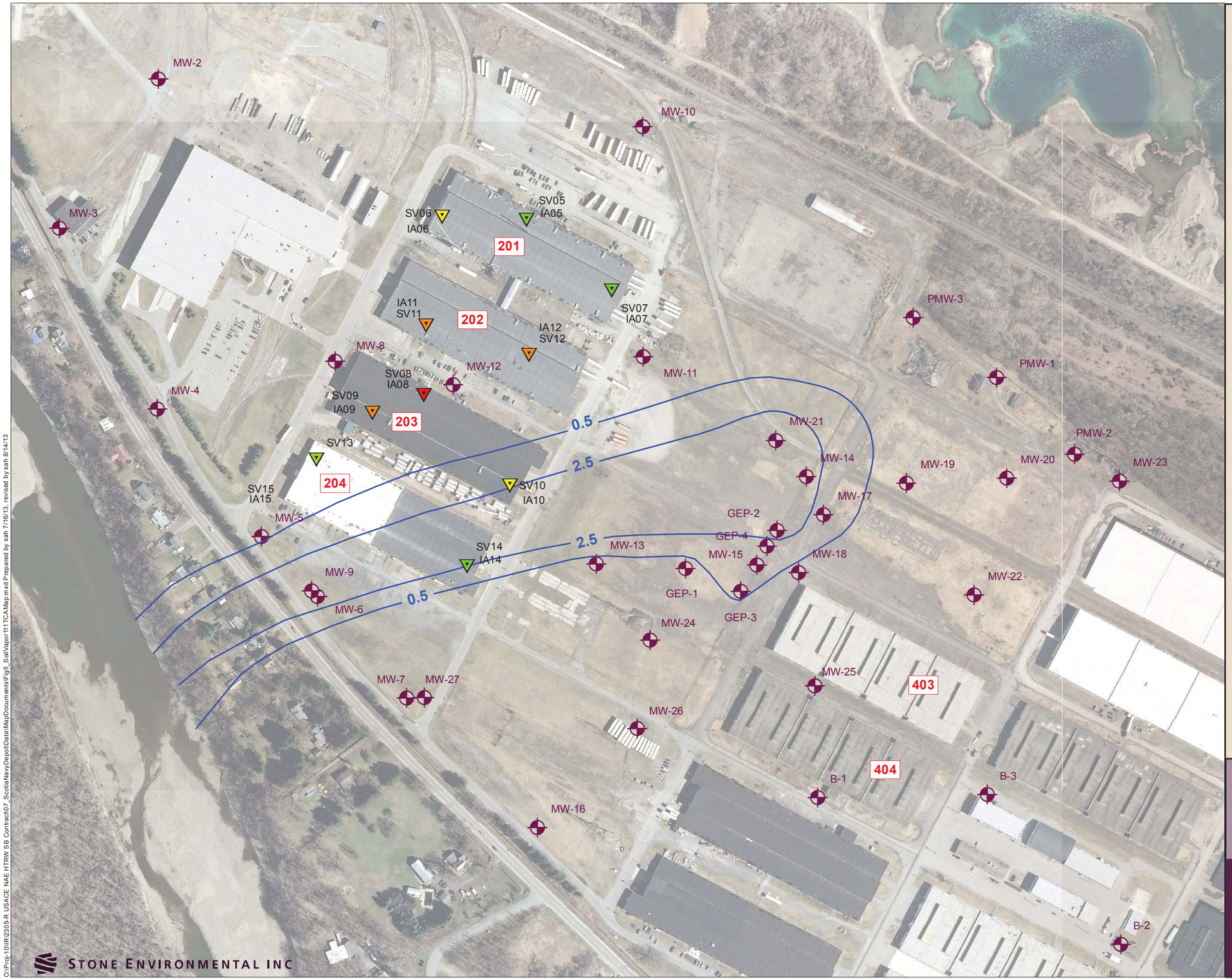
Projection: NY State Plane
Horizontal Datum: North American Datum of 1983

Sub-Slab Soil Vapor Map Carbon Tetrachloride

FIGURE 4

Scotia Navy Depot
Scotia, NY

O:\Proj-110\R2305-R USACE NAE HTRW SB Contract\07_ScotiaNavyDepot\Data\MapDocuments\SVI Report\Revised\Fig4_SoilVaporCC4Map_revised_.mxd Prepared by sah 7/16/13, revised by sah 8/14/13 and 3/11/14, revised by kml 4/8/2014



N

0 200 400 600 Feet

Legend

Monitoring Wells

Sub-Slab Soil Vapor (SV) / Indoor Air (IA) Samples

1,1,1-Trichloroethane Concentration in Sub-Slab Soil Vapor, March 2014

- Non-detect
- 0.737 µg/m^3 to 2.35 µg/m^3
- 2.35 µg/m^3 to 8.07 µg/m^3
- 8.07 µg/m^3 to 45.7 µg/m^3
- 45.7 µg/m^3 to 103 µg/m^3
- 103 µg/m^3 to 862 µg/m^3

February 2013 Groundwater Plume Isopleths (µg/L)

- 1,1,1-Trichloroethane (1,1,1-TCA)

Map References:

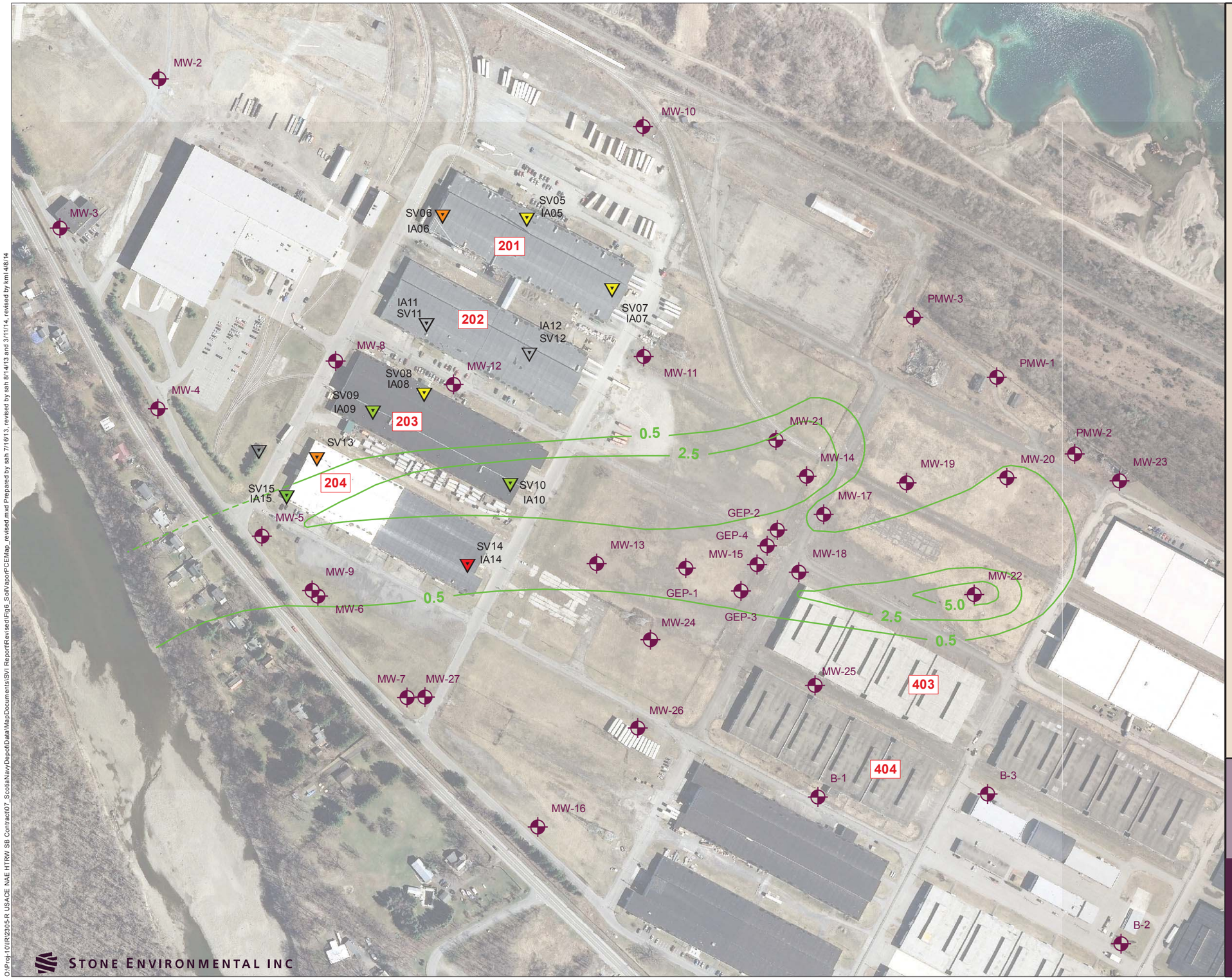
2010 Orthoimagery of Schenectady County, NYS Digital Orthoimagery Program (NYSDOP)

Projection: NY State Plane
Horizontal Datum: North American Datum of 1983

Sub-Slab Soil Vapor Map 1,1,1-Trichloroethane

FIGURE 5

Scotia Navy Depot
Scotia, NY



Legend

Monitoring Wells

Sub-Slab Soil Vapor (SV) / Indoor Air (IA) Samples

Tetrachloroethene Concentration in Sub-Slab Soil Vapor, March 2014

- Non-detect
- 0.075 µg/m^3
- 0.075 µg/m^3 to 0.339 µg/m^3
- 0.339 µg/m^3 to 0.868 µg/m^3
- 0.868 µg/m^3 to 0.3.76 µg/m^3
- 3.76 µg/m^3 to 63.4 µg/m^3

February 2013 Groundwater Plume Isopleths (µg/L)

Tetrachloroethene (PCE)

Map References:

2010 Orthoimagery of Schenectady County, NYS Digital Orthoimagery Program (NYSDOP)

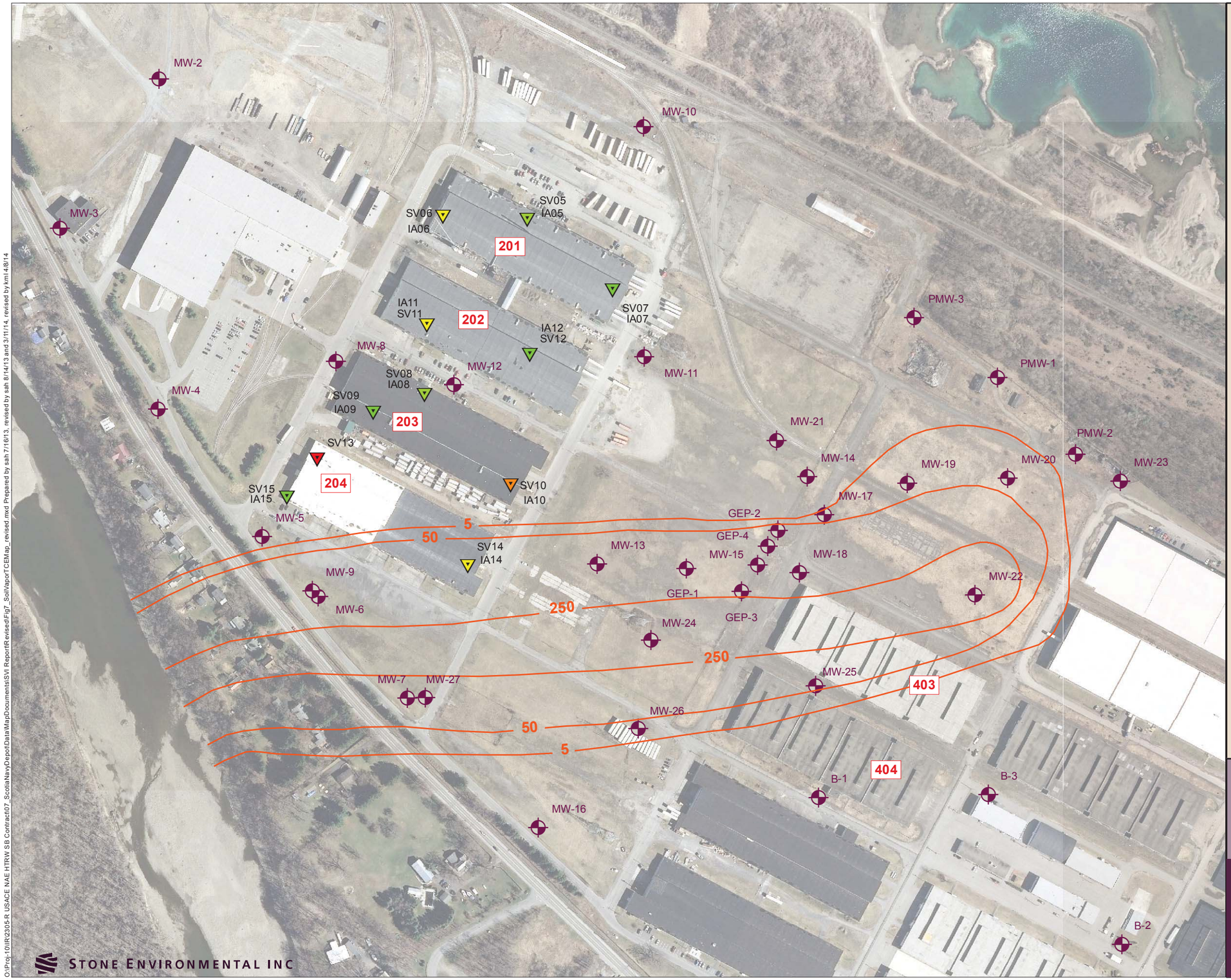
Projection: NY State Plane
Horizontal Datum: North American Datum of 1983

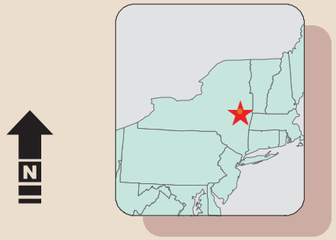
Sub-Slab Soil Vapor Map Tetrachloroethene

FIGURE 6

Scotia Navy Depot Scotia, NY

O:\Proj-10\IR\2305-R USACE NAE HTRW SB Contract\07_ScotiaNavyDepot\DataMapDocuments\SVI Report\Revised\Fig6_SoilVaporPCEMap_revised.mxd Prepared by sah 7/16/13, revised by sah 8/14/13 and 3/11/14, revised by kml 4/8/14





0 200 400 600 Feet

Legend

Monitoring Wells

Sub-Slab Soil Vapor (SV) / Indoor Air (IA) Samples

Trichloroethene Concentration in Sub-Slab Soil Vapor, March 2014

- Non-detect
- 0.065 µg/m^3 to 0.349 µg/m^3
- 0.34 µg/m^3 to 1.05 µg/m^3
- 1.05 µg/m^3 to 3.12 µg/m^3
- 3.12 µg/m^3 to 132 µg/m^3
- 132 µg/m^3 to 1,630 µg/m^3

February 2013 Groundwater Plume Isopleths (µg/L)

- Trichloroethene (TCE)

Map References:

2010 Orthoimagery of Schenectady County, NYS Digital Orthoimagery Program (NYSDOP)

Projection: NY State Plane
Horizontal Datum: North American Datum of 1983

Sub-Slab Soil Vapor Map Trichloroethene

FIGURE 7

Scotia Navy Depot
Scotia, NY

O:\Proj-1\01IR\2305-R USACE NAE HTRW SB Contract\07_ScotiaNavyDepot\DataMapDocuments\SVI Report\Revised\Fig7_SoilVaporTCEMap_revised .mxd Prepared by sah 7/16/13, revised by sah 8/14/13 and 3/11/14, revised by kml 4/8/14

APPENDIX B: Weather Data

Weather Data for SVI Monitoring
Source: Weather Underground

Date	Time	Temp	Dew Point	Humidity	Wind Direction	Wind Speed	Wind Gust	Pressure	Prep.	Conditions
12/9/20	9:04 AM	32 F	32 F	100 %	SW	6 mph	0 mph	29.10 in	0.0 in	Light Snow
12/9/20	9:35 AM	32 F	32 F	100 %	SW	8 mph	0 mph	29.10 in	0.0 in	Light Snow
12/9/20	9:51 AM	32 F	32 F	100 %	SW	9 mph	0 mph	29.10 in	0.0 in	Light Snow
12/9/20	9:54 AM	32 F	32 F	100 %	SW	8 mph	0 mph	29.10 in	0.0 in	Light Snow
12/9/20	10:25 AM	33 F	32 F	96 %	WSW	13 mph	0 mph	29.09 in	0.0 in	Light Snow
12/9/20	10:54 AM	33 F	32 F	96 %	WSW	14 mph	0 mph	29.09 in	0.0 in	Light Snow
12/9/20	11:10 AM	33 F	32 F	96 %	WSW	12 mph	0 mph	29.08 in	0.0 in	Light Snow
12/9/20	11:24 AM	34 F	32 F	92 %	WSW	13 mph	0 mph	29.08 in	0.0 in	Light Snow
12/9/20	11:54 AM	34 F	33 F	96 %	WSW	12 mph	0 mph	29.07 in	0.0 in	Light Snow
12/9/20	12:37 PM	34 F	33 F	96 %	W	10 mph	0 mph	29.06 in	0.0 in	Light Rain
12/9/20	12:54 PM	35 F	33 F	92 %	W	12 mph	0 mph	29.05 in	0.0 in	Cloudy
12/9/20	1:54 PM	35 F	33 F	92 %	W	13 mph	0 mph	29.05 in	0.0 in	Cloudy
12/9/20	2:54 PM	36 F	33 F	89 %	W	14 mph	0 mph	29.07 in	0.0 in	Cloudy
12/9/20	3:40 PM	36 F	33 F	89 %	W	13 mph	0 mph	29.08 in	0.0 in	Cloudy
12/9/20	3:54 PM	36 F	33 F	89 %	W	14 mph	0 mph	29.09 in	0.0 in	Cloudy
12/9/20	4:54 PM	37 F	33 F	86 %	W	12 mph	0 mph	29.12 in	0.0 in	Cloudy

12/9/20	5:54 PM	37 F	34 F	89 %	W	15 mph	23 mph	29.13 in	0.0 in	Cloudy
12/9/20	6:54 PM	38 F	34 F	86 %	W	16 mph	0 mph	29.15 in	0.0 in	Cloudy
12/9/20	7:54 PM	38 F	34 F	86 %	W	15 mph	22 mph	29.18 in	0.0 in	Cloudy
12/9/20	8:54 PM	38 F	34 F	86 %	W	12 mph	22 mph	29.20 in	0.0 in	Cloudy
12/9/20	9:54 PM	38 F	35 F	89 %	W	15 mph	22 mph	29.22 in	0.0 in	Cloudy
12/9/20	10:02 PM	38 F	35 F	89 %	WNW	12 mph	22 mph	29.22 in	0.0 in	Cloudy
12/9/20	10:45 PM	38 F	35 F	89 %	W	9 mph	0 mph	29.24 in	0.0 in	Cloudy
12/9/20	10:54 PM	38 F	35 F	89 %	W	10 mph	0 mph	29.24 in	0.0 in	Cloudy
12/9/20	11:35 PM	38 F	35 F	89 %	WNW	8 mph	0 mph	29.26 in	0.0 in	Light Rain
12/9/20	11:54 PM	37 F	36 F	96 %	WNW	8 mph	0 mph	29.27 in	0.0 in	Light Rain
12/10/20	12:35 AM	37 F	36 F	96 %	NW	6 mph	0 mph	29.28 in	0.0 in	Cloudy
12/10/20	12:54 AM	37 F	35 F	93 %	WNW	8 mph	0 mph	29.28 in	0.0 in	Cloudy
12/10/20	1:45 AM	36 F	35 F	97 %	WNW	9 mph	0 mph	29.30 in	0.0 in	Rain
12/10/20	1:54 AM	36 F	35 F	97 %	NW	10 mph	0 mph	29.31 in	0.0 in	Light Rain
12/10/20	2:33 AM	36 F	35 F	97 %	WNW	6 mph	0 mph	29.34 in	0.0 in	Light Rain
12/10/20	2:54 AM	36 F	36 F	100 %	W	5 mph	0 mph	29.34 in	0.0 in	Wintry Mix
12/10/20	3:54 AM	37 F	35 F	93 %	W	7 mph	0 mph	29.35 in	0.0 in	Cloudy
12/10/20	4:54 AM	38 F	35 F	89 %	W	9 mph	0 mph	29.37 in	0.0 in	Cloudy
12/10/20	5:54 AM	38 F	35 F	89 %	W	7 mph	0 mph	29.40 in	0.0 in	Cloudy
12/10/20	6:54 AM	37 F	34 F	89 %	W	7 mph	0 mph	29.42 in	0.0 in	Cloudy

12/10/20	7:54 AM	38 F	34 F	86 %	W	9 mph	0 mph	29.45 in	0.0 in	Cloudy
12/10/20	8:54 AM	39 F	34 F	82 %	WNW	8 mph	0 mph	29.48 in	0.0 in	Cloudy
12/10/20	9:54 AM	40 F	35 F	83 %	W	8 mph	0 mph	29.50 in	0.0 in	Cloudy
12/10/20	10:54 AM	41 F	33 F	73 %	W	8 mph	0 mph	29.51 in	0.0 in	Cloudy
12/10/20	11:54 AM	42 F	31 F	65 %	W	12 mph	20 mph	29.50 in	0.0 in	Mostly Cloudy
12/10/20	12:45 PM	41 F	31 F	67 %	WNW	12 mph	0 mph	29.50 in	0.0 in	Cloudy
12/10/20	12:54 PM	41 F	32 F	70 %	WNW	9 mph	0 mph	29.50 in	0.0 in	Cloudy
12/10/20	1:54 PM	42 F	32 F	67 %	WNW	9 mph	0 mph	29.50 in	0.0 in	Cloudy
12/10/20	2:54 PM	42 F	32 F	67 %	NW	7 mph	0 mph	29.52 in	0.0 in	Cloudy
12/10/20	3:12 PM	42 F	32 F	67 %	NW	9 mph	0 mph	29.52 in	0.0 in	Cloudy
12/10/20	3:54 PM	41 F	32 F	70 %	CALM	0 mph	0 mph	29.52 in	0.0 in	Cloudy

APPENDIX C: NYSDOH Air Sampling Questionnaires

Building 201 - 48 SOLUTIONS

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 Gerlinde Wolf Date/Time Prepared 12/08/2020; 1000

Preparer's Affiliation AECOM Phone No. 518-951-2200

Purpose of Investigation SVI monitoring

1. OCCUPANT:

Interviewed: **Y** / **N**

Last Name: Finlan First Name: James

Address: 201 A Street Schenectady, NY 12306

County: Schenectady

Home Phone: 518-861-5400 Office Phone: 518-861-5410

Number of Occupants/persons at this location 30 Age of Occupants >18

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

Interviewed: **Y** / **N**

Last Name: Ahl First Name: David

Address: 695 Rotterdam Industrial Park, Schenectady, NY 12306

County: Schenectady

Home Phone: _____ Office Phone: 518-356-4445

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

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

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

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? _____

If the property is commercial, type?

Business Type(s) ___Pallet Refurbishing _

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

Other characteristics:

Number of floors__1 __ Building age_1940s

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

4. AIRFLOW

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

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

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

Basement/Lowest level depth below grade: NA (feet)

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

When the SVI systems were installed, crack sealing in the cement floor was completed; however, there could be limited cracks remaining that could not be accessed.

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

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

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: None

Boiler/furnace located in: Basement Outdoors Main Floor Other None

Air conditioning: Central Air Window units Open Windows None

In the unoccupied office area

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.

There are air ducts in the office for the AC and heat. The AC unit is located on the roof.

7. OCCUPANCY

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

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	
1st Floor	Office, pallet refurbishing shop, woodworking machinery in use
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

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

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

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / (NA) Please specify Fork lift stored and used in warehouse area.

d. Has the building ever had a fire? Y / (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where? _____

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

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

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

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

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

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

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

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? Not in use

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? Not in use

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

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

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

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

If yes, what types of solvents are used? _____

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

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

9. WATER AND SEWAGE

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

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

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

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

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

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

11. FLOOR PLANS

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

Basement:

NA

First Floor:

See attached map

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.

See attached map

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE 3000 PID Meter

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

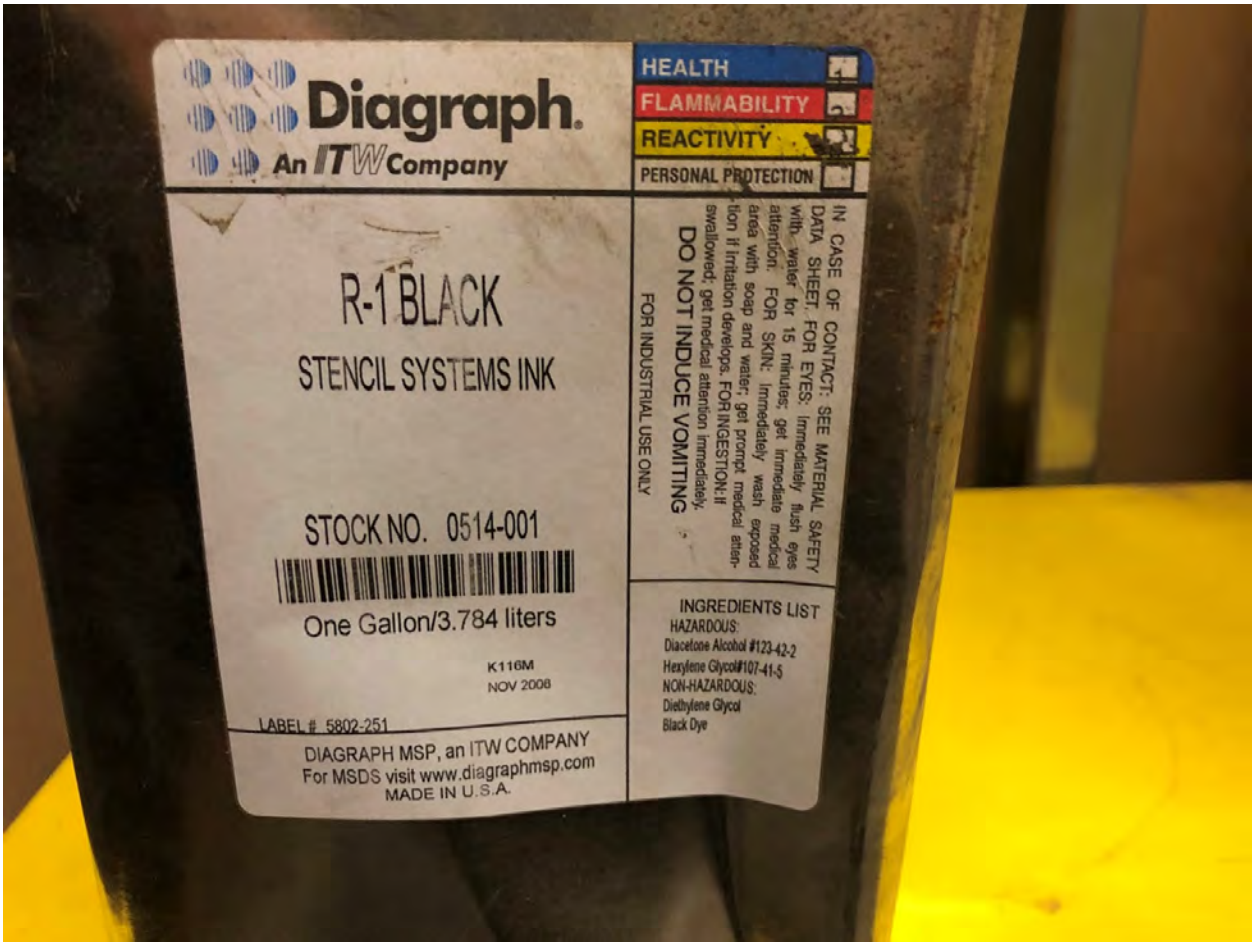
Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo** Y / N
Warehouse	Motor Oil (2x)	1 qt.	U	Ingredients In Photos	263 ppb	Y
Warehouse	Clorox (3x)	1 gal.	U	Ingredients In Photos	263 ppb	Y
Warehouse	Transmission Fluid	1 gal.	U	Ingredients In Photos	263 ppb	Y
Warehouse	Simple Green	1 gal.	U	Ingrediants In Photos	263 ppb	Y
Warehouse	Sapp Sucker	1 gal.	U	Ingredients In Photos	263 ppb	Y
Warehouse	Stencil Ink	1 gal.	U	Ingredients In Photos	263 ppb	Y
Warehouse	PVC Cement/Putty (2x)	4 oz.	U	Ingredients In Photos	263 ppb	Y
Warehouse	Pipe Compound	8 oz.	U	Ingredients In Photos	263 ppb	Y
Warehouse	Marsh Stencil Ink	1 L	U	Ingredients In Photos	263 ppb	Y
Warehouse	Spray Paint	12 oz.	U	Ingredients In Photos	263 ppb	Y

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

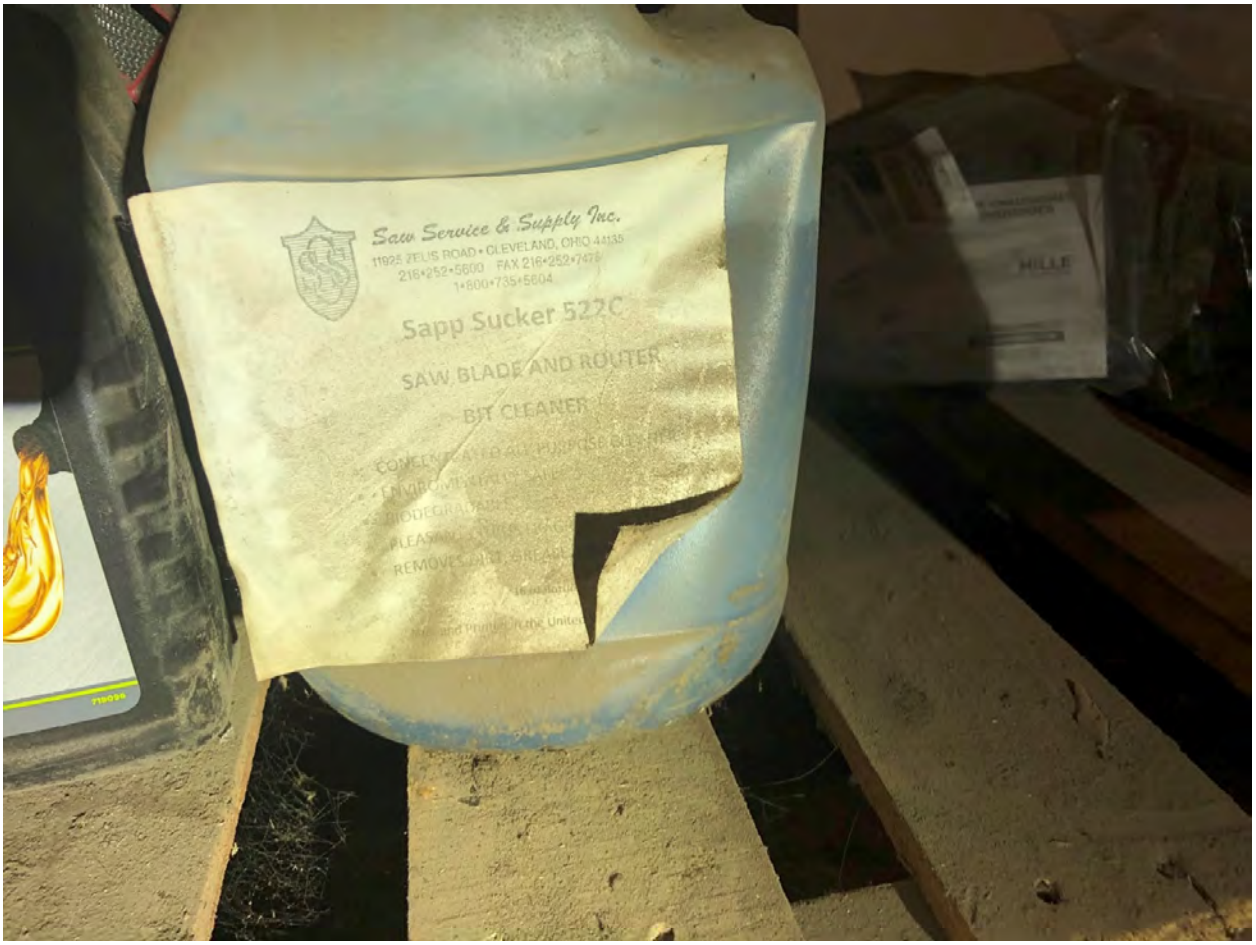
Photograph No. 1	**Product: Oatey Regular Clear PVC Cement** **Location: Warehouse**
Front: 	Back: 

Photograph No. 2	**Product: Do it Pipe Thread Compound** **Location: Warehouse**

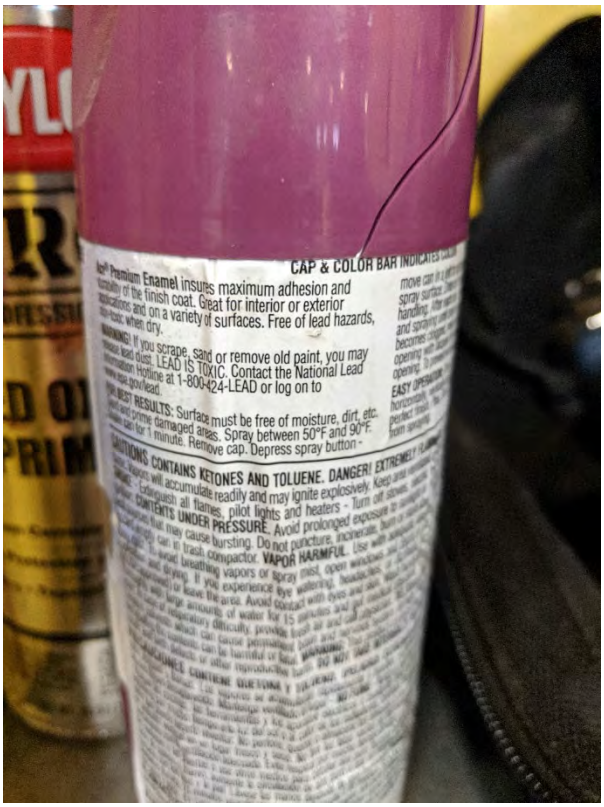
Photograph No. 3	**Product: Diagraph R-1 Black Stencil Systems Ink** **Location: Warehouse**



Photograph No. 4	**Product: Saw Service & Supply Inc. Sapp Sucker 522C** **Location: Warehouse**



Photograph No. 5	**Product: Simple Green Concentrated Cleaner/Degreaser** **Location: Warehouse**

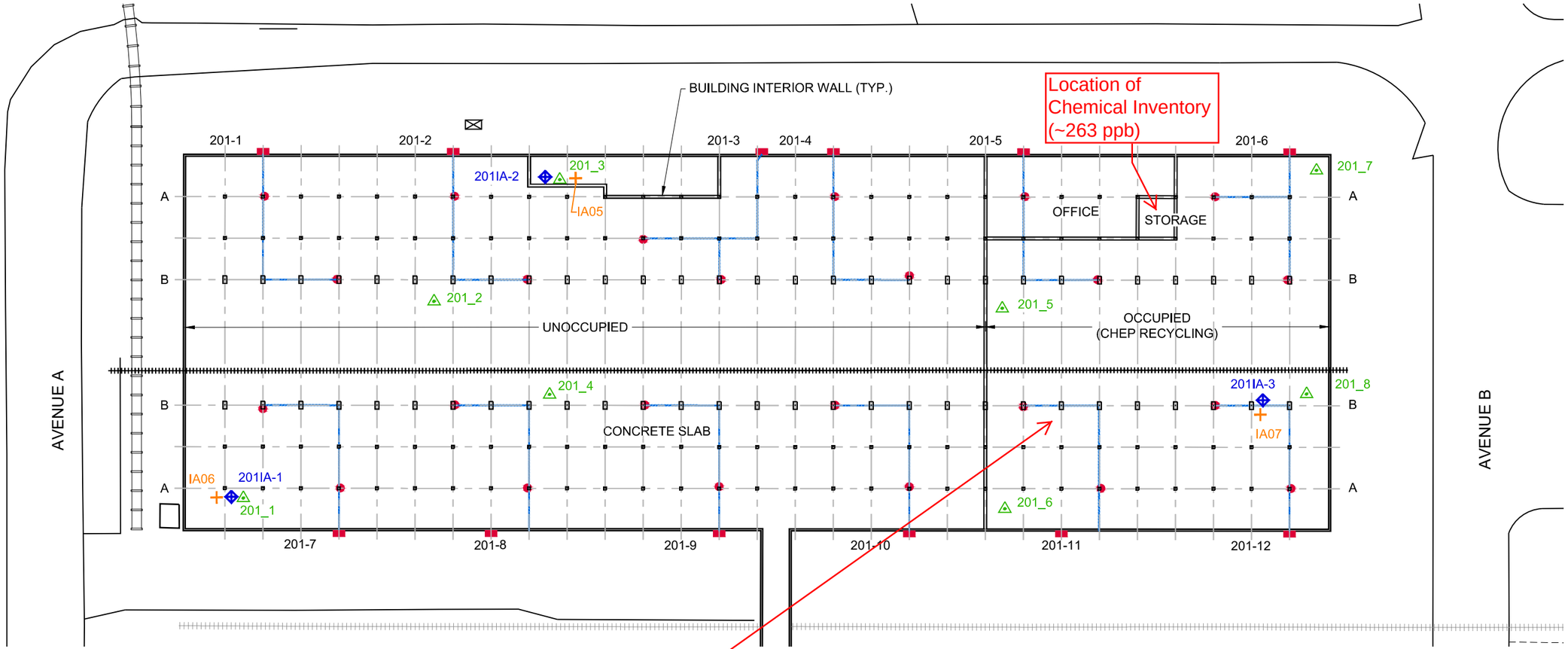
Photograph No. 6	**Product: Ace Premium Enamel** **Location: Warehouse**
Front: 	Back: 

Photograph No. 7	**Product: Oatey Plumber's Putty** **Location: Warehouse**

Photograph No. 8	**Product: Motor Oil** **Location: Warehouse**
Front: 	Back: 

Photograph No. 9	**Product: Transmission Oil** **Location: Warehouse**

Photograph No. 10	**Product: Clorox** **Location: Warehouse**
	



2.

3.

AECOM

Figure: 3-2

BUILDING 201
AIR MONITORING LOCATIONS

US ARMY Corps of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: DECEMBER 2020

Building 202
East
CLYNK

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 Gerlinde Wolf Date/Time Prepared 12/08/2020; 1020

Preparer's Affiliation AECOM Phone No. 518-951-2200

Purpose of Investigation SVI Monitoring

1. OCCUPANT:

Interviewed: (Y) / N

Last Name: Kimball First Name: Micha

Address: 202 B Street, Scotia, NY

County: Schenectady

Home Phone: _____ Office Phone: 518-410-8551

Number of Occupants/persons at this location ~10-15 Age of Occupants >18

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

Interviewed: Y / (N)

Last Name: Ahl First Name: David

Address: 695 Rotterdam Industrial Park, Schenectady, NY 12306

County: Schenectady

Home Phone: _____ Office Phone: 518-356-4445

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

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

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

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? _____

If the property is commercial, type?

Business Type(s) Bottle/can processing for recycling

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

Other characteristics:

Number of floors 1 Building age 1940s

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

4. AIRFLOW

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

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

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

Basement/Lowest level depth below grade: NA (feet)

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

When the SVI systems were installed, crack sealing in the cement floor was completed; however, there could be limited cracks remaining that could not be accessed.

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

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

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: natural gas

Boiler/furnace located in: Basement Outdoors Main Floor Other forced air

Air conditioning: Central Air Window units Open Windows None

In office area

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.

Ductwork along ceiling in office area; not all visible

7. OCCUPANCY

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

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	
1st Floor	Office space and warehouse area where can/bottle processing for recycling is done, heavy machinery in use.
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

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

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

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) (Y) / N / NA Please specify Prpoane forklift used and stored in warehouse

d. Has the building ever had a fire? Y / (N) When?

e. Is a kerosene or unvented gas space heater present? Y / (N) Where?

f. Is there a workshop or hobby/craft area? (Y) / N Where & Type? Paints/chemicals stored in warehouse outside newly constructed office area
~Spray paint within 6 months ~Welding 1x / week

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

h. Have cleaning products been used recently? (Y) / N When & Type? Bathroom/office area cleaning - Wednesday and Sunday

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

j. Has painting/staining been done in the last 6 months? (Y) / N Where & When? Small equipment paint jobs performed in shop area.

k. Is there new carpet, drapes or other textiles? Y / (N) Where & When? Office area > 2 years ago

l. Have air fresheners been used recently? Y / (N) When & Type? Not directly in sampled areas. Used in office area occasionally.

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

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

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

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

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

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

If yes, what types of solvents are used? WD-40, Lubricants and paint used in workshop area.

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

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

9. WATER AND SEWAGE

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

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

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

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

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

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

11. FLOOR PLANS

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

Basement:

NA

First Floor:

See attached map

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.

See attached map

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE 3000 PID Meter

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Shop	Waterborne Enamel	1 gal.	U	Ingredients In Photo	607 ppb	Y
Shop	Acetylene Compressed Gas		U	Acetylene	607 ppb	N
Workshop Cabinet	WD-40	1 gal.	U	Ingredients In Photo	607 ppb	Y
Workshop Cabinet	Spray Paint (8x)	1 gal.	U	Ingredients In Photo	607 ppb	Y
Workshop Cabinet	Paint/Finish (5x)	1 qt.	U	Ingredients In Photo	607 ppb	Y
Workshop Cabinet	Mean Green	1 gal.	U	Ingredients In Photo	607 ppb	Y
Workshop Cabinet	Tool Oil	16 oz.	U	Ingredients In Photo	607 ppb	Y
Workshop Cabinet	Atsco Super 2000 HD Degreaser	1 gal.	U	Ingredients In Photo	607 ppb	Y
Workshop Cabinet	Chalk	14 oz.	UO	Ingredients In Photo	607 ppb	Y
Workshop Cabinet	Antifreeze	1 gal.	U	Ingredients In Photo	607 ppb	Y
Workshop Cabinet	Grease	14 oz.	UO	Ingredients In Photo	607 ppb	Y
Workshop Cabinet	Paint	1 gal.	U	Ingredients In Photo	607 ppb	Y
Workshop	Propane (on forklifts)	-	-	Propane	-	Y
Workshop Cabinet	CRL Aluminum Polyurethane construction sealant	10.1 fl. oz.	U	Ingredients In Photo	607 ppb	Y

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

Photograph No. 1	**Product: Comet Cleaner** **Location: Bathroom**
Front: 	**Back:** 

Photograph No. 2

Product: Windshield Washer Fluid

Location: Bathroom

Front:

Photograph No. 3	**Product: Spray Paint** **Location: Workshop Cabinet**
Front:  	Back: 

Photograph No. 4	**Product: Enamel** **Location: Workshop Cabinet**
Front: 	Back: 

Photograph No. 5	**Product: All Season Lube** **Location: Workshop Cabinet**
Front:  	Back: 

[redacted]

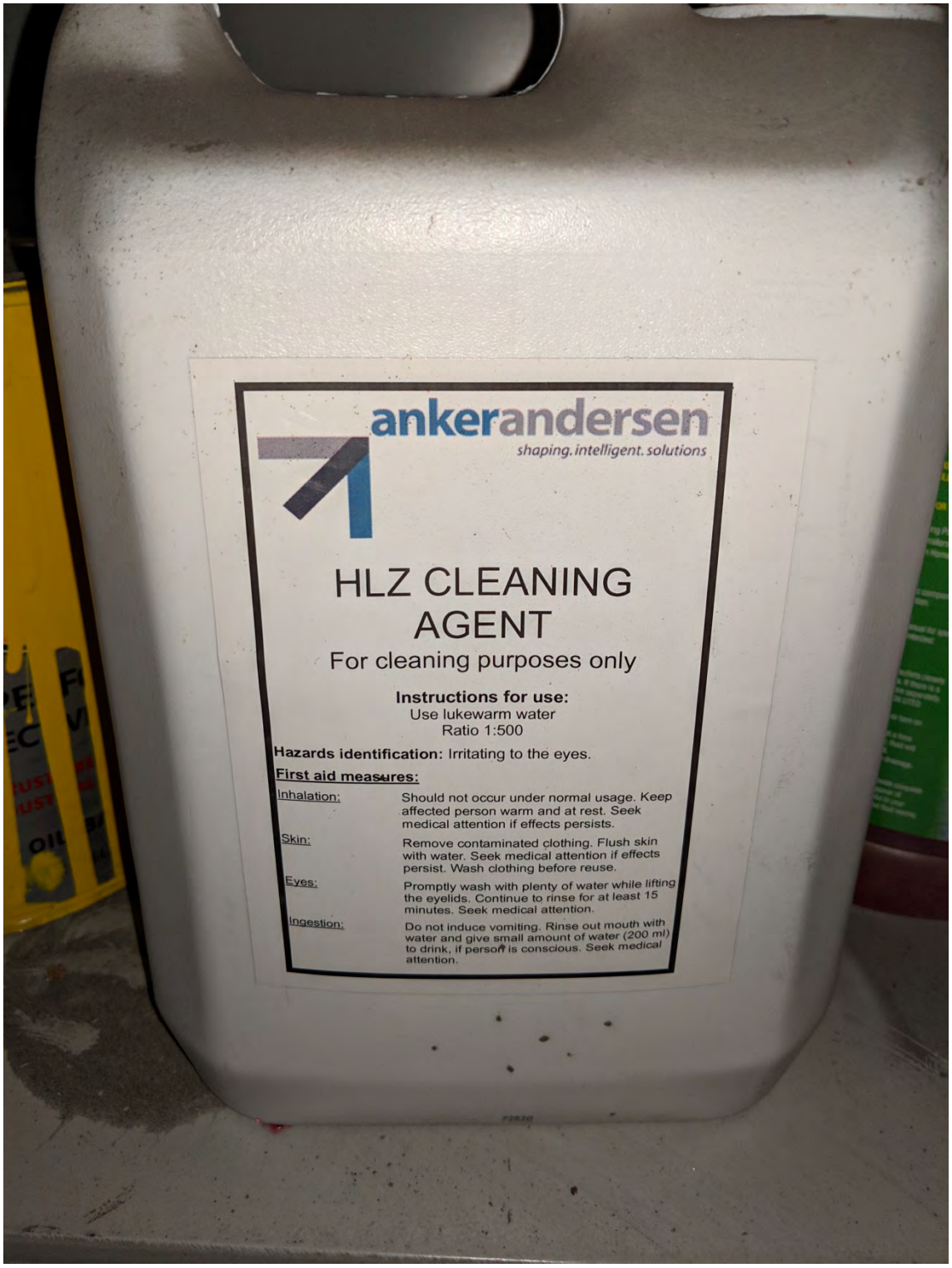
Photograph No. 6

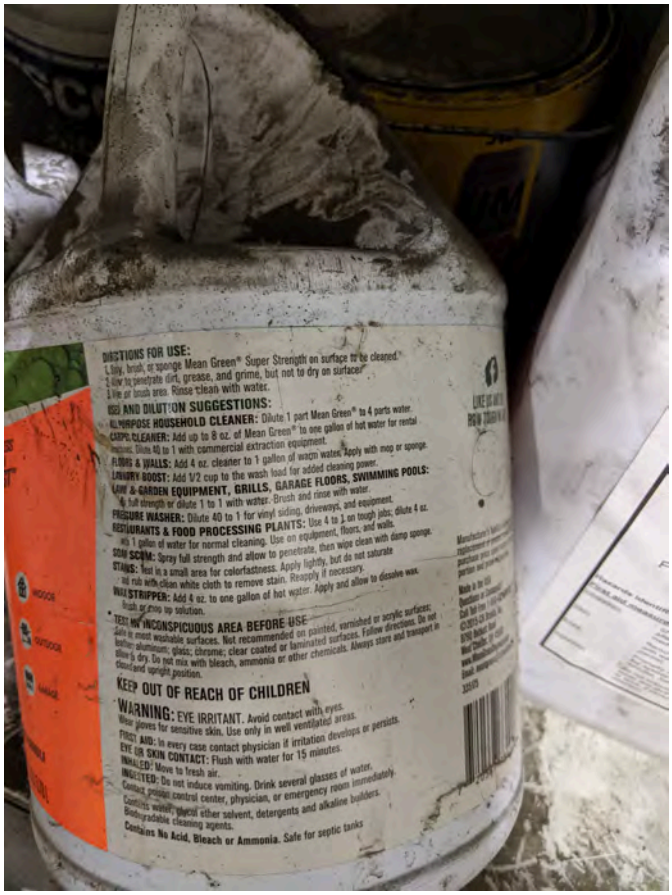
Product: Xtra Grease

Location: Workshop Cabinet

Front:

Photograph No. 7	**Product: Cleaning Agent** **Location: Workshop Cabinet**



Photograph No. 8	**Product: Mean Green** **Location: Workshop Cabinet**
Front: 	Back: 

Photograph No. 9	**Product: Windex** **Location: Workshop Cabinet**

Photograph No. 10

Product: Antifreeze
Location: Workshop Cabinet

Front:

Photograph No. 10	**Product: WD-40** **Location: Workshop Cabinet**
Front:  	Back: 

Location of inventoried chemicals in workshop (~607 ppb)

BUILDING EXTERIOR WALL (TYP.)

202-1 202-2 202-3 202-4 202-5 202-6 202-7 202-8 202-9 202-10 202-11 202-12

202_1 202_2 202_3 202_4 202_5 202_6 202_7 202_8

202IA-1 202IA-2 202IA-3

IA11 IA12

A B

OCCUPIED (ICF Panels)

UNOCCUPIED

OCCUPIED (CLINK RECYCLING)

CONCRETE SLAB

AVENUE A

AVENUE B

Location of surveyed chemicals in Kitchen

Location of surveyed chemicals in workshop bathroom

BUILDING INTERIOR WALL (TYP.)

BUILDING COLUMN (TYP.)

There was regular work activity occurring in the ICF Panels side of the warehouse during the SVI monitoring (summarized on a separate questionnaire). ICF activities including some use of welding, approximately less than 1 hr per day.

On the Clynk side of the warehouse , can/bottle recycling equipment was being used during daily operations.

On both the ICF Panels and Clynk sides, it appeared that doors were kept closed unless someone was entering/exiting.

BUILDING 202
PLAN

LEGEND

- SINGLE VACUUM EXTRACTION POINT
- BLOWER LOCATION
- PIPE ROUTING
- CONFIRMATION TESTING VACUUM MONITORING POINT
- ELECTRICAL SUPPLY PEDESTAL
- IA06 — AIR SAMPLING LOCATION (STONE)
- 201IA-1 — AIR SAMPLING LOCATION (AECOM)

0 60' 120'

AECOM

Figure: 3-3

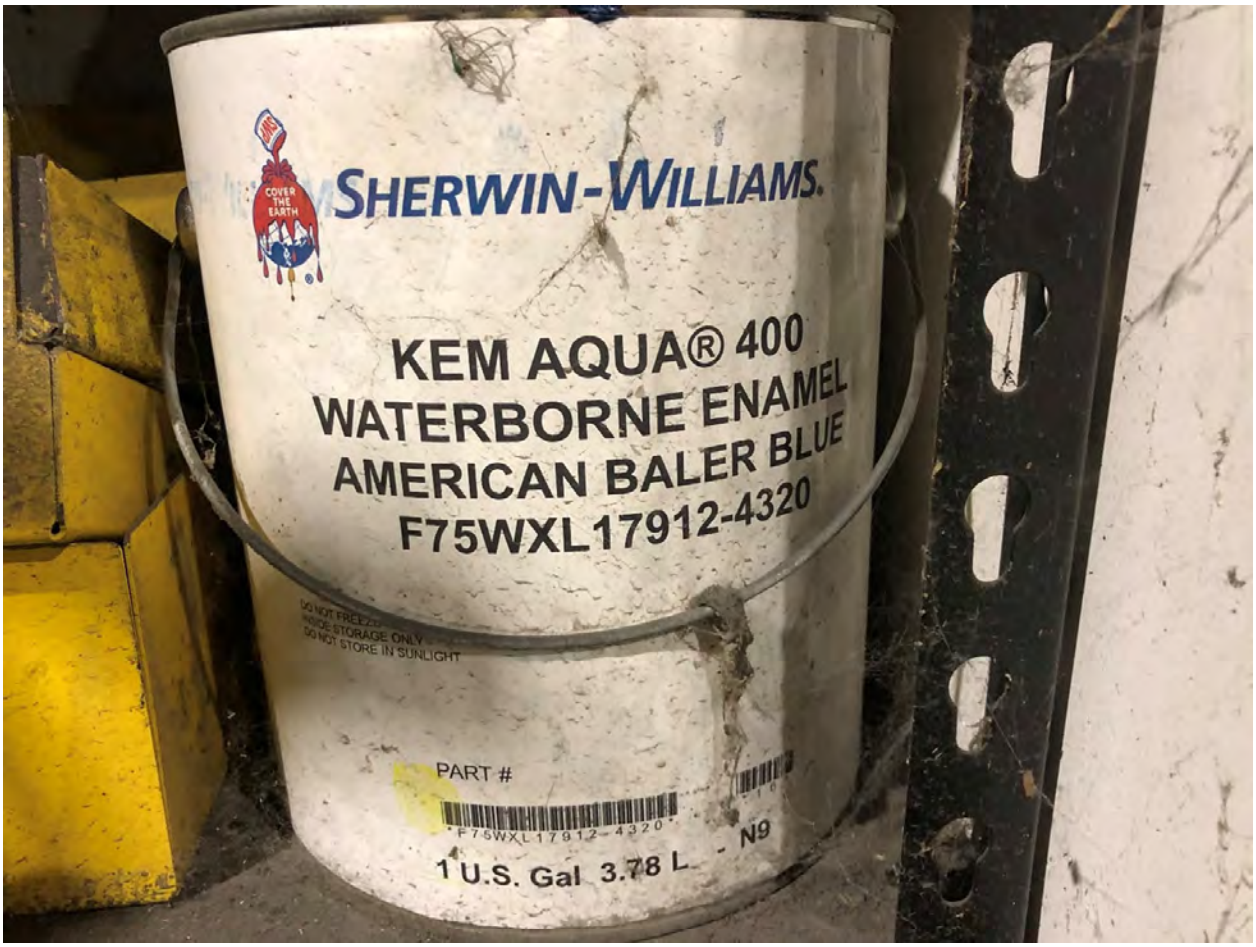
BUILDING 202
AIR MONITORING LOCATIONS

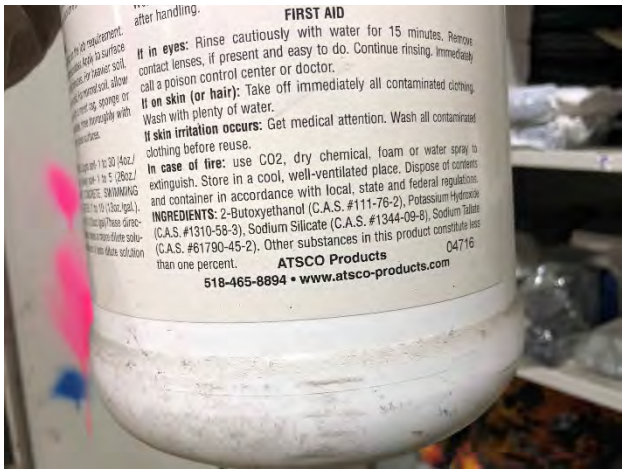
US ARMY Corps of Engineers

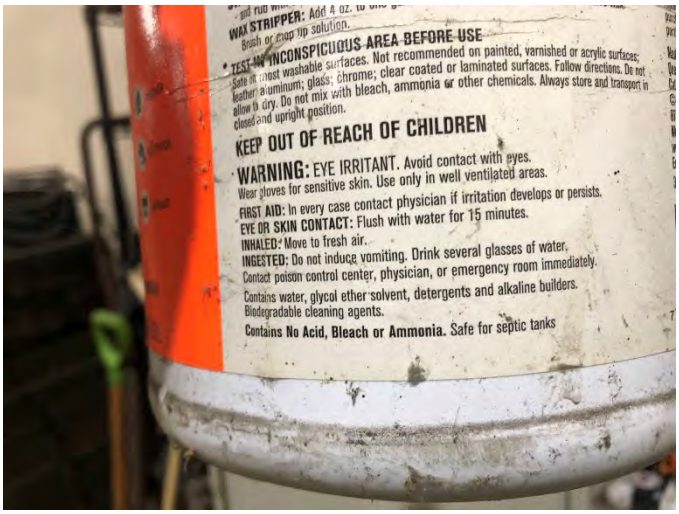
SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: DECEMBER 2020

Photograph No. 1	**Product: Sherwin-Williams Waterborne Enamel** **Location: Shop**

Front:



Photograph No. 2	**Product: ATSCO Products Heavy Duty Cleaner Degreaser** **Location: Workshop Cabinet**
Front:	Back:
	

Photograph No. 3	**Product: Mean Green Cleaner & Degreaser** **Location: Workshop Cabinet**
Front: 	Back: 

Photograph No. 4	**Product: CRL Polyurethane Construction Sealant** **Location: Workshop Cabinet**

Photograph No. 5	**Product: ACE Premium Enamel** **Location: Workshop Cabinet**
Front: 	Back: 

Photograph No. 6	Product: Lucas Oil Products Inc. X-TRA Heavy Duty Grease Location: Workshop Cabinet

Photograph No. 7	**Product: Paint** **Location: Workshop Cabinet**
Front: 	Back: 

Photograph No. 8	**Product: WD-40** **Location: Workshop Cabinet**
Front:  	Back: 

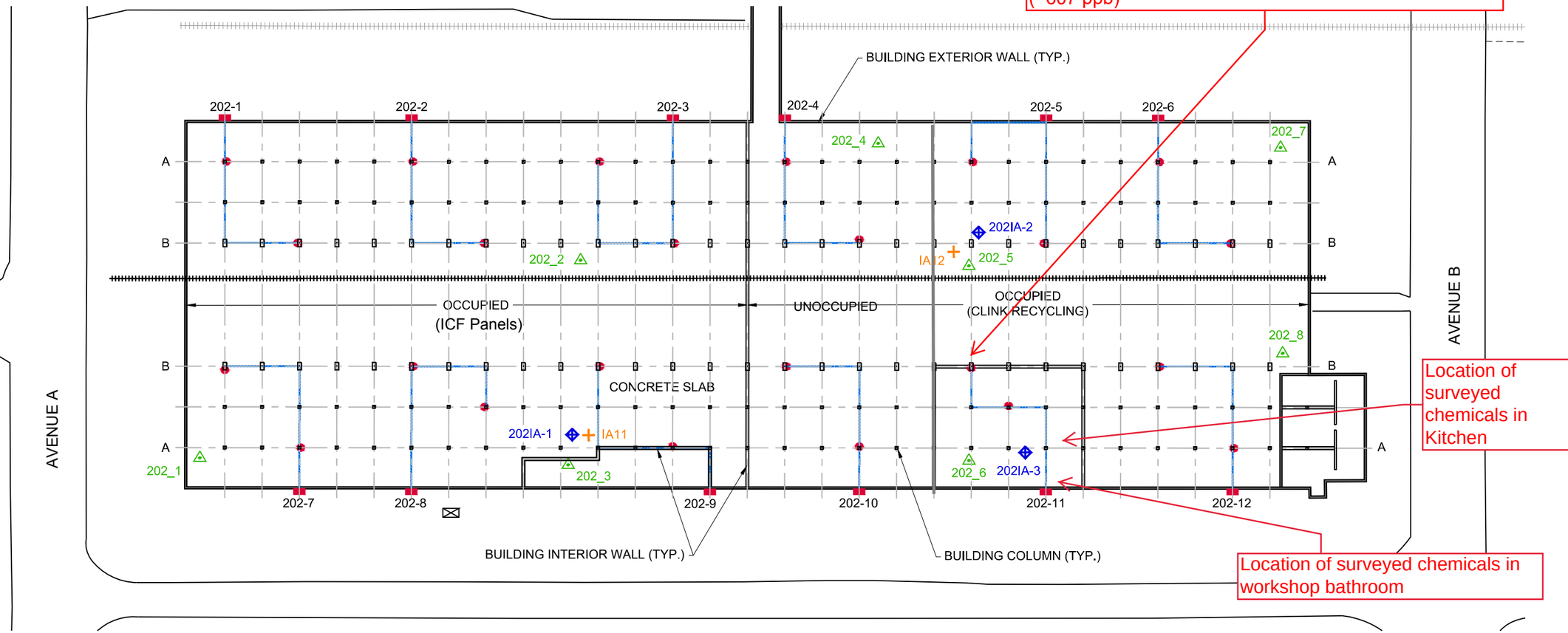
Photograph No. 9	**Product: Propane** **Location: Forklifts**

Photograph No. 10	**Product: Acetylene Compressed Gas** **Location: Warehouse**

Photograph No. 11	**Product: Air Tool Oil** **Location: Workshop Cabinet**
	

Photograph No. 12	**Product: Chalk** **Location: Workshop Cabinet**
	

Photograph No. 13	**Product: Antifreeze** **Location: Workshop Cabinet**



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0 60' 120'

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Figure: 3-3

BUILDING 202
AIR MONITORING LOCATIONS

US ARMY Corps of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: DECEMBER 2020

Building 203
NEFAB

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 Gerlinde Wolf Date/Time Prepared 12/08/2020; 1340

Preparer's Affiliation AECOM Phone No. 518-951-2200

Purpose of Investigation SVI monitoring

1. OCCUPANT:

Interviewed: (Y) / N

Last Name: Frisch First Name: Paul

Address: _____

County: _____

Home Phone: _____ Office Phone: 518-378-0864

Number of Occupants/persons at this location _____ Age of Occupants >18

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

Interviewed: Y / (N)

Last Name: Ahl First Name: David

Address: 695 Rotterdam Industrial Park, Schenectady, NY 12306

County: Schenectady

Home Phone: _____ Office Phone: 518-356-4445

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

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

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

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? _____

If the property is commercial, type?

Business Type(s) _Packaging_____

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

Other characteristics:

Number of floors 1 Building age 1940s

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

4. AIRFLOW

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

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

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

Basement/Lowest level depth below grade: NA (feet)

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

When the SVI systems were installed, crack sealing in the cement floor was completed; however, there could be limited cracks remaining that could not be accessed.

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	Warehouse-radiant Office - forced air
Space Heaters	Stream radiation	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas

Boiler/furnace located in: Basement Outdoors Main Floor Other_____

Air conditioning: Central Air Window units Open Windows None

Electric in office

Are there air distribution ducts present? Y / N

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

_____

_____

_____

_____

7. OCCUPANCY

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

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	_____
1st Floor	Office, woodworking shop, heavy woodworking machinery & equipment in use
2nd Floor	_____
3rd Floor	_____
4th Floor	_____

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

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

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

c. Are petroleum-powered machines or vehicles stored ~~in the garage~~ (e.g., lawnmower, atv, car) (Y) / N / NA Please specify Forklifts (3 small and 1 large)

d. Has the building ever had a fire? Y / (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where? _____

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

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

h. Have cleaning products been used recently? (Y) / N When & Type? In office areas, breakroom, and bathrooms; non-solvent type

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

j. Has painting/staining been done in the last 6 months? Y / N Where & When? Spray paint in warehouse

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

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

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

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

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

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

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

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

If yes, what types of solvents are used? Painting; rarely

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

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

9. WATER AND SEWAGE

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

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

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

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

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

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

11. FLOOR PLANS

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

Basement:

NA

First Floor:

See attached map

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.

See attached map

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE 3000 PID Meter

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Warehouse Office Cabinet	Spray Paint (4x)	12 oz.	U	Ingredients In Photos	4010 ppb	Y
Warehouse Office Cabinet	Lithium Grease (6x)	12 oz.	U	Ingredients In Photos	4010 ppb	Y
Warehouse Office Cabinet	Aircomp Coolant	1 qt.	U	Ingredients In Photos	4010 ppb	Y
Warehouse Office Cabinet	Stencil Ink	1 L.	U	Ingredients In Photos	4010 ppb	Y
Warehouse Office Cabinet	Engine Oil (3x)	12 oz.	U	Ingredients In Photos	4010 ppb	Y
Warehouse Office Cabinet	Paint Thinner (2x)	1 gal.	U	Ingredients In Photos	4010 ppb	Y
Warehouse Office Cabinet	Contact Cement (2x)	1 gal.	U	Ingredients In Photos	4010 ppb	Y
Warehouse Office Cabinet	Stencil Ink	1 gal.	U	Ingredients In Photos	4010 ppb	Y
Warehouse Office Cabinet	Bar and Chain Oil (3x)	1 gal.	U	Ingredients In Photos	4010 ppb	Y
Warehouse Office Cabinet	Paint (10x)	1 gal.	U	Ingredients In Photos	4010 ppb	Y
Shop	Marsh Stencil Paint	1 gal.	U	Ingredients In Photos	-	Y
Warehouse Office Cabinet	Air Compressor Coolant	1 gal.	U	Ingredients In Photos	4010 ppb	Y
Warehouse Office Cabinet	Methane Compressed Gas (50% Methane)	103 L.	U	Ingredients In Photos	4010 ppb	Y
Shop	Carbo Bar Paint (2x)	1 gal.	U	Ingredients In Photos	-	Y
Boxshop Cabinet	Elmer's Spray Adhesive	11 oz.	U	Ingredients In Photos	880 ppb	Y
Boxshop Cabinet	Spray Paint (5x)	12 oz.	U	Ingredients In Photos	880 ppb	Y
Boxshop Cabinet	Rubachem Penetrating Oil	12 oz.	U	Ingredients In Photos	880 ppb	Y
Boxshop Cabinet	Liquid Wrench	11 oz.	U	Ingredients In Photos	880 ppb	Y
Boxshop Cabinet	WD-40	11 oz.	U	Ingredients In Photos	880 ppb	Y

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

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

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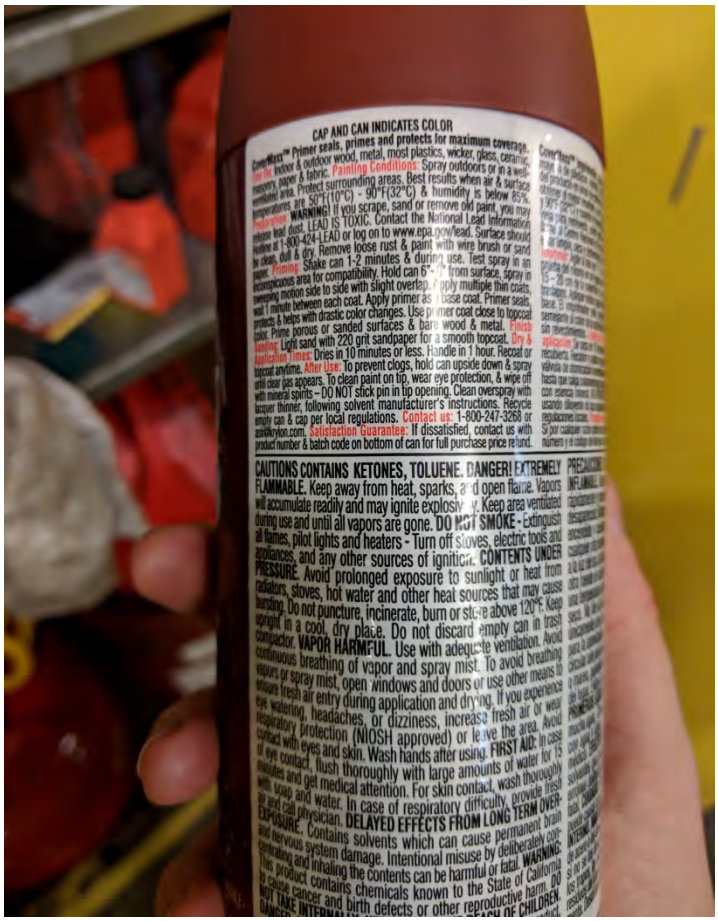
Boxshop Cabinet	Epoxy Resin (2x)	1 gal.	U	Ingredients In Photos	880 ppb	Y
Boxshop Cabinet	Epoxy Curing Agent (2x)	1 qt.	U	Ingredients In Photos	880 ppb	N
Boxshop Cabinet	Motor Oil	1 qt.	U	Ingredients In Photos	880 ppb	Y
Boxshop Cabinet	Weldwood Contact Cement (4x)	1 qt.	U	Ingredients In Photos	880 ppb	Y
Warehouse Office Shelf	Tompson's Wood Seal (4x)	5 gal.	U	Ingredients In Photos	476 ppb	Y
Warehouse Office Shelf	AW-32 Hydraulic Oil	1 gal.	U	Ingredients In Photos	476 ppb	Y
Warehouse Office Shelf	Acrylic Latex (2x)	5 gal.	U	Ingredients In Photos	476 ppb	Y
Warehouse Office Shelf	InsIX Fire Retardant Paint (4x)	1 gal.	U	Ingredients In Photos	476 ppb	Y
Warehouse Flam. Cabinet	Engine Oil (5x)	12 oz.	U	Ingredients In Photos	805 ppb	Y
Warehouse Flam. Cabinet	Compressor Oil	1 qt.	U	Ingredients In Photos	805 ppb	Y
Warehouse Flam. Cabinet	Gasoline	3 gal.	U	Gasoline	805 ppb	N
Warehouse Flam. Cabinet	Mobil Oil	5 gal.	U	Ingredients In Photos	805 ppb	Y
Warehouse Flam. Cabinet	AW-32 Hydraulic Oil	1 gal.	U	Ingredients In Photos	805 ppb	Y
Warehouse Flam. Cabinet	Valvoline Gear Oil	16 oz.	U	Ingredients In Photos	805 ppb	Y
Warehouse Flam. Cabinet	Spray Paint	12 oz.	U	Ingredients In Photos	805 ppb	Y
Warehouse Flam. Cabinet	Diagraph Marking Paint	12 oz.	U	Ingredients In Photos	805 ppb	Y

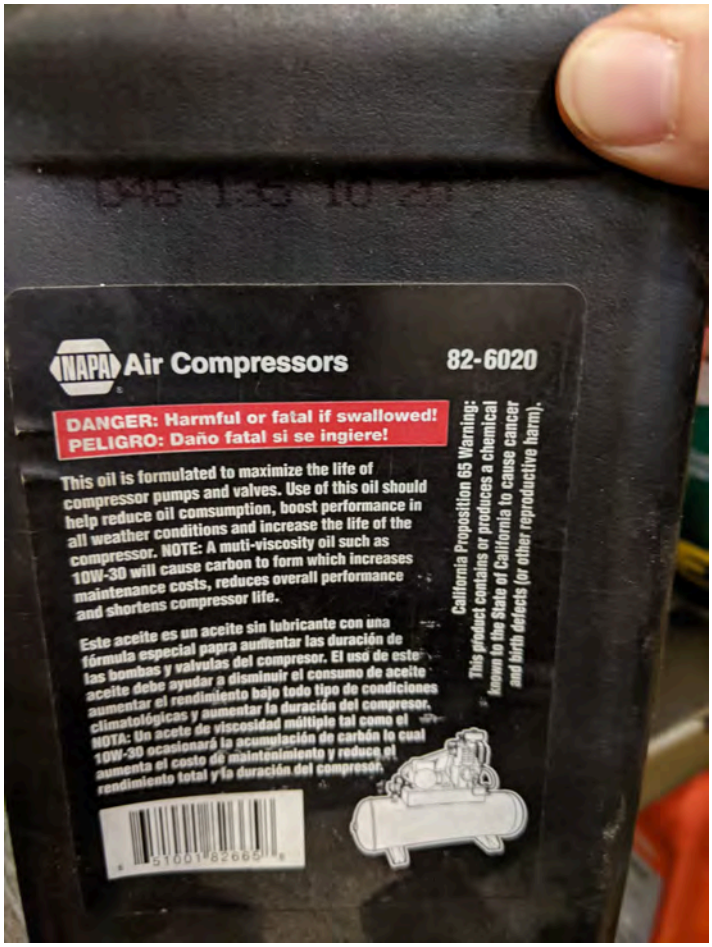
* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must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

Photograph No. 1	**Product: Propane Cylinders** **Location: Warehouse Cabinet**

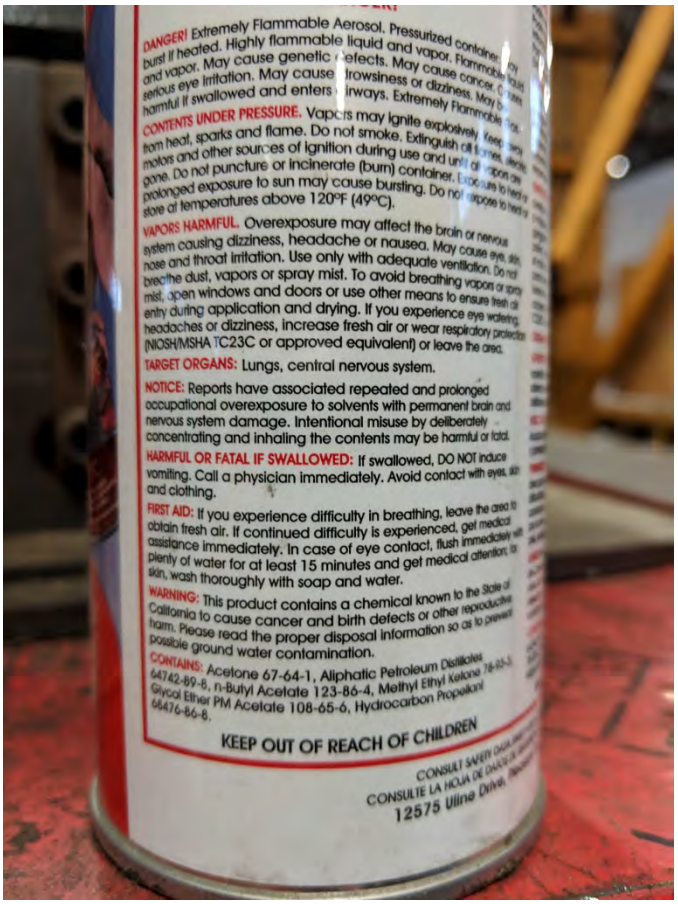
Photograph No. 2	**Product: Spray Paint** **Location: Warehouse Cabinet**
Front: 	Back: 

Photograph No. 3	**Product: Spray Enamel** **Location: Warehouse Cabinet**
Front:	Back:
	

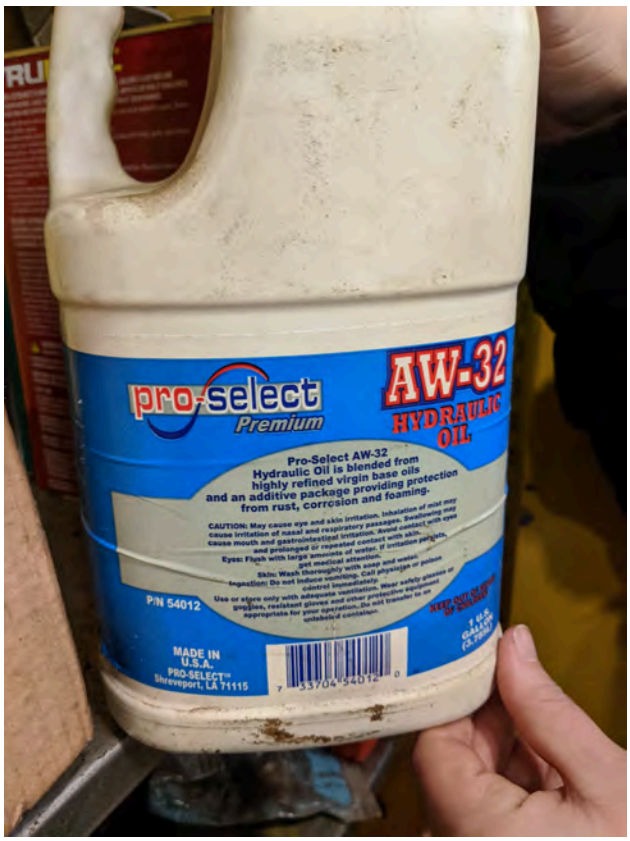
Photograph No. 4	**Product: TruFuel Oil** **Location: Warehouse Cabinet**
Front: 	Back: 

Photograph No. 5	**Product: Air Compressor Oil** **Location: Warehouse Cabinet**
Front: 	Back: 

Photograph No. 6	**Product: 2-cycle Engine Oil** **Location: Warehouse Cabinet**
Front: 	Back: 

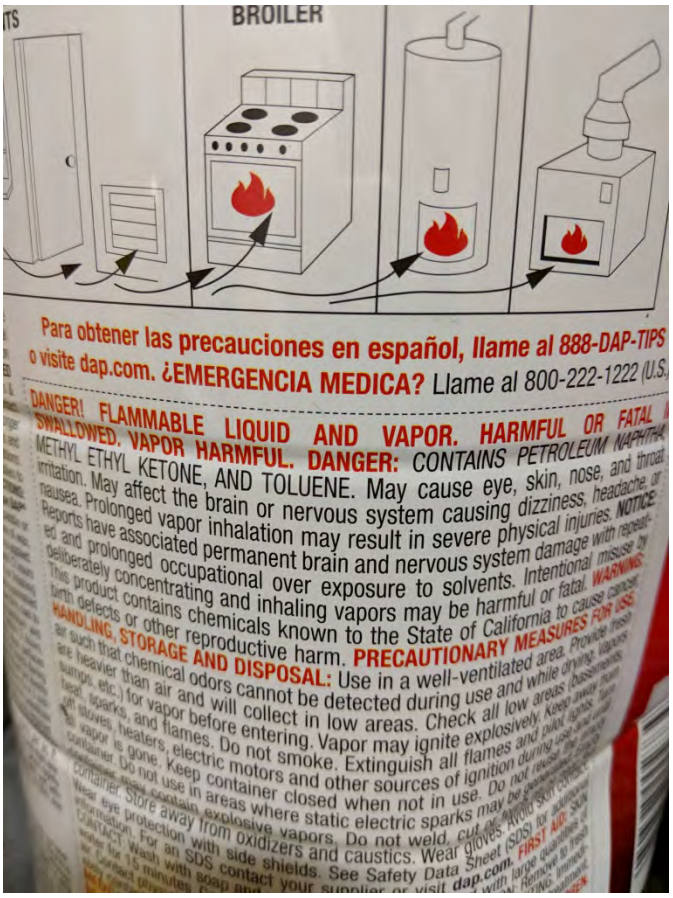
Photograph No. 7	**Product: Spray Paint** **Location: Metal FAB Shop**
Front: 	Back: 

Photograph No. 8	**Product: Hydraulic Oil** **Location: Warehouse Cabinet**

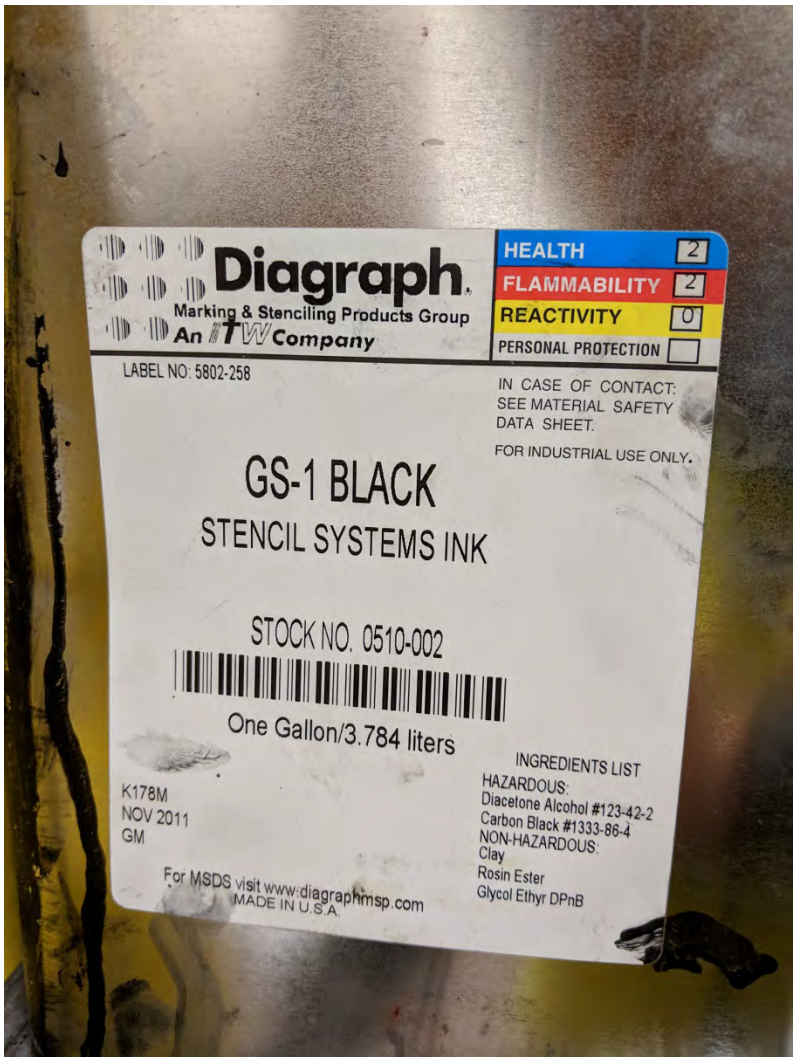


Photograph No. 9	**Product: Spray Paint** **Location: Warehouse Office Cabinet**
Front: 	Back: 

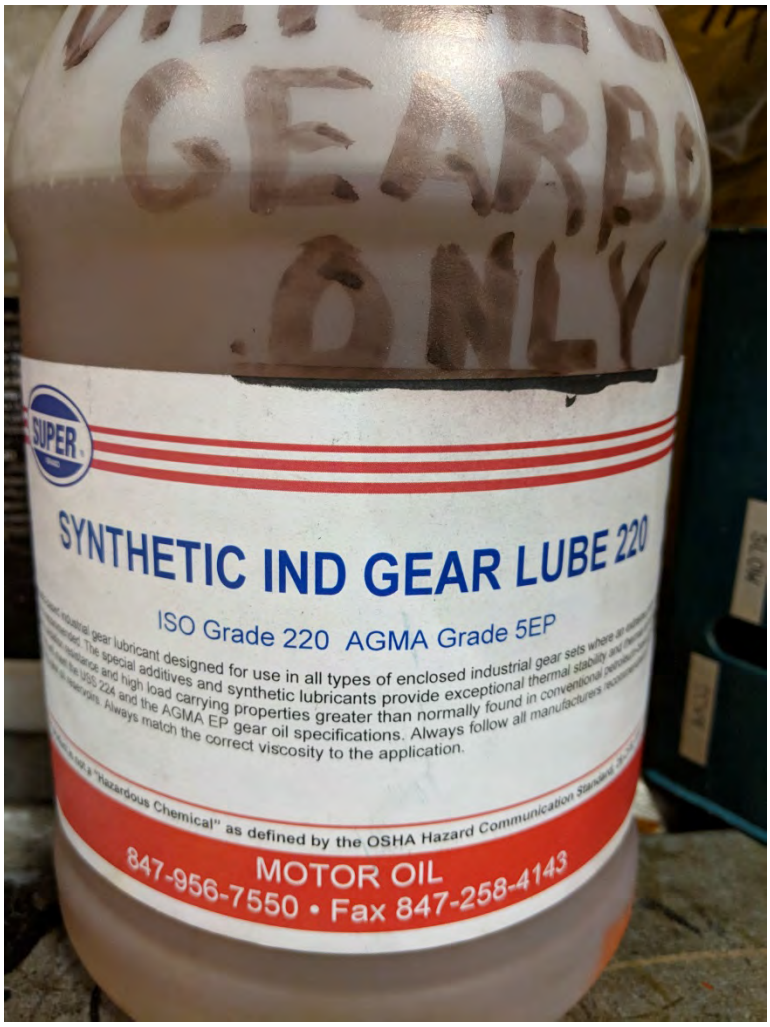
Photograph No. 10	**Product: Paint** **Location: Warehouse Office Cabinet**
Front:  	Back: 

Photograph No. 11	**Product: Weldwood Contact Cement** **Location: Warehouse Office Cabinet**
Front:  	Back: 

Photograph No. 12	**Product: Stencil Systems Ink** **Location: Warehouse Office Cabinet**



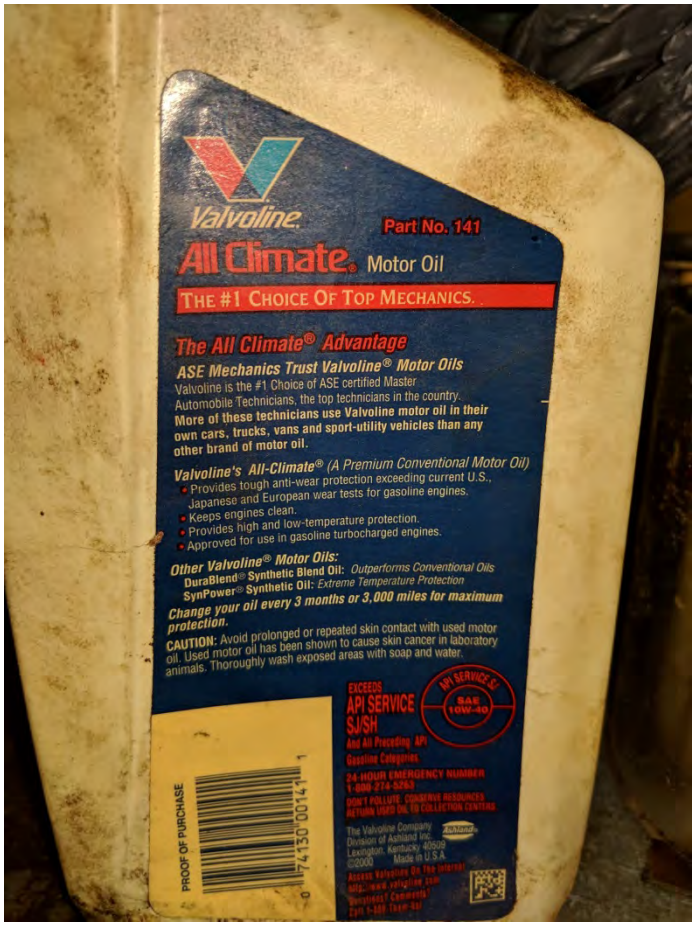
Photograph No. 13	**Product: Gear Lube** **Location: Warehouse Office Cabinet**

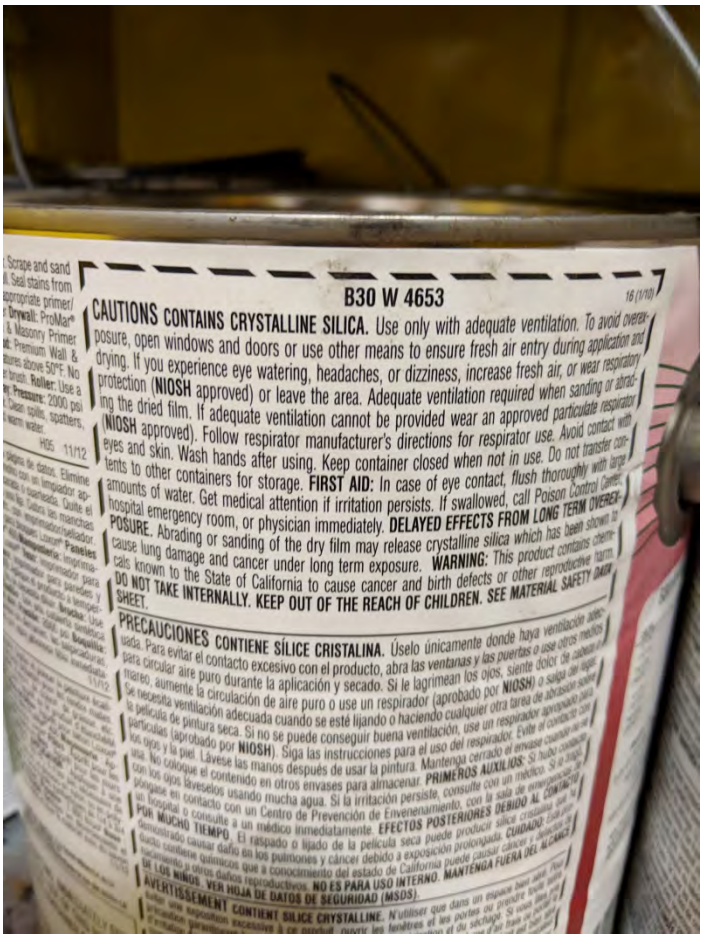


Photograph No. 14	**Product: Jack Oil** **Location: Warehouse Office Cabinet**
Front: 	Back: 

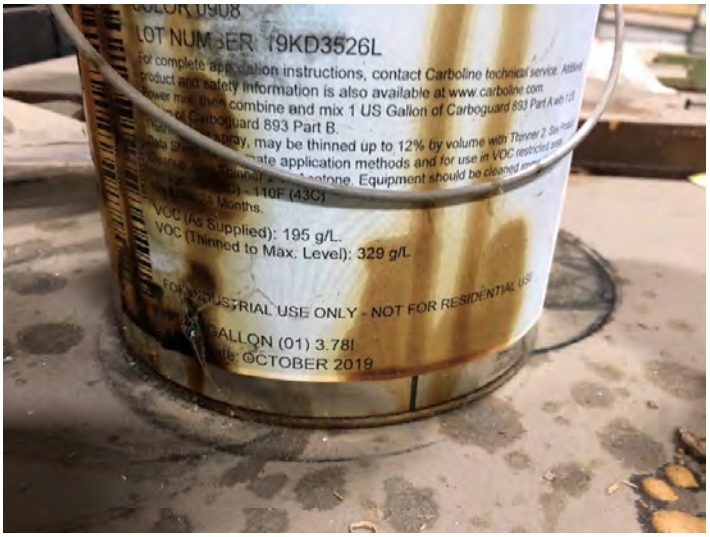
Photograph No. 15	**Product: WD-40** **Location: Box Shop Cabinet**
Front: 	Back: 

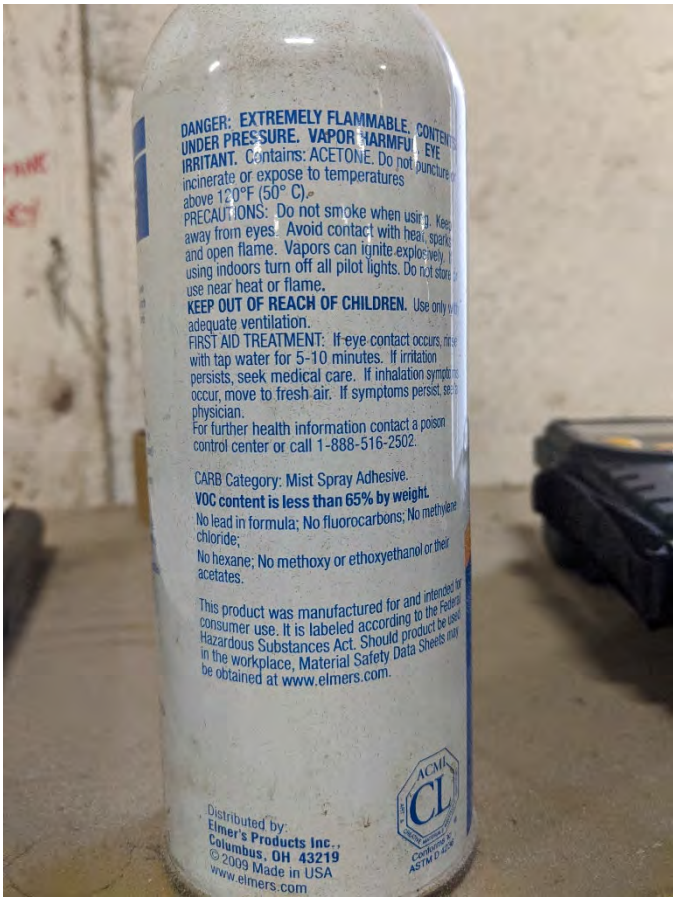
Photograph No. 16	**Product: Spray Paint** **Location: Box Shop Cabinet**
Front: 	Back: 

Photograph No. 17	**Product: Valvoline Motor Oil** **Location: Box shop Cabinet**
Front: 	Back: 

Photograph No. 18	**Product: Paint** **Location: Box shop Cabinet**
Front: 	Back: 

Photograph No. 1	**Product: WD-40 Lubricant** **Location: Boxshop Cabinet**

Photograph No. 2	**Product: carboline Carboguard 893 Part B** **Location: Shop**
Front:  	Back: 

Photograph No. 3	**Product: Elmer's Multi-Purpose Spray Adhesive** **Location: Boxshop Cabinet**
Front: 	Back: 

Photograph No. 4	**Product: rubachem Loosey-Goosey Penetrating Oil** **Location: Boxshop Cabinet**
Front: 	Back: 

Photograph No. 5	**Product: Liquid Wrench Penetrating Oil** **Location: Boxshop Cabinet**
Front:  	Back: 

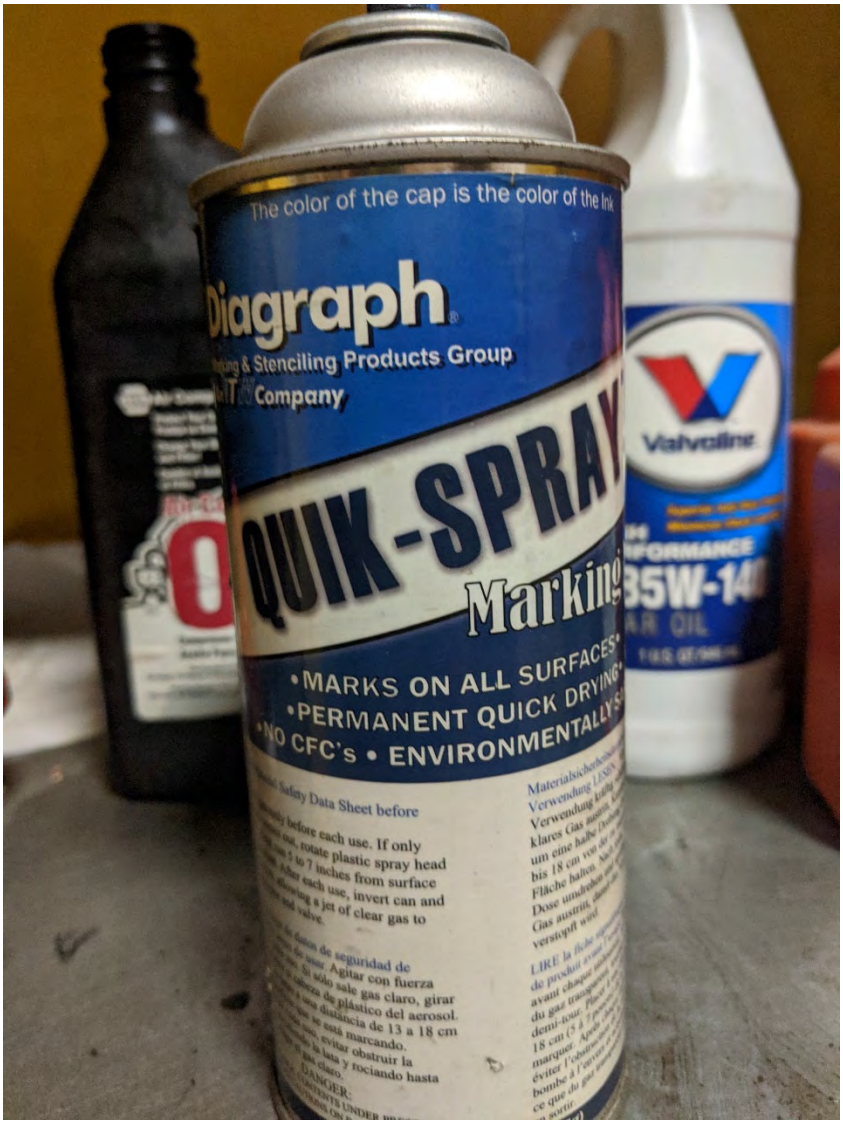
Photograph No. 6	**Product: Weldwood Contact Cement** **Location: Various**
Front: 	Back: 

Photograph No. 7	**Product: proselect Bar & Chain Oil** **Location: Warehouse Office Cabinet**
Front: 	Back: 

Photograph No. 8	**Product: Epoxy Resin** **Location: Boxshop Cabinet**

Photograph No. 9	Product: Insl-X Fire Retardant Paint Location: Office Shelf

Photograph No. 10	**Product: Diagraph Quik-spray Marking** **Location: Warehouse Office Cabinet**

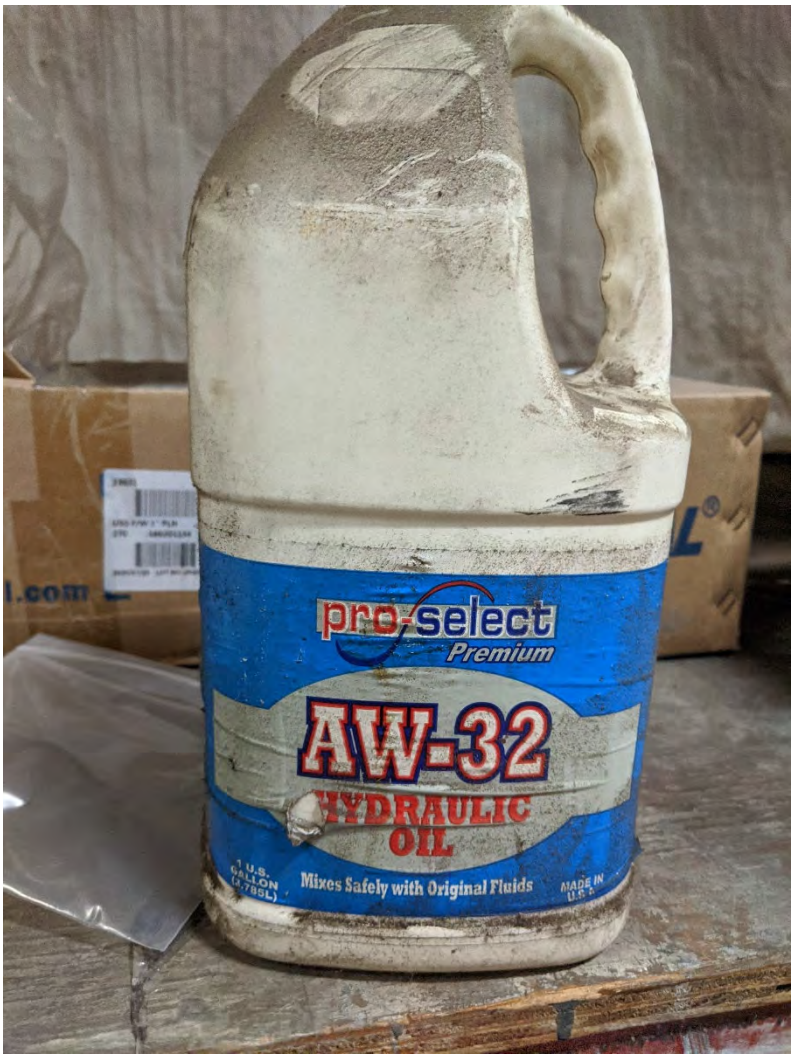


Photograph No. 11	**Product: Napa Air Compressor Oil** **Location: Warehouse Office Cabinet**

Photograph No. 12	**Product: Valvoline SAE 85W-140 Gear Oil** **Location: Warehouse Flammable Cabinet**

Photograph No. 13	Product: Stihl 2-cycle Engine Oil Location: Various

Photograph No. 14	**Product: pro select AW-32 Hydraulic Oil** **Location: Various**



Photograph No. 15	**Product: Thompson's Water Seal** **Location: Warehouse**

Photograph No. 16	**Product: Paint** **Location: Warehouse Office Cabinet**

Photograph No. 17	**Product: Talon White Lithium Grease** **Location: Warehouse Office Cabinet**
Front:  	Back: 

Photograph No. 18	**Product: pacoa Paint Thinner Clean Air Solvent** **Location: Warehouse Office Cabinet**

Photograph No. 19	**Product: Paint** **Location: Warehouse Office Cabinet**

Photograph No. 20	**Product: Honeywell Gas Composition** **Location: Warehouse Office Cabinet**

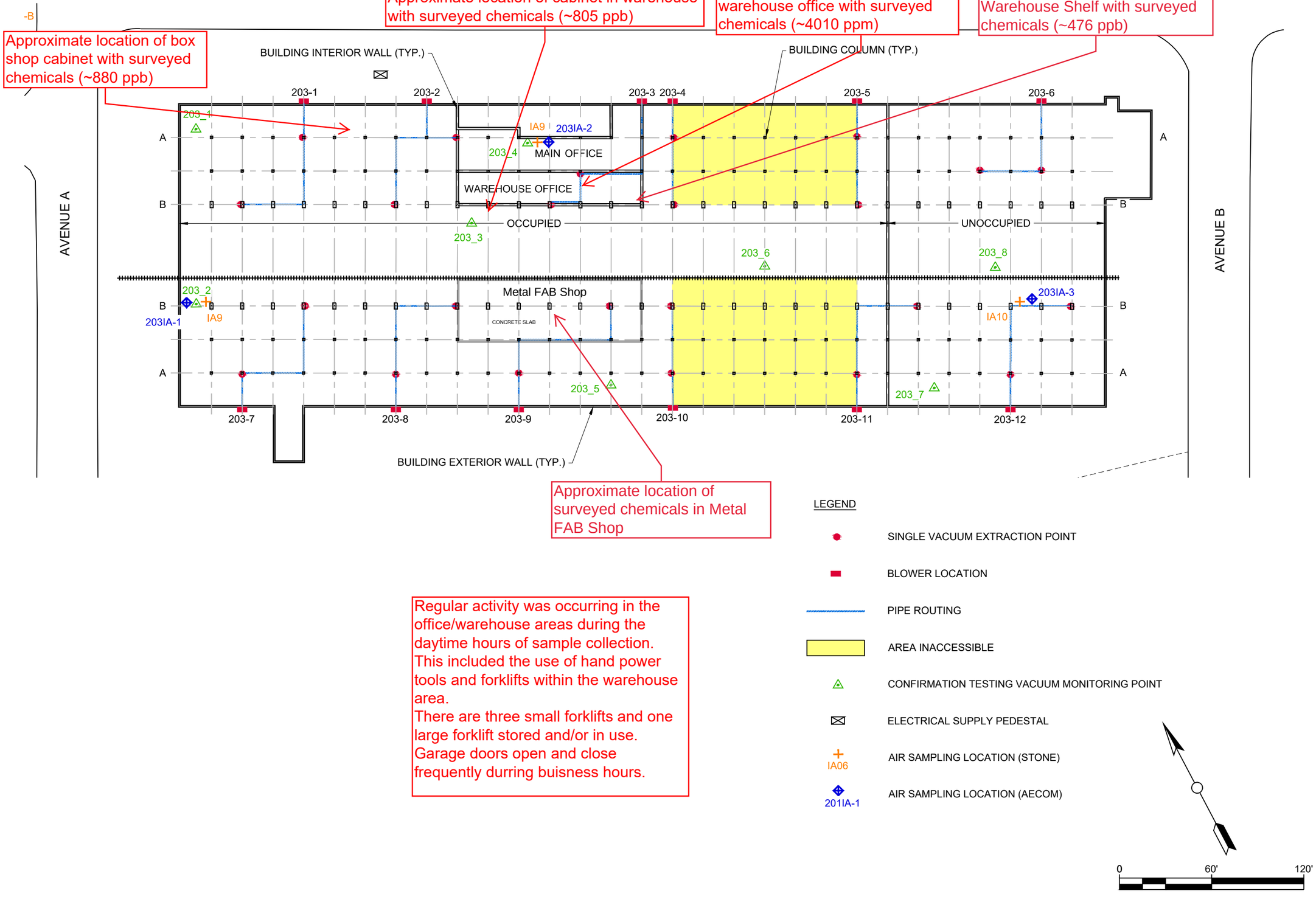
Photograph No. 21	**Product: Marsh K-Schablonentinte** **Location: Shop**

Photograph No. 22	**Product: Spray Paint** **Location: Various**
Front: 	Back: 

Photograph No. 23	**Product: Stencil Ink** **Location: Office Warehouse Shelf**

Photograph No. 24	**Product: Air Compressor Coolant** **Location: Warehouse Office Cabinet**

Photograph No. 25	Product: Acrylic Latex Location: Office Warehouse Shelf



AECOM

Figure: 3-4

BUILDING 203
AIR MONITORING LOCATIONS

US ARMY Corps of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: DECEMBER 2020

Building 204
Bio Soil

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 ___Gerlinde Wolf ____ Date/Time Prepared _12/08/2020; 1415

Preparer's Affiliation _____AECOM_____ Phone No.__518-951-2200_____

Purpose of Investigation_____SVI monitoring _____

Building 204 is partially occupied and partially unoccupied.

1. OCCUPANT:

Interviewed: (Y) / N

Last Name: _Bio Soil Manager_____ First Name: _____

Address: _695 Rotterdam Industrial Park, Schenectady, NY 12306_____

County: Schenectady ___

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location __~5___ Age of Occupants _>18 _____

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

Interviewed: Y / (N)

Last Name: _Ahl_____ First Name: __David _____

Address: __695 Rotterdam Industrial Park, Schenectady, NY 12306__

County: _Schenectady __

Home Phone: _____ Office Phone: _518-356-4445_____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

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

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

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? _____

If the property is commercial, type?

Business Type(s) ___soil farming_____

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

Other characteristics:

Number of floors 1 Building age 1940s

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

Partially; east side is uninsulated; west side is insulated.

4. AIRFLOW

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

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

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

Basement/Lowest level depth below grade: NA (feet)

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

When the SVI systems were installed, crack sealing in the cement floor was completed; however, there could be limited cracks remaining that could not be accessed.

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)

In the office area

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Electric

Boiler/furnace located in: Basement Outdoors Main Floor Other office furnace on roof

Air conditioning: Central Air Window units Open Windows None

In the office area

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.

There are air ducts in the office for the AC and heat.

7. OCCUPANCY

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

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	
1st Floor	Occupied during normal work hours
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

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

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

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

d. Has the building ever had a fire? Y / (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where? _____

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

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

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

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

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

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

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

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? Not in use

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? Not in use

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

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

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

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

If yes, what types of solvents are used? _____

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

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

9. WATER AND SEWAGE

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

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

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

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

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

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

11. FLOOR PLANS

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

Basement:

NA

First Floor:

See attached map

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.

See attached map

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE 3000 PID Meter

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
Warehouse Bathroom	Simple Green (1x)	1 gal.	U	Ingredients In Photos	59 ppb	Y
Kitchen	Fast Orange (3x)	64 oz.	U	Ingredients In Photos	40 ppb	Y
Kitchen	409 Cleaner (2x)	24 oz.	U	Ingredients In Photos	40 ppb	Y
Kitchen	Windex (2x)	24 oz.	U	Ingredients In Photos	40 ppb	Y
Kitchen	Lime-A-way (1x)	28 oz.	U	Ingredients In Photos	40 ppb	Y
Kitchen	Clorox (1x)	24 oz.	U	Ingredients In Photos	40 ppb	Y
Closet	Paint (7x)	1 gal.	U	Ingredients In Photos	48 ppb	Y
Closet	Carpet Shampoo	1 gal.	U	Ingredients In Photos	48 ppb	Y
Kitchen	Liquid-Plumr	17 fl. oz.	U	Ingredients In Photos	40 ppb	Y

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

Photograph No. 1	**Product: Liquid-Plumr** **Location: Kitchen**
Front: 	Back: 

Photograph No. 2	**Product: Lime-A-Way** **Location: Kitchen**
Front:  	Back: 

Photograph No. 3	**Product: Simple Green** **Location: Warehouse Bathroom**

Photograph No. 4	**Product: Clorox** **Location: Kitchen**

Photograph No. 5	**Product: Fast Orange** **Location: Kitchen**

Photograph No. 6	**Product: 409 Cleaner** **Location: Kitchen**
	

Photograph No. 7	**Product: Windex** **Location: Kitchen**
	

Photograph No. 8	**Product: Paint** **Location: Closet**
	

Photograph No. 9	Product: Carpet Shampoo Location: Closet

Location of Chemical Inventory (~40 ppb)

Location of Chemical Inventory

Location of Chemical Inventory (~59 ppb)

BUILDING EXTERIOR WALL (TYP.)

204-1 204-2 204-3 204-4 204-5 204-6

204_5 204_8

204IA-3

A

B

OCCUPIED (CATALYTIC RECOVERY)

204IA-1

204_1 IA13

204_4

204_6

IA14

AVENUE A

AVENUE B

OCCUPIED (BIO-SOIL)

UNOCCUPIED

OCCUPIED (CARDBOARD STORAGE)

UNOCCUPIED

204_3

CONCRETE SLAB

204_2

204IA-2

IA15

OFFICE

204_7

204-7 204-8 204-9 204-10 204-11 204-12

BUILDING INTERIOR WALL (TYP.)

BUILDING COLUMN (TYP.)

Regular activity was occurring in the office/warehouse areas during the daytime hours of sample collection. This included the use of hand power tools and propane forklifts within the warehouse area.

BUILDING 204
PLAN

LEGEND

- SINGLE VACUUM EXTRACTION POINT
- BLOWER LOCATION
- PIPE ROUTING
- CONFIRMATION TESTING VACUUM MONITORING POINT
- ELECTRICAL SUPPLY PEDESTAL
- IA06 — AIR SAMPLING LOCATION (STONE)
- 201IA-1 — AIR SAMPLING LOCATION (AECOM)

0 60' 120'

AECOM

Figure: 3-

BUILDING 204
AIR MONITORING LOCATIONS

US ARMY Corps of Engineers

SVI MONITORING PROGRAM
DEFENSE NATIONAL STOCKPILE CENTER
SCOTIA DEPOT SITE - SCOTIA, NY
Project No.: 60440641 Date: DECEMBER 2020

Building 203/204 ADK Beverage

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 ___Gerlinde Wolf ____ Date/Time Prepared _12/08/2020; 1400

Preparer's Affiliation _____AECOM_____ Phone No.__518-951-2200_____

Purpose of Investigation_____SVI monitoring _____

Building 204 is partially occupied and partially unoccupied. Building 203 is fully occupied.

1. OCCUPANT:

Interviewed: (Y) / N

Last Name: _ADK Beverage Manager_ First Name: _____

Address: _695 Rotterdam Industrial Park, Schenectady, NY 12306_____

County: Schenectady ___

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location __~2 _ Age of Occupants _>18 _____

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

Interviewed: Y / (N)

Last Name: _Ahl_____ First Name: __David _____

Address: __695 Rotterdam Industrial Park, Schenectady, NY 12306__

County: _Schenectady __

Home Phone: _____ Office Phone: _518-356-4445_____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

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

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

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? _____

If the property is commercial, type?

Business Type(s) ___Beverage Storage_____

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

Other characteristics:

Number of floors 1 Building age 1940s

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

Partially;

4. AIRFLOW

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

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

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

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

Basement/Lowest level depth below grade: NA (feet)

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

When the SVI systems were installed, crack sealing in the cement floor was completed; however, there could be limited cracks remaining that could not be accessed.

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)

In the office area

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Electric

Boiler/furnace located in: Basement Outdoors Main Floor Other office furnace on roof

Air conditioning: Central Air Window units Open Windows None

In the office area

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.

There are air ducts in the office for the AC and heat.

7. OCCUPANCY

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

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	
1st Floor	Occupied during normal work hours
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

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

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

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

d. Has the building ever had a fire? Y / (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where? _____

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

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

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

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

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

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

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

m. Is there a kitchen exhaust fan? Y / N If yes, where vented? Not in use

n. Is there a bathroom exhaust fan? Y / N If yes, where vented? Not in use

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

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

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

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

If yes, what types of solvents are used? _____

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

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

9. WATER AND SEWAGE

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

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

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

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

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

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

11. FLOOR PLANS

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

Basement:

NA

First Floor:

See attached map

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.

See attached map

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ppb RAE 3000 PID Meter

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
None						

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

APPENDIX D: SVI Air Sample Field Log December 2020

VAPOR INTRUSION SURVEY
SUB-SLAB VAPOR SAMPLING LOG SHEET

Sampled by:

						Inches	ppb[1]		Inches of Mercury	
Sample ID	Sample Date	Canister Number	Regulator Number	Sample Start Time	Sample Stop Time	Sample Depth	PID Reading	Vacuum Before	Vacuum at Start	Vacuum After
204-SS1	12/9/2020	AS01189	FCR00117	10:30	10:30	Port	19	0	29	7
204-SS2	12/9/2020	AC02357	FCR00397	10:25	10:25	Port	25	0	30 +	8
204-SS3	12/9/2020	SSC01836	FCR00483	11:50	11:50	Port	18	0	29	6
203-SS1	12/9/2020	AS00686	FCR00247	11:25	11:25	Port	750	0	30	6
203-SS2	12/9/2020	AS01008	FCR00051	11:10	11:10	Port	1024	0	29	5
203-SS3	12/9/2020	SC02184	FCR00382	12:05	12:05	Port	250	0	27	5
202-SS1	12/9/2020	SC01006	FCR0220	12:55	12:55	Port	70	0	30	0
202-SS2	12/9/2020	SC00970	FCR00367	12:40	12:40	Port	130	0	29	5
202-SS3	12/9/2020	AC02341	FCR00256	12:45	12:45	Port	137	0	30	7
201-SS1	12/9/2020	AC01205	FCR00098	13:35	13:35	Port	71	0	28	5
201-SS2	12/9/2020	SC01608	FCR00461	13:15	13:15	Port	66	0	30	7
201-SS3	12/9/2020	AC00343	FCR00141	14:00	14:00	Port	110	0	29	6
SS-DUP-1 (@204-SS3)	12/9/2020	AC02302	FCR00391	-	-	Port	18	0	27	5
SS-DUP-2 (@201-IA2)	12/9/2020	SC02334	FCR00356	-	-	Port	66	0	29	5
Notes:										

1 - Parts per billion (isobutylene equivalent).

2 - Regulators were preset by laboratory to 0.0042 Liters/minute sampling rate

3 - All sub-slab (SS) samples were collected in 6-liter SUMMA ® canisters after purging the sample tubing of its contents

VAPOR INTRUSION SURVEY
INDOOR AIR SAMPLING LOG SHEET

Sampled by: Gerlinde Wolf

						ppb[1]	Inches of Mercury		
Sample ID	Sample Date	Canister Number	Regulator Number	Sample Start Time	Sample Stop Time	PID Reading	Vacuum Before	Vacuum at Start	Vacuum After
204-IA2	12/9/2020	AC02442	FCR00364	10:15	10:15	153	0	30	6
204-IA1	12/9/2020	AC00285	FCR00422	10:20	10:20	19	0	30	8
204-IA3	12/9/2020	SSC00054	FCR00302	11:45	11:45	30	0	29.5	7
203-IA2	12/9/2020	SC00347	FCR00222	11:30	11:30	750	0	29.5	5
203-IA1	12/9/2020	SC01967	FCR00395	11:15	11:15	1024	0	29	7
203-IA3	12/9/2020	SSC00024	FCR00069	12:00	12:00	250	0	29	5
202-IA1	12/9/2020	SC01003	FCR00389	12:50	12:50	95	0	26	3
202-IA2	12/9/2020	SSC00424	FCR00029	12:30	12:30	1163	0	28.5	6
202-IA3	12/9/2020	AS01160	FCR00079	12:25	12:25	153	0	30	8
201-IA1	12/9/2020	SC00303	FCR00026	13:30	13:30	64	0	29	4
201-IA2	12/9/2020	AS00979	FCR00331	13:10	13:10	66	0	30	7
201-IA3	12/9/2020	SC00560	FCR00412	13:55	13:55	110	0	28.5	5
IA-DUP-1 (@204-IA3)	-	AC02143	FCR00336	-	-	30	0	30	8
IA-DUP-2 (@201-IA2)	-	AC02477	FCR00194	-	-	65	0	30	7

Notes:
1 - Parts per billion (isobutylene equivalent).
2 - Regulators were preset by laboratory to 0.0042 Liters/minute sampling rate.
3 - All indoor air (IA) samples were collected in 6-liter SUMMA ® canisters from a height of about 4-6 feet above ground surface.
4 - DUP-1 collected at 202IA-1; DUP-2 collected at 201IA-1.
5. Canisters were placed on 1/14/20 and retrieved on 1/15/20.

VAPOR INTRUSION SURVEY
OUTDOOR VAPOR SAMPLING LOG SHEET

Sampled by:

						ppb[1]	Inches of Mercury		
Sample ID	Sample Date	Canister Number	Regulator Number	Sample Start Time	Sample Stop Time	PID Reading	Vacuum Before	Vacuum at Start	Vacuum After
OA-1	12/9/2020	SC01062	FCR00203	10:45	10:45	10	0	29	0

Notes:
1 - Parts per billion (isobutylene equivalent).
2 - Regulators were preset by laboratory to 0.0042 Liters/minute sampling rate.
3 - All outdoor air (OA) samples were collected in 6-liter SUMMA ® canisters.
4. Canisters were placed on 12/19/18 and retrieved on 12/20/18.

APPENDIX E: December 2020 Air Sample Laboratory Report

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **204-SS1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-001

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: AS01189

Initial Pressure (psig): -2.22 psig): 3.83
Initial Pressure 2 (psig): -2.81 psig): 2.11
Container Dilution Factor: 2.10

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.23	0.26	0.23	0.080	**U**
75-35-4	1,1-Dichloroethene	0.23	0.26	0.23	0.090	**U**
156-59-2	cis-1,2-Dichloroethene	0.22	0.26	0.22	0.097	**U**
71-55-6	1,1,1-Trichloroethane	**0.070**	0.26	0.22	0.062	**J**
56-23-5	Carbon Tetrachloride	**0.81**	0.26	0.22	0.13	
79-01-6	Trichloroethene	**1.8**	0.26	0.22	0.089	
127-18-4	Tetrachloroethene	**0.51**	0.26	0.22	0.086	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **204-SS2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-002

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: AC02357

Initial Pressure (psig): -2.98 psig): 3.96
Initial Pressure 2 (psig): 0.63 psig): 2.14
Container Dilution Factor: 1.75

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.13	0.15	0.13	0.044	**U**
75-35-4	1,1-Dichloroethene	0.13	0.15	0.13	0.050	**U**
156-59-2	cis-1,2-Dichloroethene	0.12	0.15	0.12	0.054	**U**
71-55-6	1,1,1-Trichloroethane	0.12	0.15	0.12	0.034	**U**
56-23-5	Carbon Tetrachloride	**0.19**	0.15	0.12	0.070	
79-01-6	Trichloroethene	0.12	0.15	0.12	0.050	**U**
127-18-4	Tetrachloroethene	**0.070**	0.15	0.12	0.048	**J**

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **204-SS3** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-003

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: SC01836

Initial Pressure (psig): -2.05 psig): 3.82
Initial Pressure 2 (psig): -0.26 psig): 2.18
Container Dilution Factor: 1.71

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.094	0.11	0.094	0.032	**U**
75-35-4	1,1-Dichloroethene	0.094	0.11	0.094	0.037	**U**
156-59-2	cis-1,2-Dichloroethene	0.090	0.11	0.090	0.039	**U**
71-55-6	1,1,1-Trichloroethane	**0.20**	0.11	0.090	0.025	
56-23-5	Carbon Tetrachloride	**0.34**	0.11	0.090	0.051	
79-01-6	Trichloroethene	0.090	0.11	0.090	0.036	**U**
127-18-4	Tetrachloroethene	**0.50**	0.11	0.090	0.035	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **203-SS1**
Client Project ID: **Scotia Depot / 6044641**

ALS Project ID: P2007113
ALS Sample ID: P2007113-004

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio De Leon
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: AS00686

Date Collected: 12/9/20
Date Received: 12/18/20
Date Analyzed: 1/5/21
Volume(s) Analyzed: 0.30 Liter(s)

Initial Pressure (psig): -1.81 psig): 3.91
Initial Pressure 2 (psig): -2.52 psig): 2.30
Container Dilution Factor: 2.02

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.15	0.17	0.15	0.051	**U**
75-35-4	1,1-Dichloroethene	**0.14**	0.17	0.15	0.058	**J**
156-59-2	cis-1,2-Dichloroethene	0.14	0.17	0.14	0.062	**U**
71-55-6	1,1,1-Trichloroethane	**4.2**	0.17	0.14	0.040	
56-23-5	Carbon Tetrachloride	**0.64**	0.17	0.14	0.081	
79-01-6	Trichloroethene	0.14	0.17	0.14	0.057	**U**
127-18-4	Tetrachloroethene	**5.3**	0.17	0.14	0.055	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **SS-DUP-2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-014

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.50 Liter(s)
Test Notes:
Container ID: SC02334

Initial Pressure (psig): -1.59 psig): 3.92
Initial Pressure 2 (psig): 0.02 psig): 2.68
Container Dilution Factor: 1.68

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.074	0.084	0.074	0.026	**U**
75-35-4	1,1-Dichloroethene	0.074	0.084	0.074	0.029	**U**
156-59-2	cis-1,2-Dichloroethene	0.071	0.084	0.071	0.031	**U**
71-55-6	1,1,1-Trichloroethane	**0.023**	0.084	0.071	0.020	**J**
56-23-5	Carbon Tetrachloride	**1.0**	0.084	0.071	0.040	
79-01-6	Trichloroethene	**0.10**	0.084	0.071	0.029	
127-18-4	Tetrachloroethene	**0.22**	0.084	0.071	0.028	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **204-IA2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-015

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: AC02442

Initial Pressure (psig): -2.36 psig): 4.61
Initial Pressure 2 (psig): -0.46 psig): 2.92
Container Dilution Factor: 1.94

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.14	0.16	0.14	0.049	**U**
75-35-4	1,1-Dichloroethene	0.14	0.16	0.14	0.056	**U**
156-59-2	cis-1,2-Dichloroethene	0.14	0.16	0.14	0.059	**U**
71-55-6	1,1,1-Trichloroethane	0.14	0.16	0.14	0.038	**U**
56-23-5	Carbon Tetrachloride	**0.45**	0.16	0.14	0.078	
79-01-6	Trichloroethene	0.14	0.16	0.14	0.055	**U**
127-18-4	Tetrachloroethene	**0.063**	0.16	0.14	0.053	**J**

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **204-IA1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-016

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: AC02285

Initial Pressure (psig): -2.77 psig): 3.77
Initial Pressure 2 (psig): -2.04 psig): 2.57
Container Dilution Factor: 2.11

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.23	0.26	0.23	0.080	**U**
75-35-4	1,1-Dichloroethene	0.23	0.26	0.23	0.091	**U**
156-59-2	cis-1,2-Dichloroethene	0.22	0.26	0.22	0.097	**U**
71-55-6	1,1,1-Trichloroethane	0.22	0.26	0.22	0.062	**U**
56-23-5	Carbon Tetrachloride	**0.43**	0.26	0.22	0.13	
79-01-6	Trichloroethene	**0.13**	0.26	0.22	0.090	**J**
127-18-4	Tetrachloroethene	0.22	0.26	0.22	0.087	**U**

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **204-IA3**
Client Project ID: **Scotia Depot / 6044641**

ALS Project ID: P2007113
ALS Sample ID: P2007113-017

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio De Leon
Sample Type: 6.0 L Silonite Canister
Test Notes:
Container ID: SSC00054

Date Collected: 12/9/20
Date Received: 12/18/20
Date Analyzed: 1/5/21
Volume(s) Analyzed: 0.40 Liter(s)

Initial Pressure (psig): -2.09 Final Pressure (psig): 3.73
Initial Pressure 2 (psig): 0.93 Final Pressure 2 (psig): 2.37
Container Dilution Factor: 1.60

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.088	0.10	0.088	0.030	**U**
75-35-4	1,1-Dichloroethene	0.088	0.10	0.088	0.034	**U**
156-59-2	cis-1,2-Dichloroethene	0.084	0.10	0.084	0.037	**U**
71-55-6	1,1,1-Trichloroethane	0.084	0.10	0.084	0.024	**U**
56-23-5	Carbon Tetrachloride	**0.37**	0.10	0.084	0.048	
79-01-6	Trichloroethene	0.084	0.10	0.084	0.034	**U**
127-18-4	Tetrachloroethene	**0.075**	0.10	0.084	0.033	**J**

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **203-IA2**
Client Project ID: **Scotia Depot / 6044641**

ALS Project ID: P2007113
ALS Sample ID: P2007113-018

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio De Leon
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC00347

Date Collected: 12/9/20
Date Received: 12/18/20
Date Analyzed: 1/5/21
Volume(s) Analyzed: 0.20 Liter(s)

Initial Pressure (psig): -1.81 Final Pressure (psig): 4.03

Container Dilution Factor: 1.45

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.16	0.18	0.16	0.055	**U**
75-35-4	1,1-Dichloroethene	0.16	0.18	0.16	0.062	**U**
156-59-2	cis-1,2-Dichloroethene	0.15	0.18	0.15	0.067	**U**
71-55-6	1,1,1-Trichloroethane	**0.096**	0.18	0.15	0.043	**J**
56-23-5	Carbon Tetrachloride	**0.61**	0.18	0.15	0.087	
79-01-6	Trichloroethene	0.15	0.18	0.15	0.062	**U**
127-18-4	Tetrachloroethene	**13**	0.18	0.15	0.059	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **203-IA1**
Client Project ID: **Scotia Depot / 6044641**

ALS Project ID: P2007113
ALS Sample ID: P2007113-019

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio De Leon
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01967

Date Collected: 12/9/20
Date Received: 12/18/20
Date Analyzed: 1/5/21
Volume(s) Analyzed: 0.25 Liter(s)

Initial Pressure (psig): -1.99)sig): 3.86
Initial Pressure 2 (psig): 0.12)sig): 2.09
Container Dilution Factor: 1.65

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.15	0.17	0.15	0.050	**U**
75-35-4	1,1-Dichloroethene	0.15	0.17	0.15	0.057	**U**
156-59-2	cis-1,2-Dichloroethene	0.14	0.17	0.14	0.061	**U**
71-55-6	1,1,1-Trichloroethane	**0.051**	0.17	0.14	0.039	**J**
56-23-5	Carbon Tetrachloride	**0.46**	0.17	0.14	0.079	
79-01-6	Trichloroethene	**0.073**	0.17	0.14	0.056	**J**
127-18-4	Tetrachloroethene	**11**	0.17	0.14	0.054	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **203-IA3** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-020

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.25 Liter(s)
Test Notes:
Container ID: SSC00024

Initial Pressure (psig): -1.55 psig): 3.84
Initial Pressure 2 (psig): -2.14 psig): 1.91
Container Dilution Factor: 1.86

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.16	0.19	0.16	0.057	**U**
75-35-4	1,1-Dichloroethene	0.16	0.19	0.16	0.064	**U**
156-59-2	cis-1,2-Dichloroethene	0.16	0.19	0.16	0.068	**U**
71-55-6	1,1,1-Trichloroethane	**0.072**	0.19	0.16	0.044	**J**
56-23-5	Carbon Tetrachloride	**0.46**	0.19	0.16	0.089	
79-01-6	Trichloroethene	**0.23**	0.19	0.16	0.063	
127-18-4	Tetrachloroethene	**1.7**	0.19	0.16	0.061	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____ Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **202-IA1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-021

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: SC01003
Initial Pressure (psig): -0.98 ›sig): 4.22

Container Dilution Factor: 1.38

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.10	0.12	0.10	0.035	**U**
75-35-4	1,1-Dichloroethene	0.10	0.12	0.10	0.040	**U**
156-59-2	cis-1,2-Dichloroethene	0.097	0.12	0.097	0.042	**U**
71-55-6	1,1,1-Trichloroethane	0.097	0.12	0.097	0.027	**U**
56-23-5	Carbon Tetrachloride	**0.55**	0.12	0.097	0.055	
79-01-6	Trichloroethene	0.097	0.12	0.097	0.039	**U**
127-18-4	Tetrachloroethene	**0.46**	0.12	0.097	0.038	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **202-IA2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-022

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: SSC00424
Initial Pressure (psig): -2.15 psig): 4.55

Container Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.11	0.13	0.11	0.039	**U**
75-35-4	1,1-Dichloroethene	0.11	0.13	0.11	0.044	**U**
156-59-2	cis-1,2-Dichloroethene	0.11	0.13	0.11	0.047	**U**
71-55-6	1,1,1-Trichloroethane	0.11	0.13	0.11	0.030	**U**
56-23-5	Carbon Tetrachloride	**0.46**	0.13	0.11	0.061	
79-01-6	Trichloroethene	0.11	0.13	0.11	0.043	**U**
127-18-4	Tetrachloroethene	**76**	0.13	0.11	0.042	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **202-IA3** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-023

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.25 Liter(s)
Test Notes:
Container ID: AS01160

Initial Pressure (psig): -2.76 psig): 4.16
Initial Pressure 2 (psig): 0.47 psig): 1.95
Container Dilution Factor: 1.73

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.15	0.17	0.15	0.053	**U**
75-35-4	1,1-Dichloroethene	0.15	0.17	0.15	0.060	**U**
156-59-2	cis-1,2-Dichloroethene	0.15	0.17	0.15	0.064	**U**
71-55-6	1,1,1-Trichloroethane	0.15	0.17	0.15	0.041	**U**
56-23-5	Carbon Tetrachloride	**0.43**	0.17	0.15	0.083	
79-01-6	Trichloroethene	0.15	0.17	0.15	0.059	**U**
127-18-4	Tetrachloroethene	**23**	0.17	0.15	0.057	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **201-IA1**
Client Project ID: **Scotia Depot / 6044641**

ALS Project ID: P2007113
ALS Sample ID: P2007113-024

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio De Leon
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC00303

Date Collected: 12/9/20
Date Received: 12/18/20
Date Analyzed: 1/5/21
Volume(s) Analyzed: 0.30 Liter(s)

Initial Pressure (psig): -1.51 sig): 3.91

Container Dilution Factor: 1.41

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.10	0.12	0.10	0.036	**U**
75-35-4	1,1-Dichloroethene	0.10	0.12	0.10	0.040	**U**
156-59-2	cis-1,2-Dichloroethene	0.099	0.12	0.099	0.043	**U**
71-55-6	1,1,1-Trichloroethane	0.099	0.12	0.099	0.028	**U**
56-23-5	Carbon Tetrachloride	**0.62**	0.12	0.099	0.056	
79-01-6	Trichloroethene	0.099	0.12	0.099	0.040	**U**
127-18-4	Tetrachloroethene	**0.11**	0.12	0.099	0.039	**J**

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **201-IA2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-025

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: AS00979

Initial Pressure (psig): -1.93 psig): 3.82
Initial Pressure 2 (psig): -0.44 psig): 1.97
Container Dilution Factor: 1.70

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.12	0.14	0.12	0.043	**U**
75-35-4	1,1-Dichloroethene	0.12	0.14	0.12	0.049	**U**
156-59-2	cis-1,2-Dichloroethene	0.12	0.14	0.12	0.052	**U**
71-55-6	1,1,1-Trichloroethane	0.12	0.14	0.12	0.033	**U**
56-23-5	Carbon Tetrachloride	**0.57**	0.14	0.12	0.068	
79-01-6	Trichloroethene	0.12	0.14	0.12	0.048	**U**
127-18-4	Tetrachloroethene	**0.13**	0.14	0.12	0.046	**J**

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **201-IA3** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-026

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: SC00560
Initial Pressure (psig): -2.05 sig): 3.76

Container Dilution Factor: 1.46

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.11	0.12	0.11	0.037	**U**
75-35-4	1,1-Dichloroethene	0.11	0.12	0.11	0.042	**U**
156-59-2	cis-1,2-Dichloroethene	0.10	0.12	0.10	0.045	**U**
71-55-6	1,1,1-Trichloroethane	0.10	0.12	0.10	0.029	**U**
56-23-5	Carbon Tetrachloride	**0.40**	0.12	0.10	0.058	
79-01-6	Trichloroethene	0.10	0.12	0.10	0.041	**U**
127-18-4	Tetrachloroethene	**0.15**	0.12	0.10	0.040	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **IADUP-02** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-028

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC02477
Initial Pressure (psig): -2.02 sig): 4.33

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.033	0.038	0.033	0.011	**U**
75-35-4	1,1-Dichloroethene	0.033	0.038	0.033	0.013	**U**
156-59-2	cis-1,2-Dichloroethene	0.032	0.038	0.032	0.014	**U**
71-55-6	1,1,1-Trichloroethane	0.032	0.038	0.032	0.0089	**U**
56-23-5	Carbon Tetrachloride	**0.54**	0.038	0.032	0.018	
79-01-6	Trichloroethene	0.032	0.038	0.032	0.013	**U**
127-18-4	Tetrachloroethene	**0.17**	0.038	0.032	0.012	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **Method Blank**
Client Project ID: **Scotia Depot / 6044641**

ALS Project ID: P2007113
ALS Sample ID: P210105-MB

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio De Leon
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 1/5/21
Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.022	0.025	0.022	0.0076	**U**
75-35-4	1,1-Dichloroethene	0.022	0.025	0.022	0.0086	**U**
156-59-2	cis-1,2-Dichloroethene	0.021	0.025	0.021	0.0092	**U**
71-55-6	1,1,1-Trichloroethane	0.021	0.025	0.021	0.0059	**U**
56-23-5	Carbon Tetrachloride	0.021	0.025	0.021	0.012	**U**
79-01-6	Trichloroethene	0.021	0.025	0.021	0.0085	**U**
127-18-4	Tetrachloroethene	0.021	0.025	0.021	0.0082	**U**

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **Method Blank**
Client Project ID: **Scotia Depot / 6044641**

ALS Project ID: P2007113
ALS Sample ID: P210106-MB

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio De Leon
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 1/6/21
Volume(s) Analyzed: 1.00 Liter(s)

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.022	0.025	0.022	0.0076	**U**
75-35-4	1,1-Dichloroethene	0.022	0.025	0.022	0.0086	**U**
156-59-2	cis-1,2-Dichloroethene	0.021	0.025	0.021	0.0092	**U**
71-55-6	1,1,1-Trichloroethane	0.021	0.025	0.021	0.0059	**U**
56-23-5	Carbon Tetrachloride	0.021	0.025	0.021	0.012	**U**
79-01-6	Trichloroethene	0.021	0.025	0.021	0.0085	**U**
127-18-4	Tetrachloroethene	0.021	0.025	0.021	0.0082	**U**

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Client: **AECOM**
Client Project ID: **Scotia Depot / 6044641** ALS Project ID: P2007113

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date(s) Collected: 12/9/20
Analyst: Topacio De Leon Date(s) Received: 12/18/20
Sample Type: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s) Date(s) Analyzed: 1/5 - 1/6/21
Test Notes:

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4 % Recovered	Toluene-d8 % Recovered	Bromofluorobenzene % Recovered	Acceptance Limits	Data Qualifier
Method Blank	P210105-MB	**93**	**99**	**109**	70-130	
Method Blank	P210106-MB	**95**	**101**	**95**	70-130	
Lab Control Sample	P210105-LCS	**93**	**98**	**117**	70-130	
Lab Control Sample	P210106-LCS	**100**	**100**	**101**	70-130	
Duplicate Lab Control Samp	P210105-DLCS	**93**	**99**	**116**	70-130	
Duplicate Lab Control Samp	P210106-DLCS	**100**	**100**	**102**	70-130	
204-SS1	P2007113-001	**101**	**82**	**103**	70-130	
204-SS2	P2007113-002	**101**	**82**	**103**	70-130	
204-SS3	P2007113-003	**100**	**85**	**101**	70-130	
203-SS1	P2007113-004	**97**	**89**	**103**	70-130	
203-SS2	P2007113-005	**107**	**89**	**99**	70-130	
203-SS3	P2007113-006	**104**	**75**	**100**	70-130	
202-SS1	P2007113-007	**104**	**88**	**101**	70-130	
202-SS2	P2007113-008	**105**	**89**	**100**	70-130	
202-SS3	P2007113-009	**105**	**93**	**99**	70-130	
201-SS1	P2007113-010	**101**	**80**	**100**	70-130	
201-SS2	P2007113-011	**105**	**84**	**101**	70-130	
201-SS3	P2007113-012	**98**	**80**	**100**	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Client: **AECOM**
Client Project ID: **Scotia Depot / 6044641** ALS Project ID: P2007113

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date(s) Collected: 12/9/20
Analyst: Topacio De Leon Date(s) Received: 12/18/20
Sample Type: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s) Date(s) Analyzed: 1/5 - 1/6/21
Test Notes:

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4 % Recovered	Toluene-d8 % Recovered	Bromofluorobenzene % Recovered	Acceptance Limits	Data Qualifier
SS-DUP-1	P2007113-013	**106**	**78**	**99**	70-130	
SS-DUP-2	P2007113-014	**93**	**79**	**110**	70-130	
204-IA2	P2007113-015	**98**	**81**	**112**	70-130	
204-IA1	P2007113-016	**98**	**82**	**110**	70-130	
204-IA3	P2007113-017	**97**	**83**	**110**	70-130	
203-IA2	P2007113-018	**97**	**79**	**113**	70-130	
203-IA1	P2007113-019	**98**	**85**	**113**	70-130	
203-IA3	P2007113-020	**91**	**83**	**111**	70-130	
202-IA1	P2007113-021	**97**	**85**	**110**	70-130	
202-IA2	P2007113-022	**96**	**79**	**112**	70-130	
202-IA3	P2007113-023	**98**	**81**	**111**	70-130	
201-IA1	P2007113-024	**93**	**83**	**108**	70-130	
201-IA2	P2007113-025	**98**	**85**	**107**	70-130	
201-IA3	P2007113-026	**98**	**83**	**109**	70-130	
IADUP-01	P2007113-027	**97**	**77**	**98**	70-130	
IADUP-02	P2007113-028	**94**	**69**	**107**	70-130	**S**
OA-1	P2007113-029	**102**	**80**	**97**	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.
S = Surrogate recovery not within specified limits.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Client: **AECOM**
Client Sample ID: **Duplicate Lab Control Sample** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P210105-DLCS

Test Code: EPA TO-15 SIM Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: NA
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.050 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount LCS / DLCS µg/m³	Result LCS µg/m³	Result DLCS µg/m³	% Recovery LCS	% Recovery DLCS	DOD Acceptance Limits	RPD	RPD Limit	Data Qualifier
75-01-4	Vinyl Chloride	20.8	18.8	19.0	**90**	**91**	64-127	1	25	
75-35-4	1,1-Dichloroethene	21.2	19.4	19.7	**92**	**93**	61-133	1	25	
156-59-2	cis-1,2-Dichloroethene	20.8	19.7	20.0	**95**	**96**	70-121	1	25	
71-55-6	1,1,1-Trichloroethane	20.6	20.2	20.2	**98**	**98**	68-125	0	25	
56-23-5	Carbon Tetrachloride	21.0	20.2	20.4	**96**	**97**	68-132	1	25	
79-01-6	Trichloroethene	20.6	19.8	20.0	**96**	**97**	71-123	1	25	
127-18-4	Tetrachloroethene	20.6	20.2	20.5	**98**	**100**	66-124	2	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Client: **AECOM**
Client Sample ID: **Duplicate Lab Control Sample**
Client Project ID: **Scotia Depot / 6044641**

ALS Project ID: P2007113
ALS Sample ID: P210106-DLCS

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio De Leon
Sample Type: 6.0 L Silonite Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 1/6/21
Volume(s) Analyzed: 0.050 Liter(s)

CAS #	Compound	Spike Amount LCS / DLCS µg/m³	Result LCS µg/m³	Result DLCS µg/m³	% Recovery LCS	% Recovery DLCS	DOD Acceptance Limits	RPD	RPD Limit	Data Qualifier
75-01-4	Vinyl Chloride	20.8	20.2	21.0	**97**	**101**	64-127	4	25	
75-35-4	1,1-Dichloroethene	21.2	20.2	20.9	**95**	**99**	61-133	4	25	
156-59-2	cis-1,2-Dichloroethene	20.8	20.5	21.2	**99**	**102**	70-121	3	25	
71-55-6	1,1,1-Trichloroethane	20.6	20.9	21.3	**101**	**103**	68-125	2	25	
56-23-5	Carbon Tetrachloride	21.0	20.7	21.3	**99**	**101**	68-132	2	25	
79-01-6	Trichloroethene	20.6	19.6	20.2	**95**	**98**	71-123	3	25	
127-18-4	Tetrachloroethene	20.6	19.7	20.4	**96**	**99**	66-124	3	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Project ID: **Scotia Depot / 6044641** ALS Project ID: P2007113

Internal Standard Area and RT Summary

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/7890A/MS19 Lab File ID: 01052102.D
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister(s) Time Analyzed: 07:53
Test Notes:

		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	24 Hour Standard	18008	9.60	85327	11.56	14703	15.90
	Upper Limit	25211	9.93	119458	11.89	20584	16.23
	Lower Limit	10805	9.27	51196	11.23	8822	15.57
	Client Sample ID						
01	Method Blank	18022	9.62	86276	11.56	15502	15.90
02	Lab Control Sample	17874	9.61	85269	11.56	15064	15.90
03	Duplicate Lab Control Sample	17755	9.61	85144	11.56	15245	15.90
04	SS-DUP-2	18510	9.60	115513	11.56	17004	15.90
05	204-IA2	17487	9.60	104673	11.56	15583	15.90
06	204-IA1	17440	9.61	102921	11.56	15430	15.90
07	204-IA3	18270	9.60	107043	11.56	16578	15.90
08	203-IA2	17512	9.60	109221	11.56	15959	15.90
09	203-IA1	17553	9.61	101984	11.56	16021	15.90
10	203-IA3	17268	9.60	102187	11.56	15842	15.90
11	202-IA1	17492	9.61	100136	11.56	15752	15.90
12	202-IA2	18346	9.60	113228	11.56	16746	15.90
13	202-IA3	17281	9.61	103261	11.56	15365	15.90
14	201-IA1	17099	9.61	100538	11.56	15185	15.90
15	201-IA2	16856	9.60	95950	11.56	15075	15.90
16	201-IA3	16981	9.60	100058	11.56	15377	15.90
17	IADUP-02	16574	9.60	118827	11.56	15283	15.90
18	204-SS1	16063	9.61	95452	11.56	14722	15.90
19	204-SS2	15766	9.60	94454	11.56	14572	15.90
20	204-SS3	15515	9.60	90449	11.56	14528	15.90
21	203-SS1	15275	9.61	85930	11.56	14373	15.90

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an I.
I = Internal standard not within the specified limits. See case narrative.

Verified By:_____ Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Project ID: **Scotia Depot / 6044641** ALS Project ID: P2007113

Internal Standard Area and RT Summary

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/7890A/MS19 Lab File ID: 01062102.D
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Silonite Canister(s) Time Analyzed: 01:17
Test Notes:

		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	24 Hour Standard	14706	9.60	71305	11.56	13392	15.90
	Upper Limit	20588	9.93	99827	11.89	18749	16.23
	Lower Limit	8824	9.27	42783	11.23	8035	15.57
	Client Sample ID						
01	Method Blank	14253	9.62	69234	11.57	13375	15.90
02	Lab Control Sample	14243	9.61	69236	11.56	13235	15.90
03	Duplicate Lab Control Sample	14294	9.61	69666	11.56	13278	15.90
04	IADUP-01	15147	9.60	99574	11.56	15311	15.90
05	OA-1	13857	9.60	88248	11.56	13954	15.90
06	203-SS2	14465	9.60	83938	11.56	14781	15.90
07	203-SS3	14296	9.60	96831	11.56	14365	15.90
08	202-SS1	14676	9.61	84192	11.56	14691	15.90
09	202-SS2	14545	9.61	83361	11.56	14569	15.90
10	202-SS3	14230	9.61	77747	11.56	14231	15.90
11	202-SS2 (Dilution)	13149	9.61	66554	11.56	12914	15.90
12	201-SS1	13917	9.60	89828	11.56	14001	15.90
13	201-SS2	14006	9.61	85640	11.56	14028	15.90
14	201-SS3	13943	9.60	89780	11.56	14143	15.90
15	SS-DUP-1	13918	9.60	90640	11.56	13718	15.90
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an I.
I = Internal standard not within the specified limits. See case narrative.

Verified By:_____ Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **203-SS2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-005

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: AS01008

Initial Pressure (psig): -2.20 psig): 3.96
Initial Pressure 2 (psig): 0.55 psig): 2.05
Container Dilution Factor: 1.64

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.18	0.21	0.18	0.062	**U**
75-35-4	1,1-Dichloroethene	**0.66**	0.21	0.18	0.071	
156-59-2	cis-1,2-Dichloroethene	0.17	0.21	0.17	0.075	**U**
71-55-6	1,1,1-Trichloroethane	**23**	0.21	0.17	0.048	
56-23-5	Carbon Tetrachloride	**80**	0.21	0.17	0.098	
79-01-6	Trichloroethene	**0.31**	0.21	0.17	0.070	
127-18-4	Tetrachloroethene	**7.8**	0.21	0.17	0.067	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **203-SS3** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-006

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: SC02184

Initial Pressure (psig): -1.41)sig): 3.95
Initial Pressure 2 (psig): -0.30)sig): 2.05
Container Dilution Factor: 1.63

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.090	0.10	0.090	0.031	**U**
75-35-4	1,1-Dichloroethene	**0.97**	0.10	0.090	0.035	
156-59-2	cis-1,2-Dichloroethene	**0.063**	0.10	0.086	0.037	**J**
71-55-6	1,1,1-Trichloroethane	**39**	0.10	0.086	0.024	
56-23-5	Carbon Tetrachloride	**13**	0.10	0.086	0.049	
79-01-6	Trichloroethene	**140**	0.10	0.086	0.035	
127-18-4	Tetrachloroethene	**1.3**	0.10	0.086	0.033	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **202-SS1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-007

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: SC01006

Initial Pressure (psig): 1.06 psig): 3.81
Initial Pressure 2 (psig): -1.95 psig): 2.13
Container Dilution Factor: 1.55

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.085	0.097	0.085	0.029	**U**
75-35-4	1,1-Dichloroethene	0.085	0.097	0.085	0.033	**U**
156-59-2	cis-1,2-Dichloroethene	0.081	0.097	0.081	0.036	**U**
71-55-6	1,1,1-Trichloroethane	**1.1**	0.097	0.081	0.023	
56-23-5	Carbon Tetrachloride	**21**	0.097	0.081	0.047	
79-01-6	Trichloroethene	**0.041**	0.097	0.081	0.033	**J**
127-18-4	Tetrachloroethene	**0.28**	0.097	0.081	0.032	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **202-SS2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-008

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes: 0.050 Liter(s)
Container ID: SC00970

Initial Pressure (psig): -2.07 psig): 3.82
Initial Pressure 2 (psig): 0.95 psig): 1.96
Container Dilution Factor: 1.56

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.17	0.20	0.17	0.059	**U**
75-35-4	1,1-Dichloroethene	**1.0**	0.20	0.17	0.067	
156-59-2	cis-1,2-Dichloroethene	0.16	0.20	0.16	0.072	**U**
71-55-6	1,1,1-Trichloroethane	**47**	0.20	0.16	0.046	
56-23-5	Carbon Tetrachloride	**440**	0.78	0.66	0.37	**D**
79-01-6	Trichloroethene	**0.13**	0.20	0.16	0.066	**J**
127-18-4	Tetrachloroethene	**0.59**	0.20	0.16	0.064	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.
D = The reported result is from a dilution.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **202-SS3**
Client Project ID: **Scotia Depot / 6044641**

ALS Project ID: P2007113
ALS Sample ID: P2007113-009

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio De Leon
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC02341

Date Collected: 12/9/20
Date Received: 12/18/20
Date Analyzed: 1/6/21
Volume(s) Analyzed: 0.20 Liter(s)

Initial Pressure (psig): -2.01 Final Pressure (psig): 3.93
Initial Pressure 2 (psig): -2.38 Final Pressure 2 (psig): 2.02
Container Dilution Factor: 1.99

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.22	0.25	0.22	0.076	**U**
75-35-4	1,1-Dichloroethene	0.22	0.25	0.22	0.086	**U**
156-59-2	cis-1,2-Dichloroethene	0.21	0.25	0.21	0.092	**U**
71-55-6	1,1,1-Trichloroethane	**0.23**	0.25	0.21	0.059	**J**
56-23-5	Carbon Tetrachloride	**22**	0.25	0.21	0.12	
79-01-6	Trichloroethene	0.21	0.25	0.21	0.085	**U**
127-18-4	Tetrachloroethene	**0.33**	0.25	0.21	0.082	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____ Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **201-SS1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-010

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.50 Liter(s)
Test Notes:
Container ID: AC01205
Initial Pressure (psig): 0.20 sig): 3.87

Container Dilution Factor: 1.25

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.055	0.063	0.055	0.019	**U**
75-35-4	1,1-Dichloroethene	0.055	0.063	0.055	0.022	**U**
156-59-2	cis-1,2-Dichloroethene	0.053	0.063	0.053	0.023	**U**
71-55-6	1,1,1-Trichloroethane	**0.38**	0.063	0.053	0.015	
56-23-5	Carbon Tetrachloride	**0.54**	0.063	0.053	0.030	
79-01-6	Trichloroethene	0.053	0.063	0.053	0.021	**U**
127-18-4	Tetrachloroethene	**0.13**	0.063	0.053	0.021	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **201-SS2**
Client Project ID: **Scotia Depot / 6044641**

ALS Project ID: P2007113
ALS Sample ID: P2007113-011

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio De Leon
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: SC01608

Date Collected: 12/9/20
Date Received: 12/18/20
Date Analyzed: 1/6/21
Volume(s) Analyzed: 0.40 Liter(s)

Initial Pressure (psig): -1.91 sig): 4.24

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.081	0.093	0.081	0.028	**U**
75-35-4	1,1-Dichloroethene	0.081	0.093	0.081	0.032	**U**
156-59-2	cis-1,2-Dichloroethene	0.078	0.093	0.078	0.034	**U**
71-55-6	1,1,1-Trichloroethane	**0.026**	0.093	0.078	0.022	**J**
56-23-5	Carbon Tetrachloride	**1.2**	0.093	0.078	0.044	
79-01-6	Trichloroethene	0.078	0.093	0.078	0.031	**U**
127-18-4	Tetrachloroethene	**0.17**	0.093	0.078	0.030	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **201-SS3** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-012

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: AC00343

Initial Pressure (psig): -2.31 psig): 4.06
Initial Pressure 2 (psig): 0.97 psig): 2.03
Container Dilution Factor: 1.62

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.089	0.10	0.089	0.031	**U**
75-35-4	1,1-Dichloroethene	0.089	0.10	0.089	0.035	**U**
156-59-2	cis-1,2-Dichloroethene	0.085	0.10	0.085	0.037	**U**
71-55-6	1,1,1-Trichloroethane	**0.046**	0.10	0.085	0.024	**J**
56-23-5	Carbon Tetrachloride	**60**	0.10	0.085	0.049	
79-01-6	Trichloroethene	**0.045**	0.10	0.085	0.034	**J**
127-18-4	Tetrachloroethene	**0.12**	0.10	0.085	0.033	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____ Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **SS-DUP-1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-013

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: AC02302

Initial Pressure (psig): -1.99 psig): 3.88
Initial Pressure 2 (psig): -0.65 psig): 2.09
Container Dilution Factor: 1.75

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.096	0.11	0.096	0.033	**U**
75-35-4	1,1-Dichloroethene	0.096	0.11	0.096	0.038	**U**
156-59-2	cis-1,2-Dichloroethene	0.092	0.11	0.092	0.040	**U**
71-55-6	1,1,1-Trichloroethane	**0.18**	0.11	0.092	0.026	
56-23-5	Carbon Tetrachloride	**0.37**	0.11	0.092	0.053	
79-01-6	Trichloroethene	0.092	0.11	0.092	0.037	**U**
127-18-4	Tetrachloroethene	**0.52**	0.11	0.092	0.036	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By:_____ Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **IADUP-01** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-027

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.70 Liter(s)
Test Notes:
Container ID: AC02143
Initial Pressure (psig): -2.70 ›sig): 3.83

Container Dilution Factor: 1.54

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.048	0.055	0.048	0.017	**U**
75-35-4	1,1-Dichloroethene	0.048	0.055	0.048	0.019	**U**
156-59-2	cis-1,2-Dichloroethene	0.046	0.055	0.046	0.020	**U**
71-55-6	1,1,1-Trichloroethane	0.046	0.055	0.046	0.013	**U**
56-23-5	Carbon Tetrachloride	**0.35**	0.055	0.046	0.026	
79-01-6	Trichloroethene	**0.037**	0.055	0.046	0.019	**J**
127-18-4	Tetrachloroethene	**0.067**	0.055	0.046	0.018	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **OA-1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-029

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.70 Liter(s)
Test Notes:
Container ID: SC01062

Initial Pressure (psig): -2.09 sig): 3.91
Initial Pressure 2 (psig): -1.45 sig): 2.02
Container Dilution Factor: 1.86

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.058	0.066	0.058	0.020	**U**
75-35-4	1,1-Dichloroethene	0.058	0.066	0.058	0.023	**U**
156-59-2	cis-1,2-Dichloroethene	**0.030**	0.066	0.056	0.024	**J**
71-55-6	1,1,1-Trichloroethane	**0.019**	0.066	0.056	0.016	**J**
56-23-5	Carbon Tetrachloride	**0.37**	0.066	0.056	0.032	
79-01-6	Trichloroethene	**0.051**	0.066	0.056	0.023	**J**
127-18-4	Tetrachloroethene	**0.38**	0.066	0.056	0.022	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Verified By:_____Date:_____

APPENDIX F: December 2020 Air Sample Data Usability Summary Report (DUSR)

Prepared for:
U.S. Army Corps of Engineers
Huntsville and New York Districts

Prepared by:
AECOM
Pittsburgh, PA
60440641-18
January 2021

Data Usability Summary Report
Defense National Stockpile Center
Scotia Depot
ALS Service Request Number: P2007113
December 2020 Air and Soil Vapor Samples
Final

Prepared for:
U.S. Army Corps of Engineers
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60440641-18
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Data Usability Summary Report
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Final

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Contents

List of Appendices

Executive Summary

Data validation was performed by Gregory A. Malzone of AECOM – Pittsburgh on one data report from ALS, 2655 Park Center Dr., Suite A, Simi Valley, CA 93065 (ALS) for the analysis of soil vapor, indoor and outdoor air samples collected on December 9, 2020 at the Defense National Stockpile Center Scotia Depot, Glenville, NY. Samples were collected to determine the effectiveness of the soil vapor mitigation systems at maintaining indoor air VOC concentrations below the NYSDOH air guidelines.

This sampling event was described in *Final Quality Assurance Project Plan for the Defense National Stockpile Center Scotia Depot Glenville, New York* (the project specific QAPP; AECOM, September 2017). ALS processed the samples and reported the results in two sample delivery groups (SDGs). The analyses were performed in accordance with the project specific QAPP which is based on the DoD QSM v5.0.

The following analytical method was requested on the chain-of-custody (CoC) records:

- USEPA Compendium Method TO-15 - Volatile Organic Compounds (VOCs) by Gas Chromatography/Mass Spectrometry (GC/MS) in Selected Ion Monitoring (SIM) Mode.

Table 1 below lists the field sample identifications cross-referenced to the laboratory identifications.

Table 1
Sample Submittals – Scotia Depot Air Samples

Field ID	ALS ID	Matrix	Date Sampled
204-SS1	P2007113-001	Soil Vapor	12/9/2020
204-SS2	P2007113-002	Soil Vapor	12/9/2020
204-SS3	P2007113-003	Soil Vapor	12/9/2020
203-SS1	P2007113-004	Soil Vapor	12/9/2020
203-SS2	P2007113-005	Soil Vapor	12/9/2020
203-SS3	P2007113-006	Soil Vapor	12/9/2020
202-SS1	P2007113-007	Soil Vapor	12/9/2020
202-SS2	P2007113-008	Soil Vapor	12/9/2020
202-SS3	P2007113-009	Soil Vapor	12/9/2020
201-SS1	P2007113-010	Soil Vapor	12/9/2020
201-SS2	P2007113-011	Soil Vapor	12/9/2020
201-SS3	P2007113-012	Soil Vapor	12/9/2020
SS-DUP-1 [204-IA3]	P2007113-013	Soil Vapor (QC)	12/9/2020
SS-DUP-2 [201-IA2]	P2007113-014	Soil Vapor (QC)	12/9/2020
204-IA2	P2007113-015	Indoor Air	12/9/2020
204-IA1	P2007113-016	Indoor Air	12/9/2020
204-IA3	P2007113-017	Indoor Air	12/9/2020
203-IA2	P2007113-018	Indoor Air	12/9/2020
203-IA1	P2007113-019	Indoor Air	12/9/2020
203-IA3	P2007113-020	Indoor Air	12/9/2020

Field ID	ALS ID	Matrix	Date Sampled
202-IA1	P2007113-021	Indoor Air	12/9/2020
202-IA2	P2007113-022	Indoor Air	12/9/2020
202-IA3	P2007113-023	Indoor Air	12/9/2020
201-IA1	P2007113-024	Indoor Air	12/9/2020
201-IA2	P2007113-025	Indoor Air	12/9/2020
201-IA3	P2007113-026	Indoor Air	12/9/2020
IADUP-01 [204-IA3]	P2007113-027	Indoor Air (QC)	12/9/2020
IADUP-02 [201-IA2]	P2007113-028	Indoor Air (QC)	12/9/2020
OA-1	P2007113-029	Outdoor Air	12/9/2020

The data were evaluated for conformance to method specifications and qualifiers were applied using the validation criteria set forth in the *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Superfund Methods Data Review*, EPA-540-R-2017-002, January 2017, as they apply to the analytical method employed.

Summary

All samples were collected and analyzed successfully. All data have been determined to be useable for the purpose of assessing the presence/absence and quantitative concentrations of the compounds in the media tested (i.e., air and soil vapor) with some qualification. No data points were rejected. Completeness of 100% was achieved for this data set. This is within the completeness goal of 90-100%. The qualified analytical result summaries are attached in Appendix B of this report. A glossary of data qualifier definitions is included in Appendix A of this report.

Each nonconformance with specific data usability criteria is discussed below. Support documentation for data qualifications was included in Appendix C of this report.

1.0 Volatile Organic Compounds

Analytical results for VOCs were reviewed for the following measurement performance indicators.

- Chain-of-custody records
- Sample integrity, initial and final vacuum measurements
- Holding times
- GC/MS hardware tunes
- Initial and continuing calibrations
- Laboratory method blanks
- Surrogate recoveries
- Internal standard areas and retention times
- Laboratory control standards (LCSs)
- Laboratory duplicate precision
- Field duplicate (co-located sample) precision
- Clean canister certification records
- Target compound identification and quantitation

Measurement performance indicators which did not meet criteria for the VOCs analysis are described below.

Residual Laboratory Vacuum Checks (P2007113, p. 4): All residual vacuum check measurements taken upon receipt at ALS were greater than 1.0 “Hg and less than 10 “Hg with the following exceptions.

The residual vacuum measurements taken upon receipt at ALS for samples 201-SS1 and 202-SS1 were less than 1.0 “Hg or had positive pressure. It is uncertain whether the required sampling interval was achieved before the canister arrived at near ambient conditions. There was inadequate differential pressure to drive the flow controller approaching 0.0” Hg. ALS determined that the sample canisters still contained sample from the site and could still be analyzed. Based on professional judgment, all positive and non-detect results for samples 201-SS1 and 202-SS1 were qualified “J” and “UJ,” as estimates, because of the sample integrity issue.

Target Compound Identification and Quantitation (P2007113, p. 17; P2007113, pp. 42, 44): Sample 202-SS2 required analysis at a secondary dilution to bring the carbon tetrachloride concentration into the calibration range. The LOQ and MDL were elevated as required. No data qualification was required.

The 1,4-difluorobenzene (IS2) internal standard area in sample IADUP-2 was on the high side at 139.3%, just less than the upper method specification limit of 140%. This high IS2 internal standard recovery cause the toluene-d8 surrogate to recover at 69%, just less than the lower quality control limit of 70%. The results for sample IADUP-2 confirm (i.e., match) the results for the parent sample 201-IA2 which had acceptable IS areas and surrogate recoveries. No data qualification was necessary based on professional judgement.

Field Duplicate Precision (P2007113, pp. 3, 10, 13-14, 17, 25, 27-28): Field duplicate samples were collected for samples 204-SS3, 201-SS1, 204-IA3 and 201-IA2. The results for the parent and field duplicate samples were non-detected, with exception to those listed in Table 2A, 2B, 2C and 2D below. The method specification advisory limit for RPD is 25% for air, or the absolute difference between the primary and field duplicate results must be less than or equal to two times the LOQ for results less than five times the LOQ.

Results associated with a nonconforming RPD or absolute difference were qualified "J," as estimated concentrations, because of field sampling/laboratory imprecision and/or sample heterogeneity

The following notations are used in the field precision tables.

≤±2LOQ: The absolute difference between the primary and field duplicate results was less than twice the limit of quantitation for results ≤ five times the limit of quantitation. Variation of this magnitude is acceptable.
RPD: Relative percent difference
Qual: Qualifier(s) required
NC: RPD could not be calculated

Table 2A
Field Duplicate Precision - Scotia Depot Air Samples

Parameter	Units	204-SS3-120920	SSDUP-1-120920	RPD (%)	Qual
1,1,1-Trichloroethane	µg/m3	0.20	0.18	11	None
Carbon tetrachloride	µg/m3	0.34	0.37	8.5	None
Tetrachloroethene	µg/m3	0.50	0.52	3.9	None

Table 2B
Field Duplicate Precision - Scotia Depot Air Samples

Parameter	Units	201-SS1-120920	SSDUP-2-120920	RPD (%)	Qual
1,1,1-Trichloroethane	µg/m3	0.38	0.023 J	177	J
Carbon tetrachloride	µg/m3	0.54	1.0	60	J
Trichloroethene	µg/m3	0.063 U	0.10	NC	±2LOQ, None
Tetrachloroethene	µg/m3	0.13	0.22	51	±2LOQ, None

Table 2C
Field Duplicate Precision - Scotia Depot Air Samples

Parameter	Units	204-IA3-120920	IADUP1-120920	RPD (%)	Qual
Carbon tetrachloride	µg/m3	0.37	0.35	5.6	None
Trichloroethene	µg/m3	0.10 U	0.037 J	NC	±2LOQ, None
Tetrachloroethene	µg/m3	0.075 J	0.067	11	None

Table 2D
Field Duplicate Precision - Scotia Depot Air Samples

Parameter	Units	201-IA2-120920	IADUP2-120920	RPD (%)	Qual
Carbon tetrachloride	µg/m3	0.57	0.54	5.4	None
Tetrachloroethene	µg/m3	0.13 J	0.17	27	±2LOQ, None

2.0 Notes

Data Reporting: Non-detect results were reported to the method detection limits (MDLs) in µg/m^3. Positive results less than the limit of quantitation (LOQ), but greater than the MDL, were qualified "J," as estimated concentrations, due to increased uncertainty near the detection limit. These "J" qualifiers were maintained in the data assessment. Sample results reported between the MDL and LOQ are usable as estimated values with an unknown directional bias.

Appendix A

Glossary of USEPA Data Qualifiers

Glossary of USEPA Data Qualifiers

U The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.

UJ The analyte was analyzed for but was not detected. The reported quantitation limit is approximated and may be inaccurate or imprecise.

J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.

R The data are unusable. The sample results are rejected due to serious deficiencies in the ability to meet quality control criteria. The presence or absence of the analyte cannot be verified.

N (Organics) The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.

NJ (Organics) The analysis indicates the presence of an analyte that has been tentatively identified and the associated numerical value represents its approximate concentration.

Appendix B

Qualified Analytical Results

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **204-SS1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-001

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: AS01189

Initial Pressure (psig): -2.22 Final Pressure (psig): 3.83
Initial Pressure 2 (psig): -2.81 Final Pressure 2 (psig): 2.11

Container Dilution Factor: 2.10

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.23	0.26	0.23	0.080	**U**
75-35-4	1,1-Dichloroethene	0.23	0.26	0.23	0.090	**U**
156-59-2	cis-1,2-Dichloroethene	0.22	0.26	0.22	0.097	**U**
71-55-6	1,1,1-Trichloroethane	**0.070**	0.26	0.22	0.062	**J**
56-23-5	Carbon Tetrachloride	**0.81**	0.26	0.22	0.13	
79-01-6	Trichloroethene	**1.8**	0.26	0.22	0.089	
127-18-4	Tetrachloroethene	**0.51**	0.26	0.22	0.086	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **204-SS2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-002

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: AC02357

Initial Pressure (psig): -2.98 Final Pressure (psig): 3.96
Initial Pressure 2 (psig): 0.63 Final Pressure 2 (psig): 2.14

Container Dilution Factor: 1.75

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.13	0.15	0.13	0.044	**U**
75-35-4	1,1-Dichloroethene	0.13	0.15	0.13	0.050	**U**
156-59-2	cis-1,2-Dichloroethene	0.12	0.15	0.12	0.054	**U**
71-55-6	1,1,1-Trichloroethane	0.12	0.15	0.12	0.034	**U**
56-23-5	Carbon Tetrachloride	**0.19**	0.15	0.12	0.070	
79-01-6	Trichloroethene	0.12	0.15	0.12	0.050	**U**
127-18-4	Tetrachloroethene	**0.070**	0.15	0.12	0.048	**J**

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **204-SS3** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-003

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: SC01836

Initial Pressure (psig): -2.05 Final Pressure (psig): 3.82
Initial Pressure 2 (psig): -0.26 Final Pressure 2 (psig): 2.18

Container Dilution Factor: 1.71

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.094	0.11	0.094	0.032	**U**
75-35-4	1,1-Dichloroethene	0.094	0.11	0.094	0.037	**U**
156-59-2	cis-1,2-Dichloroethene	0.090	0.11	0.090	0.039	**U**
71-55-6	1,1,1-Trichloroethane	**0.20**	0.11	0.090	0.025	
56-23-5	Carbon Tetrachloride	**0.34**	0.11	0.090	0.051	
79-01-6	Trichloroethene	0.090	0.11	0.090	0.036	**U**
127-18-4	Tetrachloroethene	**0.50**	0.11	0.090	0.035	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **203-SS1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-004

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: AS00686

Initial Pressure (psig): -1.81 Final Pressure (psig): 3.91
Initial Pressure 2 (psig): -2.52 Final Pressure 2 (psig): 2.30

Container Dilution Factor: 2.02

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.15	0.17	0.15	0.051	**U**
75-35-4	1,1-Dichloroethene	**0.14**	0.17	0.15	0.058	**J**
156-59-2	cis-1,2-Dichloroethene	0.14	0.17	0.14	0.062	**U**
71-55-6	1,1,1-Trichloroethane	**4.2**	0.17	0.14	0.040	
56-23-5	Carbon Tetrachloride	**0.64**	0.17	0.14	0.081	
79-01-6	Trichloroethene	0.14	0.17	0.14	0.057	**U**
127-18-4	Tetrachloroethene	**5.3**	0.17	0.14	0.055	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **203-SS2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-005

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: AS01008

Initial Pressure (psig): -2.20 Final Pressure (psig): 3.96
Initial Pressure 2 (psig): 0.55 Final Pressure 2 (psig): 2.05

Container Dilution Factor: 1.64

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.18	0.21	0.18	0.062	**U**
75-35-4	1,1-Dichloroethene	**0.66**	0.21	0.18	0.071	
156-59-2	cis-1,2-Dichloroethene	0.17	0.21	0.17	0.075	**U**
71-55-6	1,1,1-Trichloroethane	**23**	0.21	0.17	0.048	
56-23-5	Carbon Tetrachloride	**80**	0.21	0.17	0.098	
79-01-6	Trichloroethene	**0.31**	0.21	0.17	0.070	
127-18-4	Tetrachloroethene	**7.8**	0.21	0.17	0.067	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **203-SS3** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-006

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: SC02184

Initial Pressure (psig): -1.41 Final Pressure (psig): 3.95
Initial Pressure 2 (psig): -0.30 Final Pressure 2 (psig): 2.05

Container Dilution Factor: 1.63

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.090	0.10	0.090	0.031	**U**
75-35-4	1,1-Dichloroethene	**0.97**	0.10	0.090	0.035	
156-59-2	cis-1,2-Dichloroethene	**0.063**	0.10	0.086	0.037	**J**
71-55-6	1,1,1-Trichloroethane	**39**	0.10	0.086	0.024	
56-23-5	Carbon Tetrachloride	**13**	0.10	0.086	0.049	
79-01-6	Trichloroethene	**140**	0.10	0.086	0.035	
127-18-4	Tetrachloroethene	**1.3**	0.10	0.086	0.033	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **202-SS1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-007

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: SC01006

Initial Pressure (psig): 1.06 Final Pressure (psig): 3.81
Initial Pressure 2 (psig): -1.95 Final Pressure 2 (psig): 2.13

Container Dilution Factor: 1.55

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.085	0.097	0.085	0.029	UJ
75-35-4	1,1-Dichloroethene	0.085	0.097	0.085	0.033	UJ
156-59-2	cis-1,2-Dichloroethene	0.081	0.097	0.081	0.036	UJ
71-55-6	1,1,1-Trichloroethane	**1.1**	0.097	0.081	0.023	J
56-23-5	Carbon Tetrachloride	**21**	0.097	0.081	0.047	J
79-01-6	Trichloroethene	**0.041**	0.097	0.081	0.033	**J**
127-18-4	Tetrachloroethene	**0.28**	0.097	0.081	0.032	J

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **202-SS2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-008

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes: 0.050 Liter(s)
Container ID: SC00970

Initial Pressure (psig): -2.07 Final Pressure (psig): 3.82
Initial Pressure 2 (psig): 0.95 Final Pressure 2 (psig): 1.96

Container Dilution Factor: 1.56

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.17	0.20	0.17	0.059	**U**
75-35-4	1,1-Dichloroethene	**1.0**	0.20	0.17	0.067	
156-59-2	cis-1,2-Dichloroethene	0.16	0.20	0.16	0.072	**U**
71-55-6	1,1,1-Trichloroethane	**47**	0.20	0.16	0.046	
56-23-5	Carbon Tetrachloride	**440**	0.78	0.66	0.37	~~**D**~~
79-01-6	Trichloroethene	**0.13**	0.20	0.16	0.066	**J**
127-18-4	Tetrachloroethene	**0.59**	0.20	0.16	0.064	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.
D = The reported result is from a dilution.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **202-SS3** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-009

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: AC02341

Initial Pressure (psig): -2.01 Final Pressure (psig): 3.93
Initial Pressure 2 (psig): -2.38 Final Pressure 2 (psig): 2.02

Container Dilution Factor: 1.99

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.22	0.25	0.22	0.076	**U**
75-35-4	1,1-Dichloroethene	0.22	0.25	0.22	0.086	**U**
156-59-2	cis-1,2-Dichloroethene	0.21	0.25	0.21	0.092	**U**
71-55-6	1,1,1-Trichloroethane	**0.23**	0.25	0.21	0.059	**J**
56-23-5	Carbon Tetrachloride	**22**	0.25	0.21	0.12	
79-01-6	Trichloroethene	0.21	0.25	0.21	0.085	**U**
127-18-4	Tetrachloroethene	**0.33**	0.25	0.21	0.082	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **201-SS1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-010

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.50 Liter(s)
Test Notes:
Container ID: AC01205
Initial Pressure (psig): 0.20 Final Pressure (psig): 3.87

Container Dilution Factor: 1.25

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.055	0.063	0.055	0.019	U J
75-35-4	1,1-Dichloroethene	0.055	0.063	0.055	0.022	U J
156-59-2	cis-1,2-Dichloroethene	0.053	0.063	0.053	0.023	U J
71-55-6	1,1,1-Trichloroethane	**0.38**	0.063	0.053	0.015	J
56-23-5	Carbon Tetrachloride	**0.54**	0.063	0.053	0.030	J
79-01-6	Trichloroethene	0.053	0.063	0.053	0.021	U J
127-18-4	Tetrachloroethene	**0.13**	0.063	0.053	0.021	J

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **201-SS2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-011

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: SC01608
Initial Pressure (psig): -1.91 Final Pressure (psig): 4.24

Container Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.081	0.093	0.081	0.028	**U**
75-35-4	1,1-Dichloroethene	0.081	0.093	0.081	0.032	**U**
156-59-2	cis-1,2-Dichloroethene	0.078	0.093	0.078	0.034	**U**
71-55-6	1,1,1-Trichloroethane	**0.026**	0.093	0.078	0.022	**J**
56-23-5	Carbon Tetrachloride	**1.2**	0.093	0.078	0.044	
79-01-6	Trichloroethene	0.078	0.093	0.078	0.031	**U**
127-18-4	Tetrachloroethene	**0.17**	0.093	0.078	0.030	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **201-SS3**
Client Project ID: **Scotia Depot / 6044641**

ALS Project ID: P2007113
ALS Sample ID: P2007113-012

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19
Analyst: Topacio De Leon
Sample Type: 6.0 L Summa Canister
Test Notes:
Container ID: AC00343

Date Collected: 12/9/20
Date Received: 12/18/20
Date Analyzed: 1/6/21
Volume(s) Analyzed: 0.40 Liter(s)

Initial Pressure (psig): -2.31 Final Pressure (psig): 4.06
Initial Pressure 2 (psig): 0.97 Final Pressure 2 (psig): 2.03

Container Dilution Factor: 1.62

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.089	0.10	0.089	0.031	**U**
75-35-4	1,1-Dichloroethene	0.089	0.10	0.089	0.035	**U**
156-59-2	cis-1,2-Dichloroethene	0.085	0.10	0.085	0.037	**U**
71-55-6	1,1,1-Trichloroethane	**0.046**	0.10	0.085	0.024	**J**
56-23-5	Carbon Tetrachloride	**60**	0.10	0.085	0.049	
79-01-6	Trichloroethene	**0.045**	0.10	0.085	0.034	**J**
127-18-4	Tetrachloroethene	**0.12**	0.10	0.085	0.033	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **SS-DUP-1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-013

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: AC02302

Initial Pressure (psig): -1.99 Final Pressure (psig): 3.88
Initial Pressure 2 (psig): -0.65 Final Pressure 2 (psig): 2.09

Container Dilution Factor: 1.75

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.096	0.11	0.096	0.033	**U**
75-35-4	1,1-Dichloroethene	0.096	0.11	0.096	0.038	**U**
156-59-2	cis-1,2-Dichloroethene	0.092	0.11	0.092	0.040	**U**
71-55-6	1,1,1-Trichloroethane	**0.18**	0.11	0.092	0.026	
56-23-5	Carbon Tetrachloride	**0.37**	0.11	0.092	0.053	
79-01-6	Trichloroethene	0.092	0.11	0.092	0.037	**U**
127-18-4	Tetrachloroethene	**0.52**	0.11	0.092	0.036	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **SS-DUP-2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-014

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.50 Liter(s)
Test Notes:
Container ID: SC02334

Initial Pressure (psig): -1.59 Final Pressure (psig): 3.92
Initial Pressure 2 (psig): 0.02 Final Pressure 2 (psig): 2.68

Container Dilution Factor: 1.68

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.074	0.084	0.074	0.026	**U**
75-35-4	1,1-Dichloroethene	0.074	0.084	0.074	0.029	**U**
156-59-2	cis-1,2-Dichloroethene	0.071	0.084	0.071	0.031	**U**
71-55-6	1,1,1-Trichloroethane	**0.023**	0.084	0.071	0.020	**J**
56-23-5	Carbon Tetrachloride	**1.0**	0.084	0.071	0.040	J
79-01-6	Trichloroethene	**0.10**	0.084	0.071	0.029	
127-18-4	Tetrachloroethene	**0.22**	0.084	0.071	0.028	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **204-IA2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-015

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: AC02442

Initial Pressure (psig): -2.36 Final Pressure (psig): 4.61
Initial Pressure 2 (psig): -0.46 Final Pressure 2 (psig): 2.92

Container Dilution Factor: 1.94

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.14	0.16	0.14	0.049	**U**
75-35-4	1,1-Dichloroethene	0.14	0.16	0.14	0.056	**U**
156-59-2	cis-1,2-Dichloroethene	0.14	0.16	0.14	0.059	**U**
71-55-6	1,1,1-Trichloroethane	0.14	0.16	0.14	0.038	**U**
56-23-5	Carbon Tetrachloride	**0.45**	0.16	0.14	0.078	
79-01-6	Trichloroethene	0.14	0.16	0.14	0.055	**U**
127-18-4	Tetrachloroethene	**0.063**	0.16	0.14	0.053	**J**

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **204-IA1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-016

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: AC02285

Initial Pressure (psig): -2.77 Final Pressure (psig): 3.77
Initial Pressure 2 (psig): -2.04 Final Pressure 2 (psig): 2.57

Container Dilution Factor: 2.11

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.23	0.26	0.23	0.080	**U**
75-35-4	1,1-Dichloroethene	0.23	0.26	0.23	0.091	**U**
156-59-2	cis-1,2-Dichloroethene	0.22	0.26	0.22	0.097	**U**
71-55-6	1,1,1-Trichloroethane	0.22	0.26	0.22	0.062	**U**
56-23-5	Carbon Tetrachloride	**0.43**	0.26	0.22	0.13	
79-01-6	Trichloroethene	**0.13**	0.26	0.22	0.090	**J**
127-18-4	Tetrachloroethene	0.22	0.26	0.22	0.087	**U**

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **204-IA3** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-017

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.40 Liter(s)
Test Notes:
Container ID: SSC00054

Initial Pressure (psig): -2.09 Final Pressure (psig): 3.73
Initial Pressure 2 (psig): 0.93 Final Pressure 2 (psig): 2.37

Container Dilution Factor: 1.60

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.088	0.10	0.088	0.030	**U**
75-35-4	1,1-Dichloroethene	0.088	0.10	0.088	0.034	**U**
156-59-2	cis-1,2-Dichloroethene	0.084	0.10	0.084	0.037	**U**
71-55-6	1,1,1-Trichloroethane	0.084	0.10	0.084	0.024	**U**
56-23-5	Carbon Tetrachloride	**0.37**	0.10	0.084	0.048	
79-01-6	Trichloroethene	0.084	0.10	0.084	0.034	**U**
127-18-4	Tetrachloroethene	**0.075**	0.10	0.084	0.033	**J**

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **203-IA2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-018

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.20 Liter(s)
Test Notes:
Container ID: SC00347
Initial Pressure (psig): -1.81 Final Pressure (psig): 4.03

Container Dilution Factor: 1.45

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.16	0.18	0.16	0.055	**U**
75-35-4	1,1-Dichloroethene	0.16	0.18	0.16	0.062	**U**
156-59-2	cis-1,2-Dichloroethene	0.15	0.18	0.15	0.067	**U**
71-55-6	1,1,1-Trichloroethane	**0.096**	0.18	0.15	0.043	**J**
56-23-5	Carbon Tetrachloride	**0.61**	0.18	0.15	0.087	
79-01-6	Trichloroethene	0.15	0.18	0.15	0.062	**U**
127-18-4	Tetrachloroethene	**13**	0.18	0.15	0.059	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **203-IA1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-019

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.25 Liter(s)
Test Notes:
Container ID: SC01967

Initial Pressure (psig): -1.99 Final Pressure (psig): 3.86
Initial Pressure 2 (psig): 0.12 Final Pressure 2 (psig): 2.09

Container Dilution Factor: 1.65

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.15	0.17	0.15	0.050	**U**
75-35-4	1,1-Dichloroethene	0.15	0.17	0.15	0.057	**U**
156-59-2	cis-1,2-Dichloroethene	0.14	0.17	0.14	0.061	**U**
71-55-6	1,1,1-Trichloroethane	**0.051**	0.17	0.14	0.039	**J**
56-23-5	Carbon Tetrachloride	**0.46**	0.17	0.14	0.079	
79-01-6	Trichloroethene	**0.073**	0.17	0.14	0.056	**J**
127-18-4	Tetrachloroethene	**11**	0.17	0.14	0.054	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **203-IA3** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-020

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.25 Liter(s)
Test Notes:
Container ID: SSC00024

Initial Pressure (psig): -1.55 Final Pressure (psig): 3.84
Initial Pressure 2 (psig): -2.14 Final Pressure 2 (psig): 1.91

Container Dilution Factor: 1.86

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.16	0.19	0.16	0.057	**U**
75-35-4	1,1-Dichloroethene	0.16	0.19	0.16	0.064	**U**
156-59-2	cis-1,2-Dichloroethene	0.16	0.19	0.16	0.068	**U**
71-55-6	1,1,1-Trichloroethane	**0.072**	0.19	0.16	0.044	**J**
56-23-5	Carbon Tetrachloride	**0.46**	0.19	0.16	0.089	
79-01-6	Trichloroethene	**0.23**	0.19	0.16	0.063	
127-18-4	Tetrachloroethene	**1.7**	0.19	0.16	0.061	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **202-IA1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-021

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: SC01003
Initial Pressure (psig): -0.98 Final Pressure (psig): 4.22

Container Dilution Factor: 1.38

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.10	0.12	0.10	0.035	**U**
75-35-4	1,1-Dichloroethene	0.10	0.12	0.10	0.040	**U**
156-59-2	cis-1,2-Dichloroethene	0.097	0.12	0.097	0.042	**U**
71-55-6	1,1,1-Trichloroethane	0.097	0.12	0.097	0.027	**U**
56-23-5	Carbon Tetrachloride	**0.55**	0.12	0.097	0.055	
79-01-6	Trichloroethene	0.097	0.12	0.097	0.039	**U**
127-18-4	Tetrachloroethene	**0.46**	0.12	0.097	0.038	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **202-IA2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-022

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: SSC00424
Initial Pressure (psig): -2.15 Final Pressure (psig): 4.55

Container Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.11	0.13	0.11	0.039	**U**
75-35-4	1,1-Dichloroethene	0.11	0.13	0.11	0.044	**U**
156-59-2	cis-1,2-Dichloroethene	0.11	0.13	0.11	0.047	**U**
71-55-6	1,1,1-Trichloroethane	0.11	0.13	0.11	0.030	**U**
56-23-5	Carbon Tetrachloride	**0.46**	0.13	0.11	0.061	
79-01-6	Trichloroethene	0.11	0.13	0.11	0.043	**U**
127-18-4	Tetrachloroethene	**76**	0.13	0.11	0.042	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **202-IA3** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-023

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.25 Liter(s)
Test Notes:
Container ID: AS01160

Initial Pressure (psig): -2.76 Final Pressure (psig): 4.16
Initial Pressure 2 (psig): 0.47 Final Pressure 2 (psig): 1.95

Container Dilution Factor: 1.73

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.15	0.17	0.15	0.053	**U**
75-35-4	1,1-Dichloroethene	0.15	0.17	0.15	0.060	**U**
156-59-2	cis-1,2-Dichloroethene	0.15	0.17	0.15	0.064	**U**
71-55-6	1,1,1-Trichloroethane	0.15	0.17	0.15	0.041	**U**
56-23-5	Carbon Tetrachloride	**0.43**	0.17	0.15	0.083	
79-01-6	Trichloroethene	0.15	0.17	0.15	0.059	**U**
127-18-4	Tetrachloroethene	**23**	0.17	0.15	0.057	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **201-IA1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-024

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: SC00303
Initial Pressure (psig): -1.51 Final Pressure (psig): 3.91

Container Dilution Factor: 1.41

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.10	0.12	0.10	0.036	**U**
75-35-4	1,1-Dichloroethene	0.10	0.12	0.10	0.040	**U**
156-59-2	cis-1,2-Dichloroethene	0.099	0.12	0.099	0.043	**U**
71-55-6	1,1,1-Trichloroethane	0.099	0.12	0.099	0.028	**U**
56-23-5	Carbon Tetrachloride	**0.62**	0.12	0.099	0.056	
79-01-6	Trichloroethene	0.099	0.12	0.099	0.040	**U**
127-18-4	Tetrachloroethene	**0.11**	0.12	0.099	0.039	**J**

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **201-IA2** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-025

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: AS00979

Initial Pressure (psig): -1.93 Final Pressure (psig): 3.82
Initial Pressure 2 (psig): -0.44 Final Pressure 2 (psig): 1.97

Container Dilution Factor: 1.70

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.12	0.14	0.12	0.043	**U**
75-35-4	1,1-Dichloroethene	0.12	0.14	0.12	0.049	**U**
156-59-2	cis-1,2-Dichloroethene	0.12	0.14	0.12	0.052	**U**
71-55-6	1,1,1-Trichloroethane	0.12	0.14	0.12	0.033	**U**
56-23-5	Carbon Tetrachloride	**0.57**	0.14	0.12	0.068	
79-01-6	Trichloroethene	0.12	0.14	0.12	0.048	**U**
127-18-4	Tetrachloroethene	**0.13**	0.14	0.12	0.046	**J**

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **201-IA3** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-026

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.30 Liter(s)
Test Notes:
Container ID: SC00560
Initial Pressure (psig): -2.05 Final Pressure (psig): 3.76

Container Dilution Factor: 1.46

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.11	0.12	0.11	0.037	**U**
75-35-4	1,1-Dichloroethene	0.11	0.12	0.11	0.042	**U**
156-59-2	cis-1,2-Dichloroethene	0.10	0.12	0.10	0.045	**U**
71-55-6	1,1,1-Trichloroethane	0.10	0.12	0.10	0.029	**U**
56-23-5	Carbon Tetrachloride	**0.40**	0.12	0.10	0.058	
79-01-6	Trichloroethene	0.10	0.12	0.10	0.041	**U**
127-18-4	Tetrachloroethene	**0.15**	0.12	0.10	0.040	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **IADUP-01** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-027

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.70 Liter(s)
Test Notes:
Container ID: AC02143
Initial Pressure (psig): -2.70 Final Pressure (psig): 3.83

Container Dilution Factor: 1.54

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.048	0.055	0.048	0.017	**U**
75-35-4	1,1-Dichloroethene	0.048	0.055	0.048	0.019	**U**
156-59-2	cis-1,2-Dichloroethene	0.046	0.055	0.046	0.020	**U**
71-55-6	1,1,1-Trichloroethane	0.046	0.055	0.046	0.013	**U**
56-23-5	Carbon Tetrachloride	**0.35**	0.055	0.046	0.026	
79-01-6	Trichloroethene	**0.037**	0.055	0.046	0.019	**J**
127-18-4	Tetrachloroethene	**0.067**	0.055	0.046	0.018	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **IADUP-02** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-028

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC02477
Initial Pressure (psig): -2.02 Final Pressure (psig): 4.33

Container Dilution Factor: 1.50

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.033	0.038	0.033	0.011	**U**
75-35-4	1,1-Dichloroethene	0.033	0.038	0.033	0.013	**U**
156-59-2	cis-1,2-Dichloroethene	0.032	0.038	0.032	0.014	**U**
71-55-6	1,1,1-Trichloroethane	0.032	0.038	0.032	0.0089	**U**
56-23-5	Carbon Tetrachloride	**0.54**	0.038	0.032	0.018	
79-01-6	Trichloroethene	0.032	0.038	0.032	0.013	**U**
127-18-4	Tetrachloroethene	**0.17**	0.038	0.032	0.012	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Sample ID: **OA-1** ALS Project ID: P2007113
Client Project ID: **Scotia Depot / 6044641** ALS Sample ID: P2007113-029

Test Code: EPA TO-15 SIM Date Collected: 12/9/20
Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 12/18/20
Analyst: Topacio De Leon Date Analyzed: 1/6/21
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.70 Liter(s)
Test Notes:
Container ID: SC01062

Initial Pressure (psig): -2.09 Final Pressure (psig): 3.91
Initial Pressure 2 (psig): -1.45 Final Pressure 2 (psig): 2.02

Container Dilution Factor: 1.86

CAS #	Compound	Result µg/m³	LOQ µg/m³	LOD µg/m³	MDL µg/m³	Data Qualifier
75-01-4	Vinyl Chloride	0.058	0.066	0.058	0.020	**U**
75-35-4	1,1-Dichloroethene	0.058	0.066	0.058	0.023	**U**
156-59-2	cis-1,2-Dichloroethene	**0.030**	0.066	0.056	0.024	**J**
71-55-6	1,1,1-Trichloroethane	**0.019**	0.066	0.056	0.016	**J**
56-23-5	Carbon Tetrachloride	**0.37**	0.066	0.056	0.032	
79-01-6	Trichloroethene	**0.051**	0.066	0.056	0.023	**J**
127-18-4	Tetrachloroethene	**0.38**	0.066	0.056	0.022	

U = This analyte was analzyed for but not detected at the specified detection limit.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

Appendix C

Support Documentation

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: AECOM
Service Request: P2007113
Project ID: Scotia Depot / 6044641

Date Received: 12/18/2020
Time Received: 11:00

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pfl (psig)	2nd Pi (psig)	2nd Pf (psig)	TO-15 - VOC SIM
204-SS1	P2007113-001	Air	12/9/2020	10:30	AS01189	-2.22	3.83	-2.81	2.11	X
204-SS2	P2007113-002	Air	12/9/2020	10:25	AC02357	-2.98	3.96	0.63	2.14	X
204-SS3	P2007113-003	Air	12/9/2020	11:50	SC01836	-2.05	3.82	-0.26	2.18	X
203-SS1	P2007113-004	Air	12/9/2020	11:25	AS00686	-1.81	3.91	-2.52	2.30	X
203-SS2	P2007113-005	Air	12/9/2020	11:10	AS01008	-2.20	3.96	0.55	2.05	X
203-SS3	P2007113-006	Air	12/9/2020	12:05	SC02184	-1.41	3.95	-0.30	2.05	X
202-SS1	P2007113-007	Air	12/9/2020	12:55	SC01006	1.06	3.81	-1.95	2.13	X
202-SS2	P2007113-008	Air	12/9/2020	12:40	SC00970	-2.07	3.82	0.95	1.96	X
202-SS3	P2007113-009	Air	12/9/2020	12:45	AC02341	-2.01	3.93	-2.38	2.02	X
201-SS1	P2007113-010	Air	12/9/2020	13:35	AC01205	0.20	3.87	0.00	0.00	X
201-SS2	P2007113-011	Air	12/9/2020	13:15	SC01608	-1.91	4.24	0.00	0.00	X
201-SS3	P2007113-012	Air	12/9/2020	14:00	AC00343	-2.31	4.06	0.97	2.03	X
SS-DUP-1	P2007113-013	Air	12/9/2020	00:00	AC02302	-1.99	3.88	-0.65	2.09	X
SS-DUP-2	P2007113-014	Air	12/9/2020	00:00	SC02334	-1.59	3.92	0.02	2.68	X
204-IA2	P2007113-015	Air	12/9/2020	10:15	AC02442	-2.36	4.61	-0.46	2.92	X
204-IA1	P2007113-016	Air	12/9/2020	10:20	AC02285	-2.77	3.77	-2.04	2.57	X
204-IA3	P2007113-017	Air	12/9/2020	11:45	SSC00054	-2.09	3.73	0.93	2.37	X
203-IA2	P2007113-018	Air	12/9/2020	11:30	SC00347	-1.81	4.03			X
203-IA1	P2007113-019	Air	12/9/2020	11:15	SC01967	-1.99	3.86	0.12	2.09	X
203-IA3	P2007113-020	Air	12/9/2020	12:00	SSC00024	-1.55	3.84	-2.14	1.91	X
202-IA1	P2007113-021	Air	12/9/2020	12:50	SC01003	-0.98	4.22			X
202-IA2	P2007113-022	Air	12/9/2020	12:30	SSC00424	-2.15	4.55			X
202-IA3	P2007113-023	Air	12/9/2020	12:25	AS01160	-2.76	4.16	0.47	1.95	X
201-IA1	P2007113-024	Air	12/9/2020	13:30	SC00303	-1.51	3.91			X
201-IA2	P2007113-025	Air	12/9/2020	13:10	AS00979	-1.93	3.82	-0.44	1.97	X
201-IA3	P2007113-026	Air	12/9/2020	13:55	SC00560	-2.05	3.76			X
IADUP-01	P2007113-027	Air	12/9/2020	00:00	AC02143	-2.70	3.83			X
IADUP-02	P2007113-028	Air	12/9/2020	00:00	AC02477	-2.02	4.33			X
OA-1	P2007113-029	Air	12/9/2020	10:45	SC01062	-2.09	3.91	-1.45	2.02	X

2655 Park Center Dr., Suite A
Simi Valley, CA 93065
T: +1 805 526 7161
www.alsglobal.com

Client: AECOM
Project: Scotia Depot / 6044641

Service Request No: P2007113
New York Lab ID: 11221

CASE NARRATIVE

The samples were received intact under chain of custody on December 18, 2020 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed in SIM mode for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

The response for the #2 internal standard and surrogate #2 in all of the samples except IADUP-02 (P2007112-028) was outside control criteria because of suspected matrix interference. The sample(s) were diluted in an attempt to eliminate the effects of the matrix interference. The results are reported from this dilution; therefore, the associated method reporting limits are elevated.

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.1 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **AECOM**
Client Project ID: **Scotia Depot / 6044641** ALS Project ID: P2007113

Internal Standard Area and RT Summary

Test Code: EPA TO-15 SIM
Instrument ID: Tekmar AUTOCAN/Agilent 5975Cinert/7890A/MS19 Lab File ID: 01052102.D
Analyst: Topacio De Leon Date Analyzed: 1/5/21
Sample Type: 6.0 L Silonite Canister(s) Time Analyzed: 07:53
Test Notes:

		IS1 (BCM)			IS2 (DFB)			IS3 (CBZ)		
		AREA	#	RT	AREA	#	RT	#	AREA	#	RT	#
	24 Hour Standard	18008		9.60	85327		11.56		14703		15.90	
	Upper Limit	25211		9.93	119458		11.89		20584		16.23	
	Lower Limit	10805		9.27	51196		11.23		8822		15.57	
	Client Sample ID											
01	Method Blank	18022		9.62	86276		11.56		15502		15.90	
02	Lab Control Sample	17874		9.61	85269		11.56		15064		15.90	
03	Duplicate Lab Control Sample	17755		9.61	85144		11.56		15245		15.90	
04	SS-DUP-2	18510		9.60	115513		11.56		17004		15.90	
05	204-IA2	17487		9.60	104673		11.56		15583		15.90	
06	204-IA1	17440		9.61	102921		11.56		15430		15.90	
07	204-IA3	18270		9.60	107043		11.56		16578		15.90	
08	203-IA2	17512		9.60	109221		11.56		15959		15.90	
09	203-IA1	17553		9.61	101984		11.56		16021		15.90	
10	203-IA3	17268		9.60	102187		11.56		15842		15.90	
11	202-IA1	17492		9.61	100136		11.56		15752		15.90	
12	202-IA2	18346		9.60	113228		11.56		16746		15.90	
13	202-IA3	17281		9.61	103261		11.56		15365		15.90	
14	201-IA1	17099		9.61	100538		11.56		15185		15.90	
15	201-IA2	16856		9.60	95950		11.56		15075		15.90	
16	201-IA3	16981		9.60	100058		11.56		15377		15.90	
17	IADUP-02	16574		9.60	139.2%		11.56		15283		15.90	
18	204-SS1	16063		9.61	95452		11.56		14722		15.90	
19	204-SS2	15766		9.60	94454		11.56		14572		15.90	
20	204-SS3	15515		9.60	90449		11.56		14528		15.90	
21	203-SS1	15275		9.61	85930		11.56		14373		15.90	

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

# Column used to flag values outside QC limits with an I.
I = Internal standard not within the specified limits. See case narrative.

Client: **AECOM**

Client Project ID: **Scotia Depot / 6044641** ALS Project ID: P2007113

Test Code: EPA TO-15 SIM

Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date(s) Collected: 12/9/20

Analyst: Topacio De Leon Date(s) Received: 12/18/20

Sample Type: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s) Date(s) Analyzed: 1/5 - 1/6/21

Test Notes:

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4 % Recovered	Toluene-d8 % Recovered	Bromofluorobenzene % Recovered	Acceptance Limits	Data Qualifier
SS-DUP-1	P2007113-013	**106**	**78**	**99**	70-130	
SS-DUP-2	P2007113-014	**93**	**79**	**110**	70-130	
204-IA2	P2007113-015	**98**	**81**	**112**	70-130	
204-IA1	P2007113-016	**98**	**82**	**110**	70-130	
204-IA3	P2007113-017	**97**	**83**	**110**	70-130	
203-IA2	P2007113-018	**97**	**79**	**113**	70-130	
203-IA1	P2007113-019	**98**	**85**	**113**	70-130	
203-IA3	P2007113-020	**91**	**83**	**111**	70-130	
202-IA1	P2007113-021	**97**	**85**	**110**	70-130	
202-IA2	P2007113-022	**96**	**79**	**112**	70-130	
202-IA3	P2007113-023	**98**	**81**	**111**	70-130	
201-IA1	P2007113-024	**93**	**83**	**108**	70-130	
201-IA2	P2007113-025	**98**	**85**	**107**	70-130	
201-IA3	P2007113-026	**98**	**83**	**109**	70-130	
IADUP-01	P2007113-027	**97**	**77**	**98**	70-130	
IADUP-02	P2007113-028	**94**	**69**	**107**	70-130	**S**
OA-1	P2007113-029	**102**	**80**	**97**	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

S = Surrogate recovery not within specified limits.

Air - Chain of Custody Record & Analytical Service Request

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No. P100713

Company Name & Address (Reporting Information)	AECOM 40 British American Blvd Latham N.Y 12210
Project Name	Scotia Depot
Project Number	6044641
Project Manager	Dan Serretas
P.O. # / Billing Information	
Phone	518-951-2200
Fax	
Email Address for Result Reporting	Daniel.Serretas@AECOM.com
Sampler (Print & Sign)	Gerlinde Wolf
ALS Contact:	Elizabeth Parker

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	Analysis Method: TO-15	Comments e.g. Actual Preservative or specific instructions
204-SS1	1	12/9/20	10:30	A501189	FCR00117	29	7	6L		
204-SS2	2		10:25	AC02357	FCR00397	30	8			
204-SS3	3		11:50	SC01836	FCR00483	29	6			
203-SS1	4		11:25	A500686	FCR00247	30	6			
203-SS2	5		11:10	A501008	FCR00051	29	5			
203-SS3	6		12:05	SC02184	FCR00382	27	5			
202-SS1	7		12:55	SC01006	FCR0220	30	0			
202-SS2	8		12:40	SC00970	FCR00367	29	5			
202-SS3	9		12:45	AC02341	FCR00256	30	7			
201-SS1	10		13:35	AC01205	FCR00098	28	5			
201-SS2	11		13:15	SC01608	FCR00461	30	7			
201-SS3	12		14:00	AC00343	FCR00141	29	6			
SS-DUP-1	13		—	AL02302	FCR00391	27	5			
SS-DUP-2	14		—	SC02334	FCR00356	29	5			

Report Tier Levels - please select

Tier I - Results (Default if not specified) ____ Tier III (Results + QC & Calibration Summaries) ____
Tier II (Results + QC Summaries) ____ Tier IV (Data Validation Package) 10% Surcharge X

EDD required Yes / No
Type: _____ Units: _____

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature) Gerlinde Wolf	Date: 12/9/20	Time: 1700	Received by: (Signature)	Date: 12/10/20	Time: 1100	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	Cooler / Blank Temperature ____ °C

Air - Chain of Custody Record & Analytical Service Request

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No. R2007113

Company Name & Address (Reporting Information)	AECOM 40 British American Blvd, Latham NY 12210
Project Name	Scotia Depot
Project Number	6044641
Project Manager	Dan Servetas
P.O. # / Billing Information	
Phone	518-951-2200
Fax	
Email Address for Result Reporting	Daniel.Servetas@AECOM.com
Sampler (Print & Sign)	Gerlinde Wolf
ALS Contact:	Elizabeth Parker

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	Analysis Method: TO-15	Comments e.g. Actual Preservative or specific instructions
204-1A2	15	12/9/20	10:15	AC02442	FCR00364	30	6	6L	X	
204-1A1	16		10:20	AC02285	FCR00422	30	8			
204-1A3	17		11:45	SSC00054	FCR00202	29.5	7			
203-1A2	18		11:30	SC00347	FCR00222	29.5	5			
203-1A1	19		11:15	SC01967	FCR00395	29	7			
203-1A3	20		12:00	SSC00024	FCR00069	29	5			
202-1A1	21		12:50	SC01003	FCR00389	26	3			
202-1A2	22		12:30	SSC00424	FCR00029	28.5	6			
202-1A3	23		12:25	AS01160	FCR00079	30	8			
201-1A1	24		13:30	SC00303	FCR00026	29	4			
201-1A2	25		13:10	AS00979	FCR00331	30	7			
201-1A3	26		13:55	SC00566	FCR00412	28.5	5			
1A-DUP-1	27		—	AC02143	FCR00336	30	8			
1A-DUP-2	28		—	AC02477	FCR00194	30	7			

Report Tier Levels - please select

Tier I - Results (Default if not specified) ____ Tier II (Results + QC Summaries) ____ Tier III (Results + QC & Calibration Summaries) ____ Tier IV (Data Validation Package) 10% Surcharge X

EDD required Yes / No Type: _____ Units: _____

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature) Gerlinde Wolf	Date: 12/10/20	Time: 1700	Received by: (Signature)	Date: 12/11/20	Time: 1100	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	Cooler / Blank Temperature ____ °C

Air - Chain of Custody Record & Analytical Service Request

2655 Park Center Drive, Suite A
Simi Valley, California 93065
Phone (805) 526-7161

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

ALS Project No. P1007113

Company Name & Address (Reporting Information)	AECOM 40 British American Blvd Latham NY 12210
Project Name	Scotia Depot
Project Number	6044641
Project Manager	Dan Serretas
P.O. # / Billing Information	
Phone	518-951-2200
Fax	
Email Address for Result Reporting	Daniel.Serretas@AECOM.com
Sampler (Print & Sign)	Gerlinde Wolf G Wolf
ALS Contact:	Elizabeth Parker

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	Analysis Method: TO-15		Comments e.g. Actual Preservative or specific instructions
OA-1	29	12/9/20	1045	SC01062	FCK00203	29	0	6L	X		

Report Tier Levels - please select

Tier I - Results (Default if not specified) _____ Tier III (Results + QC & Calibration Summaries) _____
Tier II (Results + QC Summaries) _____ Tier IV (Data Validation Package) 10% Surcharge _____

EDD required (Yes) / No
Type: _____ Units: _____

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date: 12/10/20	Time: 1700	Received by: (Signature)	Date: 12/18/20	Time: 1100	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	Cooler / Blank Temperature ____ °C

ALS Environmental
Sample Acceptance Check Form

Client: AECOM Work order: P2007113

Project: Scotia Depot / 6044641

Sample(s) received on: 12/18/20 Date opened: 12/18/20 by: DENISE.POSADA

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Did **sample containers** arrive in good condition?	☒	☐	☐
3	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
4	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
5	Was **sample volume** received adequate for analysis?	☒	☐	☐
6	Are samples within specified holding times?	☒	☐	☐
7	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
8	Were **custody seals** on outside of cooler/Box/Container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
9	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2007113-001.01	6.0 L Silonite Can					
P2007113-002.01	6.0 L Ambient Can					
P2007113-003.01	6.0 L Source Can					
P2007113-004.01	6.0 L Silonite Can					
P2007113-005.01	6.0 L Silonite Can					
P2007113-006.01	6.0 L Source Can					
P2007113-007.01	6.0 L Source Can					
P2007113-008.01	6.0 L Source Can					
P2007113-009.01	6.0 L Ambient Can					
P2007113-010.01	6.0 L Ambient Can					
P2007113-011.01	6.0 L Source Can					
P2007113-012.01	6.0 L Ambient Can					
P2007113-013.01	6.0 L Ambient Can					
P2007113-014.01	6.0 L Source Can					
P2007113-015.01	6.0 L Ambient Can					

Explain any discrepancies: (include lab sample ID numbers):

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

ALS Environmental
Sample Acceptance Check Form

Client: AECOM Work order: P2007113

Project: Scotia Depot / 6044641

Sample(s) received on: 12/18/20 Date opened: 12/18/20 by: DENISE.POSADA

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2007113-016.01	6.0 L Ambient Can					
P2007113-017.01	6.0 L Silonite Can					
P2007113-018.01	6.0 L Source Can					
P2007113-019.01	6.0 L Source Can					
P2007113-020.01	6.0 L Silonite Can					
P2007113-021.01	6.0 L Source Can					
P2007113-022.01	6.0 L Silonite Can					
P2007113-023.01	6.0 L Silonite Can					
P2007113-024.01	6.0 L Source Can					
P2007113-025.01	6.0 L Silonite Can					
P2007113-026.01	6.0 L Source Can					
P2007113-027.01	6.0 L Ambient Can					
P2007113-028.01	6.0 L Ambient Can					
P2007113-029.01	6.0 L Source Can					

Explain any discrepancies: (include lab sample ID numbers):

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

APPENDIX G: NYSDOH Decision Matrices

Soil Vapor/Indoor Air Matrix A

May 2017

Analytes Assigned:
Trichloroethene (TCE), *cis*-1,2-Dichloroethene (*c*12-DCE), 1,1-Dichloroethene (11-DCE), Carbon Tetrachloride

	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m^3)		
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m^3)	< 0.2	0.2 to < 1	1 and above
< 6	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	4. No further action	5. MONITOR	6. MITIGATE
60 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX A

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

[1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).

[2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.

[3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 0.20 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.

[4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.

[5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.

[6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

Soil Vapor/Indoor Air Matrix B

May 2017

Analytes Assigned:
Tetrachloroethene (PCE), 1,1,1-Trichloroethane (111-TCA), Methylene Chloride

	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m^3)		
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m^3)	< 3	3 to < 10	10 and above
< 100	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
100 to < 1,000	4. No further action	5. MONITOR	6. MITIGATE
1,000 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX B

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

[1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).

[2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.

[3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 1 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.

[4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.

[5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.

[6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

Soil Vapor/Indoor Air Matrix C

May 2017

Analytes Assigned:
Vinyl Chloride

	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m^3)	
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m^3)	< 0.2	0.2 and above
< 6	1. No further action	2. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	3. MONITOR	4. MITIGATE
60 and above	5. MITIGATE	6. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX C

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

[1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).

[2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.

[3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 0.20 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.

[4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.

[5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.

[6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

APPENDIX H: Site-Wide Semi-Annual Inspection Form

Site-Wide Semi-Annual Inspection Form

The Defense National Stockpile Center Scotia Depot
Glenville, New York

Engineering Control (s): SSDS Inspection Date: 12/7/2020

Item	Yes	No	N/A	Comments
Does the Engineering Control continue to perform as designed?	X			Note: system was shut off in June 2020 to prepare for 5 year review sampling event.
Does the Engineering Control continue to protect human health and the environment?	X			
Does the Engineering Control comply with requirements established in the SMP?	X			
Has remedial performance criteria been achieved or maintained?	X			
Has sampling and analysis of appropriate media been performed during the monitoring event?	X			5 year system review, sampling of indoor air and sub slab vapor
Have there been any modifications made to the remedial or monitoring system?		X		
Does the remedial or monitoring system need to be changed or altered at this time?		X		
Has there been any intrusive activity, excavation, or construction occurred at the site?	X			
Were the activities mentioned above, performed in accordance with the SMP?	X			
Was there a change in the use of the site or were there new structures constructed on the site?	X			New tennants have moved into some buildings, but they are still commercial/industrial tennants.
In case a new occupied structure is constructed or the use of the current building changed, was a vapor intrusion evaluation done?			X	
Were new mitigation systems installed based on monitoring results?			X	
Were the groundwater wells in the monitoring network inspected during this site inspection? If so, were the Monitoring Well Field Inspection Logs Completed?			X	

Note: Upon completion of the form any non-conforming items warranting corrective action should be identified here within.

Name of Inspector: Gerlinde Wolf
Inspector's Company: AECOM

Signature of Inspector: Gerlinde Wolf
Date: 12/7/2020

IMMEDIATELY REPORT ANY FAILURE OR DEFECT TO THE PROJECT MANAGER SO A COUNTERMEASURE PLAN CAN BE IMPLEMENTED.