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INDOOR AIR ASSESSMENT REPORT

Former IBM Endicott Facility
Endicott, New York

Prepared for IBM Corporate Environmental Affairs
File No. 3935.00
September 2016

8976 Wellington Road
Manassas, VA 20109

September 14, 2016

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Re: Indoor Air Assessment Report
Former IBM Endicott Facility
NYSDEC Site No. 704014

Dear Mr. Czuhanich and Ms. Boyd:

The enclosed document is the Indoor Air Assessment Report for certain buildings at the former IBM Endicott campus in the Village of Endicott, New York. The indoor air assessment was commissioned by IBM in response to a request by the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) (collectively, the Agencies) to update and supplement NYSDEC's 2005 indoor air assessment. The work described in this report was completed consistent with the objectives and procedures described in IBM's Indoor Air Assessment Work Plan (Work Plan), which was approved by the Agencies on January 7, 2016 and finalized on January 26, 2016.

If you have any questions, please contact me at (703) 257-2582.

Sincerely,
International Business Machines Corporation

Kevin Whalen
Program Manager, Corporate Environmental Affairs

Enclosures: Indoor Air Assessment Report

SANBORN HEAD ENGINEERING
Building Trust. Engineering Success.

20 Foundry Street
Concord, NH 03301

Kevin Whalen
IBM Corporate Environmental Affairs
8976 Wellington Road
Manassas, VA 20109

September 14, 2016
File No. 3935.00

Re: Indoor Air Assessment Report
Former IBM Endicott Facility
NYSDEC Site No. 704014

Dear Mr. Whalen:

Enclosed please find the Indoor Air Assessment Report for certain buildings at the former IBM Endicott facility, currently owned by Huron Real Estate Associates, LLC.

Please contact us if you require additional information.

Very truly yours,
SANBORN, HEAD ENGINEERING, P.C.

David Shea

David Shea, P.E.
Principal

Encl. Indoor Air Assessment Report

P:\3900s\3935.00\Source Files\IA Report of Findings\SHPC cover letter.docx

INDOOR AIR ASSESSMENT REPORT
FORMER IBM ENDICOTT FACILITY
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EXECUTIVE SUMMARY

This report presents the results of indoor air assessments of certain buildings on the campus of Huron Real Estate Associates, LLC (Huron, the owner) located in the Village of Endicott, New York (the site). The Huron campus is the site of the former International Business Machines Corporation (IBM) Endicott facility. The purpose of the assessments was to evaluate the potential presence of certain volatile organic compounds (VOCs) in indoor air related to potential vapor intrusion from subsurface VOC sources beneath certain occupied buildings on the campus. The assessments were conducted by IBM in response to a request by the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) (collectively, the Agencies) to update and supplement NYSDEC's 2005 indoor air assessment. As further requested by the Agencies, IBM has implemented reasonable and practical measures to reduce VOC concentrations in indoor air, where appropriate. The work described in this report was completed consistent with the objectives and procedures described in IBM's Indoor Air Assessment Work Plan (Work Plan) approved by the Agencies.

Scope of Work

The indoor air assessment focused on the lowest, routinely occupied level of the following 14 campus buildings: Buildings 14, 18, 19, 32, 33, 40, 41, 42, 45, 46, 47, 57, 57A, and 264/268. These buildings were evaluated because past sampling data indicated potential for VOC presence in indoor air due to vapor intrusion from the subsurface, and because they are routinely occupied. The scope of work consisted of three major components:

1. Review of the building heating, ventilating, and air conditioning (HVAC) systems, including adjustments and modifications in 8 of the 14 buildings to improve ventilation and in some cases, building pressurization.
2. Initial screening for VOCs in indoor air using a field-portable gas chromatograph/mass spectrometer (GC/MS), including repeat screening to evaluate the effectiveness of HVAC adjustments where completed.
3. Sampling of indoor air for laboratory analysis after completion of the above steps to confirm indoor air quality.

The indoor air assessment focused on trichlorethene (TCE) because TCE is a reasonable presumptive indicator of potential VOC vapor intrusion in general considering the prevalence of TCE in past samples of indoor air, soil vapor, and groundwater.

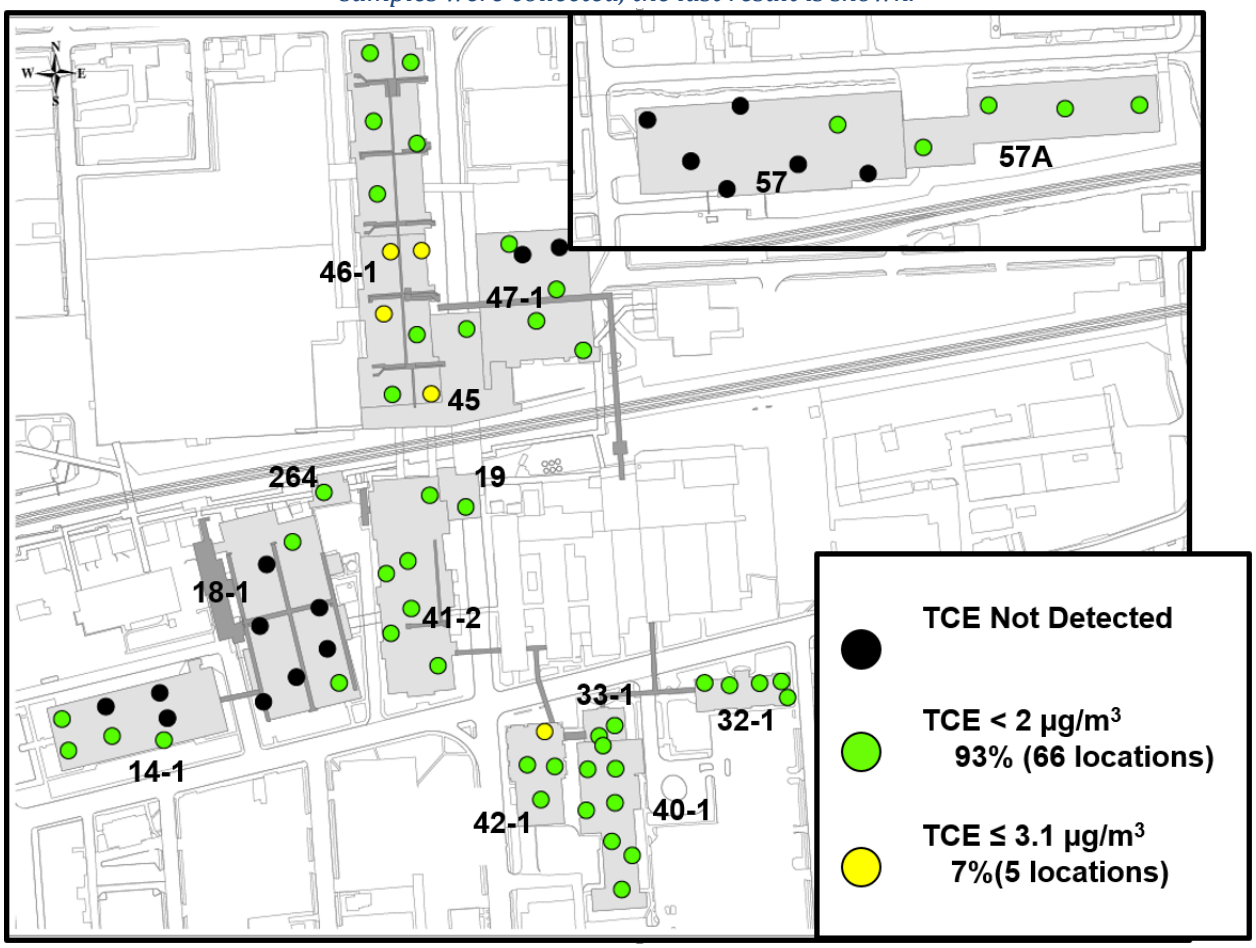
Summary of Results

The HVAC system review and initial field screening results were used to make adjustments to HVAC components and/or operations in 8 buildings to achieve the lowest reasonable screening results by improving fresh air ventilation and, in some cases, building pressurization. Re-screening in these buildings after the HVAC adjustments were made confirmed their effectiveness in reducing VOC concentrations. No adjustments were made in 6 of the buildings based on the initial screening results. While the screening results were useful as a rough guide for the building assessments and HVAC improvements, screening

data are not subject to the quality assurance/quality control protocols that are used for indoor air samples collected and analyzed in a laboratory in conformance with NYSDOH requirements. As such, screening data are not accepted by NYSDOH as a basis for assessing or making decisions concerning exposure.

After completion of the HVAC adjustments and field screening program, indoor air samples were collected in conformance with NYSDOH protocols and the Agency-approved Work Plan at multiple, representative locations on the lowest, occupied level of the 14 buildings to assess indoor air quality. TCE was either not detected, or detected at less than 2 µg/m^3, at 93% of the sample locations (66 of 71 locations). The remaining 7% of locations (or 5 locations) contained TCE between 2 and 3.1 µg/m^3, and were detected in two buildings (B42 and B46). The sample locations and final results for TCE are shown in Exhibit A below.

Exhibit A: *TCE concentrations at each indoor air sample location; at locations where multiple samples were collected, the last result is shown.*



In addition to TCE, several other VOCs were detected in most of the indoor air samples, but these VOCs were detected at very low levels. All VOC data are presented in Tables 3A through 3L.

The overall average TCE concentration in the indoor air samples collected as part of this report is 89% less than the average TCE concentration in NYSDEC's 2005 samples in the same buildings.

Exhibit B below shows the building-by-building range of TCE levels in the 2005 vs. 2016 samples, and the reduction in the average TCE concentrations in indoor air compared to the 2005 sample data.

Exhibit B: *TCE concentration range in indoor air samples of 2005 vs. 2016 and percent reduction in average TCE concentration from 2005 to 2016.*

Building	Range of TCE Concentrations (µg/m^3)		Percent Reduction in Average TCE Concentration (2005 vs 2016)
	NYSDEC 2005 Lab Results	2016 Lab Results	
014	0.26	ND - 0.13	56
018	0.17 - 1.9	ND - 0.26	76
019	Not Detected (ND)	Not Detected	Not applicable
032	1.4 - 2.3	0.72 - 1.2	53
033	Not Sampled	0.24 - 0.61	Not applicable
040	0.49 - 1.4	0.36 - 0.57	55
041-2	Not Sampled	ND - 0.68	Not applicable
042	2.8 - 14	0.65 - 3.1	81
045	7.1	1.7	76
046	3.1 - 22	0.3 - 2.1	88
047	0.49 - 9	ND - 0.48	95
057	ND - 6.1	ND - 0.13	93
057A	17	0.13 - 1.3	96
264/268	13	0.33	97

Note: The purpose of showing the reduction in average TCE concentrations from 2005 to 2016 is to illustrate the general, broad improvement in the results. It should be noted, however, that not all sampling locations in 2016 were the same as 2005. Nevertheless, the number and distribution of 2016 sampling locations are similar to the 2005 locations (refer to the Exhibits within the report text) and provide an informative basis for comparison.

IBM believes the indoor air quality results obtained after taking reasonable and practical actions toward improvement reflect what are reasonably achievable and maintainable for the buildings assessed. IBM understands that the HVAC operating conditions under which the indoor air samples were collected will be maintained by the owner, and in some cases, the tenant; therefore, IBM believes no further assessment is warranted at this time. In the event that IBM is informed of changes to HVAC operating conditions, IBM will consult with the Agencies to assess whether additional indoor air sampling is appropriate based on such changes. IBM understands that that HVAC operating conditions, and any other engineering controls implemented at the site, will be subject to the terms of a forthcoming performance monitoring plan.

1.0 INTRODUCTION

This report presents the results of indoor air assessments of certain buildings on the campus of Huron Real Estate Associates, LLC (Huron, the owner) located in the Village of Endicott, New York (the site). The Huron campus is the site of the former International Business Machines Corporation (IBM) Endicott facility. A site Location Plan is provided as Figure 1. The purpose of the assessments was to evaluate the potential presence of certain volatile organic compounds (VOCs) in indoor air related to potential vapor intrusion from subsurface VOC sources beneath certain occupied buildings on the campus.

The assessments were conducted by IBM in response to a request by the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) (collectively, the Agencies) to update and supplement NYSDEC's 2005 indoor air assessment. As further requested by the Agencies, IBM has implemented reasonable and practical measures to reduce VOC concentrations in indoor air, where appropriate, and believes these improvements reflect what is reasonably achievable and maintainable for the buildings assessed. The work described in this report was completed consistent with the objectives and procedures described in IBM's Indoor Air Assessment Work Plan (Work Plan), which was approved by the Agencies on January 7, 2016 and finalized on January 26, 2016.

On behalf of IBM, Sanborn Head Engineering P.C. (SHPC) implemented the Work Plan and prepared this report. We acknowledge the cooperation and assistance of the owner and its tenants in completing the work. Progress updates and preliminary data have been communicated to the Agencies through routine correspondence and meetings. The assessments and this report are subject to the standard limitations for this type of work, as described in Appendix A.

2.0 BACKGROUND AND SCOPE OF WORK

2.1 Site Setting

The site comprises the former IBM Endicott facility, which is approximately 135 acres centered on the intersection of McKinley Avenue and the Norfolk Southern railroad tracks in the Village of Endicott, New York. The owner leases out building space for manufacturing, offices, and other uses to a variety of tenants. Prior to the November 2002 ownership transition from IBM to the current owner, the facility history comprises a complex of manufacturing and research and development operations associated with IBM and its predecessors. A complete site use history and physical site description can be found in the 2009 Supplemental Remedial Investigation Report for OU#1 and OU#2 (2009 SRI Report)[1].

2.2 Purpose and Scope of Work

The purpose of this work was to: 1) update and supplement previous indoor air assessment work conducted by NYSDEC, and 2) implement reasonable and practical measures to reduce VOC concentrations in indoor air, where appropriate.

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[1] *Supplemental Remedial Investigation Report, Operable Unit #1: Railroad Corridor Source Area and Operable Unit #2: North Street Area,* prepared by Groundwater Sciences Corporation, dated August 28, 2009.

As described in the Work Plan, the indoor air assessment encompassed 14 campus buildings shown on Figure 2, which includes Buildings 14, 18, 19, 32, 33, 40, 41, 42, 45, 46, 47, 57, 57A, and 264/268. A summary of information for each building is provided in Table 1. Within these buildings, the assessment was focused on the lowest, routinely occupied level. The scope of work included:

- Review of the building heating, ventilating, and air conditioning (HVAC) systems, including adjustments and modifications where appropriate to improve ventilation and in some cases, building pressurization;
- Initial screening for VOCs in indoor air using a field-portable gas chromatograph/mass spectrometer (GC/MS), including repeat screening to evaluate the effectiveness of HVAC adjustments where implemented; and
- Sampling of indoor air for laboratory analysis after completion of the above steps to confirm indoor air quality.

Additional details about the scope of work are provided below.

2.2.1 HVAC Assessment

Since HVAC configuration and operations have a major influence on indoor air quality, reviews of HVAC systems were conducted in each of the 14 buildings. The assessments involved review of available unit specifications, ductwork layout drawings, controls, operating schedules, and balance reports. Field reconnaissance and verification was conducted, and systems were subject to measurements of air flow and pressure to provide current information on air exchange and space pressurization. As a result of this work, HVAC systems in certain buildings were subject to adjustments and modifications to improve ventilation, and in some cases, building pressurization. These measures are described in Section 3. A summary of the relevant HVAC operating conditions in effect during indoor air sampling is provided in Table 2.

2.2.2 Indoor Air Screening

Indoor air screening was conducted using a field-portable GC/MS instrument, the HAPSITE® manufactured by Inficon of Syracuse, NY, in accordance with the Standard Operating Procedure (SOP) provided in the Work Plan. Screening was focused on trichloroethene (TCE), which can be considered a presumptive indicator of vapor entry into the buildings.

The data obtained using the portable GC/MS is referred to as "screening" data because it was used as a rough guide for the building assessments, not to evaluate potential human exposure. The screening data are based on very short-term "grab" samples of air collected over about 30 seconds; thus, screening data are not equivalent or comparable to time-weighted-average, whole-air samples, such as 8-hour samples collected into Summa® canisters for laboratory analysis, which are typically used to evaluate human exposure. Screening allows for rapid, preliminary assessment of indoor air; however, screening data

are not subject to the same quality assurance/quality control protocols that are used for indoor air samples collected and analyzed in a laboratory in conformance with NYSDOH requirements. As such, screening data are not accepted by NYSDOH as a basis for assessing or making decisions concerning exposure.

Indoor air screening was conducted: i) as an initial assessment step in each building, ii) during HVAC adjustments to evaluate effectiveness of changes, and iii) as a final step prior to indoor air sampling for laboratory analysis. The initial and final screening results are described in Section 3 and provided in Appendix B.

2.2.3 Indoor Air Sampling and Laboratory Analysis

Indoor air samples were collected for laboratory analysis after completion of indoor air screening and implementation of measures in certain buildings to reduce VOC concentrations in indoor air. Samples were collected as 8-hour, time-integrated samples using Summa® canisters with sample flow controllers in accordance with the procedure provided in the Work Plan. For each building, Summa® canisters were deployed approximately simultaneously, and were set at a height of approximately 3 to 5 feet above the floor in areas consistent with those identified in the Work Plan, subject to some adjustments informed by the field screening results.

Ambient air samples were collected outside of each building, and quality assurance/quality control (QA/QC) samples (i.e., field duplicates and field blanks) were collected at a frequency consistent with the procedures described in the Work Plan.

The air samples were submitted to Alpha Analytical of Westborough, Massachusetts, a laboratory certified by the NYSDOH Environmental Laboratory Approval Program (ELAP), for analysis in accordance with USEPA Method TO-15. Analysis was conducted for the following focused list of VOCs that, based on site history, have the potential for vapor intrusion from subsurface VOC presence:

- 1,1,1-Trichloroethane (1,1,1-TCA)
- Tetrachloroethene (PCE)
- Trichloroethene (TCE)
- Vinyl Chloride
- 1,1-Dichloroethane
- 1,2-Dichloroethane
- 1,1-Dichloroethene
- Cis -1,2 Dichloroethene
- Trans-1,2 Dichloroethene
- Chloroethane

The indoor air sample results are discussed in Section 3, and tabular summaries for each building are presented in Tables 3A through 3L. The laboratory analytical reports are provided in Appendix C.

2.2.4 Data Validation

Indoor air sample data were subject to review by an independent data validator in accordance with the procedures described in the Work Plan. The purpose of the data validation review was to ensure the indoor air data meet the data quality objectives and usability criteria specified in the Work Plan. The results of data QA/QC and validation review are presented in Section 4 and Data Validation Reports are provided in Appendix D.

3.0 ASSESSMENT ACTIONS AND RESULTS

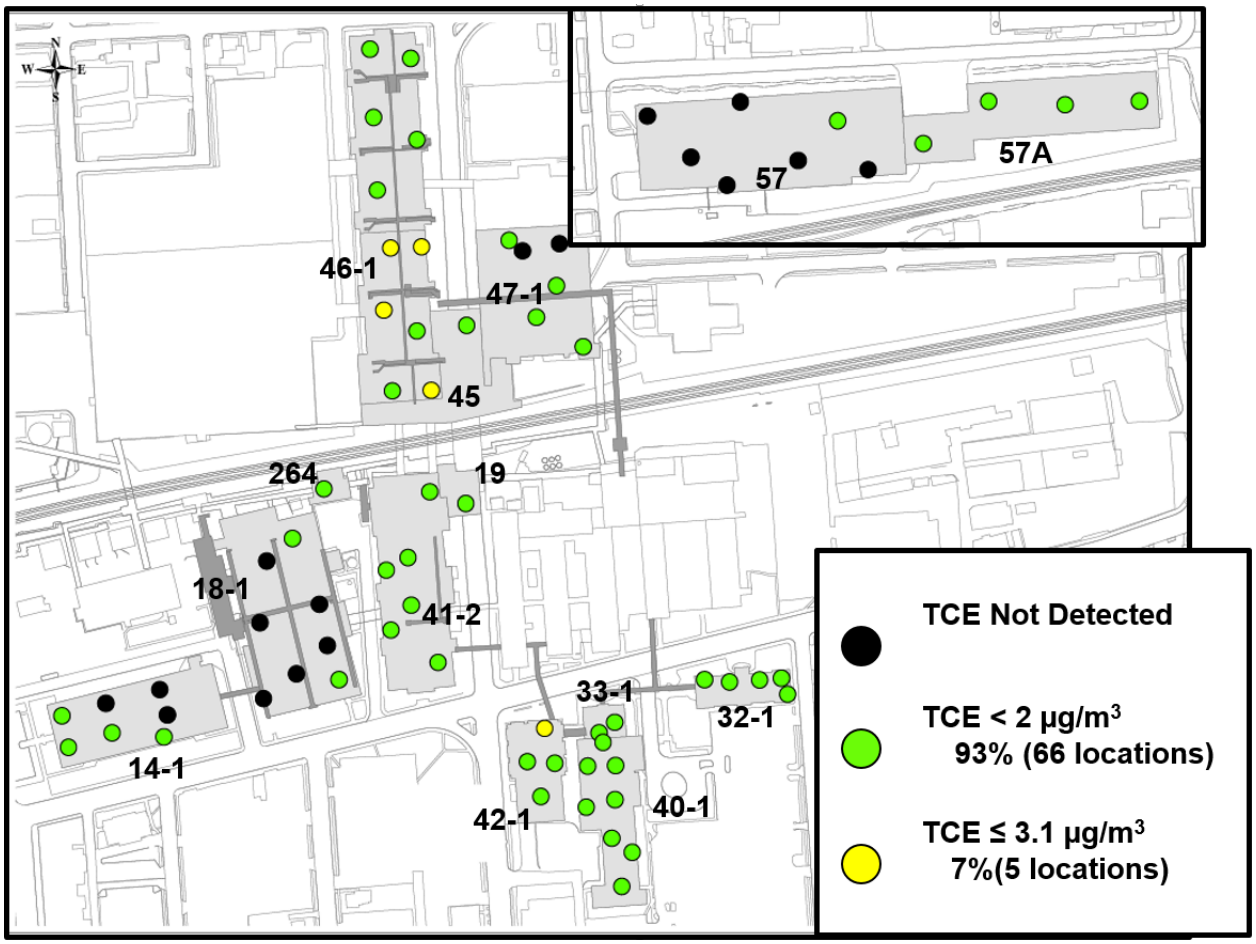
The following sections present a building-by-building summary of assessment actions and results, preceded by an overall summary of the indoor air sample results obtained after completion of the HVAC system reviews, field screening program, and HVAC adjustments in certain buildings.

3.1 Summary of Results

The indoor air assessment began with initial screening of the 14 buildings. Based on the screening results, and in accordance with previous recommendations from the Agencies, IBM elected to make adjustments to HVAC components and/or operations in 8 of the 14 buildings to further improve indoor air quality, and the effectiveness of these adjustments was confirmed by additional screening.

After completion of the HVAC adjustments and field screening program, indoor air samples were collected at multiple, representative locations on the lowest, occupied level of the 14 buildings to assess indoor air quality. TCE was either not detected, or detected at less than 2 $\mu g/m^3$, at 93% of the sample locations (66 of 71 locations). The remaining 7% of locations (or 5 locations) contained TCE between 2 and 3.1 $\mu g/m^3$, and were detected in two buildings (B42 and B46). The sample locations and final results for TCE are shown in Exhibit 1 below. The overall average TCE concentration in the indoor air samples is 89% less than the average TCE concentration in NYSDEC's 2005 samples in the same buildings.

Exhibit 1: *TCE concentrations at each indoor air sample location; at locations where multiple samples were collected, the last result is shown.*



The following sections describe each building, the screening results, actions taken if any, and the indoor air sample results, including a comparison to the 2005 results obtained by NYSDEC. TCE was selected as a presumptive indicator of potential vapor intrusion of VOCs and is the focus of the discussion to follow, because TCE was found to be more prevalent (i.e., under more buildings) and at higher concentrations than other VOCs in most subslab soil vapor samples, as documented in the 2005 NYSDEC report. For completeness, Tables 3A through 3L present the results for all VOCs analyzed as part of the work summarized herein. A discussion of the QA/QC findings associated with the indoor air samples is presented in Section 4. All indoor air sample data were found to be useable in accordance with the project data quality objectives defined in the Work Plan subject to a few minor qualifications that do not affect the conclusions.

3.2 B14 Results

3.2.1 Building Overview

B14 is a multi-story structure located on North St. immediately west of B18. B14 has a footprint of about 52,000 square feet. The lowest routinely occupied level is Level 1 (B14-

1), which is below street level. The building tenant uses the space for light manufacturing, assembly, and office space.

The entire building is served by two rooftop air handling units (AHUs). One unit supplies conditioned air to the east portion of all levels, and the other unit supplies conditioned air to the west portion of all levels. A summary of the relevant AHU operating conditions in effect during indoor air sampling is provided in Table 2.

3.2.2 Field Screening Results

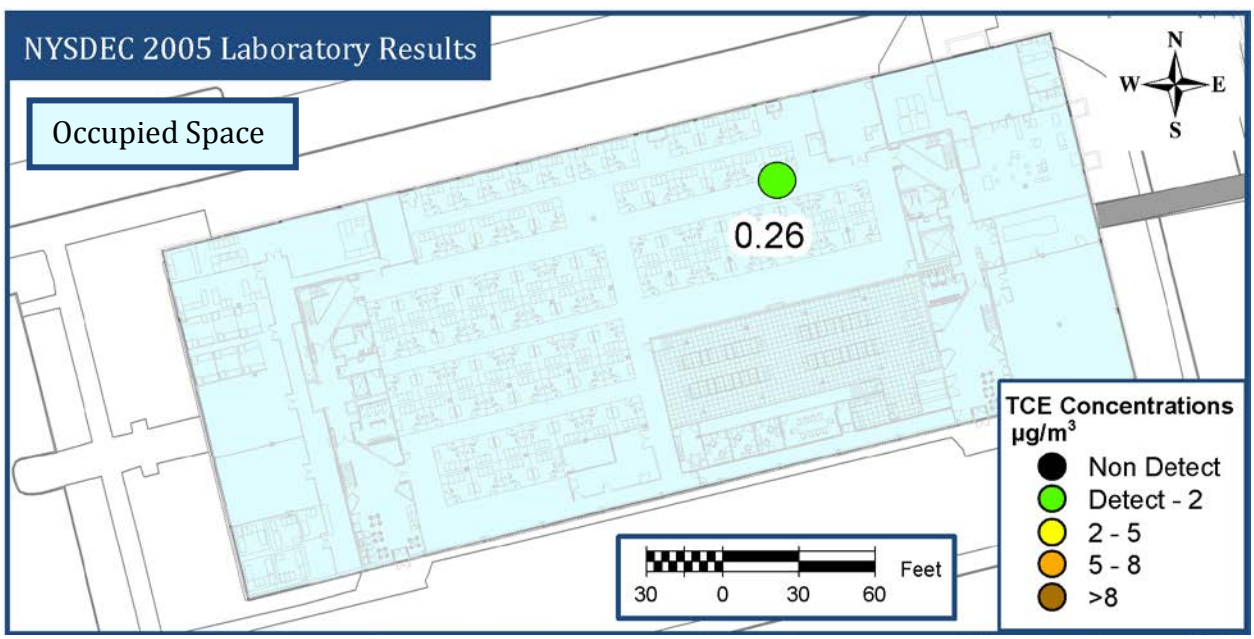
The initial step of the indoor air assessment was field screening on Level 1 using the portable GC/MS. The screening results indicated that TCE was not detected in indoor air.

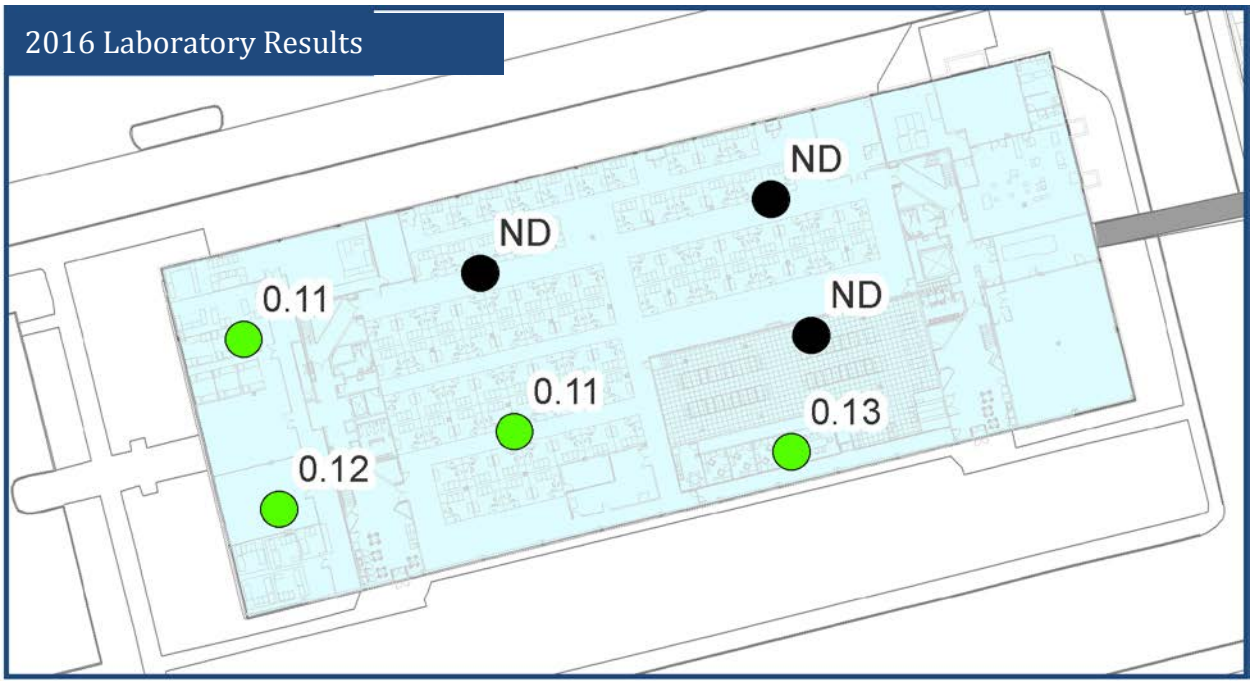
3.2.3 Indoor Air Sample Results

Indoor air samples for laboratory analysis were collected on Level 1 on March 15, 2016 in accordance with the Work Plan. The sample results are presented in Table 3A. TCE was not detected at 3 of the 7 locations, and detected at very low levels at the other 4 locations (maximum concentration of 0.13 µg/m^3).

Exhibit 2 below shows a comparison of the 2005 NYSDEC sample result for TCE with the 2016 sample results. The overall average TCE concentration in the 2016 samples is 56% less than the TCE concentration in NYSDEC's 2005 sample.

Exhibit 2: *B14-1 indoor air sample results for TCE in 2005 vs. 2016*





3.3 B18 Results

3.3.1 Building Overview

B18 is a multi-story structure located on North St. between B14 and B41. B18 has a footprint of about 89,000 square feet. The lowest routinely occupied level is Level 1 (B18-1). Beneath B18-1 are a partial basement (B18-0) and several utility tunnels that are not intended for routine occupancy. The basement houses equipment associated with former industrial wastewater treatment operations, and the utility tunnels are designated as permit-required confined spaces.

Level 1 is primarily open floor plan served by four AHUs. The AHUs are located in a mezzanine above Level 1. The AHUs serving Level 1 do not serve other levels. The northern end of Level 1 is the "water works" area, which is not routinely occupied and does not receive conditioned air.

3.3.2 Field Screening Results and Completed Actions

The initial step of the indoor air assessment was field screening using the portable GC/MS. TCE was detected in the southern area of the building at generally higher concentrations than in the northern area. The highest screening level was measured in an unoccupied electrical room in the northern area. After turning on a heat ventilation fan in this room, TCE was not detected in subsequent screening. Based on this result, plans are being made to have the ventilation fan interlocked with the room light switch to turn on the fan when the room is occupied.

Informed by the field screening results, which also included targeted screening of potential vapor entry pathways to Level 1, actions were taken to seal potential vapor entry

pathways, increase air pressurization, and increase the amount of outside air supplied to Level 1. These actions are further described as follows:

1. Potential vapor entry pathways to Level 1 identified during field screening were sealed. These features included: i) sealing certain pipe and conduit penetrations from B18-0, ii) sealing certain floor hatches to the underlying utility tunnels, and iii) sealing the bottom of certain outside air intake plenums in contact with the floor.

2. The indoor air pressure of Level 1 was increased to adjust under-pressurization of certain work areas relative to the perimeter corridors.

3. More outside air was supplied to Level 1 by increasing the minimum open position for the outside air dampers on two AHUs (AHU-20 and 21) and adding larger outside air intake ductwork on a third unit (AHU-27). The combined effects of these actions were improvement in air distribution to the southern area of Level 1 and increased outside air exchange. A summary of the relevant AHU operating conditions after completion of adjustments and in effect during subsequent indoor air sampling is provided in Table 2.

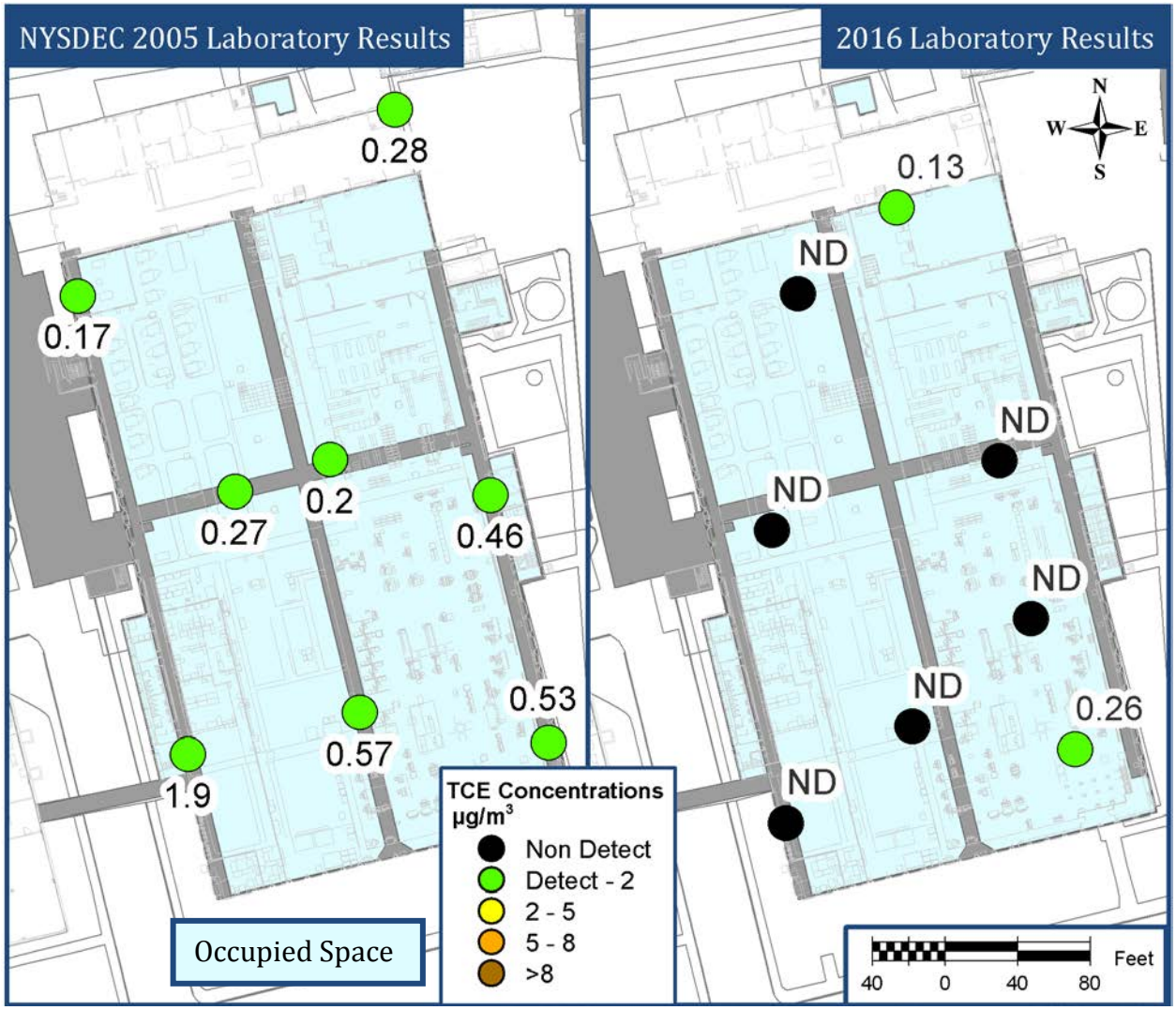
After completing the above actions, certain representative locations on Level 1 were re-screened to evaluate effectiveness. TCE was not detected in the occupied areas of Level 1 during re-screening, indicating that the actions taken were successful in reducing TCE levels.

3.3.3 Indoor Air Sample Results

After completion of the above actions and re-screening, indoor air samples for laboratory analysis were collected on Level 1 on March 24, 2016 in accordance with the Work Plan. The results of indoor air samples are presented in Table 3B. TCE was not detected at 6 of 8 sample locations, and the remaining locations exhibited TCE concentrations at very low levels of 0.13 and 0.26 $\mu g/m^3$.

Exhibit 3 below shows a comparison of the 2005 NYSDEC sample results for TCE with the 2016 sample results. The overall average TCE concentration in the 2016 samples is 76% less than the average TCE concentration in NYSDEC's 2005 samples.

Exhibit 3: *B18-1 indoor air sample results for TCE in 2005 vs. 2016*



3.4 B19 Results

3.4.1 Building Overview

B19 is a single-story building connected to the northeast corner of B41 and situated beneath the McKinley Avenue viaduct. B19 has a footprint of about 9,500 square feet. The building is currently occupied by facility maintenance personnel and includes a workshop and forklift service area. Multiple small loading docks are used to access B41 operations via a freight elevator.

A single AHU located above the ceiling of the workshop area serves the entire building.

3.4.2 Field Screening

Initial field screening using the portable GC/MS was conducted in the workshop space. TCE was detected at a very low concentration.

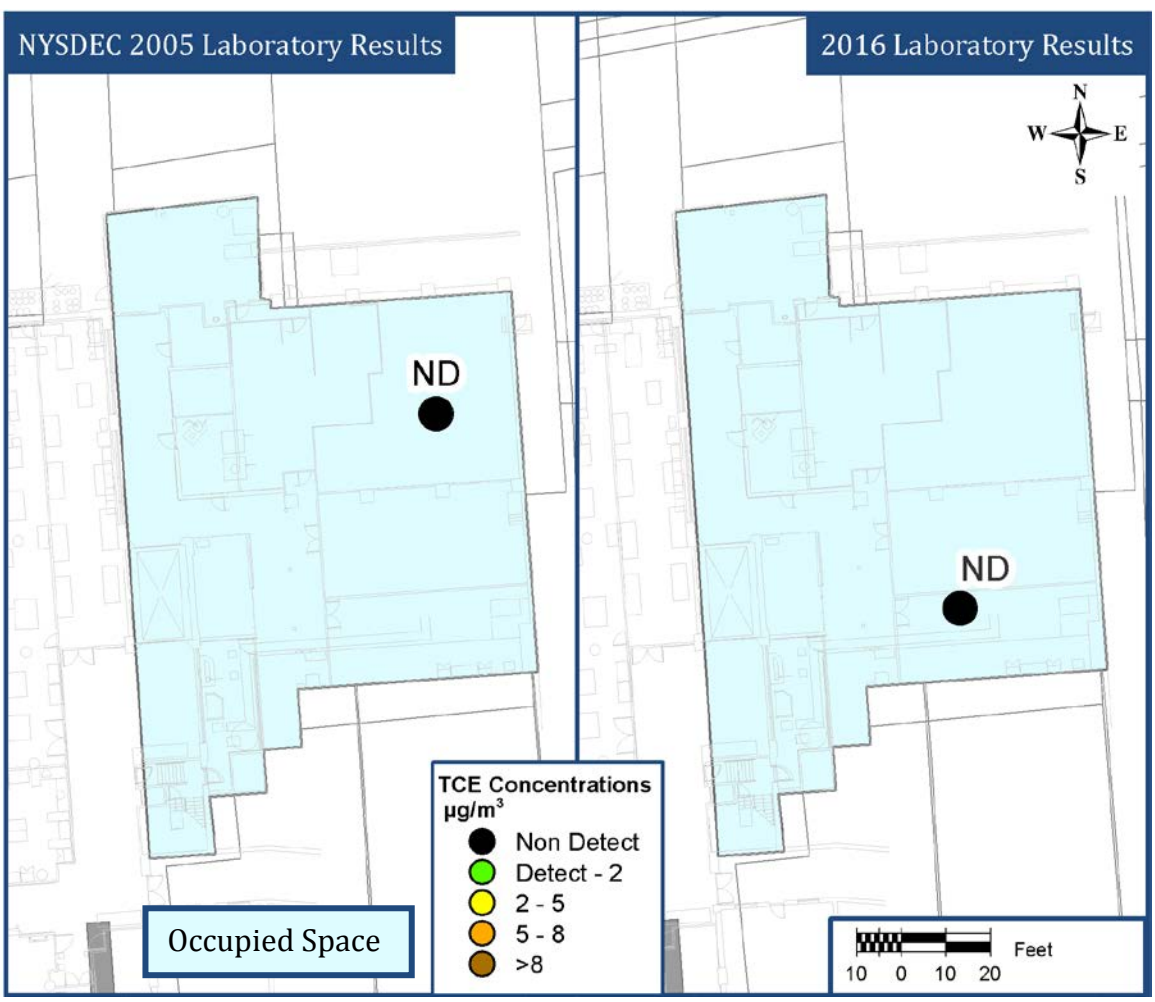
3.4.3 Indoor Air Sample Results and Completed Actions

An indoor air sample for laboratory analysis was collected in the workshop area on March 10, 2016 in accordance with the Work Plan to confirm the screening result. The results are presented in Table 3C. TCE was detected at 3.9 µg/m^3 within the workshop.

Upon noting the difference between the screening and sampling results for TCE, further review of the AHU found that the outdoor intake duct had been blocked. It was also found that during a portion of the 8-hour sampling period, the AHU had been turned off. Therefore, another indoor air sample was collected on May 25, 2016 after ensuring that the outdoor air intake was clear and the AHU was operating continuously. Under these conditions, TCE was not detected, and other VOC concentrations decreased from their previously very low levels. The results are presented in Table 3C. A summary of the relevant AHU operating conditions in effect when the most recent sample was collected is provided in Table 2.

Exhibit 4 below shows a comparison of the 2005 NYSDEC sample result for TCE with the 2016 sample result. The 2016 result is consistent with the 2005 result.

Exhibit 4: *B19 indoor air sample results for TCE in 2005 vs. 2016*



3.5 B32 Results

3.5.1 Building Overview

B32 is a multi-story structure located on the southwest corner of North St. and Adams Ave. B32 has a footprint of about 15,000 square feet. The lowest routinely occupied level, Level 1, is below street level and is currently partially occupied by a truck driving school, including its classroom and office space. Most of Level 1 is vacant. The entire building is served by a single AHU located in a mechanical room on Level 1.

3.5.2 Field Screening Results and Completed Actions

The initial step of the indoor air assessment was field screening using the portable GC/MS. The initial screening results for TCE on Level 1, including occupied and vacant spaces, indicated detections at low concentrations.

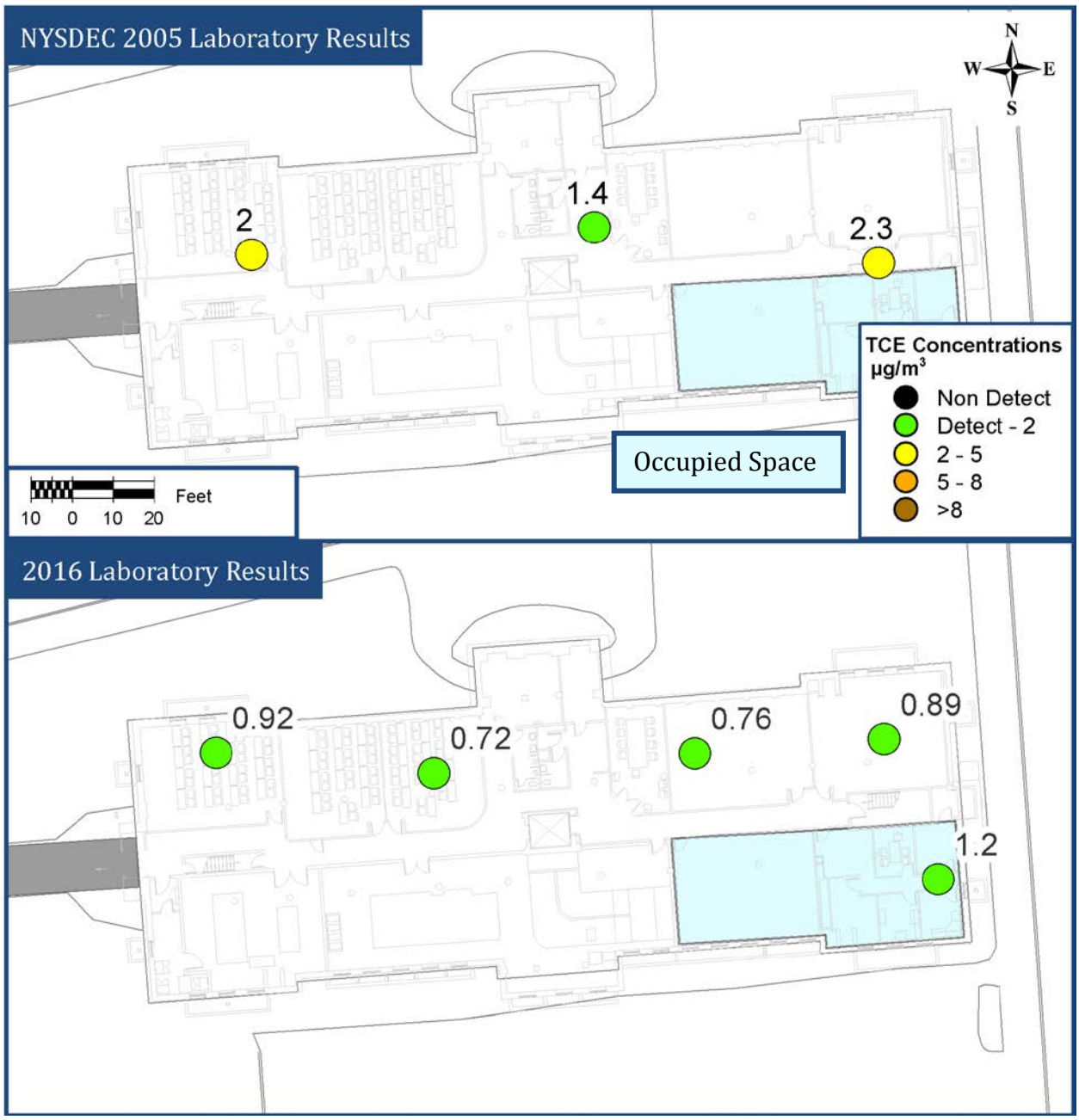
After the initial screening, actions were taken to increase the outside air flow to the building by increasing the minimum position setting on the outside air damper. After making this adjustment, the TCE screening concentrations decreased at almost all locations. A summary of the relevant AHU operating conditions after the adjustment, and which were in effect during subsequent indoor air sampling, is provided in Table 2.

3.5.3 Indoor Air Sample Results

After completion of the above AHU adjustment and re-screening, indoor air samples for laboratory analysis were collected on Level 1 on March 8, 2016 in accordance with the Work Plan. The results are presented in Table 3D. TCE was detected at very low concentrations ranging from 0.72 to 1.2 $\mu g/m^3$. In addition, TCE was detected in the outside (ambient) air sample at a very low level of 0.14 $\mu g/m^3$. The outside air sample was collected near the intake of the AHU to assess potential background VOC levels.

Exhibit 5 below shows a comparison of the 2005 NYSDEC sample results for TCE with the 2016 sample results. The overall average TCE concentration in the 2016 samples is 53% less than the average TCE concentration in NYSDEC's 2005 samples.

Exhibit 5: *B32-1 indoor air sample results for TCE in 2005 vs. 2016*



3.6 B33 & B40 Results

3.6.1 Building Overview

B33 and B40 are multi-story buildings located on the south side of North St. between B32 to the east and B42 to the west. They are discussed together because the south end of B33 shares a common wall with the north end of B40 (Figure 2). B33 has a footprint of about 6,000 square feet, and B40 has a footprint of about 37,000 square feet. The first and lowest levels of both buildings are below street level, and they include offices and conference rooms for the owner and several tenants. The first level of B40 also includes an auditorium.

In B33, a single AHU located in a mechanical room on the first level provides conditioned air to the first and second floors. In B40, seven AHUs provide conditioned air to the first floor. A summary of the relevant AHU operating conditions in effect during indoor air sampling is provided in Table 2.

3.6.2 Field Screening Results

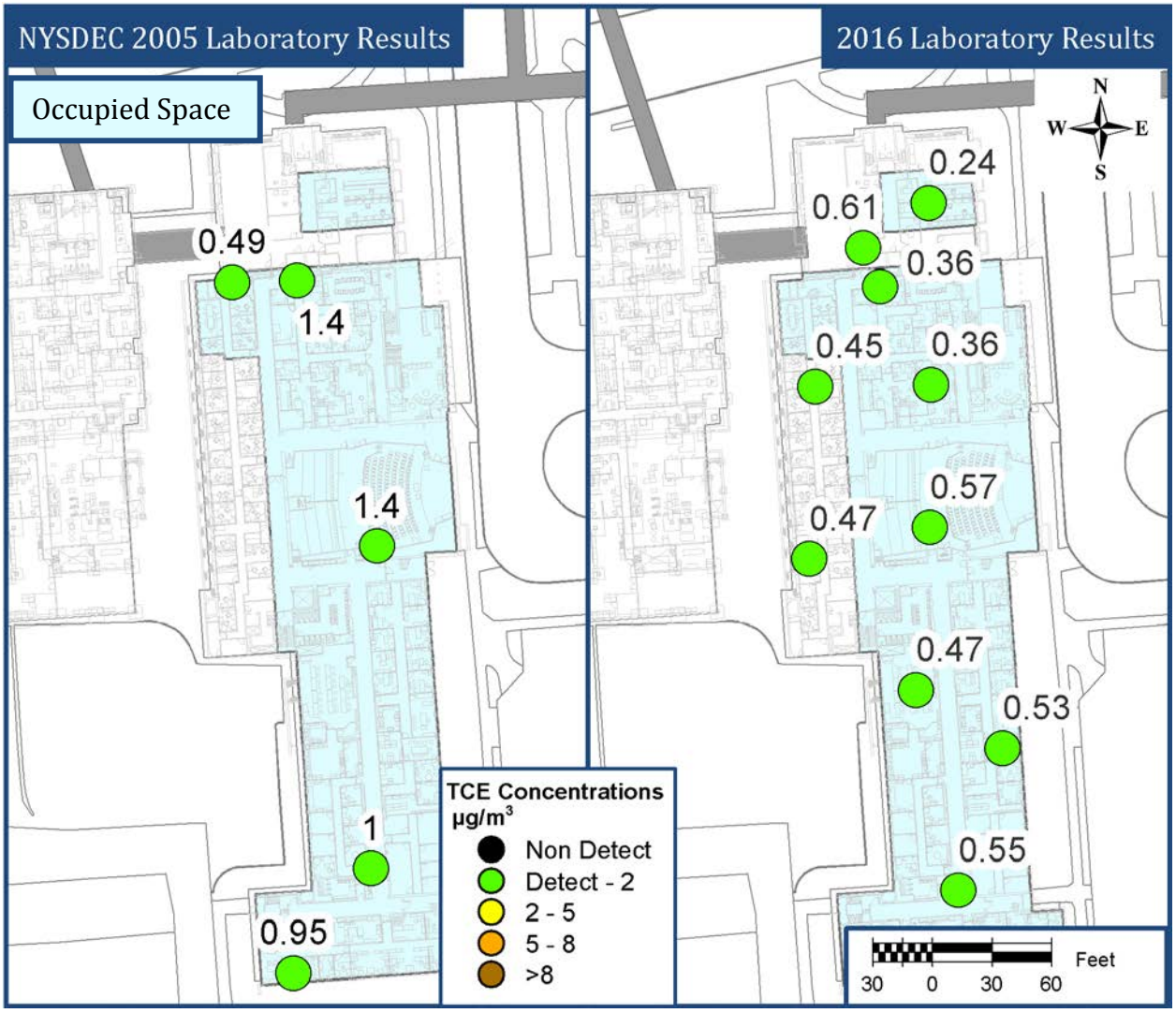
The initial step of the indoor air assessment was field screening on the first level using the portable GC/MS. The screening results indicated TCE detections at low concentrations.

3.6.3 Indoor Air Sample Results

Indoor air samples for laboratory analysis were collected on the first floor on March 9, 2016 in accordance with the Work Plan. The results are presented in Table 3E. TCE was detected at very low concentrations ranging from 0.24 to 0.57 $\mu g/m^3$.

Exhibit 6 below shows a comparison of the 2005 NYSDEC sample results for TCE with the 2016 sample results. The overall average TCE concentration in the 2016 samples is 55% less than the average TCE concentration in NYSDEC's 2005 samples.

Exhibit 6: *B33-1 and B40-1 indoor air sample results for TCE in 2005 vs. 2016*



3.7 B41 Results

3.7.1 Building Overview

Building 41 is a multi-level building located on the northwest corner of North St. and McKinley Ave. B41 has a footprint of about 79,000 square feet. The lowest level (Level 1) is partially below street level and housed former manufacturing space that is currently entirely vacant. The lowest occupied level is Level 2, which contains manufacturing space and laboratories, as well as vacant space.

Level 2 is served by four active AHUs, one of which is located on Level 1 and serves the center core of Level 1 and the southern portion of Level 2. The remaining active AHUs serving Level 2 are located on Level 2 and serve Level 2 only. The AHUs serving Level 1 are either shut down or no longer functioning, except for the unit in the center core that also serves a portion of the second floor. A summary of the AHUs and their operating status at

the completion of the assessment and in effect during indoor air sampling is provided in Table 2.

3.7.2 Field Screening Results

Initial field screening using the portable GC/MS was conducted on the vacant Level 1 where no AHUs were active. TCE was measured in the southern area of the building at generally higher concentrations than in the northern area.

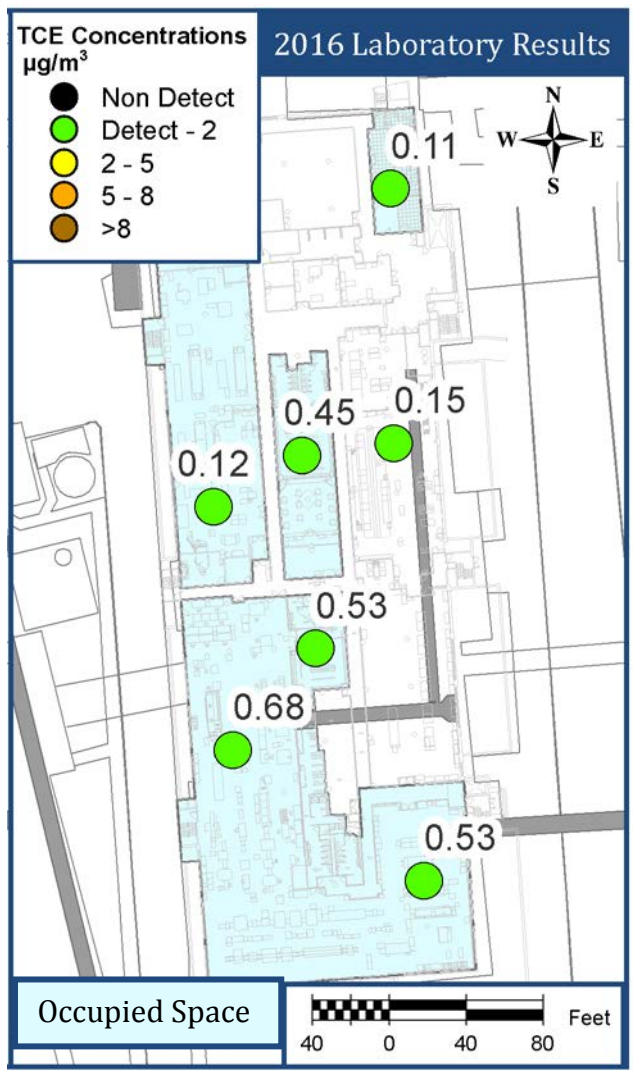
3.7.3 Indoor Air Sample Results and Completed Actions

Indoor air samples for laboratory analysis were collected on Level 2, the lowest occupied floor, on March 10, 2016 in accordance with the Work Plan. The results are presented in Table 3F. TCE was detected at very low levels ranging from 0.45 to 1.3 µg/m³.

Several other VOCs were detected in the samples, including 1,1,1-TCA at a maximum concentration of 30 µg/m³ measured in the southern area of Level 2, which is served by the AHU on Level 1. 1,1,1-TCA poses a lower degree of human exposure risk than TCE; nonetheless, IBM elected to take actions to attempt to reduce the concentrations of 1,1,1-TCA on Level 2.

Assessment of the AHU serving the southern area of Level 2 revealed a malfunctioning outside air intake damper. More outside air was supplied to the southern area by increasing the minimum open position for the outside air damper on the AHU serving that area. After taking this action, another round of indoor air samples were collected on Level 2 on May 25, 2016. 1,1,1-TCA levels decreased overall to a range of 0.68 to 20 µg/m³. Other detected VOCs, including TCE, also decreased from their previously very low levels. The results are presented in Table 3F, and the TCE results are shown on Exhibit 7 below. No indoor air samples were collected on Level 2 in this building in 2005.

Exhibit 7: *B41-2 indoor air sample results for TCE in 2016*



Indoor air samples were not collected on Level 1 because the entire floor is vacant and the AHUs are shut off or not functioning. When IBM is informed that Level 1 will be re-

occupied, IBM will work with the owner to conduct indoor air sampling. Similarly, if changes to HVAC operating conditions will be made affecting Levels 1 or 2, IBM, in consultation with the Agencies, will assess whether additional indoor air sampling is appropriate at that time.

3.8 B42 Results

3.8.1 Building Overview

B42 is a multi-level building located on the southeast corner of North St. and McKinley Ave. B42 has a footprint of about 24,000 square feet. The lowest level (Level 1) is below street level and houses owner and tenant offices, in addition to records storage rooms and vacant offices. Level 2 is at street level and houses the campus cafeteria/event center.

The entire Level 1 and a portion of the upper levels is served by one AHU located in a mechanical room on Level 1. Level 1 is also equipped with multiple air recirculation units.

3.8.2 Field Screening Results and Completed Actions

Initial field screening using the portable GC/MS was conducted on Level 1. The screening results indicated lower concentrations measured in the southern area of the floor and higher concentrations measured in the central and northern area of the floor. The highest TCE screening levels were measured in vacant, unoccupied office space in the central area of Level 1, where subsequent assessment found that this area was not receiving conditioned air (i.e., the air recirculation unit serving this area was off because the area was unoccupied).

Informed by the field screening results, actions were taken to improve the distribution of conditioned air and increase the amount of outside air supplied to Level 1. These actions are further described as follows:

1. A new outside air intake was installed on the AHU serving Level 1 to supplement the existing outside air intake and increase the overall outside air capacity of the unit.

2. New ducts were installed on the existing supply air network to deliver conditioned air more effectively to several of the existing air recirculation units.

3. Several areas were not receiving conditioned air because certain dampers were closed or the recirculation units were off. The dampers were opened and the recirculation units were turned on.

The combined effects of the above actions were improvement in conditioned air distribution to both occupied and vacant areas of Level 1 and increased outside air exchange. A summary of the relevant AHU operating conditions in effect during subsequent indoor air sampling is provided in Table 2. IBM understands that the HVAC operating conditions under which the indoor air samples were collected in B42, including those in unoccupied portions of the building, will be maintained by the owner.

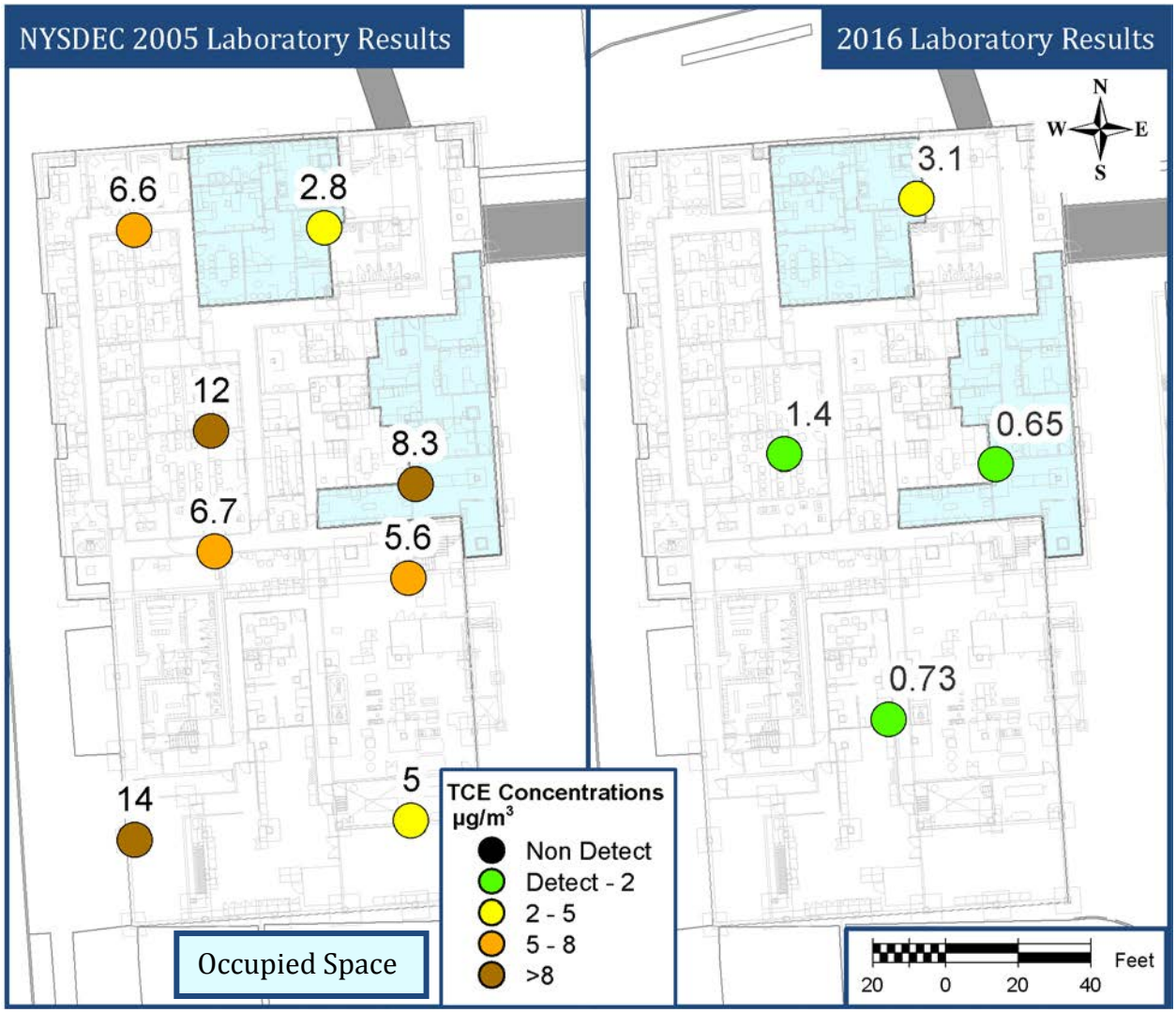
After completing the above actions, certain representative locations on Level 1 were re-screened to evaluate effectiveness. The re-screening results indicated that the actions taken were successful in reducing TCE levels.

3.8.3 Indoor Air Sample Results

After completion of the above actions and re-screening, indoor air samples for laboratory analysis were collected on Level 1 on April 5, 2016 in accordance with the Work Plan. The results of indoor air samples are presented in Table 3G. TCE was detected at concentrations that ranged from 0.65 to 3.1 µg/m³.

Exhibit 8 below shows a comparison of the 2005 NYSDEC sample results for TCE with the 2016 sample results. The overall average TCE concentration in the 2016 samples is 81% less than the average TCE concentration in NYSDEC's 2005 samples.

Exhibit 8: *B42-1 indoor air sample results for TCE in 2005 vs. 2016*



3.9 B45 & B46 Results

3.9.1 Buildings Overview

Buildings 45 and 46 are discussed together because the south end of B46 is connected to B45. B45 historically served as a dock connecting B46 on the west side of McKinley Ave. to B47 on the east side of McKinley Ave. B45 is a one-story structure with a footprint of about 36,000 square feet situated along the north side of the railroad corridor and under the McKinley Ave. viaduct. B45 is used by its tenant mainly as storage space. There is one AHU that serves the northern portion of B45 that is more routinely occupied. The remainder of the building is active dock space with overhead doors that are routinely open.

Building 46 is a 5-level structure with a footprint of about 116,000 square feet located along the west side of McKinley Ave. and north of the railroad corridor. The lowest level of the building, Level 1, is tenant-occupied.

Level 1 of Building 46 is served by 8 AHUs. The AHUs are located on a mezzanine level that runs most of the length of the center of the building between Levels 1 and 2. Outside air to the AHUs is conveyed by subfloor tunnels that run east-west beneath the building floor. Outside air enters the tunnels through intake louvers at the stair towers on the east and west sides of the building. Air is drawn from the tunnels by the AHUs in the mezzanine at the center of the building.

3.9.2 Field Screening and Completed Actions

Initial field screening using the portable GC/MS was conducted in B45 and on Level 1 in B46. TCE was not detected in B45. In B46, TCE was measured at lower concentrations in the northern area of the floor and higher concentrations in the southern area of the floor. The highest TCE screening level was measured in an area on the southeast side of the building where subsequent assessment found that the outside air intake louver to the tunnel was blocked, creating a negative pressure within the tunnel.

Informed by the field screening results, actions were taken to increase the amount of outside air supplied to Level 1 of B46. These actions are further described as follows:

1. Several outside air intake louvers feeding the tunnels were shuttered or nearly closed. These louvers were opened, which provided more outside air and relieved negative pressure on the tunnels.

2. More outside air was supplied to Level 1 by increasing the minimum open position of the outside air dampers on several of the AHUs.

The combined effect of the above actions was increased outside air exchange. A summary of the relevant AHU operating conditions in effect during subsequent indoor air sampling is provided in Table 2.

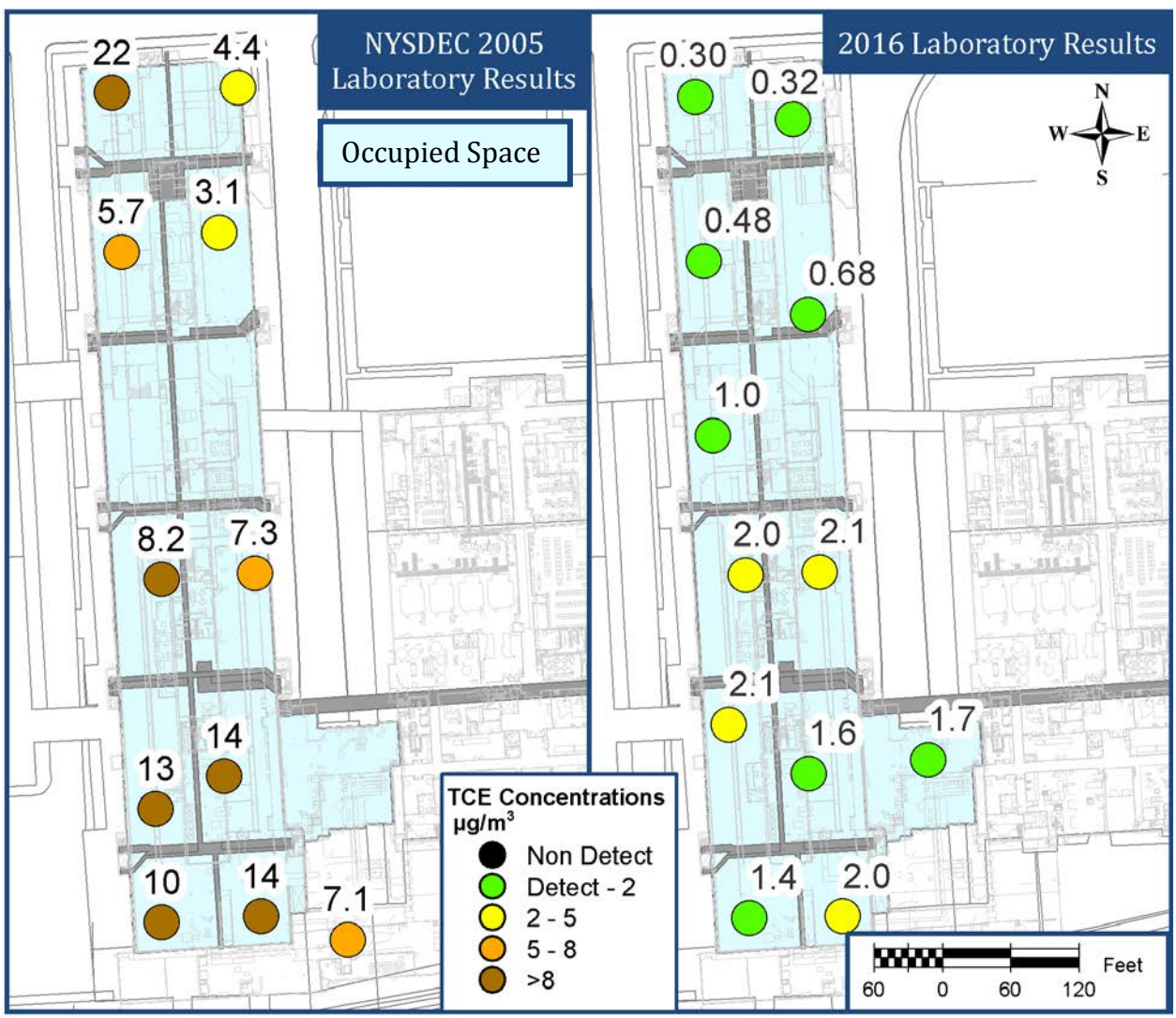
After completing the above actions, certain representative locations on Level 1 were re-screened to evaluate effectiveness. TCE screening levels decreased at all locations, indicating that the actions taken were successful in reducing TCE levels.

3.9.3 Indoor Air Sample Results

After completion of the above actions and re-screening, indoor air samples for laboratory analysis were collected in B45 and on Level 1 of B46 on April 1, 2016 in accordance with the Work Plan. The results of indoor air samples are presented in Table 3H. TCE was detected at concentrations that ranged from 0.3 to 2.1 µg/m^3.

Exhibit 9 below shows a comparison of the 2005 NYSDEC sample results for TCE with the 2016 sample results. For B46, the overall average TCE concentration in the 2016 samples is 88% less than the average TCE concentration in NYSDEC's 2005 samples, while the reduction is 76% for the B45 samples.

Exhibit 9: *B45 and B46-1 indoor air sample results for TCE in 2005 vs. 2016*



3.10 B47 Results

3.10.1 Building Overview

B47 is a multi-story building located on the east side of McKinley Ave. just north of the railroad corridor. B47 has a footprint of about 66,000 square feet. The lowest level, Level 1, is at street level. It is a mixture of manufacturing and mechanical space, and most of Level 1 is not routinely occupied.

Level 1 is served by five AHUs. Two of these units are located on Level 1, and the remaining units are located in rooftop penthouses. A summary of the relevant AHU operating conditions in effect during indoor air sampling is provided in Table 2.

3.10.2 Field Screening Results

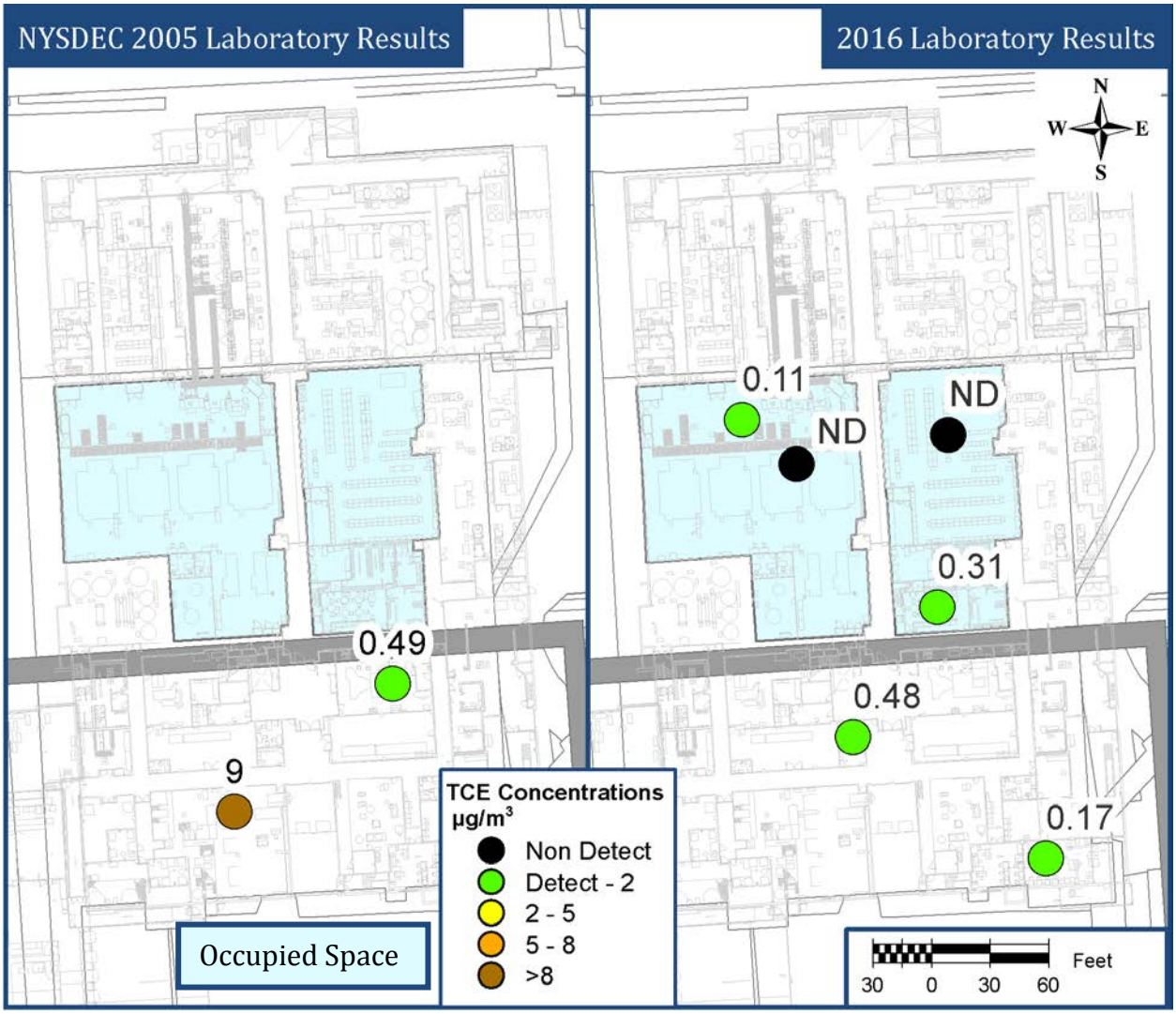
The initial step of the indoor air assessment was field screening using the portable GC/MS in both occupied and unoccupied areas of Level 1. The screening results indicated low concentrations measured in the occupied areas receiving conditioned air. The highest TCE screening concentration was measured in an unoccupied storage room on the west side of the building that is not served directly by conditioned air.

3.10.3 Indoor Air Results

Indoor air samples for laboratory analysis were collected on Level 1 on March 11, 2016 in accordance with the Work Plan. The sample results are presented in Table 3I. TCE was not detected 2 of the 6 locations, and detected at very low levels at the other 4 locations (maximum concentration of 0.48 $\mu g/m^3$).

Exhibit 10 below shows a comparison of the 2005 NYSDEC sample result for TCE with the 2016 sample results. The overall average TCE concentration in the 2016 samples is 95% less than the average TCE concentration in NYSDEC's 2005 samples.

Exhibit 10: *B47-1 indoor air sample results for TCE in 2005 vs. 2016*



3.11 B57 Results

3.11.1 Building Overview

B57 is a single story building located on the southeast corner of Hayes Ave. and Wayne St. (Figure 2). B57 has a footprint of about 105,000 square feet. It is connected at its east end to B57A via a loading dock area. B57 is occupied and used for offices, light manufacturing, and bus repair.

B57 is served by 10 AHUs located on the roof. A summary of the relevant AHU operating conditions in effect during indoor air sampling is provided in Table 2.

3.11.2 Field Screening Results

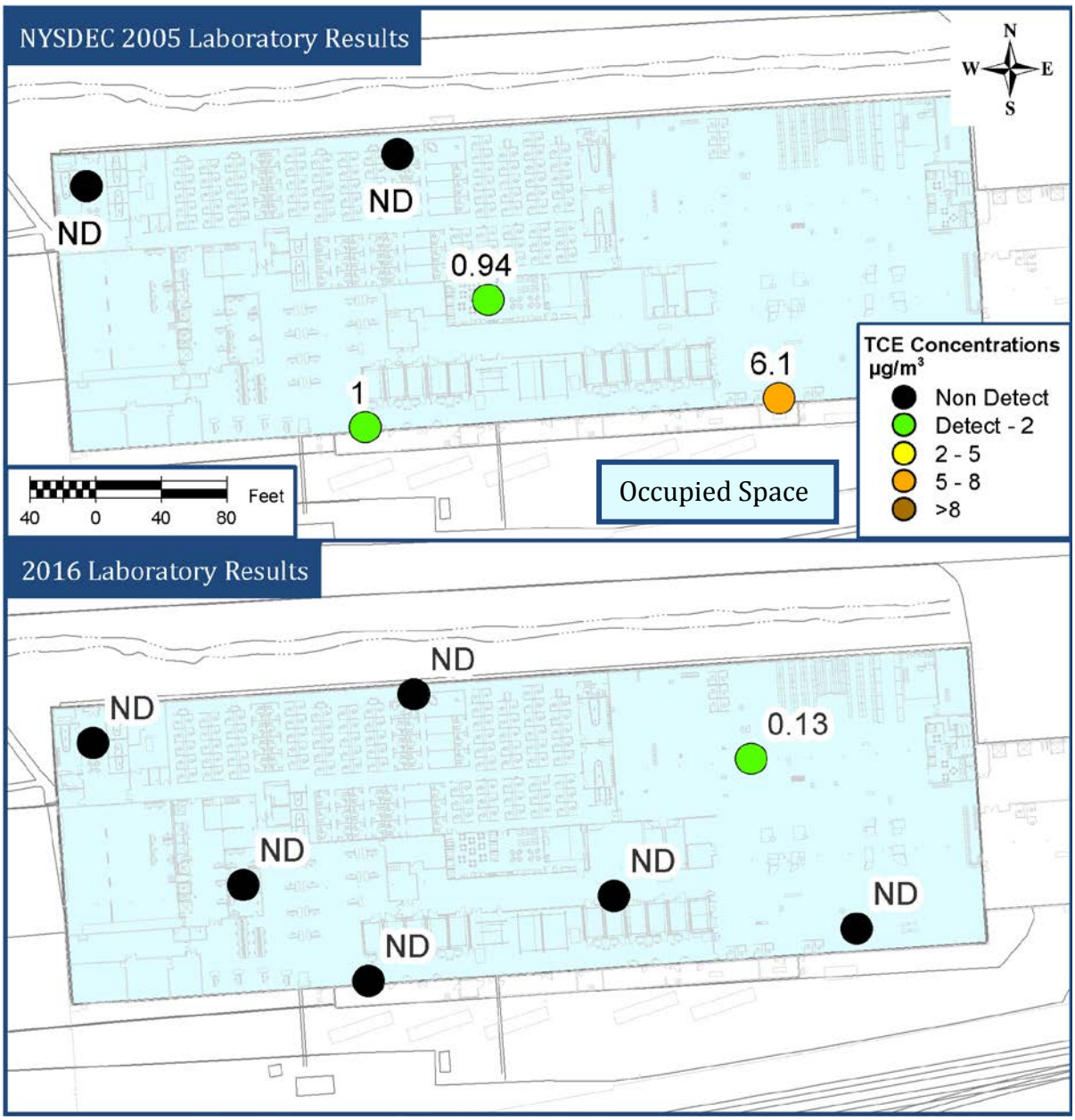
The initial step of the indoor air assessment was field screening using the portable GC/MS. The screening results indicated that TCE was not detected in indoor air.

3.11.3 Indoor Air Sample Results

Indoor air samples for laboratory analysis were collected on March 16, 2016 in accordance with the Work Plan. The sample results are presented in Table J. TCE was not detected in 6 of 7 samples; the only TCE detection was a very low concentration of 0.13 µg/m³.

Exhibit 11 below shows a comparison of the 2005 NYSDEC sample results for TCE with the 2016 sample results. The overall average TCE concentration in the 2016 samples is 93% less than the average TCE concentration in NYSDEC's 2005 samples.

Exhibit 11: *B57 indoor air sample results for TCE in 2005 vs. 2016*



3.12 B57A Results

3.12.1 Building Overview

B57A is a single story building connected to B57 situated between Wayne St. and the railroad corridor. B57A has a footprint of about 62,000 square feet and primarily serves as an intermittently occupied warehouse. It also includes office and small manufacturing areas. The loading dock area, which is between B57 and B57A, is included under the B57A assessment.

The office/manufacturing areas of B57A are served by two rooftop AHUs. The warehouse and loading dock areas are not provided with conditioned air. Heat is provided by unit heaters mounted along the walls. Ventilation in warm weather is provided by a large capacity, thermostatically controlled exhaust fan mounted in the east wall.

3.12.2 Field Screening Results

The initial step of the indoor air assessment was field screening using the portable GC/MS. The initial screening results for TCE indicated very low TCE concentrations, with the highest level at the east end of the building farthest from the conditioned areas.

3.12.3 Indoor Air Sample Results and Completed Actions

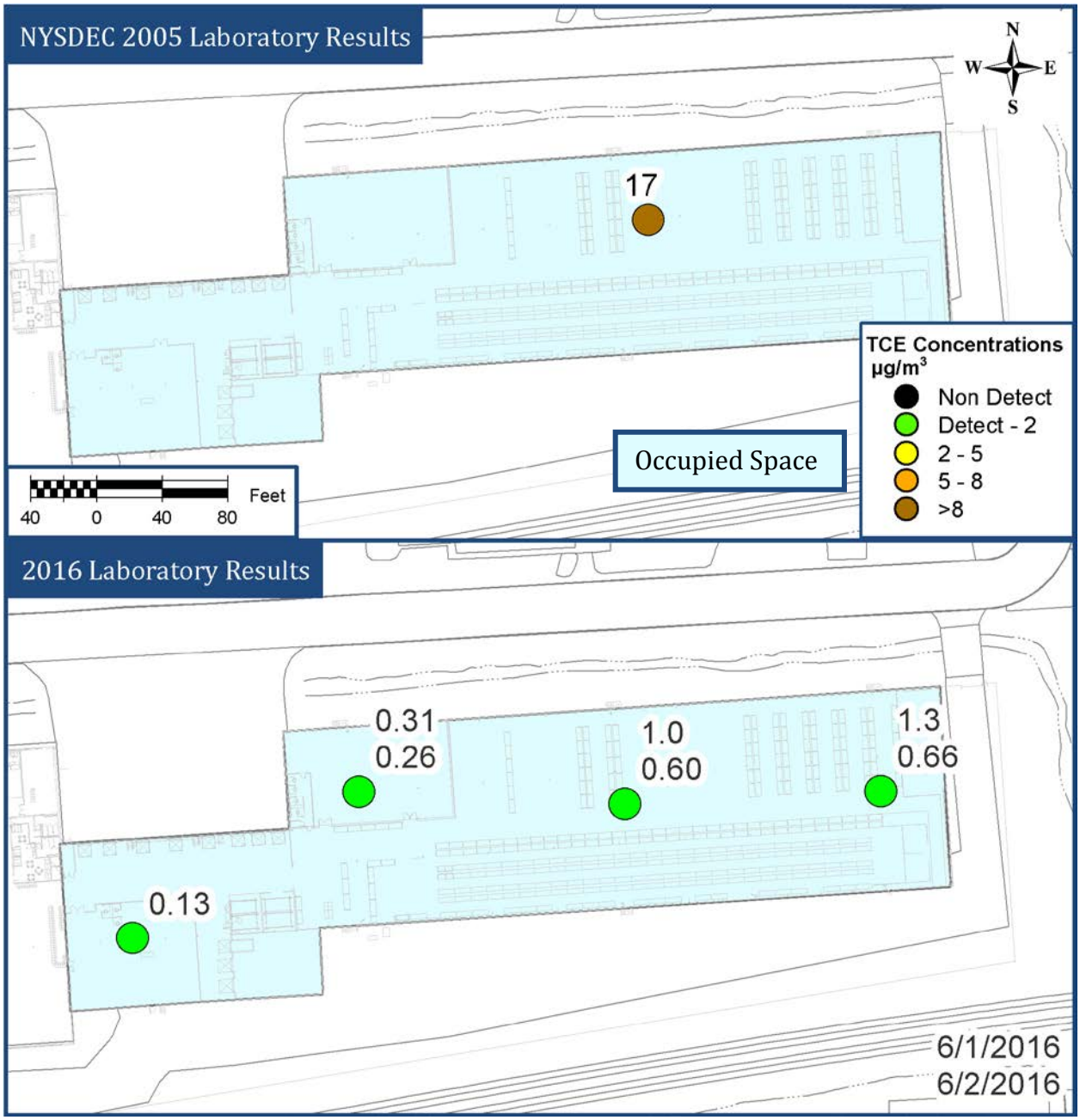
Indoor air samples for laboratory analysis were collected on March 16, 2016 in accordance with the Work Plan. The large exhaust fan was not operating during the sampling period consistent with the heating season conditions. The results are presented on Figure K and Table K. TCE was detected at concentrations that ranged from 0.13 to 2.6 $\mu g/m^3$, with the higher concentrations in the warehouse portion of the B57A.

IBM elected to take actions to reduce the levels of TCE in the warehouse by improving ventilation in the heating season when the large exhaust fan is not operating. An iterative program of ventilation tests and field screening was conducted using 6 existing small exhaust fans installed along the south wall of B57A. The field tests indicated that the continuous operation of the 6 ventilation fans would reduce TCE concentrations. To verify the field test results, on June 2, 2016 indoor air samples for laboratory analysis were collected while the 6 small exhaust fans were running and the large exhaust fan was shut off. These conditions represent intended heating season operations. The sample results, shown on Figure K and Table K, indicated a decrease in the maximum TCE concentration to 1.3 $\mu g/m^3$.

A final indoor air sampling round on June 2, 2016 was then performed with the large exhaust fan running in combination with the 6 small exhaust fans. These are the operations representative of warm weather, non-heating season conditions. The sample results, also shown on Figure K and Table K, indicated that TCE concentrations decreased to a range of 0.26 to 0.66 $\mu g/m^3$.

Exhibit 12 below shows a comparison of the 2005 NYSDEC sample result for TCE with the 2016 sample results. The overall average TCE concentration in the 2016 samples is 96% less than the average TCE concentration in NYSDEC's 2005 samples.

Exhibit 12: *B57A indoor air sample results for TCE in 2005 vs. 2016*



3.13 B264/268 Results

3.13.1 Building Overview

B264/268 is a one story building located between the north ends of B18 and B41 along the railroad corridor (Figure 2). B264/268 has a footprint of about 5,000 square feet. The building houses the campus emergency response personnel and vehicle garage.

B264 is served by one AHU located on the roof. Only the office area receives conditioned air from the AHU.

3.13.2 Field Screening Results and Completed Actions

Initial field screening using the portable GC/MS was conducted in the office space. TCE was detected at a low concentration.

After the initial screening, actions were taken to reduce the TCE concentration by adjusting the AHU to increase the amount of outside air delivered to the office space. After making this adjustment, re-screening of indoor air did not detect TCE. A summary of the relevant AHU operating conditions after the adjustment and which were in effect during subsequent indoor air sampling is provided in Table 2.

3.13.3 Indoor Air Sample Results

After completion of the above AHU adjustment and re-screening, an indoor air sample for laboratory analysis was collected on March 16, 2016. The results are presented in Table 3L. TCE was detected at very low concentration of 0.33 µg/m^3, as shown on Exhibit 13 below. The TCE concentration in the 2016 sample is 97% less than the TCE concentration in NYSDEC's 2005 sample.

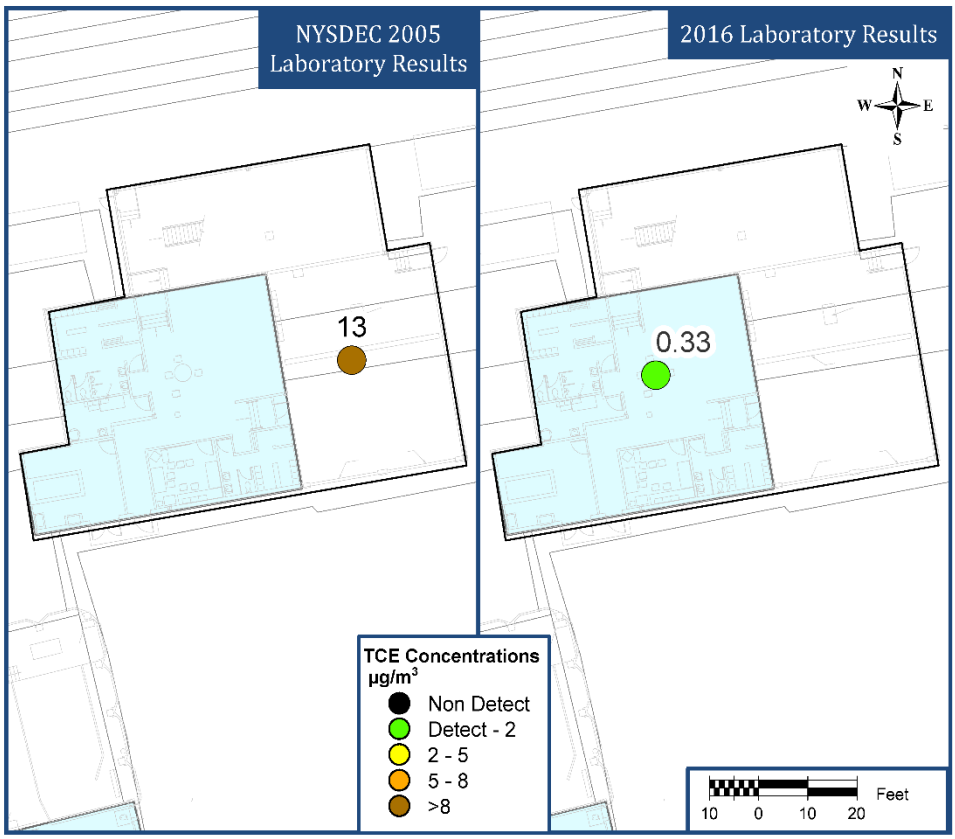


Exhibit 13: *B264 / 268 indoor air sample results for TCE in 2005 vs. 2016*

4.0 QUALITY ASSURANCE/QUALITY CONTROL

Analytical data from the 8-hour, time-integrated Summa® canister sampling events described above were provided to New Environmental Horizons, Inc. (NEH) for third-party independent data validation. NEH's data validation reports are presented as Appendix C.

NEH's evaluation included a review of sample data to verify that the laboratory conducted the analyses in compliance with the analytical methods required, appropriate laboratory procedures, and consistency with the Work Plan Quality Assurance/Quality Control (QA/QC) requirements. NEH's evaluation was conducted in accordance with USEPA and NYSDEC guidelines for data validation of organic data. NEH prepared Data Usability Reports that summarize the quality control issues that required action (i.e., qualification of data) and compared QA/QC criteria to the data quality objectives described in the approved Work Plan.

In summary, NEH found the data to be useable in accordance with the project data quality objectives subject to a few minor qualifications described below that do not affect the overall findings and conclusions. The following QA/QC considerations were noted by NEH:

- Low-level detections of tetrachloroethene (PCE) were reported for three field blanks (see Table 4) and resulted in the following samples being flagged as estimated ("EB") for PCE with a possible high bias, or indeterminate bias for samples with additional QA/QC issues:
  - Samples in B19, B32, B33, B40, and B41 associated with field blank FB-1 (DUP-1 associated with IA40-001, AA19-001, IA19-001, IA32-002, IA32-003, IA32-004, IA32-007, IA33-002, IA33-003, IA40-001, IA40-002, IA40-003, IA40-004, IA40-005, IA40-006, IA40-007, IA40-008, IA41-021, IA41-024, IA41-020, IA41-022, IA41-023, IA41-025).
  - Samples in B18 associated with FB-4 (IA18-001, IA18-002, IA18-003, IA18-004, IA18-005, IA18-010, IA18-012, IA18-016).
  - Samples in B57A associated with NB57A-001 (IA57A-001, IA57A-002, IA57A-003, FD57A-001).
- Flow controllers from samples in B18, B19, B32, B40, B41, B46, B47, B57, B57A had pre- and post-calibration relative percent differences (RPDs) greater than the allowable 20% resulting in the results for all analytes in the following samples being flagged as estimated ("J" or "UJ") by NEH with an indeterminate bias due to flow controller imprecision. (DUP-3 [22% RPD] associated with IA57A-001, FB-2 [146% RPD], AA18-001 [139% RPD], IA19-001 [59% RPD]on 5/25/2016, IA32-001 [47% RPD], AA40-001 [28% RPD], IA40-004 [31% RPD], IA41-021 [25% RPD]on 3/10/2016, IA41-024 [50% RPD], IA41-025 [71% RPD] on 3/10/2016, AA46-001 [24% RPD], IA46-001 [42% RPD], AA47-001 [21% RPD], IA47-005 [102% RPD], IA57-002 [22% RPD], IA57-004 [58% RPD])

- Final field vacuum and laboratory receipt vacuum differed by more than 5 inches Hg for sample FB-5, and the results for this samples were flagged as estimated ("J" or "UJ") with an indeterminate bias due to the disagreement.

- The calibration verification recovered high for PCE in two analytical batches resulting in the results for the associated samples collected in B14 and B57 being flagged as estimated ("J") with a possible high bias, or indeterminate bias for samples with additional QA/QC issues (Dup-2 associated with IA14-008, AA14-001, IA14-001, IA14-002, IA14-004, IA14-005, IA14-006, IA14-007, IA14-008, IA57-002, IA57-007)

- Field duplicate pair results did not meet criteria for 1,1-dichloroethane for field duplicate pair IA41-021 / FD41-021, resulting in the 1,1-dichloroethane results from these samples being flagged as estimated ("J") with an indeterminate bias.

The above qualifications are noted in Tables 3A through 3L.

5.0 CONCLUSIONS

IBM has completed an indoor air assessment of VOCs in 14 buildings on its former Endicott campus. The assessment was conducted in response to a request by the Agencies to update and supplement NYSDEC's 2005 indoor air assessment. The scope of the assessment included the following components: 1) review of HVAC systems, 2) field screening for VOCs using a portable GC/MS, and 3) sampling and laboratory analysis of indoor air.

The HVAC system review and initial field screening results were used to make adjustments to HVAC components and/or operations in 8 buildings to improve fresh air ventilation and in some cases, building pressurization. Re-screening in these buildings confirmed the effectiveness of the adjustments in reducing VOC concentrations. No adjustments were made in 6 of the buildings based on the initial screening results.

After completion of the HVAC adjustments and field screening program, indoor air samples were collected at multiple, representative locations on the lowest, occupied level of the 14 buildings to assess indoor air quality. TCE was either not detected, or detected at less than 2 $\mu g/m^3$, at 93% of the sample locations (66 of 71 locations). The remaining 7% of locations (or 5 locations) contained TCE between 2 and 3.1 $\mu g/m^3$, and were detected in two buildings (B42 and B46). A summary of the results for TCE are presented in Exhibit 14 below.

Exhibit 14: *Summary of Sampling Conditions and TCE Results*

Building	Lowest Routinely Occupied Level	HVAC Adjustments After Initial Screening (Yes/No)	No. of Indoor Air Locations	No. of Sampling Rounds	Range of TCE Concentration Observed During Final Sampling Round (µg/m^3)	Percent Reduction in Average TCE Concentration (2005 vs 2016)
014	01	No	7	1	Not detected (ND) - 0.13	56
018	01	Yes	8	1	ND - 0.26	76
019	01	Yes	1	2	ND	Not applicable
032	01	Yes	5	1	0.72 - 1.2	53
033	01	No	2	1	0.24 - 0.61	Not applicable
040	01	No	8	1	0.36 - 0.57	55
041	02	Yes	6	2	ND - 0.68	Not applicable
042	01	Yes	4	1	0.65 - 3.1	81
045	01	No	1	1	1.7	76
046	01	Yes	11	1	0.3 - 2.1	88
047	01	No	6	1	ND - 0.48	95
057	01	No	7	1	ND - 0.13	93
057A	01	Yes	4	3	0.13 - 1.3	96
264/268	01	Yes	1	1	0.33	97

Note: The purpose of showing the reduction in average TCE concentrations from 2005 to 2016 is to illustrate the general, broad improvement in the results. It should be noted, however, that not all sampling locations in 2016 were the same as 2005. Nevertheless, the number and distribution of 2016 sampling locations are similar to the 2005 locations (refer to the Exhibits within the report text) and provide an informative basis for comparison.

The overall average TCE concentration in the indoor air samples collected as part of this report is 89% less than the average TCE concentration in NYSDEC's 2005 samples in the same buildings.

TCE was selected as a presumptive indicator of potential vapor intrusion of VOCs, and was the focus of this report, because TCE was found to be more prevalent (i.e., under more buildings) and at higher concentrations than other VOCs in most subslab soil vapor samples, as documented in the 2005 NYSDEC report.

IBM believes the indoor air quality results obtained after taking reasonable and practical actions toward improvement reflect what are reasonably achievable and maintainable for the buildings assessed. IBM understands that the HVAC operating conditions under which the indoor air samples were collected will be maintained by the owner, and in some cases, the tenant; therefore, IBM believes no further assessment is warranted at this time. In the event that IBM is informed of changes to HVAC operating conditions, IBM will consult with the Agencies to assess whether additional indoor air sampling is appropriate based on the HVAC changes made. IBM understands that that HVAC operating conditions, and any other engineering controls implemented at the site, will be subject to the terms of a forthcoming performance monitoring plan.

TABLES

Table 1
Building Summary
Indoor Air Assessment Report
Former IBM Endicott Facility

Building Number	Description of Current Use	# Floors	Lowest Occupied Level	Approx. Footprint Area (sq ft)
014	Offices / light manufacturing / assembly	5	01	51,561
018	Manufacturing	7	01	89,326
019	Maintenance workshop / forklift service	1	01	9,533
032	Offices / classrooms	5	01	14,538
033	Offices	3	01	5,948
040	Offices	5	01	36,837
041	Manufacturing	6	02	79,044
042	Offices / cafeteria (2nd level)	4	01	24,274
045	Enclosed dock connecting building #46 & # 47	1	01	35,707
046	Manufacturing / offices	5	01	116,394
047	Manufacturing / utilities	4	01	66,097
057	Offices / manufacturing / bus repair garage	1	01	104,774
057A	Warehouse / loading dock / offices	1	01	62,110
264/268	Emergency services office and vehicle garage	1	01	4,908

NOTES:
1. Building use information was updated on January 13, 2016 based on discussions with Huron about current campus conditions.

2. The approximate footprint areas of the buildings were obtained by digitizing the areas from AutoCAD plans provided by Huron.

Table 2
Air Handling Unit Summary
Indoor Air Assessment Report
Former IBM Endicott Facility
Endicott, New York

				Operational Conditions During Indoor Air Sampling					
Building	**AHU ID**	**Location of Unit**	**Total Unit CFM**	**Economizer off during sampling?**	**Run Schedule**	**Operating during sampling (yes/no)**	**Outdoor Air Damper (% open)**	**Return Air Damper (% Open)**	**Notes**
14	AHU-EAST	Penthouse	50,740	Yes	24/7	Yes	10	90	
	AHU-WEST	Penthouse	61,071	Yes	24/7	Yes	10	90	
18	AHU-008	MER 1802	31,547	No Economizer	24/7	Yes	75	100	
	AHU-20	18-2	24,923	No Economizer	24/7	Yes	50	0	
	AHU-21	18-2	37,699	No Economizer	24/7	Yes	50	0	
	AHU-27	18-2	45,743	No Economizer	24/7	Yes	24	100	
19	AHU-001	Bldg 19 shop	3,960	No Economizer	6am -6pm	Yes	100	NA	No RA on unit
32	AHU-3860	MER - First Level	21,792	Yes	6am -6pm	Yes	25	75	Unsure of the RA, the SCADA screenshot is not clear
33	AHU-2368	33-1 MER	4,636	No Economizer	6am -6pm	Yes	0	100	Assumes 10% leakage through closed OA dampler
40	AHU-1322	Basement MER	5,865	Yes	During auditorium occupancy	Yes	0	100	Assumes 10% leakage through closed OA damper
	AHU-2324	Basement MER	4,134	Yes	6am -6pm	Yes	0	100	Assumes 10% leakage through closed OA damper
	AHU-2325	Basement MER	6,178	Yes	6am -6pm	Yes	0	100	Assumes 10% leakage through closed OA damper
	AHU-4886	Basement MER	9,774	No Economizer	6am -6pm	Yes	20	80	
	AHU-4889	Basement MER	989	No Economizer	6am -6pm	Yes	NA	NA	
	AHU-4892	Basement MER	12,606	Yes	6am -6pm	Yes	0	100	Assumes 10% leakage through closed OA damper
41-1	AHU-1225	East side 41-1	NA	Unit off	Off	No	NA	NA	Unit not operational
	AHU-1232	Northeast corner 41-1	NA	No Economizer	Off	No	NA	NA	Off because area is unoccupied
	AHU-2040	41-1 MER	NA	No Economizer	24/7	Yes	100	50	Unit located on 41-1 but serves parts of 41-2
	AHU-C	Southern end 41-1	NA	Unit off	Off	No	NA	NA	Unit not operational
	AHU-E	Southern end 41-1	NA	Unit off	Off	No	NA	NA	Unit not operational
41-2	AHU 1073	Central West side of 41-2	NA	No Economizer	NA	Yes	100	NA	
	AHU 2011	Northwest corner of 41-2	NA	No Economizer	NA	Yes	100	NA	
	AHU 4372	South central portion of 41-2	NA	No Economizer	NA	Yes	75	100	
42	AHU-2030	Basement MER	22,200	Yes	6am -6pm	Yes	50	50	
45	AHU-1532	45 Dock	11,782	No Economizer	24/7	Yes	0	100	
46	AHU-7345	46-1 MER	16,480	No Economizer	5am to midnight	Yes	100	10	Exterior louver 15% open
	AHU-7346	46-1	23,174	No Economizer	5am to midnight	Yes	60	50	Exterior louver 100% open
	AHU-7350	46-1 MER	17,108	No Economizer	5am to midnight	Yes	50	50	Exterior louver 100% open
	AHU-7351	46-1 MER	11,088	No Economizer	5am to midnight	Yes	100	50	Exterior louver 50% open
	AHU-7504	46-1MER	19,744	No Economizer	5am to midnight	Yes	90	90	Exterior louver 100% open
	AHU-7505	46-1	21,053	No Economizer	5am to midnight	Yes	50	50	Exterior louver 25% open
	AHU-7506	Northeast corner 46-1	NA	Unit off	Off	No	NA	NA	Unit not operational
	AHU-7507	46-1 MER	14,487	No Economizer	5am to midnight	Yes	90	10	Exterior louver 25% open
47	AHU-3180	47-1	19,325	No Economizer	24/7	Yes	100	0	
	AHU-3832	47-1	3,133	No Economizer	24/7	Yes	50	0	
	AHU-4714	Penthouse	10,285	No Economizer	24/7	Yes	0	100	Assumes leakage through closed OA dampers
	AHU-4715	Penthouse	6,435	No Economizer	24/7	Yes	65	100	
	AHU-4716	Penthouse	13,911	No Economizer	24/7	Yes	25	100	
57	AHU-001	Mezzanine	11,102	Yes	24/7	Yes	10	100	
	MAU-001	Roof	6,366	No Economizer	24/7	Yes	100	0	
	MAU-002	Roof	6,213	No Economizer	24/7	Yes	100	0	
	RTU-001	Roof	3,141	Yes	4am to 8pm	Yes	25	75	
	RTU-002	Roof	5,415	Yes	4am to 10pm	Yes	25	75	
	RTU-003	Roof	7,962	Yes	4am to 10pm	Yes	10	90	
	RTU-004	Roof	8,171	Yes	When occupied	Yes	15	85	
	RTU-005	Roof	6,178	No Economizer	3am to 10pm	Yes	15	85	
	RTU-006	Roof	6,300	No Economizer	3am to 10pm	Yes	15	85	
	RTU-007	Roof	7,367	No Economizer	NA	Yes	0	100	Assumes leakage through closed OA dampers
	RTU-008	Roof	6,086	No Economizer	NA	Yes	0	100	Assumes leakage through closed OA dampers
57A	RTU-300	Roof	8,289	Yes	24/7	Yes	14	86	
	RTU-301	Roof	9,158	Yes	24/7	Yes	8	92	
	6 Small Exhaust Fan	South Wall	~3,000	NA	24/7	Yes	NA	NA	
	Large Exhaust Fan	East Wall	~48,000	NA	Thermostat Controlled	No	NA	NA	Fan was off during sampling on 6/1/2016 and running during sampling on 6/2/2016.
268	AHU-7738	Building 268 Roof	2,112	No Economizer	24/7	Yes	100	50	

Table 3A

Building 14 - Indoor Air Sample Data

Indoor Air Assessment Report
Former IBM Endicott Facility
Endicott, New York

Sample Location	Field Sample Name	Collection Date	Concentrations in µg/m³																													
			TCE			PCE			1,1,1-TCA			CEA			1,1-DCA			1,2-DCA			1,1-DCE			c-1,2-DCE			t-1,2-DCE			VC		
			Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias
AA14-001	AA14-001	03/15/16	0.11	U		0.14	J	H	0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA14-001	IA14-001	03/15/16	0.11	U		0.31	J	H	0.14			0.053	U		0.081	U		0.085			0.079	U		0.079	U		0.079	U		0.051	U	
IA14-002	IA14-002	03/15/16	0.13			0.24	J	H	0.15			0.053	U		0.081	U		0.11			0.079	U		0.079	U		0.079	U		0.051	U	
IA14-004	IA14-004	03/15/16	0.11	U		0.33	J	H	0.14			0.053	U		0.081	U		0.089			0.079	U		0.079	U		0.079	U		0.051	U	
IA14-005	IA14-005	03/15/16	0.11			0.36	J	H	0.13			0.053	U		0.081	U		0.097			0.079	U		0.079	U		0.079	U		0.051	U	
IA14-006	IA14-006	03/15/16	0.11			0.36	J	H	0.15			0.053	U		0.081	U		0.097			0.079	U		0.079	U		0.079	U		0.051	U	
IA14-007	IA14-007	03/15/16	0.12			0.44	J	H	0.12			0.053	U		0.081	U		0.093			0.079	U		0.079	U		0.079	U		0.051	U	
IA14-008	IA14-008	03/15/16	0.11			0.46	J	H	0.11	U		0.079			0.081	U		0.13			0.079	U		0.079	U		0.079	U		0.051	U	
IA14-008*	DUP-2	03/15/16	0.11	U		0.40	J	H	0.11	U		0.053	U		0.081	U		0.089			0.079	U		0.079	U		0.079	U		0.051	U	

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on the dates indicated over an 8-hour sampling interval. The samples were analyzed by Alpha Analytical of Westborough, Massachusetts for the project-specific list of volatile organic compounds (VOCs) by United States Protection Agency (USEPA) Method TO-15 in selective ion monitoring (SIM) mode. "TCE" is trichloroethene; "PCE" is tetrachloroethene; "1,1,1-TCA" is 1,1,1-Trichloroethane; "CEA" is chloroethane; "1,1-DCA" is 1,1-dichloroethane; "1,2-DCA" is 1,2-dichloroethane; "1,1-DCE" is 1,1-dichloroethene; "c-1,2-DCE" is cis-1,2-dichloroethene; "t-1,2-DCE" is trans-1,2-dichloroethene; and "VC" is vinyl chloride.

2. * indicates sample is a field duplicate.

3. Results are presented in micrograms per cubic meter (µg/m³).

4. An in-depth data usability review (DUR) was performed on the data by New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data. Refer to the DUR report for further details.
"U" indicates the analyte is non-detect at or above the indicated sample specific practical quantification limit (PQL).
"J" indicates the result is an estimated value.
"UJ" indicates the non-detect is estimated at the indicated PQL.
"EB" indicates analyte was also present in the associated field blank.
"H" indicates a high bias.
"I" indicates an indeterminate bias.

5. The "AA" designation indicates that the sample consists of ambient air collected from outside the building.

6. Results are displayed with two significant figures.

Table 3B

Building 18 - Indoor Air Sample Data

Indoor Air Assessment Report
Former IBM Endicott Facility
Endicott, New York

Sample Location	Field Sample Name	Collection Date	Concentrations in µg/m³																														
			TCE			PCE			1,1,1-TCA			CEA			1,1-DCA			1,2-DCA			1,1-DCE			c-1,2-DCE			t-1,2-DCE			VC		
			Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias
AA18-001	AA18-001	03/24/16	0.11	UJ	I	0.14	UJ	I	0.11	UJ	I	0.053	UJ	I	0.081	UJ	I	0.081	UJ	I	0.079	UJ	I	0.079	UJ	I	0.079	UJ	I	0.051	UJ	I
IA18-001	IA18-001	03/24/16	0.26			0.16	EB	H	0.28			0.055			0.081	U		0.081	U		0.079	U		0.079	U		0.13			0.051	U	
IA18-002	IA18-002	03/24/16	0.11	U		0.16	EB	H	0.30			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.095			0.051	U	
IA18-003	IA18-003	03/24/16	0.11	U		0.16	EB	H	0.30			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.095			0.051	U	
IA18-004	IA18-004	03/24/16	0.11	U		0.20	EB	H	0.31			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.10			0.051	U	
IA18-005	IA18-005	03/24/16	0.11	U		0.14	EB	H	0.26			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.18			0.051	U	
IA18-010	IA18-010	03/24/16	0.11	U		0.23	EB	H	0.16			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA18-012	IA18-012	03/24/16	0.11	U		0.21	EB	H	0.14			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA18-016	IA18-016	03/24/16	0.13			0.18	EB	H	0.33			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on the dates indicated over an 8-hour sampling interval. The samples were analyzed by Alpha Analytical of Westborough, Massachusetts for the project-specific list of volatile organic compounds (VOCs) by United States Protection Agency (USEPA) Method TO-15 in selective ion monitoring (SIM) mode. "TCE" is trichloroethene; "PCE" is tetrachloroethene; "1,1,1-TCA" is 1,1,1-Trichloroethane; "CEA" is chloroethane; "1,1-DCA" is 1,1-dichloroethane; "1,2-DCA" is 1,2-dichloroethane; "1,1-DCE" is 1,1-dichloroethene; "c-1,2-DCE" is cis-1,2-dichloroethene; "t-1,2-DCE" is trans-1,2-dichloroethene; and "VC" is vinyl chloride.

2. Results are presented in micrograms per cubic meter (µg/m³).

3. An in-depth data usability review (DUR) was performed on the data by New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data. Refer to the DUR report for further details.
   "U" indicates the analyte is non-detect at or above the indicated sample specific practical quantification limit (PQL).
   "J" indicates the result is an estimated value.
   "UJ" indicates the non-detect is estimated at the indicated PQL.
   "EB" indicates analyte was also present in the associated field blank.
   "H" indicates a high bias.
   "I" indicates an indeterminate bias.

4. The "AA" designation indicates that the sample consists of ambient air collected from outside the building.

5. Results are displayed with two significant figures.

Table 3C

Building 19 - Indoor Air Sample Data

Indoor Air Assessment Report
Former IBM Endicott Facility
Endicott, New York

Sample Location	Field Sample Name	Collection Date	Concentrations in µg/m³																													
			TCE			PCE			1,1,1-TCA			CEA			1,1-DCA			1,2-DCA			1,1-DCE			c-1,2-DCE			t-1,2-DCE			VC		
			Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias
AA19-001	AA19-001	03/10/16	0.23			0.14	EB	H	0.45			0.053	U		0.12			0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
AA19-001	AA19-001	05/25/16	0.11	U		0.14	U		0.15			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.10			0.051	U	
IA19-001	IA19-001	03/10/16	3.9			1.3	EB	H	1.1			0.087			0.21			0.085			0.079	U		0.12			10			0.051	U	
IA19-001	IA19-001	05/25/16	0.11	UJ	I	0.14	UJ	I	0.14	J	I	0.053	UJ	I	0.081	UJ	I	0.081	UJ	I	0.079	UJ	I	0.079	UJ	I	1.6	J	I	0.051	UJ	I

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on the dates indicated over an 8-hour sampling interval. The samples were analyzed by Alpha Analytical of Westborough, Massachusetts for the project-specific list of volatile organic compounds (VOCs) by United States Protection Agency (USEPA) Method TO-15 in selective ion monitoring (SIM) mode. "TCE" is trichloroethene; "PCE" is tetrachloroethene; "1,1,1-TCA" is 1,1,1-Trichloroethane; "CEA" is chloroethane; "1,1-DCA" is 1,1-dichloroethane; "1,2-DCA" is 1,2-dichloroethane; "1,1-DCE" is 1,1-dichloroethene; "c-1,2-DCE" is cis-1,2-dichloroethene; "t-1,2-DCE" is trans-1,2-dichloroethene; and "VC" is vinyl chloride.

2. Samples collected on May 25, 2016 were under different HVAC operating conditions than March 10. 2016. Refer to the text.

3. Results are presented in micrograms per cubic meter (µg/m³).

4. An in-depth data usability review (DUR) was performed on the data by New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data. Refer to the DUR report for further details.
   "U" indicates the analyte is non-detect at or above the indicated sample specific practical quantification limit (PQL).
   "J" indicates the result is an estimated value.
   "UJ" indicates the non-detect is estimated at the indicated PQL.
   "EB" indicates analyte was also present in the associated field blank.
   "H" indicates a high bias.
   "I" indicates an indeterminate bias.

5. The "AA" designation indicates that the sample consists of ambient air collected from outside the building.

6. Results are displayed with two significant figures.

Table 3D

Building 32 - Indoor Air Sample Data

Indoor Air Assessment Report
Former IBM Endicott Facility
Endicott, New York

Sample Location	Field Sample Name	Collection Date	Concentrations in µg/m³																														
			TCE			PCE			1,1,1-TCA			CEA			1,1-DCA			1,2-DCA			1,1-DCE			c-1,2-DCE			t-1,2-DCE			VC		
			Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias
AA32-001	AA32-001	03/08/16	0.14			0.14	U		0.079	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA32-001	IA32-001	03/08/16	0.92	J	I	0.52	JEB	I	0.16	J	I	0.053	UJ	I	0.081	UJ	I	0.089	J	I	0.079	UJ	I	0.079	UJ	I	0.079	UJ	I	0.051	UJ	I
IA32-002	IA32-002	03/08/16	0.72			0.39	EB	H	0.15			0.053	U		0.081	U		0.12			0.079	U		0.079	U		0.079	U		0.051	U	
IA32-003	IA32-003	03/08/16	0.76			0.44	EB	H	0.15			0.053	U		0.081	U		0.093			0.079	U		0.079	U		0.079	U		0.051	U	
IA32-004	IA32-004	03/08/16	0.89			0.47	EB	H	0.16			0.053	U		0.081	U		0.089			0.079	U		0.079	U		0.079	U		0.051	U	
IA32-007	IA32-007	03/08/16	1.2			0.42	EB	H	0.15			0.053	U		0.081	U		0.089			0.079	U		0.079	U		0.079	U		0.051	U	

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on the dates indicated over an 8-hour sampling interval. The samples were analyzed by Alpha Analytical of Westborough, Massachusetts for the project-specific list of volatile organic compounds (VOCs) by United States Protection Agency (USEPA) Method TO-15 in selective ion monitoring (SIM) mode. "TCE" is trichloroethene; "PCE" is tetrachloroethene; "1,1,1-TCA" is 1,1,1-Trichloroethane; "CEA" is chloroethane; "1,1-DCA" is 1,1-dichloroethane; "1,2-DCA" is 1,2-dichloroethane; "1,1-DCE" is 1,1-dichloroethene; "c-1,2-DCE" is cis-1,2-dichloroethene; "t-1,2-DCE" is trans-1,2-dichloroethene; and "VC" is vinyl chloride.

2. Results are presented in micrograms per cubic meter (µg/m³).

3. An in-depth data usability review (DUR) was performed on the data by New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data. Refer to the DUR report for further details.
   "U" indicates the analyte is non-detect at or above the indicated sample specific practical quantification limit (PQL).
   "J" indicates the result is an estimated value.
   "UJ" indicates the non-detect is estimated at the indicated PQL.
   "EB" indicates analyte was also present in the associated field blank.
   "H" indicates a high bias.
   "I" indicates an indeterminate bias.

4. The "AA" designation indicates that the sample consists of ambient air collected from outside the building.

5. Results are displayed with two significant figures.

Table 3E

Building 33 & 40 - Indoor Air Sample Data

Indoor Air Assessment Report
Former IBM Endicott Facility
Endicott, New York

Sample Location	Field Sample Name	Collection Date	Concentrations in µg/m³																													
			TCE			PCE			1,1,1-TCA			CEA			1,1-DCA			1,2-DCA			1,1-DCE			c-1,2-DCE			t-1,2-DCE			VC		
			Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias
AA33-001	AA33-001	03/09/16	0.11	U		0.14	U		0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA33-002	IA33-002	03/09/16	0.61			0.60	EB	H	0.13			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA33-003	IA33-003	03/09/16	0.24			0.26	EB	H	0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
AA40-001	AA40-001	03/09/16	0.11	UJ	I	0.16	JEB	I	0.11	UJ	I	0.053	UJ	I	0.081	UJ	I	0.081	UJ	I	0.079	UJ	I	0.079	UJ	I	0.079	UJ	I	0.051	UJ	I
IA40-001	IA40-001	03/09/16	0.45			0.77	EB	H	0.14			0.053	U		0.081	U		0.11			0.079	U		0.079	U		0.079	U		0.051	U	
IA40-001*	DUP-1	03/09/16	0.54			0.70	EB	H	0.14			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA40-002	IA40-002	03/09/16	0.47			0.69	EB	H	0.15			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA40-003	IA40-003	03/09/16	0.47			0.80	EB	H	0.14			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA40-004	IA40-004	03/09/16	0.55	J	I	1.5	JEB	I	0.12	J	I	0.053	UJ	I	0.081	UJ	I	0.12	J	I	0.079	UJ	I	0.079	UJ	I	0.079	UJ	I	0.051	UJ	I
IA40-005	IA40-005	03/09/16	0.53			0.75	EB	H	0.15			0.071			0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA40-006	IA40-006	03/09/16	0.57			1.2	EB	H	0.13			0.053	U		0.081	U		0.12			0.079	U		0.079	U		0.079	U		0.051	U	
IA40-007	IA40-007	03/09/16	0.36			1.3	EB	H	0.11	U		0.053	U		0.081	U		0.15			0.079	U		0.079	U		0.079	U		0.051	U	
IA40-008	IA40-008	03/09/16	0.36			0.81	EB	H	0.11	U		0.053	U		0.081	U		0.13			0.079	U		0.079	U		0.079	U		0.051	U	

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on the dates indicated over an 8-hour sampling interval. The samples were analyzed by Alpha Analytical of Westborough, Massachusetts for the project-specific list of volatile organic compounds (VOCs) by United States Protection Agency (USEPA) Method TO-15 in selective ion monitoring (SIM) mode. "TCE" is trichloroethene; "PCE" is tetrachloroethene; "1,1,1-TCA" is 1,1,1-Trichloroethane; "CEA" is chloroethane; "1,1-DCA" is 1,1-dichloroethane; "1,2-DCA" is 1,2-dichloroethane; "1,1-DCE" is 1,1-dichloroethene; "c-1,2-DCE" is cis-1,2-dichloroethene; "t-1,2-DCE" is trans-1,2-dichloroethene; and "VC" is vinyl chloride.

2. * indicates sample is a field duplicate.

3. Results are presented in micrograms per cubic meter (µg/m³).

4. An in-depth data usability review (DUR) was performed on the data by New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data. Refer to the DUR report for further details.
"U" indicates the analyte is non-detect at or above the indicated sample specific practical quantification limit (PQL).
"J" indicates the result is an estimated value.
"UJ" indicates the non-detect is estimated at the indicated PQL.
"EB" indicates analyte was also present in the associated field blank.
"H" indicates a high bias.
"I" indicates an indeterminate bias.

5. The "AA" designation indicates that the sample consists of ambient air collected from outside the building.

6. Results are displayed with two significant figures.

Table 3F

Building 41 - Indoor Air Sample Data

Indoor Air Assessment Report
Former IBM Endicott Facility
Endicott, New York

Sample Location	Field Sample Name	Collection Date	Concentrations in µg/m³																													
			TCE			PCE			1,1,1-TCA			CEA			1,1-DCA			1,2-DCA			1,1-DCE			c-1,2-DCE			t-1,2-DCE			VC		
			Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias
AA41-001	AA41-001	03/10/16	0.11	U		0.14	U		0.65			0.053	U		0.12			0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA41-020	IA41-020	03/10/16	0.94			3.0	EB	H	27			0.20			2.2			0.081	U		0.68			0.49			0.69			0.051	U	
IA41-020	IA41-020	05/25/16	0.53			1.7			19			0.18			3.4			0.081	U		0.55			0.27			0.12			0.051	U	
IA41-021	IA41-021	03/10/16	1.3	J	I	1.6	JEB	I	30	J	I	0.22	J	I	2.7	J	I	0.081	UJ	I	0.83	J	I	0.70	J	I	0.54	J	I	0.051	UJ	I
IA41-021	IA41-021	05/25/16	0.68			0.56			20			0.17			2.6	J	I	0.081	U		0.68			0.34			0.85			0.051	U	
IA41-021*	FD41-021	05/25/16	0.68			0.56			20			0.18			4.0	J	I	0.081	U		0.69			0.37			0.85			0.051	U	
IA41-022	IA41-022	03/10/16	1.0			2.0	EB	H	28			0.23			2.4			0.081	U		0.71			0.52			0.52			0.051	U	
IA41-022	IA41-022	05/25/16	0.53			0.88			18			0.19			3.1			0.081	U		0.55			0.27			0.17			0.051	U	
IA41-023	IA41-023	03/10/16	0.46			1.7	EB	H	1.4			0.19			0.28			0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA41-023	IA41-023	05/25/16	0.12			0.14	U		0.73			0.16			0.11			0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA41-024	IA41-024	03/10/16	0.45	J	I	0.18	JEB	I	1.6	J	I	0.19	J	I	0.27	J	I	0.081	UJ	I	0.079	UJ	I	0.079	UJ	I	0.079	UJ	I	0.051	UJ	I
IA41-025	IA41-025	03/10/16	0.51	J	I	0.14	JEB	I	1.5	J	I	0.18	J	I	0.28	J	I	0.081	UJ	I	0.079	UJ	I	0.079	UJ	I	0.079	UJ	I	0.051	UJ	I
IA41-025	IA41-025	05/25/16	0.11			0.18			0.68			0.17			0.16			0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA41-029	IA41-029	05/25/16	0.15			0.18			1.1			0.17			0.23			0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on the dates indicated over an 8-hour sampling interval. The samples were analyzed by Alpha Analytical of Westborough, Massachusetts for the project-specific list of volatile organic compounds (VOCs) by United States Protection Agency (USEPA) Method TO-15 in selective ion monitoring (SIM) mode. "TCE" is trichloroethene; "PCE" is tetrachloroethene; "1,1,1-TCA" is 1,1,1-Trichloroethane; "CEA" is chloroethane; "1,1-DCA" is 1,1-dichloroethane; "1,2-DCA" is 1,2-dichloroethane; "1,1-DCE" is 1,1-dichloroethene; "c-1,2-DCE" is cis-1,2-dichloroethene; "t-1,2-DCE" is trans-1,2-dichloroethene; and "VC" is vinyl chloride.

2. * indicates sample is a field duplicate.

3. Samples collected on May 25, 2016 were under different HVAC operating conditions than March 10, 2016. Refer to the text.

4. Results are presented in micrograms per cubic meter (µg/m³).

5. An in-depth data usability review (DUR) was performed on the data by New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data. Refer to the DUR report for further details.
"U" indicates the analyte is non-detect at or above the indicated sample specific practical quantification limit (PQL).
"J" indicates the result is an estimated value.
"UJ" indicates the non-detect is estimated at the indicated PQL.
"EB" indicates analyte was also present in the associated field blank.
"H" indicates a high bias.
"I" indicates an indeterminate bias.

6. The "AA" designation indicates that the sample consists of ambient air collected from outside the building.

7. Results are displayed with two significant figures.

Table 3G

Building 42 - Indoor Air Sample Data

Indoor Air Assessment Report
Former IBM Endicott Facility
Endicott, New York

Sample Location	Field Sample Name	Collection Date	Concentrations in µg/m^3																														
			TCE			PCE			1,1,1-TCA			CEA			1,1-DCA			1,2-DCA			1,1-DCE			c-1,2-DCE			t-1,2-DCE			VC		
			Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias
AA42-001	AA42-001	04/05/16	0.11	U		0.14	U		0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA42-002	IA42-002	04/05/16	1.4			0.14	U		0.15			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA42-005	IA42-005	04/05/16	3.1			0.14	U		0.40			0.053	U		0.081	U		0.081	U		0.079	U		0.079			0.079	U		0.051	U	
IA42-008	IA42-008	04/05/16	0.73			0.14	U		0.13			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA42-010	IA42-010	04/05/16	0.65			0.14	U		0.13			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on the dates indicated over an 8-hour sampling interval. The samples were analyzed by Alpha Analytical of Westborough, Massachusetts for the project-specific list of volatile organic compounds (VOCs) by United States Protection Agency (USEPA) Method TO-15 in selective ion monitoring (SIM) mode. "TCE" is trichloroethene; "PCE" is tetrachloroethene; "1,1,1-TCA" is 1,1,1-Trichloroethane; "CEA" is chloroethane; "1,1-DCA" is 1,1-dichloroethane; "1,2-DCA" is 1,2-dichloroethane; "1,1-DCE" is 1,1-dichloroethene; "c-1,2-DCE" is cis-1,2-dichloroethene; "t-1,2-DCE" is trans-1,2-dichloroethene; and "VC" is vinyl chloride.

2. Results are presented in micrograms per cubic meter (µg/m^3).

3. An in-depth data usability review (DUR) was performed on the data by New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data. Refer to the DUR report for further details.
   "U" indicates the analyte is non-detect at or above the indicated sample specific practical quantification limit (PQL).
   "J" indicates the result is an estimated value.
   "UJ" indicates the non-detect is estimated at the indicated PQL.
   "EB" indicates analyte was also present in the associated field blank.
   "H" indicates a high bias.
   "I" indicates an indeterminate bias.

4. The "AA" designation indicates that the sample consists of ambient air collected from outside the building.

5. Results are displayed with two significant figures.

Table 3H

Building 45 & 46 - Indoor Air Sample Data

Indoor Air Assessment Report
Former IBM Endicott Facility
Endicott, New York

Sample Location	Field Sample Name	Collection Date	Concentrations in µg/m³																													
			TCE			PCE			1,1,1-TCA			CEA			1,1-DCA			1,2-DCA			1,1-DCE			c-1,2-DCE			t-1,2-DCE			VC		
			Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias
IA45-001	IA45-001	04/01/16	1.7			0.14	U		3.2			0.071			1.1			0.081	U		0.15			0.27			0.079	U		0.051	U	
AA46-001	AA46-001	04/01/16	0.11	UJ	I	0.14	UJ	I	0.11	UJ	I	0.053	UJ	I	0.081	UJ	I	0.081	UJ	I	0.079	UJ	I	0.079	UJ	I	0.079	UJ	I	0.051	UJ	I
IA46-001	IA46-001	04/01/16	0.30	J	I	0.18	J	I	0.46	J	I	0.053	UJ	I	0.24	J	I	0.081	UJ	I	0.079	UJ	I	0.079	UJ	I	0.079	UJ	I	0.051	UJ	I
IA46-002	IA46-002	04/01/16	0.48			0.14	U		0.75			0.071			0.41			0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA46-003	IA46-003	04/01/16	0.32			0.14	U		0.48			0.053	U		0.24			0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA46-004	IA46-004	04/01/16	0.68			0.14	U		1.2			0.053	U		0.74			0.081	U		0.079	U		0.11			0.079	U		0.051	U	
IA46-005	IA46-005	04/01/16	0.99			0.14	U		1.8			0.16			1.2			0.081	U		0.10			0.18			0.079	U		0.051	U	
IA46-006	IA46-006	04/01/16	2.0			0.14	U		4.2			0.055			2.6			0.081	U		0.24			0.45			0.079	U		0.051	U	
IA46-006*	DUP-4	04/01/16	1.9			0.14	U		4.2			0.058			2.6			0.081	U		0.23			0.41			0.079	U		0.051	U	
IA46-007	IA46-007	04/01/16	2.1			0.14	U		5.2			0.055			2.7			0.081	U		0.29			0.56			0.079	U		0.051	U	
IA46-008	IA46-008	04/01/16	1.4			0.14	U		3.8			0.082			1.4			0.081	U		0.23			0.36			0.079	U		0.051	U	
IA46-009	IA46-009	04/01/16	2.0			0.45			3.6			0.061			1.6			0.081	U		0.24			0.45			0.079	U		0.051	U	
IA46-010	IA46-010	04/01/16	2.1			0.23			4.0			0.11			2.2			0.081	U		0.22			0.36			0.079	U		0.051	U	
IA46-011	IA46-011	04/01/16	1.6			0.14	U		3.1			0.077			1.3			0.081	U		0.25			0.26			0.079	U		0.051	U	

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on the dates indicated over an 8-hour sampling interval. The samples were analyzed by Alpha Analytical of Westborough, Massachusetts for the project-specific list of volatile organic compounds (VOCs) by United States Protection Agency (USEPA) Method TO-15 in selective ion monitoring (SIM) mode. "TCE" is trichloroethene; "PCE" is tetrachloroethene; "1,1,1-TCA" is 1,1,1-Trichloroethane; "CEA" is chloroethane; "1,1-DCA" is 1,1-dichloroethane; "1,2-DCA" is 1,2-dichloroethane; "1,1-DCE" is 1,1-dichloroethene; "c-1,2-DCE" is cis-1,2-dichloroethene; "t-1,2-DCE" is trans-1,2-dichloroethene; and "VC" is vinyl chloride.

2. * indicates sample is a field duplicate.

3. Results are presented in micrograms per cubic meter (µg/m³).

4. An in-depth data usability review (DUR) was performed on the data by New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data. Refer to the DUR report for further details.
"U" indicates the analyte is non-detect at or above the indicated sample specific practical quantification limit (PQL).
"J" indicates the result is an estimated value.
"UJ" indicates the non-detect is estimated at the indicated PQL.
"EB" indicates analyte was also present in the associated field blank.
"H" indicates a high bias.
"I" indicates an indeterminate bias.

5. The "AA" designation indicates that the sample consists of ambient air collected from outside the building.

6. Results are displayed with two significant figures.

Table 3I

Building 47 - Indoor Air Sample Data

Indoor Air Assessment Report
Former IBM Endicott Facility
Endicott, New York

Sample Location	Field Sample Name	Collection Date	Concentrations in µg/m^3																													
			TCE			PCE			1,1,1-TCA			CEA			1,1-DCA			1,2-DCA			1,1-DCE			c-1,2-DCE			t-1,2-DCE			VC		
			Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias
AA47-001	AA47-001	03/11/16	0.11	UJ	I	0.14	UJ	I	0.35	J	I	0.053	UJ	I	0.081	UJ	I	0.081	UJ	I	0.079	UJ	I	0.079	UJ	I	0.079	UJ	I	0.051	U	I
IA47-001	IA47-001	03/11/16	0.31			0.14	U		0.80			0.053	U		0.10			0.081	U		0.14			0.10			0.079	U		0.051	U	
IA47-002	IA47-002	03/11/16	0.17			0.14	U		0.48			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA47-003	IA47-003	03/11/16	0.48			0.14	U		0.96			0.053	U		0.10			0.081	U		0.079	U		0.17			0.079	U		0.051	U	
IA47-005	IA47-005	03/11/16	0.11	UJ	I	0.14	UJ	I	0.11	UJ	I	0.053	UJ	I	0.081	UJ	I	0.081	UJ	I	0.079	UJ	I	0.079	UJ	I	0.079	UJ	I	0.051	U	I
IA47-009	IA47-009	03/11/16	0.11	U		0.14	U		0.15			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA47-010	IA47-010	03/11/16	0.11			0.14	U		0.11			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on the dates indicated over an 8-hour sampling interval. The samples were analyzed by Alpha Analytical of Westborough, Massachusetts for the project-specific list of volatile organic compounds (VOCs) by United States Protection Agency (USEPA) Method TO-15 in selective ion monitoring (SIM) mode. "TCE" is trichloroethene; "PCE" is tetrachloroethene; "1,1,1-TCA" is 1,1,1-Trichloroethane; "CEA" is chloroethane; "1,1-DCA" is 1,1-dichloroethane; "1,2-DCA" is 1,2-dichloroethane; "1,1-DCE" is 1,1-dichloroethene; "c-1,2-DCE" is cis-1,2-dichloroethene; "t-1,2-DCE" is trans-1,2-dichloroethene; and "VC" is vinyl chloride.

2. Results are presented in micrograms per cubic meter (µg/m^3).

3. An in-depth data usability review (DUR) was performed on the data by New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data. Refer to the DUR report for further details.
   "U" indicates the analyte is non-detect at or above the indicated sample specific practical quantification limit (PQL).
   "J" indicates the result is an estimated value.
   "UJ" indicates the non-detect is estimated at the indicated PQL.
   "EB" indicates analyte was also present in the associated field blank.
   "H" indicates a high bias.
   "I" indicates an indeterminate bias.

4. The "AA" designation indicates that the sample consists of ambient air collected from outside the building.

5. Results are displayed with two significant figures.

Table 3J

Building 57 - Indoor Air Sample Data

Indoor Air Assessment Report
Former IBM Endicott Facility
Endicott, New York

Sample Location	Field Sample Name	Collection Date	Concentrations in µg/m³																													
			TCE			PCE			1,1,1-TCA			CEA			1,1-DCA			1,2-DCA			1,1-DCE			c-1,2-DCE			t-1,2-DCE			VC		
			Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias
AA57-001	AA57-001	03/16/16	0.11	U		0.14	U		0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA57-001	IA57-001	03/16/16	0.11	U		0.14	U		0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		1.1			0.051	U	
IA57-002	IA57-002	03/16/16	0.13	J	I	0.22	J	I	0.11	UJ	I	0.053	UJ	I	0.081	UJ	I	0.081	UJ	I	0.079	UJ	I	0.079	UJ	I	1.2	J	I	0.051	UJ	I
IA57-003	IA57-003	03/16/16	0.11	U		0.14	U		0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		1.0			0.051	U	
IA57-004	IA57-004	03/16/16	0.11	UJ	I	0.33	J	I	0.11	UJ	I	0.053	UJ	I	0.081	UJ	I	0.081	UJ	I	0.079	UJ	I	0.079	UJ	I	1.2	J	I	0.051	UJ	I
IA57-005	IA57-005	03/16/16	0.11	U		0.23			0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.90			0.051	U	
IA57-006	IA57-006	03/16/16	0.11	U		0.14	U		0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		4.5			0.051	U	
IA57-007	IA57-007	03/16/16	0.11	U		0.16	J	H	0.11	U		0.084			0.081	U		0.081	U		0.079	U		0.079	U		0.25			0.051	U	

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on the dates indicated over an 8-hour sampling interval. The samples were analyzed by Alpha Analytical of Westborough, Massachusetts for the project-specific list of volatile organic compounds (VOCs) by United States Protection Agency (USEPA) Method TO-15 in selective ion monitoring (SIM) mode. "TCE" is trichloroethene; "PCE" is tetrachloroethene; "1,1,1-TCA" is 1,1,1-Trichloroethane; "CEA" is chloroethane; "1,1-DCA" is 1,1-dichloroethane; "1,2-DCA" is 1,2-dichloroethane; "1,1-DCE" is 1,1-dichloroethene; "c-1,2-DCE" is cis-1,2-dichloroethene; "t-1,2-DCE" is trans-1,2-dichloroethene; and "VC" is vinyl chloride.

2. Results are presented in micrograms per cubic meter (µg/m^3).

3. An in-depth data usability review (DUR) was performed on the data by New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data. Refer to the DUR report for further details.
   "U" indicates the analyte is non-detect at or above the indicated sample specific practical quantification limit (PQL).
   "J" indicates the result is an estimated value.
   "UJ" indicates the non-detect is estimated at the indicated PQL.
   "EB" indicates analyte was also present in the associated field blank.
   "H" indicates a high bias.
   "I" indicates an indeterminate bias.

4. The "AA" designation indicates that the sample consists of ambient air collected from outside the building.

5. Results are displayed with two significant figures.

Table 3K

Building 57A - Indoor Air Sample Data

Indoor Air Assessment Report
Former IBM Endicott Facility
Endicott, New York

Sample Location	Field Sample Name	Collection Date	Concentrations in µg/m³																													
			TCE			PCE			1,1,1-TCA			CEA			1,1-DCA			1,2-DCA			1,1-DCE			c-1,2-DCE			t-1,2-DCE			VC		
			Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias
AA57A-001	AA57A-001	06/01/16	0.11	U		0.14	U		0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA57A-001	IA57A-001	03/16/16	2.0			0.22			0.28			0.053	U		0.13			0.15			0.079	U		0.095			0.35			0.051	U	
IA57A-001*	DUP-3	03/16/16	2.0	J	I	0.24	J	I	0.29	J	I	0.082	J	I	0.14	J	I	0.16	J	I	0.079	UJ	I	0.083	J	I	0.38	J	I	0.051	UJ	I
IA57A-001	IA57A-001	06/01/16	1.3			0.23	EB	H	0.11	U		0.053	U		0.081	U		0.11			0.079	U		0.079	U		1.2			0.051	U	
IA57A-001*	FD57A-001	06/01/16	1.3			0.22	EB	H	0.11	U		0.053	U		0.081	U		0.11			0.079	U		0.079	U		1.2			0.051	U	
IA57A-001	IA57A-001	06/02/16	0.66			0.16	EB	H	0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.25			0.051	U	
IA57A-002	IA57A-002	03/16/16	2.6			0.25			0.48			0.053	U		0.23			0.16			0.079	U		0.14			0.37			0.051	U	
IA57A-002	IA57A-002	06/01/16	1.0			0.22	EB	H	0.11	U		0.053	U		0.081	U		0.085			0.079	U		0.079	U		1.3			0.051	U	
IA57A-002	IA57A-002	06/02/16	0.60			0.14	EB	H	0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.26			0.051	U	
IA57A-003	IA57A-003	03/16/16	0.26			0.14	U		0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA57A-003	IA57A-003	06/01/16	0.31			0.95	EB	H	0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.17			0.051	U	
IA57A-003	IA57A-003	06/02/16	0.26			0.14	U		0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.12			0.051	U	
IA57A-004	IA57A-004	03/16/16	0.13			0.14	U		0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		1.1			0.051	U	

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on the dates indicated over an 8-hour sampling interval. The samples were analyzed by Alpha Analytical of Westborough, Massachusetts for the project-specific list of volatile organic compounds (VOCs) by United States Protection Agency (USEPA) Method TO-15 in selective ion monitoring (SIM) mode. "TCE" is trichloroethene; "PCE" is tetrachloroethene; "1,1,1-TCA" is 1,1,1-Trichloroethane; "CEA" is chloroethane; "1,1-DCA" is 1,1-dichloroethane; "1,2-DCA" is 1,2-dichloroethane; "1,1-DCE" is 1,1-dichloroethene; "c-1,2-DCE" is cis-1,2-dichloroethene; "t-1,2-DCE" is trans-1,2-dichloroethene; and "VC" is vinyl chloride.

2. * indicates sample is a field duplicate.

3. Samples collected on June 01, 2016 and June 02, 2016 were under different HVAC operating conditions than March 16, 2016. Refer to the text.

4. Results are presented in micrograms per cubic meter (µg/m³).

5. An in-depth data usability review (DUR) was performed on the data by New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data. Refer to the DUR report for further details.
"U" indicates the analyte is non-detect at or above the indicated sample specific practical quantification limit (PQL).
"J" indicates the result is an estimated value.
"UJ" indicates the non-detect is estimated at the indicated PQL.
"EB" indicates analyte was also present in the associated field blank.
"H" indicates a high bias.
"I" indicates an indeterminate bias.

6. The "AA" designation indicates that the sample consists of ambient air collected from outside the building.

7. Results are displayed with two significant figures.

Table 3L

Building 264 - Indoor Air Sample Data

Indoor Air Assessment Report
Former IBM Endicott Facility
Endicott, New York

Sample Location	Field Sample Name	Collection Date	Concentrations in µg/m³																													
			TCE			PCE			1,1,1-TCA			CEA			1,1-DCA			1,2-DCA			1,1-DCE			c-1,2-DCE			t-1,2-DCE			VC		
			Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias
AA264-001	AA264-001	03/16/16	0.11	U		0.14	U		0.37			0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
IA264-001	IA264-001	03/16/16	0.33			0.36			2.3			0.053	U		0.18			0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on the dates indicated over an 8-hour sampling interval. The samples were analyzed by Alpha Analytical of Westborough, Massachusetts for the project-specific list of volatile organic compounds (VOCs) by United States Protection Agency (USEPA) Method TO-15 in selective ion monitoring (SIM) mode. "TCE" is trichloroethene; "PCE" is tetrachloroethene; "1,1,1-TCA" is 1,1,1-Trichloroethane; "CEA" is chloroethane; "1,1-DCA" is 1,1-dichloroethane; "1,2-DCA" is 1,2-dichloroethane; "1,1-DCE" is 1,1-dichloroethene; "c-1,2-DCE" is cis-1,2-dichloroethene; "t-1,2-DCE" is trans-1,2-dichloroethene; and "VC" is vinyl chloride.

2. Results are presented in micrograms per cubic meter (µg/m³).

3. An in-depth data usability review (DUR) was performed on the data by New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data. Refer to the DUR report for further details.
"U" indicates the analyte is non-detect at or above the indicated sample specific practical quantification limit (PQL).
"J" indicates the result is an estimated value.
"UJ" indicates the non-detect is estimated at the indicated PQL.
"EB" indicates analyte was also present in the associated field blank.
"H" indicates a high bias.
"I" indicates an indeterminate bias.

4. The "AA" designation indicates that the sample consists of ambient air collected from outside the building.

5. Results are displayed with two significant figures.

Table 4

Field Blank Results - Indoor Air Sample Data

Indoor Air Assessment Report
Former IBM Endicott Facility
Endicott, New York

Sample Location	Field Sample Name	Collection Date	Concentrations in µg/m³																														
			TCE			PCE			1,1,1-TCA			CEA			1,1-DCA			1,2-DCA			1,1-DCE			c-1,2-DCE			t-1,2-DCE			VC		
			Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias	Result	Qual.	Bias
FB-1	FB-1	03/10/16	0.11	U		0.64			0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
FB-2	FB-2	03/15/16	0.11	UJ	I	0.14	UJ	I	0.11	UJ	I	0.053	UJ	I	0.081	UJ	I	0.081	UJ	I	0.079	UJ	I	0.079	UJ	I	0.079	UJ	I	0.051	UJ	I
FB-3	FB-3	03/16/16	0.11	U		0.14	U		0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
FB-4	FB-4	03/24/16	0.11	U		0.16			0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
FB-5	FB-5	04/01/16	0.11	UJ	I	0.14	UJ	I	0.11	UJ	I	0.053	UJ	I	0.081	UJ	I	0.081	UJ	I	0.079	UJ	I	0.079	UJ	I	0.079	UJ	I	0.051	UJ	I
EB-1	EB-1	05/26/16	0.11	U		0.14	U		0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	
NB57A-001	NB57A-001	06/02/16	0.11	U		0.24			0.11	U		0.053	U		0.081	U		0.081	U		0.079	U		0.079	U		0.079	U		0.051	U	

Notes:

1. Samples were collected by Sanborn, Head & Associates, Inc. on the dates indicated. The field blank samples were collected by transferring high purity nitrogen provided by the laboratory from one certified clean SUMMA canister into another certified clean SUMMA canister over an approximately 8-hour period. The samples were analyzed by Alpha Analytical of Westborough, Massachusetts for the project-specific list of volatile organic compounds (VOCs) by United States Protection Agency (USEPA) Method TO-15 in selective ion monitoring (SIM) mode. "TCE" is trichloroethene; "PCE" is tetrachloroethene; "1,1,1-TCA" is 1,1,1-Trichloroethane; "CEA" is chloroethane; "1,1-DCA" is 1,1-dichloroethane; "1,2-DCA" is 1,2-dichloroethane; "1,1-DCE" is 1,1-dichloroethene; "c-1,2-DCE" is cis-1,2-dichloroethene; "t-1,2-DCE" is trans-1,2-dichloroethene; and "VC" is vinyl chloride.

2. Results are presented in micrograms per cubic meter (µg/m³).

3. An in-depth data usability review (DUR) was performed on the data by New Environmental Horizons, Inc. (NEH) of Arlington, Massachusetts. All results were considered acceptable, with the understanding of the potential uncertainty (bias) in the qualified results. In some cases, NEH assigned the following qualifiers and biases to the data. Refer to the DUR report for further details.
   "U" indicates the analyte is non-detect at or above the indicated sample specific practical quantification limit (PQL).
   "J" indicates the result is an estimated value.
   "UJ" indicates the non-detect is estimated at the indicated PQL.
   "EB" indicates analyte was also present in the associated field blank.
   "H" indicates a high bias.
   "I" indicates an indeterminate bias.

4. Results are displayed with two significant figures.

FIGURES

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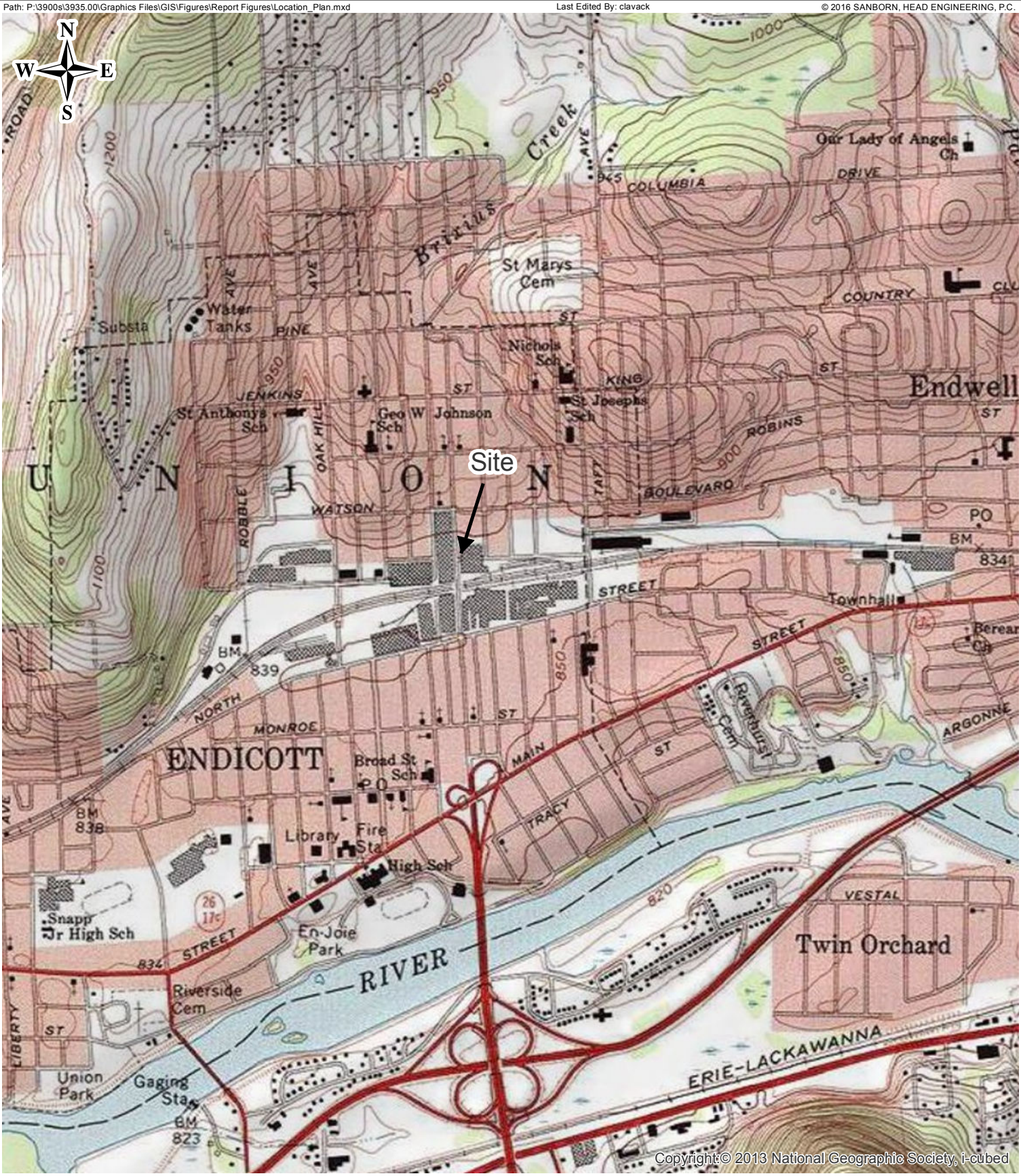

Drawn By:	C. LaVack
Designed By:	S. Warner
Reviewed By:	D. Shea
Project No:	3935.00
Date:	September 2016

1,000 500 0 1,000 2,000 Feet

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Figure 1

Location Plan

Indoor Air Assessment Report

Former IBM Endicott Facility
Endicott, New York

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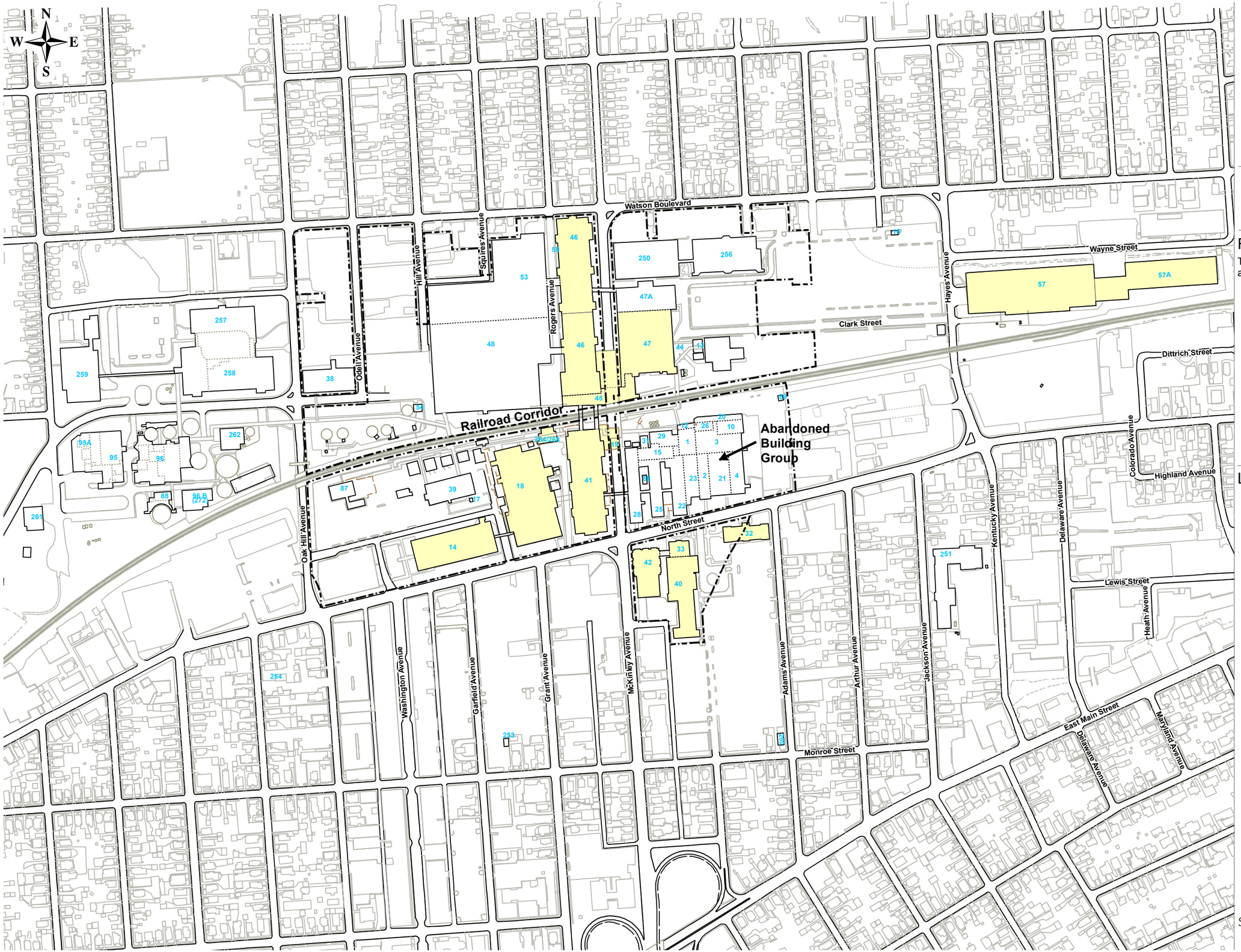

Figure 2

Building Location Plan

Indoor Air Assessment Report

Former IBM Endicott Facility

Endicott, New York

Drawn By:	C. LaVack
Designed By:	S. Warner
Reviewed By:	D. Shea
Project No:	3935.00
Date:	September 2016

Figure Narrative

This figure shows the buildings where indoor air assessment was conducted.

Legend

- Building where indoor air assessment was conducted
- 273 Building number
- Unlabeled features include tanks, storage sheds, and other structures and features not intended for human occupancy
- Approximate boundary of Operable Units #1 and #2

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APPENDIX A

LIMITATIONS

APPENDIX A
SHPC LIMITATIONS

1. The observations and conclusions described in this report are based in part on the data obtained from a finite number of samples from widely spaced locations. The figures are intended to depict inferred conditions during a given period of time, consistent with available information. The actual conditions will vary from that shown, both spatially and temporally. Other interpretations are possible. The nature and extent of variations between sampling locations may not become evident until further investigation is initiated. If variations or other latent conditions then appear evident, it may be necessary to re-evaluate the conclusions of this report.

2. The conclusions contained in this report are based in part upon various types of chemical data as well as historical and hydrogeologic information developed by previous investigators. While SHPC has reviewed that data available to us at the time the report was prepared and information as stated in this report, any of SHPC's interpretations and conclusions that have relied on that information will be contingent on its validity. SHPC has not performed an independent assessment of the reliability of the data; should additional chemical data, historical information, or hydrogeologic information become available in the future, such information should be reviewed by SHPC and the interpretations and conclusions presented herein may be modified accordingly.

3. Sampling and quantitative laboratory testing was performed by others as part of the investigation as noted within the report. Where such analyses have been conducted by an outside laboratory, unless otherwise stated in the report, SHPC has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data. It must be noted that additional compounds not searched for during the current study may be present in vapor and indoor air at the site. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their distribution within the vapor and indoor air may occur due to the passage of time, seasonal water table fluctuations, recharge events, and other factors.

4. This report has been prepared for the use of the IBM Corporation for specific application to the former IBM Endicott facility in accordance with generally accepted hydrogeologic and engineering practices. No warranty, expressed or implied, is made. The contents of this report should not be relied on by any other party without the express written consent of SHPC.

5. In preparing this report, SHPC has endeavored to conform to generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area. SHPC has attempted to observe a degree of care and skill generally exercised by the technical community under similar circumstances and conditions.

APPENDIX B

DATA FIGURES

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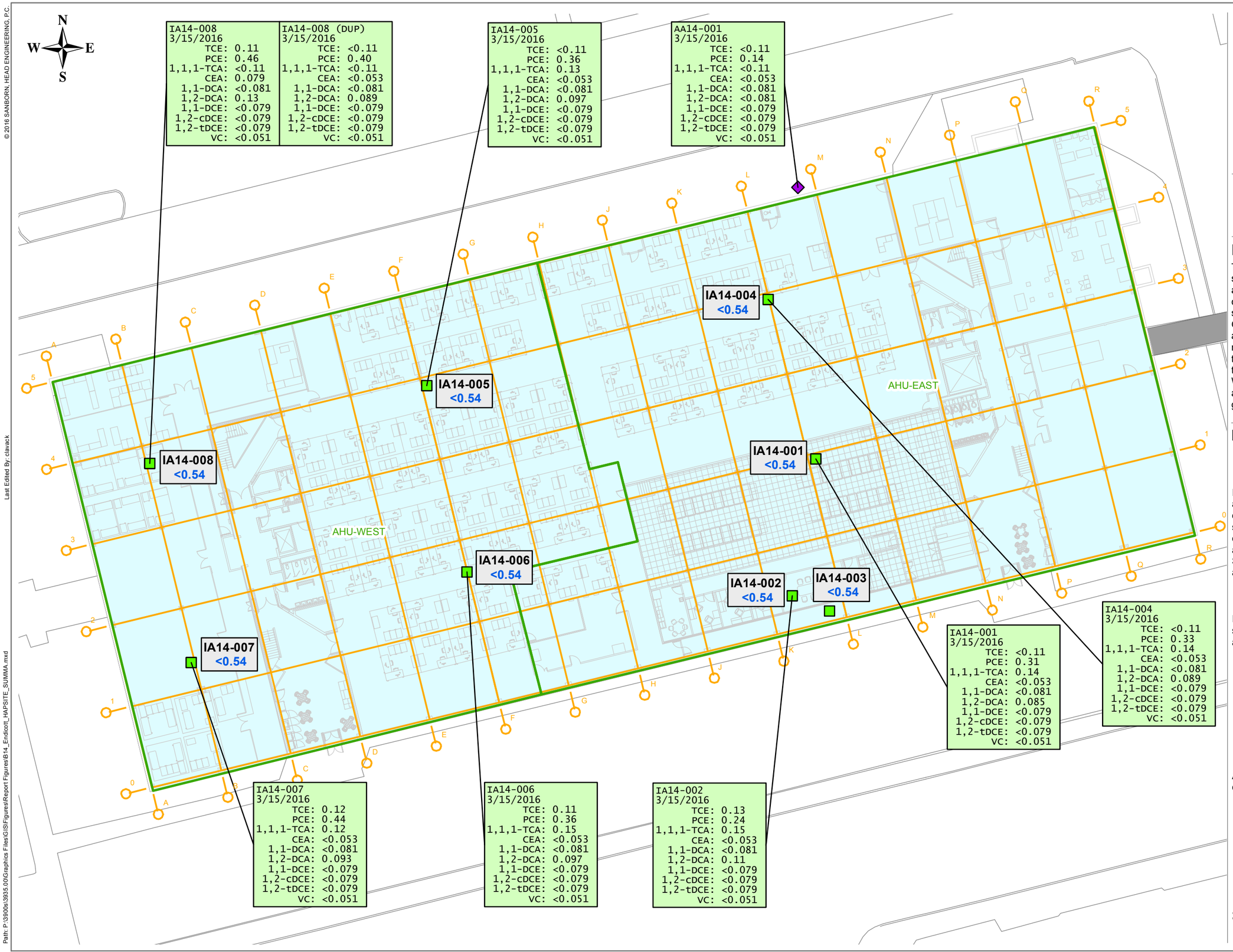

Figure B-1

Building 14 Indoor Air Assessment Results

Indoor Air Assessment Report

Former IBM Endicott Facility

Endicott, New York

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Designed By:	S. Warner
Reviewed By:	D. Shea
Project No:	3935.00
Date:	September 2016

Figure Narrative

This figure shows the results of indoor air screening and subsequent sampling for laboratory analysis. Indoor air screening and sampling was conducted by Sanborn Head staff. Indoor air screening was conducted using a field-portable GC/MS instrument. The screening results for TCE are posted in the gray boxes. The final screening round was followed by the collection of 8-hour time-weighted-average Summa canister samples that were submitted to Alpha Analytical of Westborough, MA for analysis by TO-15 SIM. The analytical laboratory results are presented in the green text boxes.

Legend

IA14-001 Indoor Air Location

AA14-001 Ambient Air Location

Indoor Air Screening: Screening data were used as a rough guide for assessment. The screening data are not equivalent or comparable in quality to sample data collected to evaluate possible human exposure, such as 8-hour time-integrated samples analyzed by an ELAP-approved laboratory. Screening data are not accepted by NYSDOH for assessing human exposure.

<0.54: Initial TCE Screening Result

Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

TCE:	Trichloroethene
PCE:	Tetrachloroethene
1,1,1-TCA:	Trichloroethane (1,1,1-)
CEA:	Chloroethane
1,1-DCA:	Dichloroethane (1,1-)
1,2-DCE:	Dichloroethane (1,2-)
1,1-DCE:	Dichloroethene (1,1-)
1,2-cDCE:	Dichloroethene (cis-1,2-)
1,2-tDCE:	Dichloroethene (trans-1,2-)
VC:	Vinyl chloride

All results are shown in micrograms per cubic meter ($\mu g/m^3$)

Tunnels

Approximate boundaries of HVAC zones

Occupied Areas

15 7.5 0 15 30 Feet

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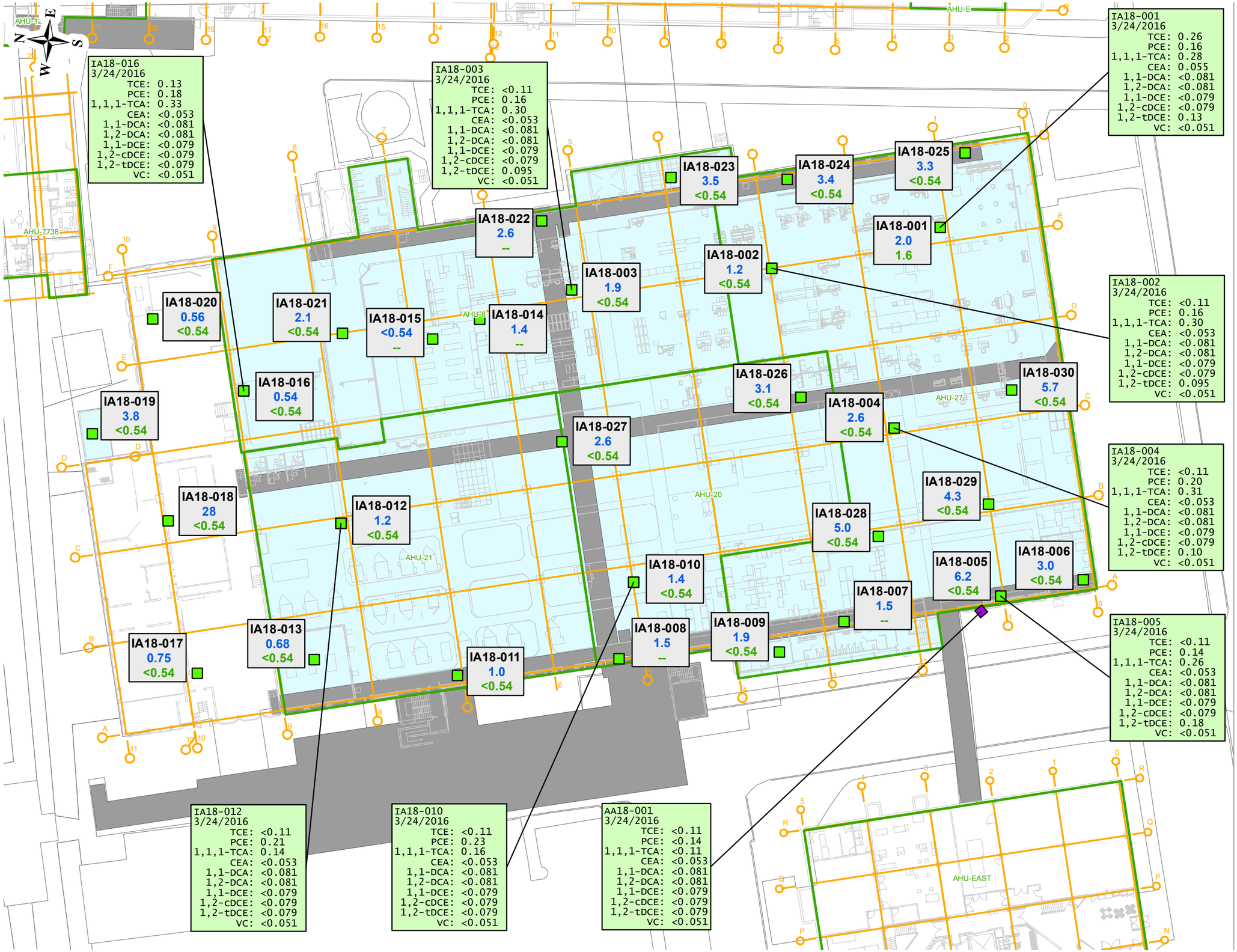

Figure B-2

Building 18 Indoor Air Assessment Results

Indoor Air Assessment Report

Former IBM Endicott Facility

Endicott, New York

Drawn By:	C. LaVack
Designed By:	S. Warner
Reviewed By:	D. Shea
Project No:	3935.00
Date:	September 2016

Figure Narrative

This figure shows the results of indoor air screening and subsequent sampling for laboratory analysis. Indoor air screening and sampling was conducted by Sanborn Head staff. Indoor air screening was conducted using a field-portable GC/MS instrument. The screening results for TCE are posted in the gray boxes. The final screening round was followed by the collection of 8-hour time-weighted-average Summa canister samples that were submitted to Alpha Analytical of Westborough, MA for analysis by TO-15 SIM. The analytical laboratory results are presented in the green text boxes.

Legend

IA18-006 Indoor Air Location

AA18-001 Ambient Air Location

Indoor Air Screening: Screening data were used as a rough guide for assessment. The screening data are not equivalent or comparable in quality to sample data collected to evaluate possible human exposure, such as 8-hour time-integrated samples analyzed by an ELAP-approved laboratory. Screening data are not accepted by NYSDOH for assessing human exposure.

3.0: Initial TCE Screening Result
<0.54: Post HVAC Adjustment TCE Screening Result

Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

TCE:	Trichloroethene
PCE:	Tetrachloroethene
1,1,1-TCA:	Trichloroethane (1,1,1-)
CEA:	Chloroethane
1,1-DCA:	Dichloroethane (1,1-)
1,2-DCE:	Dichloroethane (1,2-)
1,1-DCE:	Dichloroethene (1,1-)
1,2-cDCE:	Dichloroethene (cis-1,2-)
1,2-tDCE:	Dichloroethene (trans-1,2-)
VC:	Vinyl chloride

All results are shown in micrograms per cubic meter (µg/m³)

Tunnels

Approximate boundaries of HVAC zones

Occupied Areas

20 10 0 20 40 Feet

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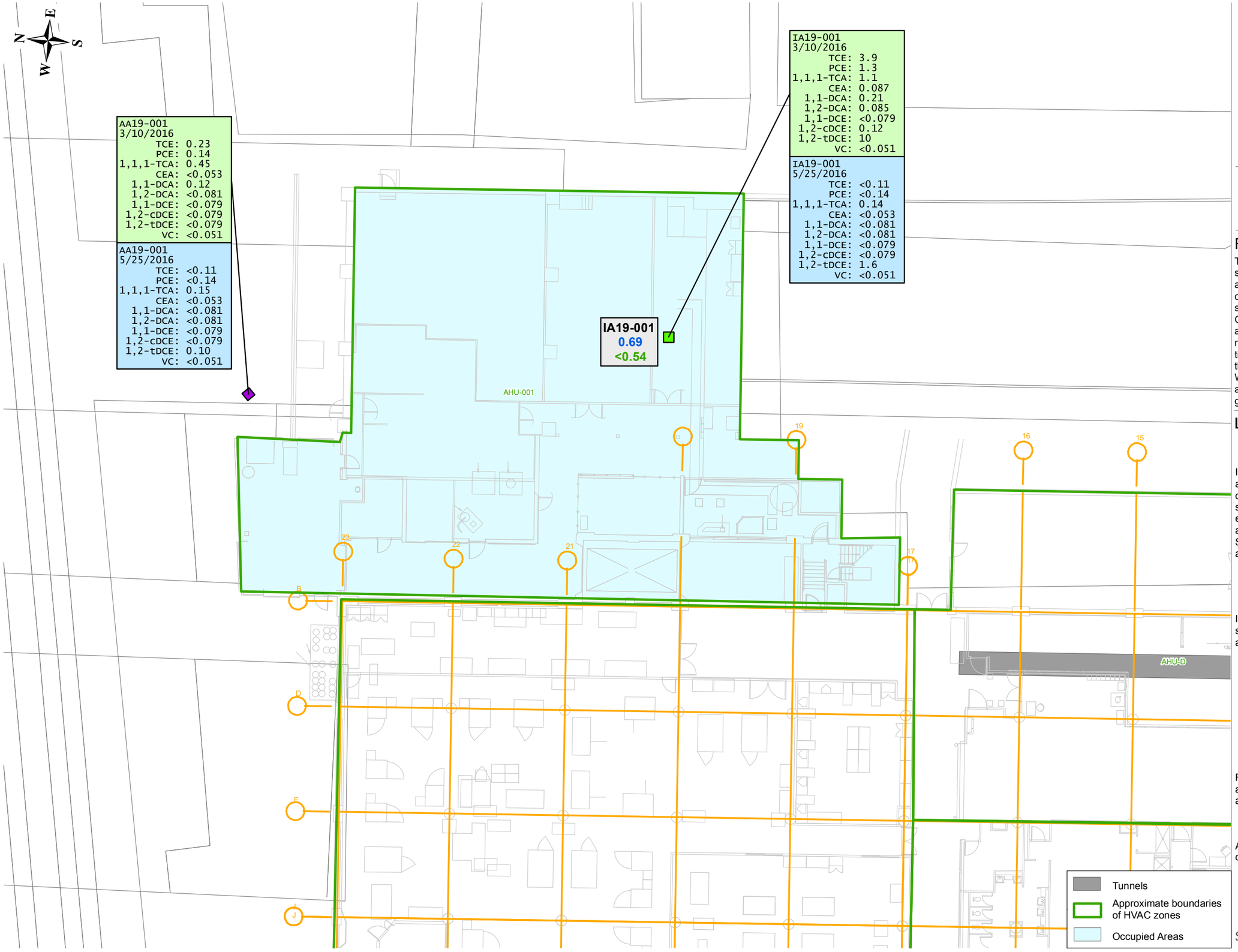

Figure B-3

Building 19 Indoor Air Assessment Results

Indoor Air Assessment Report

Former IBM Endicott Facility

Endicott, New York

Drawn By:	C. LaVack
Designed By:	S. Warner
Reviewed By:	D. Shea
Project No:	3935.00
Date:	September 2016

Figure Narrative

This figure shows the results of indoor air screening and subsequent sampling for laboratory analysis. Indoor air screening and sampling was conducted by Sanborn Head staff. Indoor air screening was conducted using a field-portable GC/MS instrument. The screening results for TCE are posted in the gray boxes. The final screening round was followed by the collection of 8-hour time-weighted-average Summa canister samples that were submitted to Alpha Analytical of Westborough, MA for analysis by TO-15 SIM. The analytical laboratory results are presented in the green text boxes.

Legend

IA19-001 Indoor Air Location

AA19-001 Ambient Air Location

Indoor Air Screening: Screening data were used as a rough guide for assessment. The screening data are not equivalent or comparable in quality to sample data collected to evaluate possible human exposure, such as 8-hour time-integrated samples analyzed by an ELAP-approved laboratory. Screening data are not accepted by NYSDOH for assessing human exposure.

3.0: Initial TCE Screening Result
<0.54: Post HVAC Adjustment TCE Screening Result

Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

TCE:	Trichloroethene
PCE:	Tetrachloroethene
1,1,1-TCA:	Trichloroethane (1,1,1-)
CEA:	Chloroethane
1,1-DCA:	Dichloroethane (1,1-)
1,2-DCE:	Dichloroethene (1,2-)
1,1-DCE:	Dichloroethene (1,1-)
1,2-cDCE:	Dichloroethene (cis-1,2-)
1,2-tDCE:	Dichloroethene (trans-1,2-)
VC:	Vinyl chloride

Final Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

5/25/2016

All results are shown in micrograms per cubic meter ($\mu g/m^3$)

10 5 0 10 20 Feet

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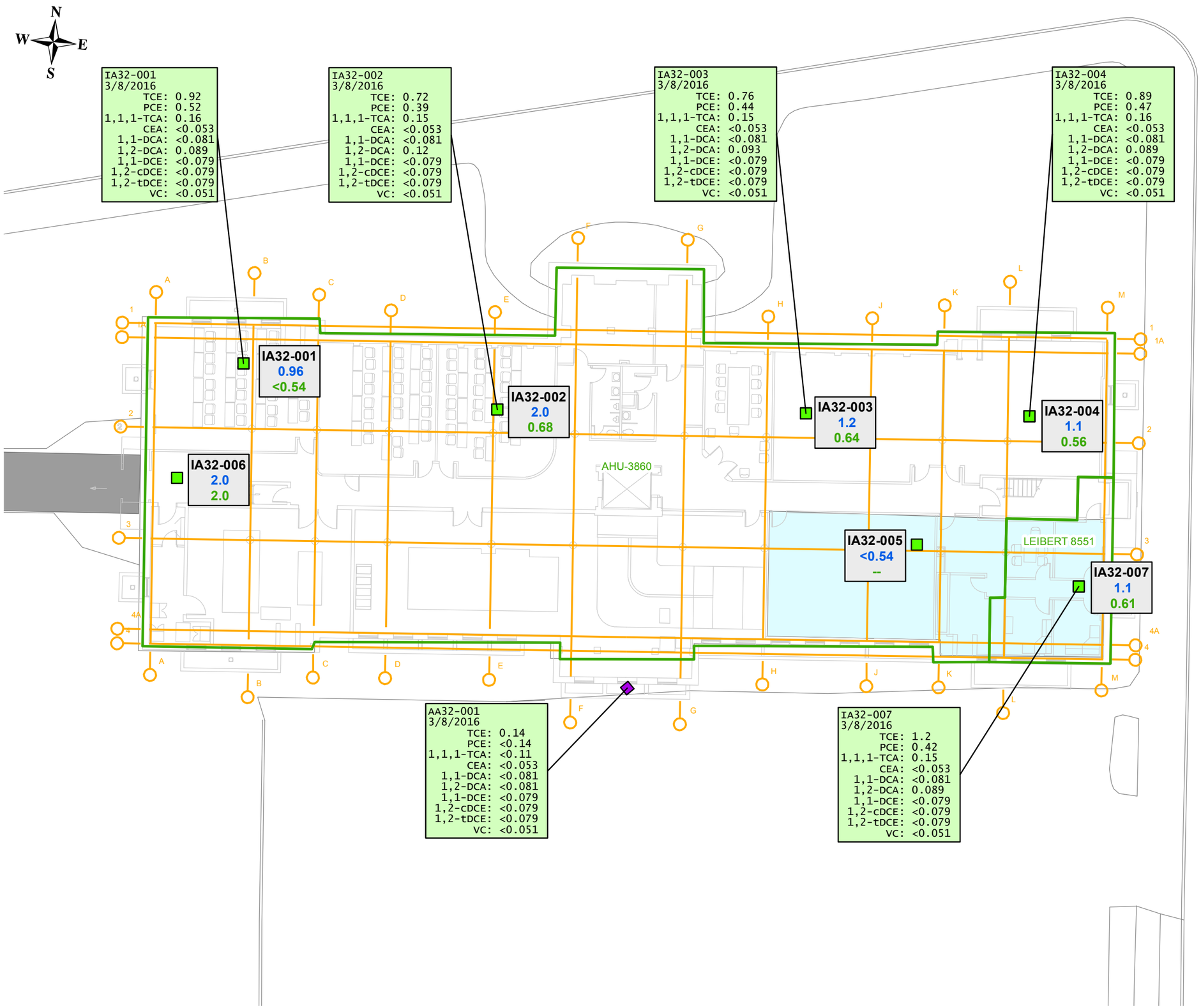

Figure B-4

Building 32 Indoor Air Assessment Results

Indoor Air Assessment Report

Former IBM Endicott Facility

Endicott, New York

Drawn By:	C. LaVack
Designed By:	S. Warner
Reviewed By:	D. Shea
Project No:	3935.00
Date:	September 2016

Figure Narrative

This figure shows the results of indoor air screening and subsequent sampling for laboratory analysis. Indoor air screening and sampling was conducted by Sanborn Head staff. Indoor air screening was conducted using a field-portable GC/MS instrument. The screening results for TCE are posted in the gray boxes. The final screening round was followed by the collection of 8-hour time-weighted-average Summa canister samples that were submitted to Alpha Analytical of Westborough, MA for analysis by TO-15 SIM. The analytical laboratory results are presented in the green text boxes.

Legend

IA32-004 Indoor Air Location

AA32-001 Ambient Air Location

Indoor Air Screening: Screening data were used as a rough guide for assessment. The screening data are not equivalent or comparable in quality to sample data collected to evaluate possible human exposure, such as 8-hour time-integrated samples analyzed by an ELAP-approved laboratory. Screening data are not accepted by NYSDOH for assessing human exposure.

1.1: Initial TCE Screening Result
0.56: Post HVAC Adjustment TCE Screening Result

Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

TCE:	Trichloroethene
PCE:	Tetrachloroethene
1,1,1-TCA:	Trichloroethane (1,1,1-)
CEA:	Chloroethane
1,1-DCA:	Dichloroethane (1,1-)
1,2-DCE:	Dichloroethane (1,2-)
1,1-DCE:	Dichloroethene (1,1-)
1,2-cDCE:	Dichloroethene (cis-1,2-)
1,2-tDCE:	Dichloroethene (trans-1,2-)
VC:	Vinyl chloride

All results are shown in micrograms per cubic meter (µg/m^3)

Tunnels

Approximate boundaries of HVAC zones

Occupied Areas

10 5 0 10 20 Feet

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Figure B-5

Building 33 & 40 Indoor Air Assessment Results

Indoor Air Assessment Report

Former IBM Endicott Facility

Endicott, New York

Drawn By:	C. LaVack
Designed By:	S. Warner
Reviewed By:	D. Shea
Project No:	3935.00
Date:	September 2016

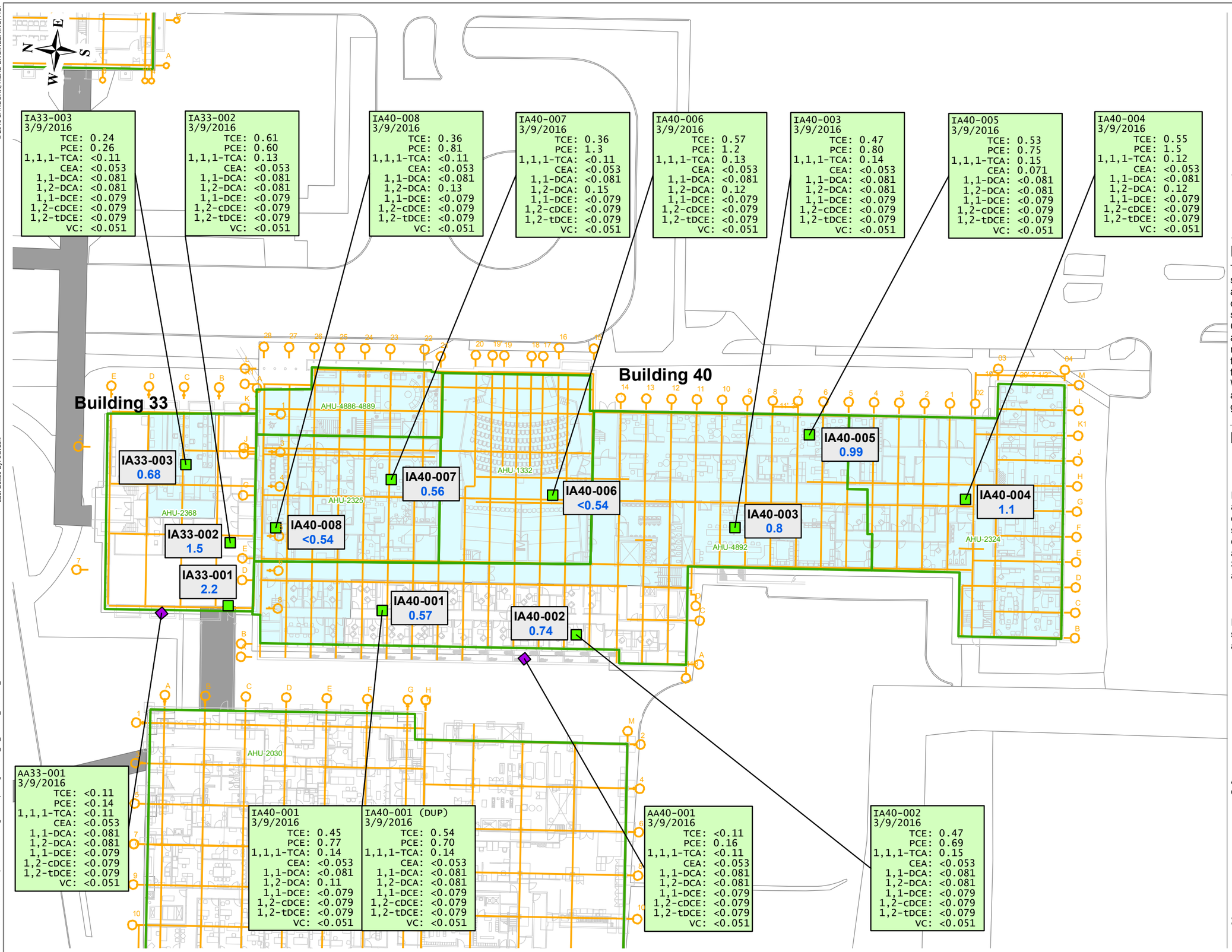

Figure Narrative

This figure shows the results of indoor air screening and subsequent sampling for laboratory analysis. Indoor air screening and sampling was conducted by Sanborn Head staff. Indoor air screening was conducted using a field-portable GC/MS instrument. The screening results for TCE are posted in the gray boxes. The final screening round was followed by the collection of 8-hour time-weighted-average Summa canister samples that were submitted to Alpha Analytical of Westborough, MA for analysis by TO-15 SIM. The analytical laboratory results are presented in the green text boxes.

Legend

IA40-001 — Indoor Air Location

AA40-001 — Ambient Air Location

Indoor Air Screening: Screening data were used as a rough guide for assessment. The screening data are not equivalent or comparable in quality to sample data collected to evaluate possible human exposure, such as 8-hour time-integrated samples analyzed by an ELAP-approved laboratory. Screening data are not accepted by NYSDOH for assessing human exposure.

1.1: Initial TCE Screening Result

Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

TCE:	Trichloroethene
PCE:	Tetrachloroethene
1,1,1-TCA:	Trichloroethane (1,1,1-)
CEA:	Chloroethane
1,1-DCA:	Dichloroethane (1,1-)
1,2-DCE:	Dichloroethane (1,2-)
1,1-DCE:	Dichloroethene (1,1-)
1,2-cDCE:	Dichloroethene (cis-1,2-)
1,2-tDCE:	Dichloroethene (trans-1,2-)
VC:	Vinyl chloride

All results are shown in micrograms per cubic meter ($\mu g/m^3$)

Tunnels

Approximate boundaries of HVAC zones

Occupied Areas

20 10 0 20 40 Feet

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Figure B-6

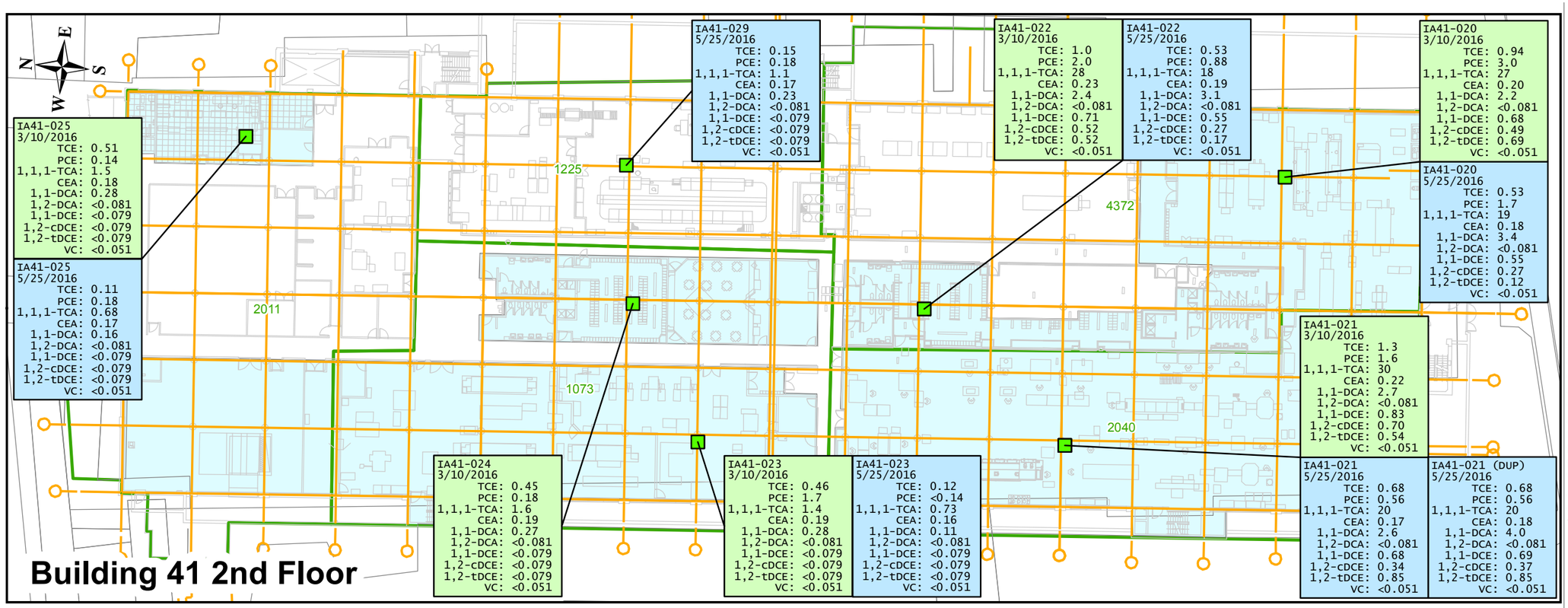
Building 41 Indoor Air Assessment Results

Indoor Air Assessment Report

Former IBM Endicott Facility

Endicott, New York

Drawn By: C. LaVack
Designed By: S. Warner
Reviewed By: D. Shea
Project No: 3935.00
Date: September 2016



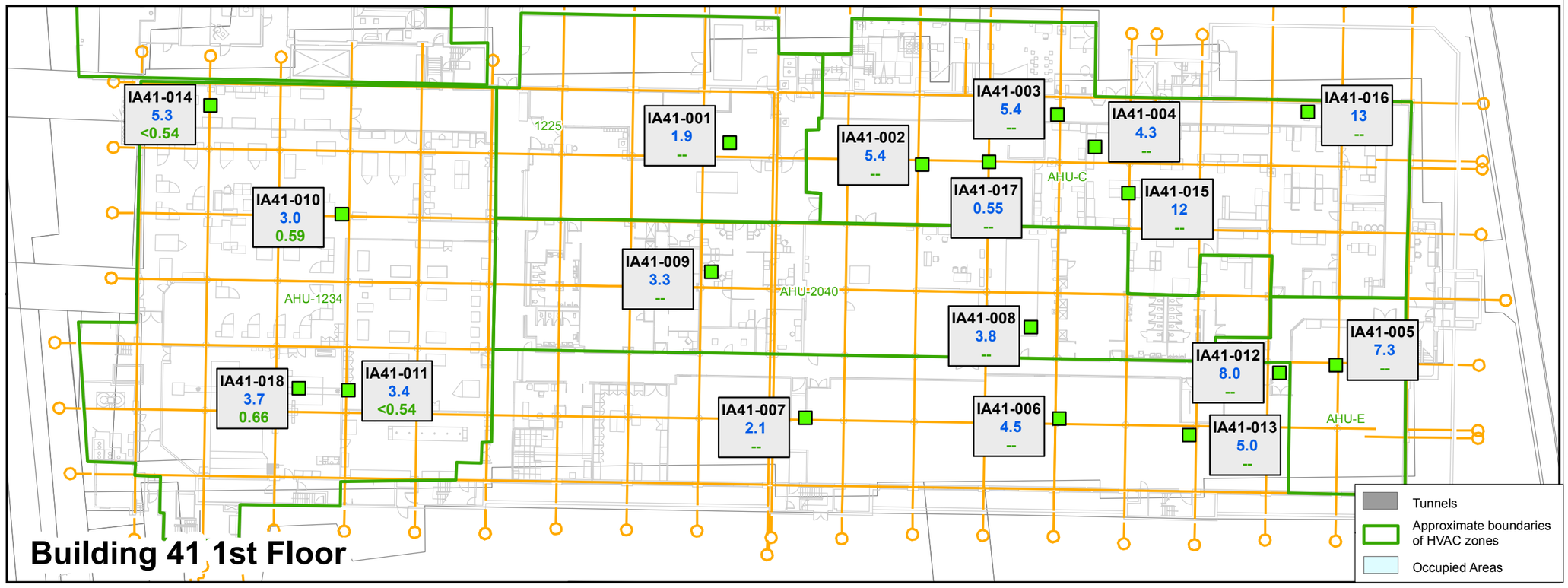


Figure Narrative

This figure shows the results of indoor air screening and subsequent sampling for laboratory analysis. Indoor air screening and sampling was conducted by Sanborn Head staff. Indoor air screening was conducted using a field-portable GC/MS instrument. The screening results for TCE are posted in the gray boxes. The final screening round was followed by the collection of 8-hour time-weighted-average Summa canister samples that were submitted to Alpha Analytical of Westborough, MA for analysis by TO-15 SIM. The analytical laboratory results are presented in the green text boxes.

Legend

IA41-010 Indoor Air Location

AA41-001 Ambient Air Location

Indoor Air Screening: Screening data were used as a rough guide for assessment. The screening data are not equivalent or comparable in quality to sample data collected to evaluate possible human exposure, such as 8-hour time-integrated samples analyzed by an ELAP-approved laboratory. Screening data are not accepted by NYSDOH for assessing human exposure.

3.4: Initial TCE Screening Result
0.59: Post HVAC Adjustment TCE Screening Result

Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

TCE:	Trichloroethene
PCE:	Tetrachloroethene
1,1,1-TCA:	Trichloroethane (1,1,1-)
CEA:	Chloroethane
1,1-DCA:	Dichloroethane (1,1-)
1,2-DCE:	Dichloroethane (1,2-)
1,1-DCE:	Dichloroethene (1,1-)
1,2-cDCE:	Dichloroethene (cis-1,2-)
1,2-tDCE:	Dichloroethene (trans-1,2-)
VC:	Vinyl chloride

Final Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

5/25/2016

All results are shown in micrograms per cubic meter (µg/m³)

20 10 0 20 40 Feet

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Last Edited By: clavack

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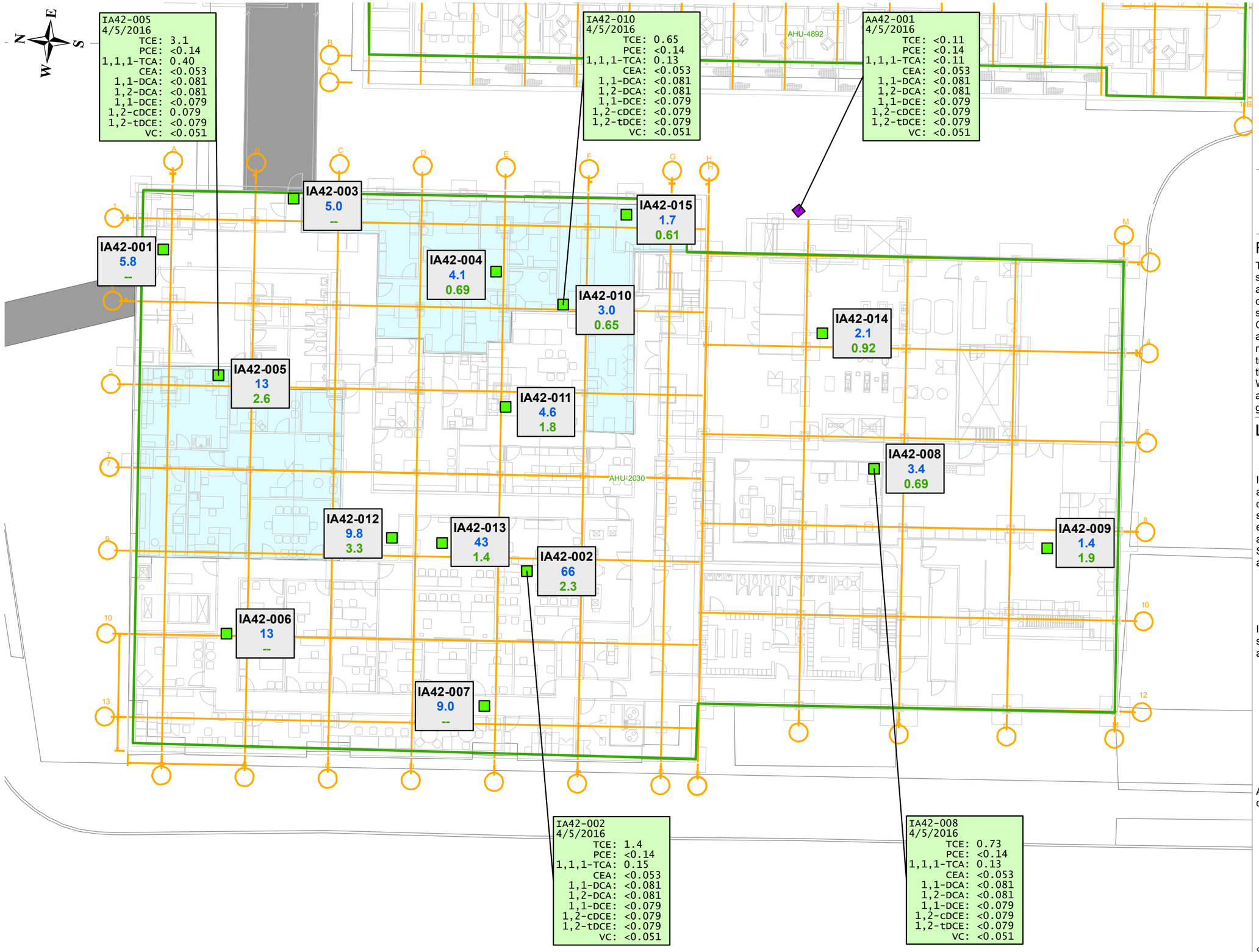

Figure B-7

Building 42 Indoor Air Assessment Results

Indoor Air Assessment Report

Former IBM Endicott Facility

Endicott, New York

Drawn By:	C. LaVack
Designed By:	S. Warner
Reviewed By:	D. Shea
Project No:	3935.00
Date:	September 2016

Figure Narrative

This figure shows the results of indoor air screening and subsequent sampling for laboratory analysis. Indoor air screening and sampling was conducted by Sanborn Head staff. Indoor air screening was conducted using a field-portable GC/MS instrument. The screening results for TCE are posted in the gray boxes. The final screening round was followed by the collection of 8-hour time-weighted-average Summa canister samples that were submitted to Alpha Analytical of Westborough, MA for analysis by TO-15 SIM. The analytical laboratory results are presented in the green text boxes.

Legend

IA42-014 Indoor Air Location

AA42-001 Ambient Air Location

Indoor Air Screening: Screening data were used as a rough guide for assessment. The screening data are not equivalent or comparable in quality to sample data collected to evaluate possible human exposure, such as 8-hour time-integrated samples analyzed by an ELAP-approved laboratory. Screening data are not accepted by NYSDOH for assessing human exposure.

2.1: Initial TCE Screening Result
0.92: Post HVAC Adjustment TCE Screening Result

Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

TCE:	Trichloroethene
PCE:	Tetrachloroethene
1,1,1-TCA:	Trichloroethane (1,1,1-)
CEA:	Chloroethane
1,1-DCA:	Dichloroethane (1,1-)
1,2-DCE:	Dichloroethane (1,2-)
1,1-DCE:	Dichloroethene (1,1-)
1,2-cDCE:	Dichloroethene (cis-1,2-)
1,2-tDCE:	Dichloroethene (trans-1,2-)
VC:	Vinyl chloride

All results are shown in micrograms per cubic meter (µg/m^3)

Tunnels

Approximate boundaries of HVAC zones

Occupied Areas

10 5 0 10 20 Feet

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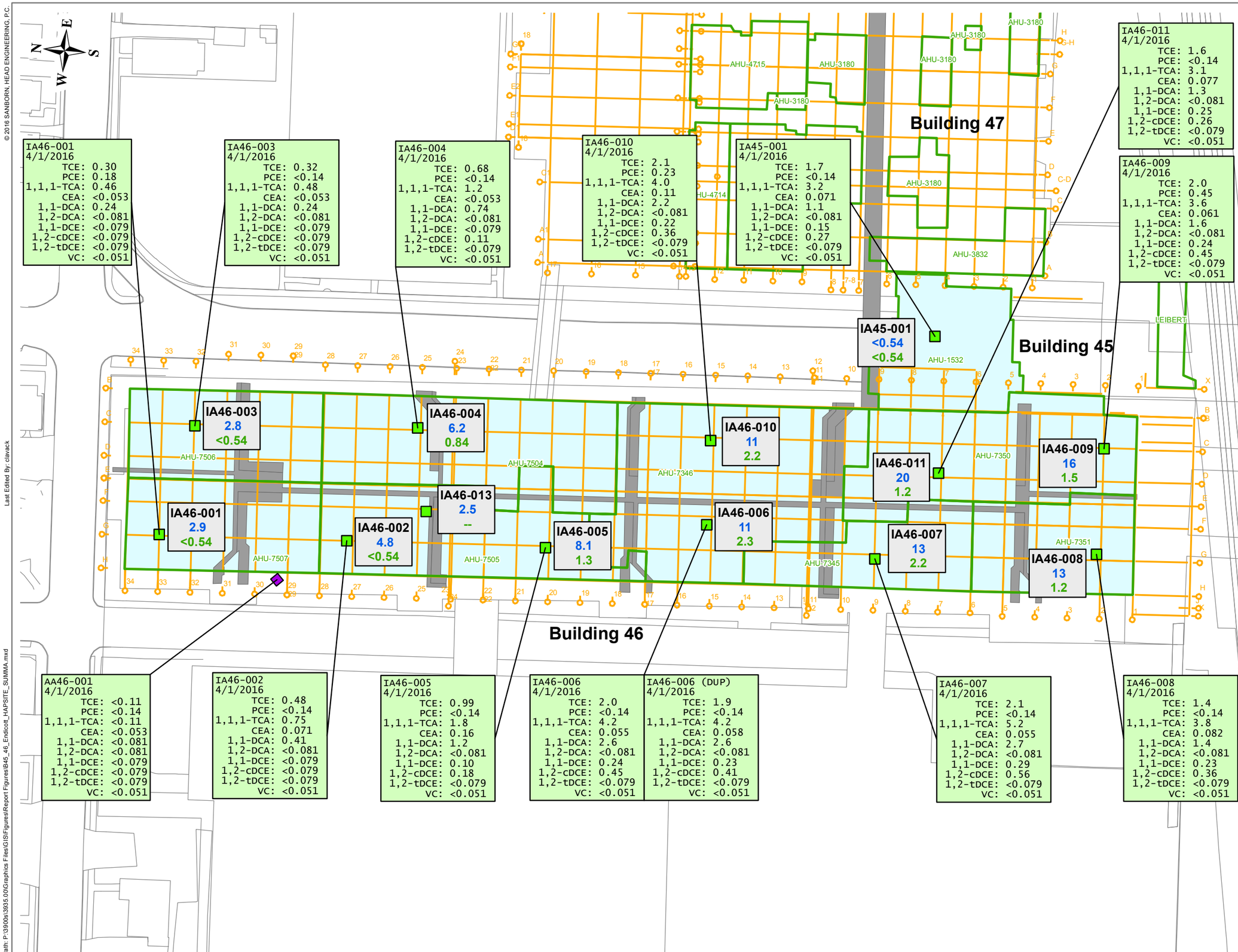

Figure B-8

Building 45 & 46 Indoor Air Assessment Results

Indoor Air Assessment Report

Former IBM Endicott Facility

Endicott, New York

Drawn By:	C. LaVack
Designed By:	S. Warner
Reviewed By:	D. Shea
Project No:	3935.00
Date:	September 2016

Figure Narrative

This figure shows the results of indoor air screening and subsequent sampling for laboratory analysis. Indoor air screening and sampling was conducted by Sanborn Head staff. Indoor air screening was conducted using a field-portable GC/MS instrument. The screening results for TCE are posted in the gray boxes. The final screening round was followed by the collection of 8-hour time-weighted-average Summa canister samples that were submitted to Alpha Analytical of Westborough, MA for analysis by TO-15 SIM. The analytical laboratory results are presented in the green text boxes.

Legend

IA46-009 — Indoor Air Location

AA46-001 — Ambient Air Location

Indoor Air Screening: Screening data were used as a rough guide for assessment. The screening data are not equivalent or comparable in quality to sample data collected to evaluate possible human exposure, such as 8-hour time-integrated samples analyzed by an ELAP-approved laboratory. Screening data are not accepted by NYSDOH for assessing human exposure.

16: Initial TCE Screening Result
1.5: Post HVAC TCE Adjustment
TCE Screening Result

Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

TCE:	Trichloroethene
PCE:	Tetrachloroethene
1,1,1-TCA:	Trichloroethane (1,1,1-)
CEA:	Chloroethane
1,1-DCA:	Dichloroethane (1,1-)
1,2-DCE:	Dichloroethane (1,2-)
1,1-DCE:	Dichloroethene (1,1-)
1,2-cDCE:	Dichloroethene (cis-1,2-)
1,2-tDCE:	Dichloroethene (trans-1,2-)
VC:	Vinyl chloride

All results are shown in micrograms per cubic meter (µg/m^3)

Tunnels

Approximate boundaries of HVAC zones

Occupied Areas

35 17.5 0 35 70 Feet

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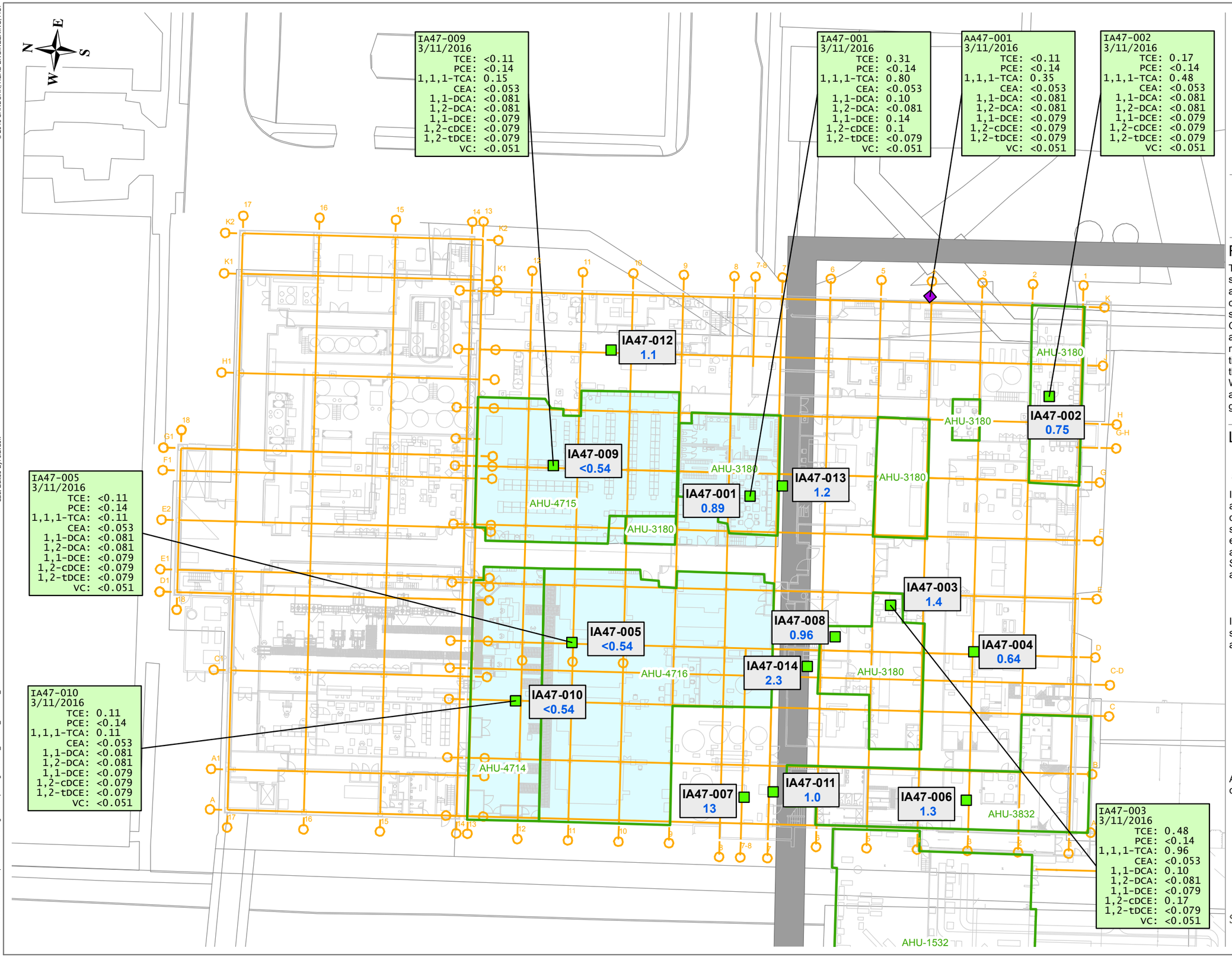

Figure B-9

Building 47 Indoor Air Assessment Results

Indoor Air Assessment Report

Former IBM Endicott Facility

Endicott, New York

Drawn By:	C. LaVack
Designed By:	S. Warner
Reviewed By:	D. Shea
Project No:	3935.00
Date:	September 2016

Figure Narrative

This figure shows the results of indoor air screening and subsequent sampling for laboratory analysis. Indoor air screening and sampling was conducted by Sanborn Head staff. Indoor air screening was conducted using a field-portable GC/MS instrument. The screening results for TCE are posted in the gray boxes. The final screening round was followed by the collection of 8-hour time-weighted-average Summa canister samples that were submitted to Alpha Analytical of Westborough, MA for analysis by TO-15 SIM. The analytical laboratory results are presented in the green text boxes.

Legend

IA47-001 Indoor Air Location

AA47-001 Ambient Air Location

Indoor Air Screening: Screening data were used as a rough guide for assessment. The screening data are not equivalent or comparable in quality to sample data collected to evaluate possible human exposure, such as 8-hour time-integrated samples analyzed by an ELAP-approved laboratory. Screening data are not accepted by NYSDOH for assessing human exposure.

0.89: Initial TCE Screening Result

Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

TCE:	Trichloroethene
PCE:	Tetrachloroethene
1,1,1-TCA:	Trichloroethane (1,1,1-)
CEA:	Chloroethane
1,1-DCA:	Dichloroethane (1,1-)
1,2-DCE:	Dichloroethane (1,2-)
1,1-DCE:	Dichloroethene (1,1-)
1,2-cDCE:	Dichloroethene (cis-1,2-)
1,2-tDCE:	Dichloroethene (trans-1,2-)
VC:	Vinyl chloride

All results are shown in micrograms per cubic meter (µg/m^3)

Tunnels

Approximate boundaries of HVAC zones

Occupied Areas

20 10 0 20 40 Feet

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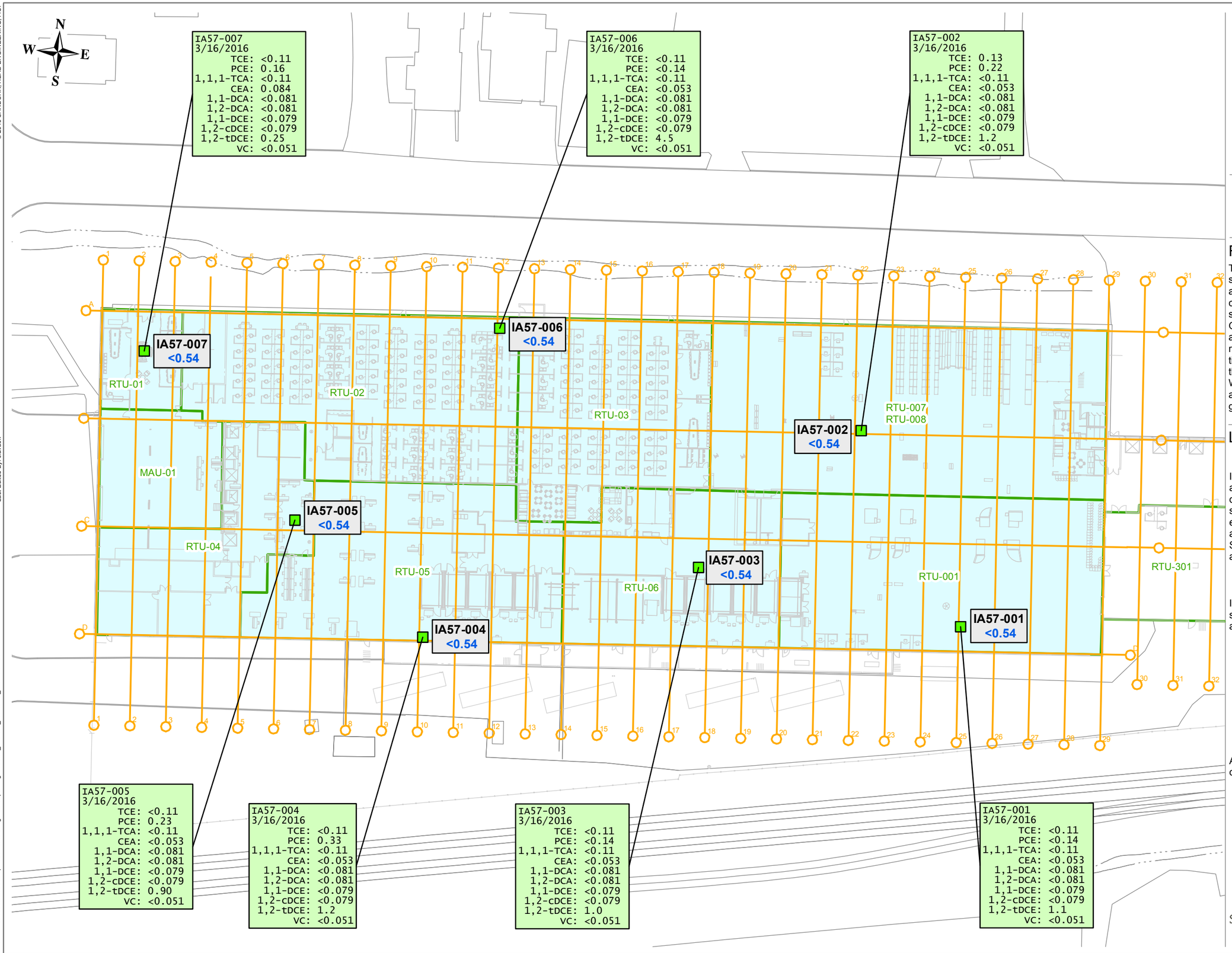

Figure B-10

Building 57 Indoor Air Assessment Results

Indoor Air Assessment Report

Former IBM Endicott Facility

Endicott, New York

Drawn By:	C. LaVack
Designed By:	S. Warner
Reviewed By:	D. Shea
Project No:	3935.00
Date:	September 2016

Figure Narrative

This figure shows the results of indoor air screening and subsequent sampling for laboratory analysis. Indoor air screening and sampling was conducted by Sanborn Head staff. Indoor air screening was conducted using a field-portable GC/MS instrument. The screening results for TCE are posted in the gray boxes. The final screening round was followed by the collection of 8-hour time-weighted-average Summa canister samples that were submitted to Alpha Analytical of Westborough, MA for analysis by TO-15 SIM. The analytical laboratory results are presented in the green text boxes.

Legend

IA57-001 Indoor Air Location

Indoor Air Screening: Screening data were used as a rough guide for assessment. The screening data are not equivalent or comparable in quality to sample data collected to evaluate possible human exposure, such as 8-hour time-integrated samples analyzed by an ELAP-approved laboratory. Screening data are not accepted by NYSDOH for assessing human exposure.

<0.54: Initial TCE Screening Result

Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

TCE:	Trichloroethene
PCE:	Tetrachloroethene
1,1,1-TCA:	Trichloroethane (1,1,1-)
CEA:	Chloroethane
1,1-DCA:	Dichloroethane (1,1-)
1,2-DCE:	Dichloroethane (1,2-)
1,1-DCE:	Dichloroethene (1,1-)
1,2-cDCE:	Dichloroethene (cis-1,2-)
1,2-tDCE:	Dichloroethene (trans-1,2-)
VC:	Vinyl chloride

All results are shown in micrograms per cubic meter (µg/m^3)

Tunnels

Approximate boundaries of HVAC zones

Occupied Areas

25 12.5 0 25 50 Feet

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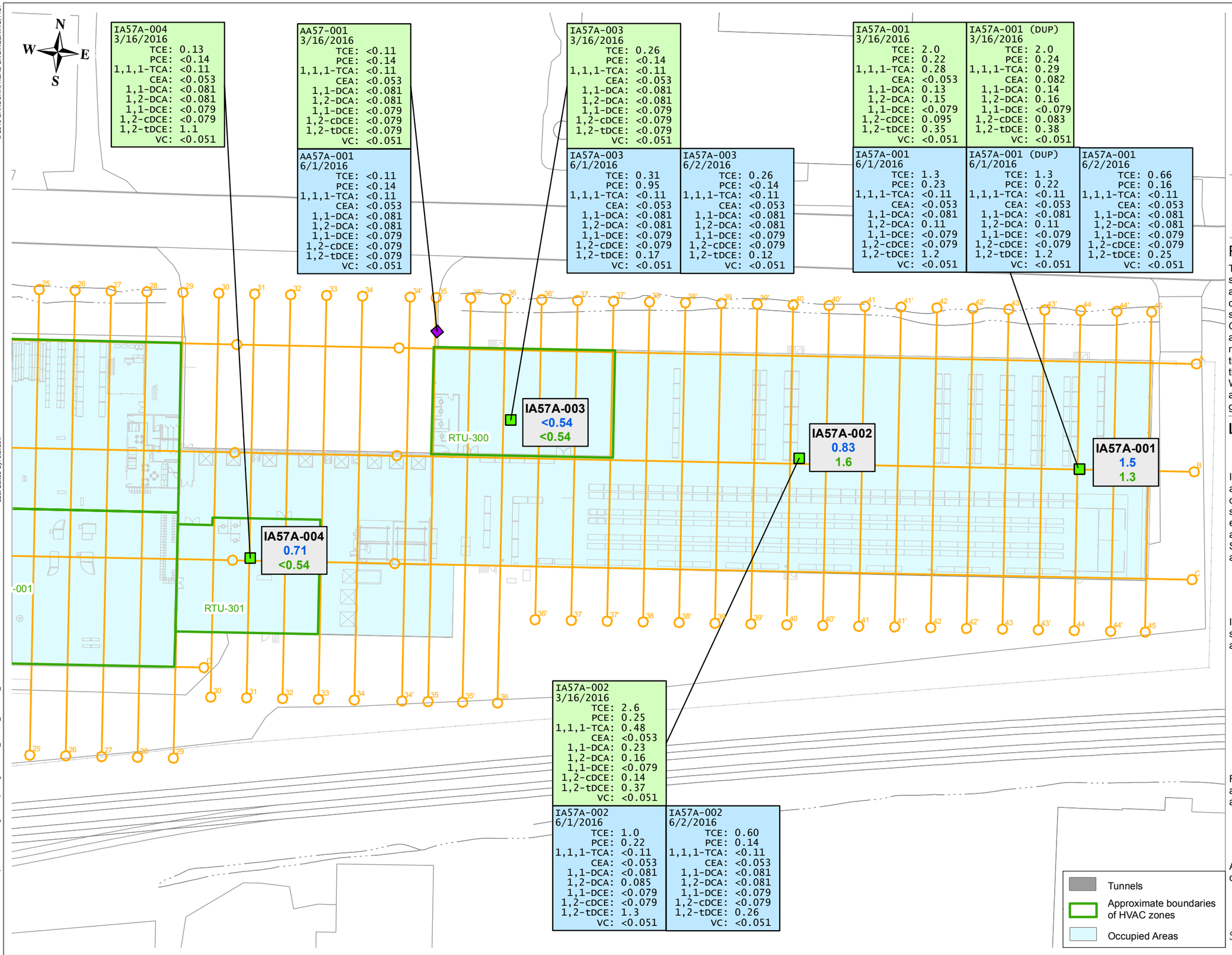

Figure B-11

Building 57A Indoor Air Assessment Results

Indoor Air Assessment Report

Former IBM Endicott Facility

Endicott, New York

Drawn By:	C. LaVack
Designed By:	S. Warner
Reviewed By:	D. Shea
Project No:	3935.00
Date:	September 2016

Figure Narrative

This figure shows the results of indoor air screening and subsequent sampling for laboratory analysis. Indoor air screening and sampling was conducted by Sanborn Head staff. Indoor air screening was conducted using a field-portable GC/MS instrument. The screening results for TCE are posted in the gray boxes. The final screening round was followed by the collection of 8-hour time-weighted-average Summa canister samples that were submitted to Alpha Analytical of Westborough, MA for analysis by TO-15 SIM. The analytical laboratory results are presented in the green text boxes.

Legend

IA57A-001 Indoor Air Location

AA57A-001 Ambient Air Location

Indoor Air Screening: Screening data were used as a rough guide for assessment. The screening data are not equivalent or comparable in quality to sample data collected to evaluate possible human exposure, such as 8-hour time-integrated samples analyzed by an ELAP-approved laboratory. Screening data are not accepted by NYSDOH for assessing human exposure.

1.5: Initial TCE Screening Result
1.3: Post HVAC Adjustment TCE Screening Result

Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

TCE:	Trichloroethene
PCE:	Tetrachloroethene
1,1,1-TCA:	Trichloroethane (1,1,1-)
CEA:	Chloroethane
1,1-DCA:	Dichloroethane (1,1-)
1,2-DCE:	Dichloroethane (1,2-)
1,1-DCE:	Dichloroethene (1,1-)
1,2-cDCE:	Dichloroethene (cis-1,2-)
1,2-tDCE:	Dichloroethene (trans-1,2-)
VC:	Vinyl chloride

Final Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

6/01/2016: 6 Exhaust Fans Running
6/02/2016: 6 Exhaust Fans Running & Large Exhaust Fan Running

All results are shown in micrograms per cubic meter (µg/m^3)

25 12.5 0 25 50 Feet

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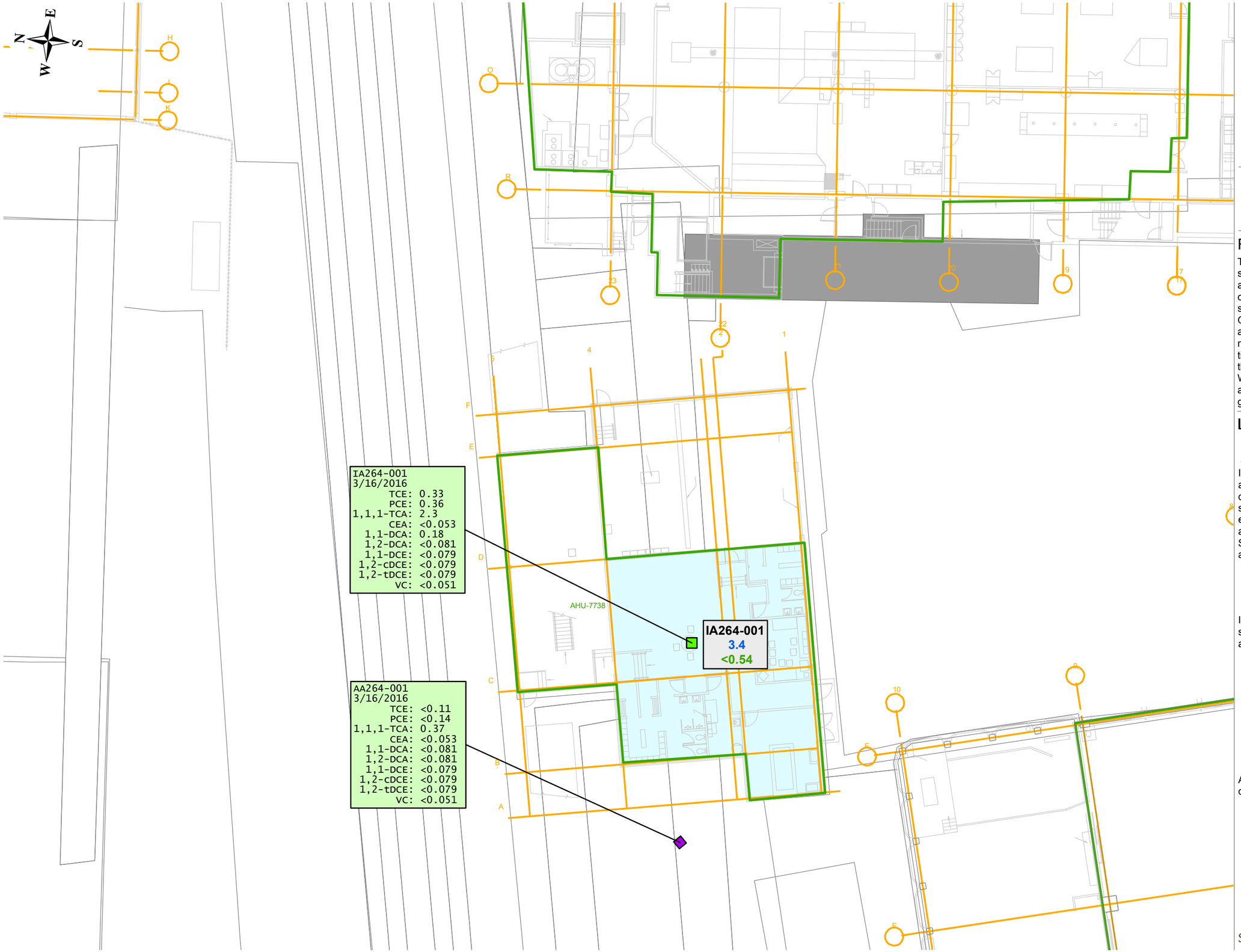

Figure B-12

Building 264 Indoor Air Assessment Results

Indoor Air Assessment Report

Former IBM Endicott Facility

Endicott, New York

Drawn By:	C. LaVack
Designed By:	S. Warner
Reviewed By:	D. Shea
Project No:	3935.00
Date:	September 2016

Figure Narrative

This figure shows the results of indoor air screening and subsequent sampling for laboratory analysis. Indoor air screening and sampling was conducted by Sanborn Head staff. Indoor air screening was conducted using a field-portable GC/MS instrument. The screening results for TCE are posted in the gray boxes. The final screening round was followed by the collection of 8-hour time-weighted-average Summa canister samples that were submitted to Alpha Analytical of Westborough, MA for analysis by TO-15 SIM. The analytical laboratory results are presented in the green text boxes.

Legend

IA264-001 Indoor Air Location

AA264-001 Ambient Air Location

Indoor Air Screening: Screening data were used as a rough guide for assessment. The screening data are not equivalent or comparable in quality to sample data collected to evaluate possible human exposure, such as 8-hour time-integrated samples analyzed by an ELAP-approved laboratory. Screening data are not accepted by NYSDOH for assessing human exposure.

3.4: Initial TCE Screening Result
<0.54: Post HVAC Adjustment TCE Screening Result

Indoor Air Sample: 8-hour time-weighted-average samples collected into Summa canisters and analyzed by an ELAP-approved laboratory.

TCE:	Trichloroethene
PCE:	Tetrachloroethene
1,1,1-TCA:	Trichloroethane (1,1,1-)
CEA:	Chloroethane
1,1-DCA:	Dichloroethane (1,1-)
1,2-DCE:	Dichloroethane (1,2-)
1,1-DCE:	Dichloroethene (1,1-)
1,2-cDCE:	Dichloroethene (cis-1,2-)
1,2-tDCE:	Dichloroethene (trans-1,2-)
VC:	Vinyl chloride

All results are shown in micrograms per cubic meter (µg/m^3)

Tunnels

Approximate boundaries of HVAC zones

Occupied Areas

10 5 0 10 20 Feet

SANBORN HEAD ENGINEERING

APPENDIX C

LABORATORY ANALYTICAL REPORTS

(ON CD)

ANALYTICAL REPORT

Lab Number:	L1606848
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	FORMER IBM ENDICOTT
Project Number:	3935.00
Report Date:	03/15/16

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Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1606848
Report Date: 03/15/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1606848-01	IA32-001	AIR	ENDICOTT, NY	03/08/16 16:30	03/09/16
L1606848-02	IA32-002	AIR	ENDICOTT, NY	03/08/16 16:07	03/09/16
L1606848-03	IA32-003	AIR	ENDICOTT, NY	03/08/16 16:10	03/09/16
L1606848-04	IA32-004	AIR	ENDICOTT, NY	03/08/16 16:25	03/09/16
L1606848-05	IA32-007	AIR	ENDICOTT, NY	03/08/16 17:40	03/09/16
L1606848-06	AA32-001	AIR	ENDICOTT, NY	03/08/16 17:25	03/09/16
L1606848-07	IA40-001	AIR	ENDICOTT, NY	03/09/16 16:30	03/09/16
L1606848-08	DUP-1	AIR	ENDICOTT, NY	03/09/16 16:05	03/09/16
L1606848-09	IA40-003	AIR	ENDICOTT, NY	03/09/16 16:00	03/09/16
L1606848-10	IA40-005	AIR	ENDICOTT, NY	03/09/16 16:15	03/09/16
L1606848-11	AA33-001	AIR	ENDICOTT, NY	03/09/16 15:00	03/09/16
L1606848-12	IA40-002	AIR	ENDICOTT, NY	03/09/16 16:10	03/09/16
L1606848-13	IA40-008	AIR	ENDICOTT, NY	03/09/16 16:43	03/09/16
L1606848-14	IA33-002	AIR	ENDICOTT, NY	03/09/16 17:00	03/09/16
L1606848-15	AA40-001	AIR	ENDICOTT, NY	03/09/16 16:25	03/09/16
L1606848-16	IA33-003	AIR	ENDICOTT, NY	03/09/16 16:45	03/09/16
L1606848-17	IA40-006	AIR	ENDICOTT, NY	03/09/16 16:05	03/09/16
L1606848-18	IA40-007	AIR	ENDICOTT, NY	03/09/16 16:40	03/09/16
L1606848-19	UNUSED CAN #2034	AIR	ENDICOTT, NY		03/09/16
L1606848-20	UNUSED CAN #390	AIR	ENDICOTT, NY		03/09/16

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1606848
Project Number: 3935.00 **Report Date:** 03/15/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1606848
Project Number: 3935.00 **Report Date:** 03/15/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 7, 2016. The canister certification results are provided as an addendum.

Sample Receipt

The sample designated IA32-001 (L1606848-01) had a RPD for the pre- and post-flow controller calibration check (47% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.5 mL/minute; the final flow rate was 2.8 mL/minute. The final pressure recorded by the laboratory of the associated canister was -10.7 inches of mercury. No further action was required.

The sample designated AA40-001 (L1606848-15) had a RPD for the pre- and post-flow controller calibration check (28% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.5 mL/minute; the final flow rate was 3.4 mL/minute. The final pressure recorded by the laboratory of the associated canister was -9.7 inches of mercury. No further action was required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 03/15/16

AIR

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1606848
Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-01	Date Collected:	03/08/16 16:30
Client ID:	IA32-001	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/12/16 18:05		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.022	0.020	--	0.089	0.081	--		1
1,1,1-Trichloroethane	0.030	0.020	--	0.164	0.109	--		1
Trichloroethene	0.171	0.020	--	0.919	0.107	--		1
Tetrachloroethene	0.076	0.020	--	0.515	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	80		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	92		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
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Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-02	Date Collected:	03/08/16 16:07
Client ID:	IA32-002	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/12/16 18:37		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.030	0.020	--	0.121	0.081	--		1
1,1,1-Trichloroethane	0.027	0.020	--	0.147	0.109	--		1
Trichloroethene	0.133	0.020	--	0.715	0.107	--		1
Tetrachloroethene	0.057	0.020	--	0.387	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	94		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1606848
Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-03	Date Collected:	03/08/16 16:10
Client ID:	IA32-003	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/12/16 19:41		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.023	0.020	--	0.093	0.081	--		1
1,1,1-Trichloroethane	0.027	0.020	--	0.147	0.109	--		1
Trichloroethene	0.142	0.020	--	0.763	0.107	--		1
Tetrachloroethene	0.065	0.020	--	0.441	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1606848
Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-04	Date Collected:	03/08/16 16:25
Client ID:	IA32-004	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/12/16 20:13		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.022	0.020	--	0.089	0.081	--		1
1,1,1-Trichloroethane	0.029	0.020	--	0.158	0.109	--		1
Trichloroethene	0.165	0.020	--	0.887	0.107	--		1
Tetrachloroethene	0.069	0.020	--	0.468	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
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Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-05	Date Collected:	03/08/16 17:40
Client ID:	IA32-007	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/12/16 20:44		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.022	0.020	--	0.089	0.081	--		1
1,1,1-Trichloroethane	0.027	0.020	--	0.147	0.109	--		1
Trichloroethene	0.229	0.020	--	1.23	0.107	--		1
Tetrachloroethene	0.062	0.020	--	0.420	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	95		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1606848
Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-06	Date Collected:	03/08/16 17:25
Client ID:	AA32-001	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/12/16 21:16		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.026	0.020	--	0.140	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	80		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	92		60-140

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Lab Number: L1606848
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SAMPLE RESULTS

Lab ID:	L1606848-07	Date Collected:	03/09/16 16:30
Client ID:	IA40-001	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/12/16 21:48		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.028	0.020	--	0.113	0.081	--		1
1,1,1-Trichloroethane	0.025	0.020	--	0.136	0.109	--		1
Trichloroethene	0.083	0.020	--	0.446	0.107	--		1
Tetrachloroethene	0.114	0.020	--	0.773	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	93		60-140

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Report Date: 03/15/16

SAMPLE RESULTS

Lab ID: L1606848-08
Client ID: DUP-1
Sample Location: ENDICOTT, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/12/16 22:20
Analyst: RY

Date Collected: 03/09/16 16:05
Date Received: 03/09/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.025	0.020	--	0.136	0.109	--		1
Trichloroethene	0.100	0.020	--	0.537	0.107	--		1
Tetrachloroethene	0.103	0.020	--	0.698	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1606848
Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-09	Date Collected:	03/09/16 16:00
Client ID:	IA40-003	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/12/16 22:52		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.025	0.020	--	0.136	0.109	--		1
Trichloroethene	0.087	0.020	--	0.468	0.107	--		1
Tetrachloroethene	0.118	0.020	--	0.800	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	94		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
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Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-10	Date Collected:	03/09/16 16:15
Client ID:	IA40-005	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/12/16 23:24		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.027	0.020	--	0.071	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.028	0.020	--	0.153	0.109	--		1
Trichloroethene	0.099	0.020	--	0.532	0.107	--		1
Tetrachloroethene	0.111	0.020	--	0.753	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
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SAMPLE RESULTS

Lab ID:	L1606848-11	Date Collected:	03/09/16 15:00
Client ID:	AA33-001	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/12/16 23:56		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1606848
Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-12	Date Collected:	03/09/16 16:10
Client ID:	IA40-002	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/13/16 00:28		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.027	0.020	--	0.147	0.109	--		1
Trichloroethene	0.087	0.020	--	0.468	0.107	--		1
Tetrachloroethene	0.102	0.020	--	0.692	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	94		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1606848
Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-13	Date Collected:	03/09/16 16:43
Client ID:	IA40-008	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/13/16 01:00		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.032	0.020	--	0.130	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.067	0.020	--	0.360	0.107	--		1
Tetrachloroethene	0.120	0.020	--	0.814	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1606848
Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-14	Date Collected:	03/09/16 17:00
Client ID:	IA33-002	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/13/16 01:31		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.024	0.020	--	0.131	0.109	--		1
Trichloroethene	0.113	0.020	--	0.607	0.107	--		1
Tetrachloroethene	0.088	0.020	--	0.597	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	95		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1606848
Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-15	Date Collected:	03/09/16 16:25
Client ID:	AA40-001	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/14/16 15:48		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.023	0.020	--	0.156	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	87		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1606848
Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-16	Date Collected:	03/09/16 16:45
Client ID:	IA33-003	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/14/16 16:23		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.045	0.020	--	0.242	0.107	--		1
Tetrachloroethene	0.039	0.020	--	0.264	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	86		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1606848
Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-17	Date Collected:	03/09/16 16:05
Client ID:	IA40-006	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/14/16 16:58		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.030	0.020	--	0.121	0.081	--		1
1,1,1-Trichloroethane	0.023	0.020	--	0.125	0.109	--		1
Trichloroethene	0.106	0.020	--	0.570	0.107	--		1
Tetrachloroethene	0.173	0.020	--	1.17	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1606848
Report Date: 03/15/16

SAMPLE RESULTS

Lab ID:	L1606848-18	Date Collected:	03/09/16 16:40
Client ID:	IA40-007	Date Received:	03/09/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/14/16 17:32		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.036	0.020	--	0.146	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.066	0.020	--	0.355	0.107	--		1
Tetrachloroethene	0.195	0.020	--	1.32	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	88		60-140

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1606848

Project Number: 3935.00 **Report Date:** 03/15/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/12/16 14:06

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-14 Batch: WG873301-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1606848

Project Number: 3935.00 **Report Date:** 03/15/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/14/16 12:11

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 15-18 Batch: WG873640-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1606848
Report Date: 03/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-14 Batch: WG873301-3								
Dichlorodifluoromethane	87		-		70-130	-		25
Chloromethane	89		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	90		-		70-130	-		25
Vinyl chloride	91		-		70-130	-		25
1,3-Butadiene	101		-		70-130	-		25
Bromomethane	86		-		70-130	-		25
Chloroethane	90		-		70-130	-		25
Acetone	100		-		70-130	-		25
Trichlorofluoromethane	92		-		70-130	-		25
Acrylonitrile	92		-		70-130	-		25
1,1-Dichloroethene	97		-		70-130	-		25
Methylene chloride	106		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	94		-		70-130	-		25
Halothane	106		-		70-130	-		25
trans-1,2-Dichloroethene	91		-		70-130	-		25
1,1-Dichloroethane	100		-		70-130	-		25
Methyl tert butyl ether	101		-		70-130	-		25
2-Butanone	102		-		70-130	-		25
cis-1,2-Dichloroethene	109		-		70-130	-		25
Chloroform	89		-		70-130	-		25
1,2-Dichloroethane	91		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1606848
Report Date: 03/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-14 Batch: WG873301-3								
1,1,1-Trichloroethane	94		-		70-130	-		25
Benzene	91		-		70-130	-		25
Carbon tetrachloride	91		-		70-130	-		25
1,2-Dichloropropane	95		-		70-130	-		25
Bromodichloromethane	93		-		70-130	-		25
1,4-Dioxane	95		-		70-130	-		25
Trichloroethene	89		-		70-130	-		25
cis-1,3-Dichloropropene	100		-		70-130	-		25
4-Methyl-2-pentanone	106		-		70-130	-		25
trans-1,3-Dichloropropene	88		-		70-130	-		25
1,1,2-Trichloroethane	94		-		70-130	-		25
Toluene	83		-		70-130	-		25
Dibromochloromethane	81		-		70-130	-		25
1,2-Dibromoethane	85		-		70-130	-		25
Tetrachloroethene	80		-		70-130	-		25
1,1,1,2-Tetrachloroethane	77		-		70-130	-		25
Chlorobenzene	86		-		70-130	-		25
Ethylbenzene	89		-		70-130	-		25
p/m-Xylene	89		-		70-130	-		25
Bromoform	78		-		70-130	-		25
Styrene	90		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1606848
Report Date: 03/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-14 Batch: WG873301-3								
1,1,2,2-Tetrachloroethane	88		-		70-130	-		25
o-Xylene	90		-		70-130	-		25
Isopropylbenzene	84		-		70-130	-		25
4-Ethyltoluene	87		-		70-130	-		25
1,3,5-Trimethylbenzene	89		-		70-130	-		25
1,2,4-Trimethylbenzene	93		-		70-130	-		25
1,3-Dichlorobenzene	89		-		70-130	-		25
1,4-Dichlorobenzene	87		-		70-130	-		25
sec-Butylbenzene	85		-		70-130	-		25
p-Isopropyltoluene	80		-		70-130	-		25
1,2-Dichlorobenzene	87		-		70-130	-		25
n-Butylbenzene	88		-		70-130	-		25
1,2,4-Trichlorobenzene	93		-		70-130	-		25
Naphthalene	94		-		70-130	-		25
1,2,3-Trichlorobenzene	90		-		70-130	-		25
Hexachlorobutadiene	89		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1606848
Report Date: 03/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 15-18 Batch: WG873640-3								
Dichlorodifluoromethane	110		-		70-130	-		25
Chloromethane	82		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	105		-		70-130	-		25
Vinyl chloride	90		-		70-130	-		25
1,3-Butadiene	90		-		70-130	-		25
Bromomethane	104		-		70-130	-		25
Chloroethane	89		-		70-130	-		25
Acetone	84		-		70-130	-		25
Trichlorofluoromethane	115		-		70-130	-		25
1,1-Dichloroethene	95		-		70-130	-		25
Methylene chloride	92		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	113		-		70-130	-		25
Halothane	130		-		70-130	-		25
trans-1,2-Dichloroethene	88		-		70-130	-		25
1,1-Dichloroethane	97		-		70-130	-		25
Methyl tert butyl ether	100		-		70-130	-		25
2-Butanone	89		-		70-130	-		25
cis-1,2-Dichloroethene	106		-		70-130	-		25
Chloroform	109		-		70-130	-		25
1,2-Dichloroethane	103		-		70-130	-		25
1,1,1-Trichloroethane	89		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1606848
Report Date: 03/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 15-18 Batch: WG873640-3								
Benzene	77		-		70-130	-		25
Carbon tetrachloride	92		-		70-130	-		25
1,2-Dichloropropane	79		-		70-130	-		25
Bromodichloromethane	84		-		70-130	-		25
1,4-Dioxane	82		-		70-130	-		25
Trichloroethene	99		-		70-130	-		25
cis-1,3-Dichloropropene	89		-		70-130	-		25
4-Methyl-2-pentanone	74		-		70-130	-		25
trans-1,3-Dichloropropene	71		-		70-130	-		25
1,1,2-Trichloroethane	90		-		70-130	-		25
Toluene	94		-		70-130	-		25
Dibromochloromethane	113		-		70-130	-		25
1,2-Dibromoethane	107		-		70-130	-		25
Tetrachloroethene	125		-		70-130	-		25
1,1,1,2-Tetrachloroethane	107		-		70-130	-		25
Chlorobenzene	111		-		70-130	-		25
Ethylbenzene	102		-		70-130	-		25
p/m-Xylene	105		-		70-130	-		25
Bromoform	122		-		70-130	-		25
Styrene	108		-		70-130	-		25
1,1,2,2-Tetrachloroethane	99		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1606848
Report Date: 03/15/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 15-18 Batch: WG873640-3								
o-Xylene	102		-		70-130	-		25
Isopropylbenzene	105		-		70-130	-		25
4-Ethyltoluene	107		-		70-130	-		25
1,3,5-Trimethylbenzene	105		-		70-130	-		25
1,2,4-Trimethylbenzene	112		-		70-130	-		25
1,3-Dichlorobenzene	129		-		70-130	-		25
1,4-Dichlorobenzene	122		-		70-130	-		25
sec-Butylbenzene	105		-		70-130	-		25
p-Isopropyltoluene	104		-		70-130	-		25
1,2-Dichlorobenzene	123		-		70-130	-		25
n-Butylbenzene	106		-		70-130	-		25
1,2,4-Trichlorobenzene	**132**	Q	-		70-130	-		25
Naphthalene	115		-		70-130	-		25
1,2,3-Trichlorobenzene	124		-		70-130	-		25
Hexachlorobutadiene	129		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1606848
Report Date: 03/15/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-14 QC Batch ID: WG873301-5 QC Sample: L1606848-02 Client ID: IA32-002						
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,2-Dichloroethane	0.030	0.031	ppbV	3		25
1,1,1-Trichloroethane	0.027	0.028	ppbV	4		25
Trichloroethene	0.133	0.140	ppbV	5		25
Tetrachloroethene	0.057	0.058	ppbV	2		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1606848
Report Date: 03/15/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 15-18 QC Batch ID: WG873640-5 QC Sample: L1606848-18 Client ID: IA40-007					
Vinyl chloride	ND	ND	ppbV	NC	25
Chloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,2-Dichloroethane	0.036	0.035	ppbV	3	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Trichloroethene	0.066	0.065	ppbV	2	25
Tetrachloroethene	0.195	0.193	ppbV	1	25

Project Name: FORMER IBM ENDICOTT

Project Number: 3935.00

Lab Number: L1606848

Report Date: 03/15/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1606848-01	IA32-001	0132	#20 SV	03/07/16	217739		-	-	-	Pass	4.5	2.8	47
L1606848-01	IA32-001	2199	2.7L Can	03/07/16	217739	L1605864-18	Pass	-29.8	-10.7	-	-	-	-
L1606848-02	IA32-002	0317	#16 AMB	03/07/16	217739		-	-	-	Pass	4.5	4.1	9
L1606848-02	IA32-002	2194	2.7L Can	03/07/16	217739	L1605864-15	Pass	-29.8	-4.8	-	-	-	-
L1606848-03	IA32-003	0723	#30 SV	03/07/16	217739		-	-	-	Pass	4.3	4.7	9
L1606848-03	IA32-003	2208	2.7L Can	03/07/16	217739	L1605864-17	Pass	-29.8	-7.0	-	-	-	-
L1606848-04	IA32-004	0940	#2 SV	03/07/16	217739		-	-	-	Pass	4.2	4.0	5
L1606848-04	IA32-004	1735	2.7L Can	03/07/16	217739	L1605864-05	Pass	-29.8	-10.0	-	-	-	-
L1606848-05	IA32-007	0758	#30 SV	03/07/16	217739		-	-	-	Pass	4.0	3.4	16
L1606848-05	IA32-007	486	2.7L Can	03/07/16	217739	L1605864-24	Pass	-29.8	-8.9	-	-	-	-
L1606848-06	AA32-001	0342	#90 SV	03/07/16	217739		-	-	-	Pass	4.0	4.3	7
L1606848-06	AA32-001	389	2.7L Can	03/07/16	217739	L1605864-04	Pass	-29.8	-8.2	-	-	-	-
L1606848-07	IA40-001	0498	#16 AMB	03/07/16	217739		-	-	-	Pass	4.2	4.1	2
L1606848-07	IA40-001	2020	2.7L Can	03/07/16	217739	L1605864-09	Pass	-29.8	-8.7	-	-	-	-
L1606848-08	DUP-1	0204	#30 SV	03/07/16	217739		-	-	-	Pass	4.4	4.3	2

Project Name: FORMER IBM ENDICOTT

Lab Number: L1606848

Project Number: 3935.00

Report Date: 03/15/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1606848-08	DUP-1	2204	2.7L Can	03/07/16	217739	L1605864-13	Pass	-29.8	-9.1	-	-	-	-
L1606848-09	IA40-003	0087	#16 AMB	03/07/16	217739		-	-	-	Pass	4.2	4.3	2
L1606848-09	IA40-003	2205	2.7L Can	03/07/16	217739	L1605864-16	Pass	-29.8	-7.0	-	-	-	-
L1606848-10	IA40-005	0359	#90 SV	03/07/16	217739		-	-	-	Pass	4.1	4.1	0
L1606848-10	IA40-005	1723	2.7L Can	03/07/16	217739	L1605864-06	Pass	-29.8	-8.8	-	-	-	-
L1606848-11	AA33-001	0443	#16 AMB	03/07/16	217739		-	-	-	Pass	4.4	4.4	0
L1606848-11	AA33-001	570	2.7L Can	03/07/16	217739	L1605864-07	Pass	-29.8	-7.9	-	-	-	-
L1606848-12	IA40-002	0160	#16 AMB	03/07/16	217739		-	-	-	Pass	4.4	4.6	4
L1606848-12	IA40-002	2238	2.7L Can	03/07/16	217739	L1605864-03	Pass	-29.8	-7.1	-	-	-	-
L1606848-13	IA40-008	0321	#16 AMB	03/07/16	217739		-	-	-	Pass	4.2	4.1	2
L1606848-13	IA40-008	1746	2.7L Can	03/07/16	217739	L1605864-21	Pass	-29.8	-8.5	-	-	-	-
L1606848-14	IA33-002	0545	#16 AMB	03/07/16	217739		-	-	-	Pass	4.5	4.3	5
L1606848-14	IA33-002	2030	2.7L Can	03/07/16	217739	L1605864-19	Pass	-29.8	-7.8	-	-	-	-
L1606848-15	AA40-001	0579	#30 AMB	03/07/16	217739		-	-	-	Pass	4.5	3.4	28
L1606848-15	AA40-001	449	2.7L Can	03/07/16	217739	L1605864-23	Pass	-29.8	-9.7	-	-	-	-

Project Name: FORMER IBM ENDICOTT

Lab Number: L1606848

Project Number: 3935.00

Report Date: 03/15/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1606848-16	IA33-003	0935	#2 SV	03/07/16	217739		-	-	-	Pass	4.3	4.6	7
L1606848-16	IA33-003	2242	2.7L Can	03/07/16	217739	L1605864-02	Pass	-29.8	-7.4	-	-	-	-
L1606848-17	IA40-006	0586	#16 AMB	03/07/16	217739		-	-	-	Pass	4.5	4.6	2
L1606848-17	IA40-006	144	2.7L Can	03/07/16	217739	L1605864-11	Pass	-29.8	-7.0	-	-	-	-
L1606848-18	IA40-007	0499	#16 AMB	03/07/16	217739		-	-	-	Pass	4.2	4.3	2
L1606848-18	IA40-007	457	2.7L Can	03/07/16	217739	L1605864-20	Pass	-29.8	-7.0	-	-	-	-
L1606848-19	UNUSED CAN #2034	0591	#30 SV	03/07/16	217739		-	-	-	Pass	4.0	4.3	7
L1606848-19	UNUSED CAN #2034	2034	2.7L Can	03/07/16	217739	L1605864-14	Pass	-29.8	-13.6	-	-	-	-
L1606848-20	UNUSED CAN #390	0737	#16 AMB	03/07/16	217739		-	-	-	Pass	4.0	11.1	94
L1606848-20	UNUSED CAN #390	390	2.7L Can	03/07/16	217739	L1605864-10	Pass	-29.8	-29.3	-	-	-	-

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1605864
Report Date: 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-02	Date Collected:	03/02/16 17:00
Client ID:	CAN 2242 FC 204	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 19:03		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	88		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-03	Date Collected:	03/02/16 17:00
Client ID:	CAN 2238 FC 618	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 19:38		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	86		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	84		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-04	Date Collected:	03/02/16 17:00
Client ID:	CAN 389 FC 449	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 20:12		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	92		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-05	Date Collected:	03/02/16 17:00
Client ID:	CAN 1735 FC 498	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 20:46		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	89		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-06	Date Collected:	03/02/16 17:00
Client ID:	CAN 1723 FC 087	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 21:21		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	89		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-07	Date Collected:	03/02/16 17:00
Client ID:	CAN 570 FC 545	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 21:55		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	89		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-09	Date Collected:	03/02/16 17:00
Client ID:	CAN 2020 FC 579	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/06/16 01:28		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1605864
Report Date: 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-10	Date Collected:	03/02/16 17:00
Client ID:	CAN 390 FC 160	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 19:18		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	103		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	100		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-11	Date Collected:	03/02/16 17:00
Client ID:	CAN 144 FC 342	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/06/16 02:00		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	96		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	96		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-13	Date Collected:	03/02/16 17:00
Client ID:	CAN 2204 FC 317	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 20:53		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	93		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1605864
Report Date: 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-14	Date Collected:	03/02/16 17:00
Client ID:	CAN 2034 FC 359	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/06/16 02:32		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1605864
Report Date: 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-15	Date Collected:	03/02/16 17:00
Client ID:	CAN 2194 FC 758	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/06/16 03:04		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	92		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1605864
Report Date: 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-16	Date Collected:	03/02/16 17:00
Client ID:	CAN 2205 FC 396	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 22:29		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	91		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-17	Date Collected:	03/02/16 17:00
Client ID:	CAN 2208 FC 940	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 23:01		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	88		60-140
bromochloromethane	83		60-140
chlorobenzene-d5	92		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1605864
Report Date: 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-18	Date Collected:	03/02/16 17:00
Client ID:	CAN 2199 FC 591	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/06/16 03:36		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-19	Date Collected:	03/02/16 17:00
Client ID:	CAN 2030 FC 757	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/06/16 04:09		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	95		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1605864
Report Date: 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-20	Date Collected:	03/02/16 17:00
Client ID:	CAN 457 FC 443	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 23:33		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	93		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-21	Date Collected:	03/02/16 17:00
Client ID:	CAN 1746 FC 737	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/06/16 04:41		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	112		60-140
bromochloromethane	114		60-140
chlorobenzene-d5	114		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-23	Date Collected:	03/02/16 17:00
Client ID:	CAN 449 FC 172	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 19:49		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	93		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	93		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/15/16

Air Canister Certification Results

Lab ID:	L1605864-24	Date Collected:	03/02/16 17:00
Client ID:	CAN 486 FC 586	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 21:25		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	93		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	94		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1606848
Report Date: 03/15/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information **Custody Seal**
Cooler
N/A Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1606848-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-04A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-05A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-06A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-07A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-08A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-09A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-10A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-11A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-12A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-13A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-14A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-15A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-16A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-17A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-18A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1606848-19A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()
L1606848-20A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1606848
Project Number:	3935.00	**Report Date:**	03/15/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1606848
Project Number:	3935.00	**Report Date:**	03/15/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1606848
Project Number: 3935.00 **Report Date:** 03/15/16

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 2

ALPHA ANALYTICAL

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/10/14

ALPHA Job #: L1606848

Client Information

Client: Sanborn, Head & Associates, Inc.
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: swarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☒ 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, Chloroethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
06848.01	IA32-001	3-8-16	08:00	16:30	-29.2	-9.9	AA	NDO	2.7	2199	0132	X							
02	IA32-002	3-8-16	08:35	16:07	-29.7	-4.5	AA	NDO		2194	0317	X							
03	IA32-003	3-8-16	08:15	16:10	-29.6	-6.4	AA	NDO		2208	0723	X							
04	IA32-004	3-8-16	08:25	16:25	-29.5	-9.3	AA	NDO		1735	0940	X							
05	IA32-007	3-8-16	09:20	17:40	-29.5	-8.3	AA	NDO		486	0758	X							
06	AA32-001	3-8-16	09:00	17:25	-29.5	-7.7	AA	NDO		389	0342	X							
07	IA40-001	3-9-16	08:20	~~16:00~~ 16:30	-29.3	-8.2	AA	NDO		2020	0498	X							
08	DUP-1	3-9-16	08:20	16:05	-29.2	-6.3	AA	NDO		2204	0204	X							
09	IA40-003	3-9-16	08:05	16:00	-29.5	-6.7	AA	NDO		2205	0087	X							
10	IA40-005	3-9-16	08:15	16:15	-30.3	-8.2	AA	NDO		1723	0359	X							
										Container Type		CS	CS						

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	3-9-16 18:00	[signature] AAL	3-9-16 1800
[signature]	3/10/16 01:10	[signature]	3/10/16 01:10
[signature]	3/10/16 07:15	[signature]	3/10/16 07:15

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

AIR ANALYSIS

PAGE 2 OF 2

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/10/16

ALPHA Job #: L1606848

Client Information

Client: Sanborn, Head & Associates Inc
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: swarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☒ see page 1

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15		Sample Comments (i.e. PID)
06818.11	AA33-001	3-9-16	07:30	15:00	-29.8	-7.0	AA	NDO	2.7 L	570	0443	X						
.12	IA40-002	3-9-16	08:40	16:10	-29.0	-6.3	AA	NDO		2238	0160	X						
.13	IA40-008	3-9-16	08:50	16:43	-29.3	-7.8		NDO		1746	0321	X						
.14	IA33-002	3-9-16	09:00	17:00	-29.3	-7.0		NDO		2030	0545	X						
.15	AA40-001	3-9-16	07:40	16:25	-29.2	-8.7		NDO		449	0579	X						
.16	IA33-003	3-9-16	09:05	16:45	-29.3	-6.7		NDO		2242	0935	X						
.17	IA40-006	3-9-16	08:20	16:05	-29.4	-8.5		NDO		144	0586	X						
.18	IA40-007	3-9-16	08:45	16:40	-29.4	-6.3		NDO		457	0499	X						

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type: CS CS

Relinquished By:	Date/Time	Received By:	Date/Time:
	3-9-16 18:00		3-9-16 1800
	3-10-16		3/10/16 0110
	3/10/16 0715		3/10/16 0715

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

ANALYTICAL REPORT

Lab Number:	L1607184
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	FORMER IBM ENDICOTT
Project Number:	3935.00
Report Date:	03/17/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607184
Report Date: 03/17/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1607184-01	IA40-004	AIR	ENDICOTT, NY	03/09/16 18:50	03/11/16
L1607184-02	FB-1	AIR	ENDICOTT, NY	03/10/16 12:30	03/11/16
L1607184-03	IA19-001	AIR	ENDICOTT, NY	03/10/16 17:43	03/11/16
L1607184-04	IA41-020	AIR	ENDICOTT, NY	03/10/16 17:50	03/11/16
L1607184-05	IA41-021	AIR	ENDICOTT, NY	03/10/16 17:35	03/11/16
L1607184-06	IA41-022	AIR	ENDICOTT, NY	03/10/16 17:55	03/11/16
L1607184-07	IA41-023	AIR	ENDICOTT, NY	03/10/16 18:00	03/11/16
L1607184-08	AA41-001	AIR	ENDICOTT, NY	03/10/16 16:40	03/11/16
L1607184-09	AA19-001	AIR	ENDICOTT, NY	03/10/16 17:20	03/11/16
L1607184-10	IA41-024	AIR	ENDICOTT, NY	03/10/16 21:45	03/11/16
L1607184-11	IA41-025	AIR	ENDICOTT, NY	03/10/16 18:20	03/11/16
L1607184-12	IA47-001	AIR	ENDICOTT, NY	03/11/16 16:15	03/11/16
L1607184-13	IA47-009	AIR	ENDICOTT, NY	03/11/16 16:20	03/11/16
L1607184-14	IA47-003	AIR	ENDICOTT, NY	03/11/16 16:50	03/11/16

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607184
Project Number: 3935.00 **Report Date:** 03/17/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607184
Project Number: 3935.00 **Report Date:** 03/17/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 7 and 10, 2016. The canister certification results are provided as an addendum.

Sample L1607184-02: The Field Blank has a concentration above the reporting limit for Tetrachloroethene. The results were confirmed.

Sample Receipt

The sample designated IA40-004 (L1607184-01) had a RPD for the pre- and post-flow controller calibration check (31% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.1 mL/minute; the final flow rate was 3.0 mL/minute. The final pressure recorded by the laboratory of the associated canister was -11.1 inches of mercury. No further action was required.

The sample designated IA41-021 (L1607184-05) had a RPD for the pre- and post-flow controller calibration check (25% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.5 mL/minute; the final flow rate was 5.8 mL/minute. The final pressure recorded by the laboratory of the associated canister was -7.7 inches of mercury. No further action was required.

The sample designated IA41-024 (L1607184-10) had a RPD for the pre- and post-flow controller calibration check (50% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.0 mL/minute; the final flow rate was 2.4 mL/minute. The final pressure recorded by the laboratory of the associated canister was -11.0 inches of mercury. No further action was required.

The sample designated IA41-025 (L1607184-11) had a RPD for the pre- and post-flow controller calibration check (71% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.2 mL/minute; the final flow rate was 2.0 mL/minute. The final pressure recorded by the laboratory of the associated canister was -8.8 inches of mercury. No further action was required.

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607184
Project Number:	3935.00	**Report Date:**	03/17/16

Case Narrative (continued)

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative

Date: 03/17/16

AIR

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

SAMPLE RESULTS

Lab ID:	L1607184-01	Date Collected:	03/09/16 18:50
Client ID:	IA40-004	Date Received:	03/11/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/14/16 22:43		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.029	0.020	--	0.117	0.081	--		1
1,1,1-Trichloroethane	0.021	0.020	--	0.115	0.109	--		1
Trichloroethene	0.102	0.020	--	0.548	0.107	--		1
Tetrachloroethene	0.221	0.020	--	1.50	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

SAMPLE RESULTS

Lab ID:	L1607184-02	Date Collected:	03/10/16 12:30
Client ID:	FB-1	Date Received:	03/11/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/15/16 15:23		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.095	0.020	--	0.644	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	89		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

SAMPLE RESULTS

Lab ID:	L1607184-03	Date Collected:	03/10/16 17:43
Client ID:	IA19-001	Date Received:	03/11/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/14/16 23:17		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.033	0.020	--	0.087	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	2.54	0.020	--	10.1	0.079	--		1
1,1-Dichloroethane	0.051	0.020	--	0.206	0.081	--		1
cis-1,2-Dichloroethene	0.029	0.020	--	0.115	0.079	--		1
1,2-Dichloroethane	0.021	0.020	--	0.085	0.081	--		1
1,1,1-Trichloroethane	0.198	0.020	--	1.08	0.109	--		1
Trichloroethene	0.723	0.020	--	3.89	0.107	--		1
Tetrachloroethene	0.195	0.020	--	1.32	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

SAMPLE RESULTS

Lab ID:	L1607184-04	Date Collected:	03/10/16 17:50
Client ID:	IA41-020	Date Received:	03/11/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/14/16 23:51		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.074	0.020	--	0.195	0.053	--		1
1,1-Dichloroethene	0.172	0.020	--	0.682	0.079	--		1
trans-1,2-Dichloroethene	0.174	0.020	--	0.690	0.079	--		1
1,1-Dichloroethane	0.552	0.020	--	2.23	0.081	--		1
cis-1,2-Dichloroethene	0.124	0.020	--	0.492	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	4.92	0.020	--	26.8	0.109	--		1
Trichloroethene	0.174	0.020	--	0.935	0.107	--		1
Tetrachloroethene	0.449	0.020	--	3.04	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	86		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

SAMPLE RESULTS

Lab ID:	L1607184-05	Date Collected:	03/10/16 17:35
Client ID:	IA41-021	Date Received:	03/11/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/15/16 00:25		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.084	0.020	--	0.222	0.053	--		1
1,1-Dichloroethene	0.209	0.020	--	0.829	0.079	--		1
trans-1,2-Dichloroethene	0.136	0.020	--	0.539	0.079	--		1
1,1-Dichloroethane	0.655	0.020	--	2.65	0.081	--		1
cis-1,2-Dichloroethene	0.176	0.020	--	0.698	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	5.44	0.020	--	29.7	0.109	--		1
Trichloroethene	0.247	0.020	--	1.33	0.107	--		1
Tetrachloroethene	0.233	0.020	--	1.58	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	88		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

SAMPLE RESULTS

Lab ID:	L1607184-06	Date Collected:	03/10/16 17:55
Client ID:	IA41-022	Date Received:	03/11/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/15/16 15:58		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.086	0.020	--	0.227	0.053	--		1
1,1-Dichloroethene	0.178	0.020	--	0.706	0.079	--		1
trans-1,2-Dichloroethene	0.131	0.020	--	0.519	0.079	--		1
1,1-Dichloroethane	0.583	0.020	--	2.36	0.081	--		1
cis-1,2-Dichloroethene	0.131	0.020	--	0.519	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	5.21	0.020	--	28.4	0.109	--		1
Trichloroethene	0.189	0.020	--	1.02	0.107	--		1
Tetrachloroethene	0.287	0.020	--	1.95	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	86		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

SAMPLE RESULTS

Lab ID:	L1607184-07	Date Collected:	03/10/16 18:00
Client ID:	IA41-023	Date Received:	03/11/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/15/16 08:04		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.070	0.020	--	0.185	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.068	0.020	--	0.275	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.258	0.020	--	1.41	0.109	--		1
Trichloroethene	0.085	0.020	--	0.457	0.107	--		1
Tetrachloroethene	0.255	0.020	--	1.73	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

SAMPLE RESULTS

Lab ID:	L1607184-08	Date Collected:	03/10/16 16:40
Client ID:	AA41-001	Date Received:	03/11/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/15/16 08:38		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.029	0.020	--	0.117	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.119	0.020	--	0.649	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	89		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

SAMPLE RESULTS

Lab ID:	L1607184-09	Date Collected:	03/10/16 17:20
Client ID:	AA19-001	Date Received:	03/11/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/15/16 16:32		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.029	0.020	--	0.117	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.082	0.020	--	0.447	0.109	--		1
Trichloroethene	0.043	0.020	--	0.231	0.107	--		1
Tetrachloroethene	0.020	0.020	--	0.136	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	89		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

SAMPLE RESULTS

Lab ID:	L1607184-10	Date Collected:	03/10/16 21:45
Client ID:	IA41-024	Date Received:	03/11/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/15/16 17:42		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.071	0.020	--	0.187	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.066	0.020	--	0.267	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.289	0.020	--	1.58	0.109	--		1
Trichloroethene	0.083	0.020	--	0.446	0.107	--		1
Tetrachloroethene	0.026	0.020	--	0.176	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	89		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

SAMPLE RESULTS

Lab ID:	L1607184-11	Date Collected:	03/10/16 18:20
Client ID:	IA41-025	Date Received:	03/11/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/15/16 18:16		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.068	0.020	--	0.179	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.068	0.020	--	0.275	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.265	0.020	--	1.45	0.109	--		1
Trichloroethene	0.094	0.020	--	0.505	0.107	--		1
Tetrachloroethene	0.021	0.020	--	0.142	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

SAMPLE RESULTS

Lab ID:	L1607184-12	Date Collected:	03/11/16 16:15
Client ID:	IA47-001	Date Received:	03/11/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/15/16 18:51		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	0.035	0.020	--	0.139	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.025	0.020	--	0.101	0.081	--		1
cis-1,2-Dichloroethene	0.026	0.020	--	0.103	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.147	0.020	--	0.802	0.109	--		1
Trichloroethene	0.057	0.020	--	0.306	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

SAMPLE RESULTS

Lab ID:	L1607184-13	Date Collected:	03/11/16 16:20
Client ID:	IA47-009	Date Received:	03/11/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/15/16 19:26		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.028	0.020	--	0.153	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

SAMPLE RESULTS

Lab ID:	L1607184-14	Date Collected:	03/11/16 16:50
Client ID:	IA47-003	Date Received:	03/11/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/15/16 20:00		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.025	0.020	--	0.101	0.081	--		1
cis-1,2-Dichloroethene	0.044	0.020	--	0.174	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.175	0.020	--	0.955	0.109	--		1
Trichloroethene	0.090	0.020	--	0.484	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	88		60-140

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607184

Project Number: 3935.00 **Report Date:** 03/17/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/14/16 12:11

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01,03-05,07-08 Batch: WG873640-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607184

Project Number: 3935.00 **Report Date:** 03/17/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/15/16 14:02

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 02,06,09-14 Batch: WG874001-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01,03-05,07-08 Batch: WG873640-3								
Dichlorodifluoromethane	110		-		70-130	-		25
Chloromethane	82		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	105		-		70-130	-		25
Vinyl chloride	90		-		70-130	-		25
1,3-Butadiene	90		-		70-130	-		25
Bromomethane	104		-		70-130	-		25
Chloroethane	89		-		70-130	-		25
Acetone	84		-		70-130	-		25
Trichlorofluoromethane	115		-		70-130	-		25
1,1-Dichloroethene	95		-		70-130	-		25
Methylene chloride	92		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	113		-		70-130	-		25
Halothane	130		-		70-130	-		25
trans-1,2-Dichloroethene	88		-		70-130	-		25
1,1-Dichloroethane	97		-		70-130	-		25
Methyl tert butyl ether	100		-		70-130	-		25
2-Butanone	89		-		70-130	-		25
cis-1,2-Dichloroethene	106		-		70-130	-		25
Chloroform	109		-		70-130	-		25
1,2-Dichloroethane	103		-		70-130	-		25
1,1,1-Trichloroethane	89		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607184
Report Date: 03/17/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01,03-05,07-08 Batch: WG873640-3								
Benzene	77		-		70-130	-		25
Carbon tetrachloride	92		-		70-130	-		25
1,2-Dichloropropane	79		-		70-130	-		25
Bromodichloromethane	84		-		70-130	-		25
1,4-Dioxane	82		-		70-130	-		25
Trichloroethene	99		-		70-130	-		25
cis-1,3-Dichloropropene	89		-		70-130	-		25
4-Methyl-2-pentanone	74		-		70-130	-		25
trans-1,3-Dichloropropene	71		-		70-130	-		25
1,1,2-Trichloroethane	90		-		70-130	-		25
Toluene	94		-		70-130	-		25
Dibromochloromethane	113		-		70-130	-		25
1,2-Dibromoethane	107		-		70-130	-		25
Tetrachloroethene	125		-		70-130	-		25
1,1,1,2-Tetrachloroethane	107		-		70-130	-		25
Chlorobenzene	111		-		70-130	-		25
Ethylbenzene	102		-		70-130	-		25
p/m-Xylene	105		-		70-130	-		25
Bromoform	122		-		70-130	-		25
Styrene	108		-		70-130	-		25
1,1,2,2-Tetrachloroethane	99		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607184
Report Date: 03/17/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01,03-05,07-08 Batch: WG873640-3								
o-Xylene	102		-		70-130	-		25
Isopropylbenzene	105		-		70-130	-		25
4-Ethyltoluene	107		-		70-130	-		25
1,3,5-Trimethylbenzene	105		-		70-130	-		25
1,2,4-Trimethylbenzene	112		-		70-130	-		25
1,3-Dichlorobenzene	129		-		70-130	-		25
1,4-Dichlorobenzene	122		-		70-130	-		25
sec-Butylbenzene	105		-		70-130	-		25
p-Isopropyltoluene	104		-		70-130	-		25
1,2-Dichlorobenzene	123		-		70-130	-		25
n-Butylbenzene	106		-		70-130	-		25
1,2,4-Trichlorobenzene	**132**	Q	-		70-130	-		25
Naphthalene	115		-		70-130	-		25
1,2,3-Trichlorobenzene	124		-		70-130	-		25
Hexachlorobutadiene	129		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607184
Report Date: 03/17/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 02,06,09-14 Batch: WG874001-3								
Vinyl chloride	87		-		70-130	-		25
Chloroethane	84		-		70-130	-		25
1,1-Dichloroethene	96		-		70-130	-		25
trans-1,2-Dichloroethene	88		-		70-130	-		25
1,1-Dichloroethane	98		-		70-130	-		25
cis-1,2-Dichloroethene	106		-		70-130	-		25
1,2-Dichloroethane	102		-		70-130	-		25
1,1,1-Trichloroethane	89		-		70-130	-		25
Trichloroethene	103		-		70-130	-		25
Tetrachloroethene	126		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607184
Report Date: 03/17/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01,03-05,07-08 QC Batch ID: WG873640-5 QC Sample: L1606848-18 Client ID: DUP Sample						
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,2-Dichloroethane	0.036	0.035	ppbV	3		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Trichloroethene	0.066	0.065	ppbV	2		25
Tetrachloroethene	0.195	0.193	ppbV	1		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607184
Report Date: 03/17/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 02,06,09-14 QC Batch ID: WG874001-5 QC Sample: L1607184-09 Client ID: AA19-001					
Vinyl chloride	ND	ND	ppbV	NC	25
Chloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1-Dichloroethane	0.029	0.030	ppbV	3	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	0.082	0.084	ppbV	2	25
Trichloroethene	0.043	0.044	ppbV	2	25
Tetrachloroethene	0.020	0.020	ppbV	0	25

Project Name: FORMER IBM ENDICOTT

Lab Number: L1607184

Project Number: 3935.00

Report Date: 03/17/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1607184-01	IA40-004	0396	#16 AMB	03/07/16	217739		-	-	-	Pass	4.1	3.0	31
L1607184-01	IA40-004	2045	2.7L Can	03/07/16	217739	L1605864-12	Pass	-29.8	-11.1	-	-	-	-
L1607184-02	FB-1	0437	#16 AMB	03/10/16	217800		-	-	-	Pass	4.3	4.2	2
L1607184-02	FB-1	536	2.7L Can	03/09/16	217800	L1606339-12	Pass	-30.0	-8.4	-	-	-	-
L1607184-03	IA19-001	0207	#20 SV	03/10/16	217800		-	-	-	Pass	4.3	4.4	2
L1607184-03	IA19-001	2027	2.7L Can	03/09/16	217800	L1606339-05	Pass	-30.0	-10.1	-	-	-	-
L1607184-04	IA41-020	0947	#4 AMB	03/10/16	217800		-	-	-	Pass	4.0	4.5	12
L1607184-04	IA41-020	410	2.7L Can	03/10/16	217800	L1606339-17	Pass	-30.0	-8.5	-	-	-	-
L1607184-05	IA41-021	0681	#20 SV	03/10/16	217800		-	-	-	Pass	4.5	5.8	25
L1607184-05	IA41-021	2221	2.7L Can	03/10/16	217800	L1606339-07	Pass	-30.0	-7.7	-	-	-	-
L1607184-06	IA41-022	0553	#16 AMB	03/10/16	217800		-	-	-	Pass	4.4	4.4	0
L1607184-06	IA41-022	188	2.7L Can	03/10/16	217800	L1606339-20	Pass	-30.0	-7.9	-	-	-	-
L1607184-07	IA41-023	0411	#16 AMB	03/10/16	217800		-	-	-	Pass	4.4	4.4	0
L1607184-07	IA41-023	475	2.7L Can	03/10/16	217800	L1606339-13	Pass	-30.0	-7.8	-	-	-	-
L1607184-08	AA41-001	0172	#16 AMB	03/07/16	217739		-	-	-	Pass	4.1	4.3	5

Project Name: FORMER IBM ENDICOTT

Project Number: 3935.00

Lab Number: L1607184

Report Date: 03/17/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1607184-08	AA41-001	446	2.7L Can	03/07/16	217739	L1605864-22	Pass	-29.8	-8.6	-	-	-	-
L1607184-09	AA19-001	0731	#16 AMB	03/10/16	217800		-	-	-	Pass	4.0	3.7	8
L1607184-09	AA19-001	535	2.7L Can	03/10/16	217800	L1606339-21	Pass	-30.0	-9.1	-	-	-	-
L1607184-10	IA41-024	0618	#16 AMB	03/07/16	217739		-	-	-	Pass	4.0	2.4	50
L1607184-10	IA41-024	358	2.7L Can	03/07/16	217739	L1605864-08	Pass	-29.8	-11.0	-	-	-	-
L1607184-11	IA41-025	0808	#4 AMB	03/10/16	217800		-	-	-	Pass	4.2	2.0	71
L1607184-11	IA41-025	2074	2.7L Can	03/10/16	217800	L1606339-19	Pass	-30.0	-8.8	-	-	-	-
L1607184-12	IA47-001	0115	#16 AMB	03/10/16	217800		-	-	-	Pass	4.3	4.1	5
L1607184-12	IA47-001	504	2.7L Can	03/10/16	217800	L1606339-04	Pass	-30.0	-7.5	-	-	-	-
L1607184-13	IA47-009	0354	#16 AMB	03/10/16	217800		-	-	-	Pass	4.5	4.3	5
L1607184-13	IA47-009	385	2.7L Can	03/10/16	217800	L1606339-11	Pass	-30.0	-7.0	-	-	-	-
L1607184-14	IA47-003	0399	#20 SV	03/10/16	217800		-	-	-	Pass	4.0	3.9	3
L1607184-14	IA47-003	2029	2.7L Can	03/10/16	217800	L1606339-09	Pass	-30.0	-9.5	-	-	-	-

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1605864
Report Date: 03/17/16

Air Canister Certification Results

Lab ID:	L1605864-08	Date Collected:	03/02/16 17:00
Client ID:	CAN 358 FC 321	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 22:29		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	89		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1605864
Report Date: 03/17/16

Air Canister Certification Results

Lab ID:	L1605864-12	Date Collected:	03/02/16 17:00
Client ID:	CAN 2045 FC 723	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 20:21		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	95		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	95		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/17/16

Air Canister Certification Results

Lab ID:	L1605864-22	Date Collected:	03/02/16 17:00
Client ID:	CAN 446 FC 132	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/06/16 05:13		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	92		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/17/16

Air Canister Certification Results

Lab ID:	L1606339-04	Date Collected:	03/07/16 13:14
Client ID:	CAN 504 FC 354	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 02:28		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/17/16

Air Canister Certification Results

Lab ID:	L1606339-05	Date Collected:	03/07/16 13:14
Client ID:	CAN 2027 FC 207	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 03:02		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/17/16

Air Canister Certification Results

Lab ID:	L1606339-07	Date Collected:	03/07/16 13:14
Client ID:	CAN 2221 FC 681	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 04:11		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/17/16

Air Canister Certification Results

Lab ID:	L1606339-09	Date Collected:	03/07/16 13:14
Client ID:	CAN 2029 FC 399	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 05:20		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	92		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/17/16

Air Canister Certification Results

Lab ID:	L1606339-11	Date Collected:	03/07/16 13:14
Client ID:	CAN 385 FC 115	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 00:46		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	84		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	84		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/17/16

Air Canister Certification Results

Lab ID:	L1606339-12	Date Collected:	03/07/16 13:14
Client ID:	CAN 536 FC 437	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 01:18		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	84		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	83		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/17/16

Air Canister Certification Results

Lab ID:	L1606339-13	Date Collected:	03/07/16 13:14
Client ID:	CAN 475 FC 411	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 01:49		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	83		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	83		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/17/16

Air Canister Certification Results

Lab ID:	L1606339-17	Date Collected:	03/07/16 13:14
Client ID:	CAN 410 FC 947	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 03:56		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	83		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	82		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/17/16

Air Canister Certification Results

Lab ID:	L1606339-19	Date Collected:	03/07/16 13:14
Client ID:	CAN 2074 FC 913	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 13:48		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	96		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	94		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/17/16

Air Canister Certification Results

Lab ID:	L1606339-20	Date Collected:	03/07/16 13:14
Client ID:	CAN 188 FC 553	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 14:23		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	95		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	96		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/17/16

Air Canister Certification Results

Lab ID:	L1606339-21	Date Collected:	03/07/16 13:14
Client ID:	CAN 535 FC 731	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 14:57		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	95		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607184
Report Date: 03/17/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
N/A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1607184-01A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1607184-02A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1607184-03A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1607184-04A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1607184-05A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1607184-06A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1607184-07A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1607184-08A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1607184-09A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1607184-10A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1607184-11A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1607184-12A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1607184-13A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1607184-14A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607184
Project Number:	3935.00	**Report Date:**	03/17/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607184
Project Number:	3935.00	**Report Date:**	03/17/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 2

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/12/16

ALPHA Job #: L1607184

Client Information

Client: Sanborn, Head & Associates, Inc.
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: swarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☒ 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1-1-DCE, Cis-1,2-DCE, trans-1,2-DCE, Chloroethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
607184-01	IA40-004	3-9-16	07:50	18:50	-29.3	-10.3	AA	NDO	2.7	2045	0396	X					
-02	FB-1	3-10-16	07:50	12:30	-29.1	-7.8	AA	NDO	2.7	F36	0437	X					Nitrogen can #252
-03	IA19-001	3-10-16	09:15	17:43	-29.1	-8.8	AA	NDO	2.7	2027	0207	X					
-04	IA41-020	3-10-16	09:35	17:50	-29.1	-7.7	AA	NDO	2.7	410	0947	X					
-05	IA41-021	3-10-16	09:45	17:35	-29.6	-7.0	AA	NDO	2.7	2221	0681	X					
-06	IA41-022	3-10-16	10:00	17:55	-29.1	-7.3	AA	NDO	2.7	188	0553	X					
-07	IA41-023	3-10-16	10:05	18:00	-28.9	-6.9	AA	NDO	2.7	475	0411	X					
-08	AA41-001	3-10-16	08:40	16:40	-29.3	-8.2	AA	NDO	2.7	446	0172	X					
-09	AA19-001	3-10-16	08:55	17:20	-29.2	-8.6	AA	NDO	2.7	535	0731	X					
-10	IA41-024	3-10-16	10:15	21:45	-29.9	-10.6	AA	NDO	2.7	358	0618	X					

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type: CS-7

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
	3-11-16 1750		3/11/16 1750
	3/11/16		3/12/16 0010
	3/12/16 0710		3/12/16 0710

Form No. 101-02 Rev: (25-Sep-15)

AIR ANALYSIS

PAGE 2 OF

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/12/16

ALPHA Job #: L1607184

Client Information

Client: Sanborn, Head & Associates, Inc
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: swarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☒ See page 1

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
-11	IA41-025	3-10-16	10:20	18:20	-29.1	-7.9	AA	NDO	2.7	2074	0808	X							
-12	IA47-001	3-11-16	08:15	16:15	-29.3	-7.0	AA	NDO	2.7	504	0115	X							
-13	IA47-009	3-11-16	08:25	16:20	-29.3	-8.9	AA	NDO	2.7	385	0354	X							
-14	IA47-003	3-11-16	08:35	16:50	-29.3	-8.9	AA	NDO	2.7	2029	0399	X							

Container Type: CS

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Relinquished By:	Date/Time	Received By:	Date/Time:
[illegible]	3-11-16 17:50	[illegible]	3/11/16 1750
[illegible]	3/11/16	[illegible]	3/12/16 0040
[illegible]	3/12/16 07:10	[illegible]	3/12/16 07:10

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

ANALYTICAL REPORT

Lab Number:	L1607339
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	FORMER IBM ENDICOTT
Project Number:	3935.00
Report Date:	03/21/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607339
Report Date: 03/21/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1607339-01	IA47-002	AIR	ENDICOTT, NY	03/11/16 18:05	03/14/16
L1607339-02	IA47-010	AIR	ENDICOTT, NY	03/11/16 18:20	03/14/16
L1607339-03	IA47-005	AIR	ENDICOTT, NY	03/11/16 18:15	03/14/16
L1607339-04	AA47-001	AIR	ENDICOTT, NY	03/11/16 19:30	03/14/16
L1607339-05	UNUSED CAN #163	AIR	ENDICOTT, NY		03/14/16
L1607339-06	UNUSED CAN#262	AIR	ENDICOTT, NY		03/14/16

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607339
Project Number: 3935.00 **Report Date:** 03/21/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607339
Project Number: 3935.00 **Report Date:** 03/21/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 10, 2016. The canister certification results are provided as an addendum.

Sample Receipt

The sample designated IA47-005 (L1607339-03) had a RPD for the pre- and post-flow controller calibration check (102% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.0 mL/minute; the final flow rate was 1.3 mL/minute. The final pressure recorded by the laboratory of the associated canister was -8.0 inches of mercury. No further action was required.

The sample designated AA47-001 (L1607339-04) had a RPD for the pre- and post-flow controller calibration check (21% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.2 mL/minute; the final flow rate was 3.4 mL/minute. The final pressure recorded by the laboratory of the associated canister was -5.7 inches of mercury. No further action was required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 03/21/16

AIR

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607339
Report Date: 03/21/16

SAMPLE RESULTS

Lab ID:	L1607339-01	Date Collected:	03/11/16 18:05
Client ID:	IA47-002	Date Received:	03/14/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/19/16 16:57		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.087	0.020	--	0.475	0.109	--		1
Trichloroethene	0.031	0.020	--	0.167	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	93		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607339
Report Date: 03/21/16

SAMPLE RESULTS

Lab ID:	L1607339-02	Date Collected:	03/11/16 18:20
Client ID:	IA47-010	Date Received:	03/14/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/19/16 18:06		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.020	0.020	--	0.109	0.109	--		1
Trichloroethene	0.021	0.020	--	0.113	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	89		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607339
Report Date: 03/21/16

SAMPLE RESULTS

Lab ID:	L1607339-03	Date Collected:	03/11/16 18:15
Client ID:	IA47-005	Date Received:	03/14/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/19/16 18:40		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	87		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607339
Report Date: 03/21/16

SAMPLE RESULTS

Lab ID:	L1607339-04	Date Collected:	03/11/16 19:30
Client ID:	AA47-001	Date Received:	03/14/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/19/16 19:14		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.064	0.020	--	0.349	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	88		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	87		60-140

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607339

Project Number: 3935.00 **Report Date:** 03/21/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/19/16 13:21

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-04 Batch: WG875515-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607339
Report Date: 03/21/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04 Batch: WG875515-3								
Vinyl chloride	88		-		70-130	-		25
Chloroethane	88		-		70-130	-		25
1,1-Dichloroethene	96		-		70-130	-		25
trans-1,2-Dichloroethene	87		-		70-130	-		25
1,1-Dichloroethane	98		-		70-130	-		25
cis-1,2-Dichloroethene	105		-		70-130	-		25
1,2-Dichloroethane	105		-		70-130	-		25
1,1,1-Trichloroethane	90		-		70-130	-		25
Trichloroethene	102		-		70-130	-		25
Tetrachloroethene	130		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607339
Report Date: 03/21/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG875515-5 QC Sample: L1607339-01 Client ID: IA47-002						
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	0.087	0.093	ppbV	7		25
Trichloroethene	0.031	0.032	ppbV	3		25
Tetrachloroethene	ND	ND	ppbV	NC		25

Project Name: FORMER IBM ENDICOTT

Lab Number: L1607339

Project Number: 3935.00

Report Date: 03/21/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1607339-01	IA47-002	0913	#4 AMB	03/10/16	217800		-	-	-	Pass	4.0	4.2	5
L1607339-01	IA47-002	158	2.7L Can	03/10/16	217800	L1606339-18	Pass	-30.0	-5.0	-	-	-	-
L1607339-02	IA47-010	0773	#4 AMB	03/10/16	217800		-	-	-	Pass	4.0	3.8	5
L1607339-02	IA47-010	556	2.7L Can	03/10/16	217800	L1606339-15	Pass	-30.0	-8.0	-	-	-	-
L1607339-03	IA47-005	0619	#16 AMB	03/10/16	217800		-	-	-	Pass	4.0	1.3	102
L1607339-03	IA47-005	1727	2.7L Can	03/10/16	217800	L1606339-03	Pass	-30.0	-8.3	-	-	-	-
L1607339-04	AA47-001	0168	#16 AMB	03/11/16	218518		-	-	-	Pass	4.2	3.4	21
L1607339-04	AA47-001	2012	2.7L Can	03/11/16	218518	L1606581-01	Pass	-30.0	-5.7	-	-	-	-
L1607339-05	UNUSED CAN #163	0757	#30 SV	03/07/16	217739		-	-	-	Pass	4.5	2.1	73
L1607339-05	UNUSED CAN #163	163	2.7L Can	03/07/16	217739	L1605864-25	Pass	-29.8	-0.9	-	-	-	-
L1607339-06	UNUSED CAN#262	0481	#20 SV	03/10/16	217800		-	-	-	Pass	4.0	2.0	67
L1607339-06	UNUSED CAN#262	262	2.7L Can	03/10/16	217800	L1606339-08	Pass	-30.0	-10.0	-	-	-	-

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1605864

Project Number: CANISTER QC INDIV **Report Date:** 03/21/16

Air Canister Certification Results

Lab ID:	L1605864-25	Date Collected:	03/02/16 17:00
Client ID:	CAN 163 FC 935	Date Received:	03/03/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/04/16 21:57		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	94		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/21/16

Air Canister Certification Results

Lab ID:	L1606339-03	Date Collected:	03/07/16 13:14
Client ID:	CAN 1727 FC 619	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 01:53		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	91		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/21/16

Air Canister Certification Results

Lab ID:	L1606339-08	Date Collected:	03/07/16 13:14
Client ID:	CAN 262 FC 481	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 04:46		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/21/16

Air Canister Certification Results

Lab ID:	L1606339-15	Date Collected:	03/07/16 13:14
Client ID:	CAN 556 FC 773	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 02:53		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	82		60-140
bromochloromethane	71		60-140
chlorobenzene-d5	82		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/21/16

Air Canister Certification Results

Lab ID:	L1606339-18	Date Collected:	03/07/16 13:14
Client ID:	CAN 158 FC 808	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 13:13		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	96		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	94		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606581

Project Number: CANISTER QC INDIV **Report Date:** 03/21/16

Air Canister Certification Results

Lab ID:	L1606581-01	Date Collected:	03/08/16 19:06
Client ID:	CAN 2012 FC 494	Date Received:	03/08/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 22:31		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	98		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	97		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607339
Report Date: 03/21/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
N/A	Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1607339-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607339-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607339-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607339-04A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607339-05A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()
L1607339-06A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607339
Project Number:	3935.00	**Report Date:**	03/21/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607339
Project Number:	3935.00	**Report Date:**	03/21/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 1

ALPHA ANALYTICAL

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/15/16

ALPHA Job #: L1607339

Client Information

Client: Sanborn, Head & Associates, Inc
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: swarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☒ 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, chloroethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
07339.01	IA47-002	3-11-16	08:45	18:05	-30.0	-8.4	AA	NDO	2.7	158	0913	X							
.02	IA47-010	3-11-16	08:55	18:20	-29.3	-8.2	AA	NDO	2.7	556	0773	X							
.03	IA47-005	3-11-16	09:05	18:15	-29.7	-8.7	AA	NDO	2.7	1727	0619	X							
.04	AA47-001	3-11-16	11:40	19:30	-29.5	-7.3	AA	NDO	2.7	2012	0168	X							

NDO

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type	CS					

Relinquished By:	Date/Time	Received By:	Date/Time:
[illegible]	3-14-16 17:40	[illegible] AAL	3/14/16 17:40
[illegible]	3/14/16	[illegible]	3/14/16 2359
[illegible]	3/15/16 03:25	[illegible]	3/15/16 0325

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

ANALYTICAL REPORT

Lab Number:	L1607702
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	FORMER IBM ENDICOTT
Project Number:	3935.00
Report Date:	03/21/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607702
Report Date: 03/21/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1607702-01	IA14-005	AIR	ENDICOTT, NY	03/15/16 16:27	03/16/16
L1607702-02	IA14-006	AIR	ENDICOTT, NY	03/15/16 16:31	03/16/16
L1607702-03	IA14-008	AIR	ENDICOTT, NY	03/15/16 16:25	03/16/16
L1607702-04	DUP-2	AIR	ENDICOTT, NY	03/15/16 16:25	03/16/16
L1607702-05	IA14-002	AIR	ENDICOTT, NY	03/15/16 16:42	03/16/16
L1607702-06	IA14-004	AIR	ENDICOTT, NY	03/15/16 16:35	03/16/16

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607702
Project Number: 3935.00 **Report Date:** 03/21/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607702
Project Number:	3935.00	**Report Date:**	03/21/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 11 and 14, 2016. The canister certification results are provided as an addendum.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 03/21/16

AIR

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607702
Report Date: 03/21/16

SAMPLE RESULTS

Lab ID:	L1607702-01	Date Collected:	03/15/16 16:27
Client ID:	IA14-005	Date Received:	03/16/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/19/16 19:48		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.024	0.020	--	0.097	0.081	--		1
1,1,1-Trichloroethane	0.024	0.020	--	0.131	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.053	0.020	--	0.359	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	86		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607702
Report Date: 03/21/16

SAMPLE RESULTS

Lab ID:	L1607702-02	Date Collected:	03/15/16 16:31
Client ID:	IA14-006	Date Received:	03/16/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/19/16 20:23		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.024	0.020	--	0.097	0.081	--		1
1,1,1-Trichloroethane	0.027	0.020	--	0.147	0.109	--		1
Trichloroethene	0.021	0.020	--	0.113	0.107	--		1
Tetrachloroethene	0.053	0.020	--	0.359	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	87		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607702
Report Date: 03/21/16

SAMPLE RESULTS

Lab ID:	L1607702-03	Date Collected:	03/15/16 16:25
Client ID:	IA14-008	Date Received:	03/16/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/19/16 20:57		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.030	0.020	--	0.079	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.032	0.020	--	0.130	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.020	0.020	--	0.107	0.107	--		1
Tetrachloroethene	0.068	0.020	--	0.461	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	84		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607702
Report Date: 03/21/16

SAMPLE RESULTS

Lab ID:	L1607702-04	Date Collected:	03/15/16 16:25
Client ID:	DUP-2	Date Received:	03/16/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/19/16 21:31		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.022	0.020	--	0.089	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.059	0.020	--	0.400	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	87		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607702
Report Date: 03/21/16

SAMPLE RESULTS

Lab ID:	L1607702-05	Date Collected:	03/15/16 16:42
Client ID:	IA14-002	Date Received:	03/16/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/19/16 22:06		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.027	0.020	--	0.109	0.081	--		1
1,1,1-Trichloroethane	0.028	0.020	--	0.153	0.109	--		1
Trichloroethene	0.024	0.020	--	0.129	0.107	--		1
Tetrachloroethene	0.035	0.020	--	0.237	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	85		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607702
Report Date: 03/21/16

SAMPLE RESULTS

Lab ID:	L1607702-06	Date Collected:	03/15/16 16:35
Client ID:	IA14-004	Date Received:	03/16/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/19/16 22:40		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.022	0.020	--	0.089	0.081	--		1
1,1,1-Trichloroethane	0.026	0.020	--	0.142	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.049	0.020	--	0.332	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	86		60-140

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607702

Project Number: 3935.00 **Report Date:** 03/21/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/19/16 13:21

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-06 Batch: WG875515-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607702
Report Date: 03/21/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG875515-3								
Vinyl chloride	88		-		70-130	-		25
Chloroethane	88		-		70-130	-		25
1,1-Dichloroethene	96		-		70-130	-		25
trans-1,2-Dichloroethene	87		-		70-130	-		25
1,1-Dichloroethane	98		-		70-130	-		25
cis-1,2-Dichloroethene	105		-		70-130	-		25
1,2-Dichloroethane	105		-		70-130	-		25
1,1,1-Trichloroethane	90		-		70-130	-		25
Trichloroethene	102		-		70-130	-		25
Tetrachloroethene	130		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607702
Report Date: 03/21/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG875515-5 QC Sample: L1607339-01 Client ID: DUP Sample						
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	0.087	0.093	ppbV	7		25
Trichloroethene	0.031	0.032	ppbV	3		25
Tetrachloroethene	ND	ND	ppbV	NC		25

Project Name: FORMER IBM ENDICOTT

Lab Number: L1607702

Project Number: 3935.00

Report Date: 03/21/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1607702-01	IA14-005	0443	#16 AMB	03/14/16	218506		-	-	-	Pass	4.5	4.5	0
L1607702-01	IA14-005	2224	2.7L Can	03/14/16	218506	L1606899-12	Pass	-29.8	-4.4	-	-	-	-
L1607702-02	IA14-006	0499	#16 AMB	03/14/16	218506		-	-	-	Pass	4.5	4.3	5
L1607702-02	IA14-006	2278	2.7L Can	03/14/16	218506	L1606899-09	Pass	-29.8	-7.4	-	-	-	-
L1607702-03	IA14-008	0359	#90 SV	03/14/16	218506		-	-	-	Pass	4.3	4.4	2
L1607702-03	IA14-008	2277	2.7L Can	03/14/16	218506	L1606899-08	Pass	-29.8	-14.6	-	-	-	-
L1607702-04	DUP-2	0256	#16 AMB	03/11/16	218518		-	-	-	Pass	4.3	4.1	5
L1607702-04	DUP-2	2203	2.7L Can	03/14/16	218506	L1606899-16	Pass	-29.8	-6.3	-	-	-	-
L1607702-05	IA14-002	0397	#16 AMB	03/14/16	218506		-	-	-	Pass	4.5	4.3	5
L1607702-05	IA14-002	115	2.7L Can	03/11/16	218518	L1606581-03	Pass	-30.0	-7.2	-	-	-	-
L1607702-06	IA14-004	0012	#16 AMB	03/14/16	218506		-	-	-	Pass	4.2	4.2	0
L1607702-06	IA14-004	196	2.7L Can	03/14/16	218506	L1606899-15	Pass	-29.8	-5.4	-	-	-	-

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606581

Project Number: CANISTER QC INDIV **Report Date:** 03/21/16

Air Canister Certification Results

Lab ID:	L1606581-03	Date Collected:	03/08/16 19:06
Client ID:	CAN 115 FC 168	Date Received:	03/08/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 23:40		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	95		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	94		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1606899
Report Date: 03/21/16

Air Canister Certification Results

Lab ID:	L1606899-08	Date Collected:	03/10/16 16:53
Client ID:	CAN 2277 FC 397	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 13:44		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	97		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	98		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/21/16

Air Canister Certification Results

Lab ID:	L1606899-09	Date Collected:	03/10/16 16:53
Client ID:	CAN 2278 FC 499	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 14:16		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	98		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/21/16

Air Canister Certification Results

Lab ID:	L1606899-12	Date Collected:	03/10/16 16:53
Client ID:	CAN 2224 FC 443	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 14:56		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	84		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/21/16

Air Canister Certification Results

Lab ID:	L1606899-15	Date Collected:	03/10/16 16:53
Client ID:	CAN 196 FC 012	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 15:52		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	95		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	97		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/21/16

Air Canister Certification Results

Lab ID:	L1606899-16	Date Collected:	03/10/16 16:53
Client ID:	CAN 2203 FC 0087	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 16:23		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	102		60-140
chlorobenzene-d5	98		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607702
Report Date: 03/21/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
N/A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1607702-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607702-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607702-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607702-04A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607702-05A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607702-06A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607702
Project Number:	3935.00	**Report Date:**	03/21/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607702
Project Number:	3935.00	**Report Date:**	03/21/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 1

ALPHA ANALYTICAL — CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/17/16

ALPHA Job #: L1607702

Client Information

Client: Sanborn, Head & Associates, Inc.
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: swarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☒ 1,1,1-TCA, PCE, TCE, VC, 1-1-DCA, 1,2-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, chlorethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
607702-01	IA14-005	3-15-16	08:10	16:27	-29.35	-3.92	AA	NDO	2.7	2224	0443	X							
-02	IA14-006	3-15-16	08:45	16:31	-29.13	-6.77	↓	↓	↓	2278	0499	X							
-03	IA14-008	3-15-16	08:00	16:25	-29.88	-14.75	↓	↓	↓	2277	0359	X							
-04	DUP-2	3-15-16	08:00	16:25	-29.01	-5.88	↓	↓	↓	2203	0256	X							
-05	IA14-002	3-15-16	08:55	16:42	-29.12	-6.90	↓	↓	↓	115	0397	X							
-06	IA14-004	3-15-16	08:20	16:35	-28.90	-4.51	↓	↓	↓	196	0012	X							

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type: CS

Relinquished By:	Date/Time	Received By:	Date/Time:
[illegible]	3-16-16 17:38	[illegible] AAL	3/16/16 17:38
[illegible]	3-16/16	[illegible]	3/17/16 01:00
[illegible]	3/17/16 06:15	[illegible]	3/17/16 06:15

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

ANALYTICAL REPORT

Lab Number:	L1607703
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	FORMER IBM ENDICOTT
Project Number:	3935.00
Report Date:	03/29/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607703
Report Date: 03/29/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1607703-01	FB-2	AIR	ENDICOTT, NY	03/15/16 14:00	03/16/16
L1607703-02	AA14-001	AIR	ENDICOTT, NY	03/15/16 17:15	03/16/16
L1607703-03	IA14-001	AIR	ENDICOTT, NY	03/15/16 16:33	03/16/16
L1607703-04	IA14-007	AIR	ENDICOTT, NY	03/15/16 12:27	03/16/16
L1607703-05	IA57-007	AIR	ENDICOTT, NY	03/16/16 15:45	03/16/16
L1607703-06	IA57-002	AIR	ENDICOTT, NY	03/16/16 17:10	03/16/16

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607703
Project Number: 3935.00 **Report Date:** 03/29/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607703
Project Number: 3935.00 **Report Date:** 03/29/16

Case Narrative (continued)

Report Submission

This final report replaces the partial report issued on March 22, 2016 and includes the results of all requested analyses

Volatile Organics in Air

Canisters were released from the laboratory on March 11 and 14, 2016. The canister certification results are provided as an addendum.

Sample Receipt

The sample designated FB-2 (L1607703-01) had a RPD for the pre- and post-flow controller calibration check (146% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.5 mL/minute; the final flow rate was 0.7 mL/minute. The final pressure recorded by the laboratory of the associated canister was -4.9 inches of mercury. No further action was required.

The sample designated IA57-002 (L1607703-06) had a RPD for the pre- and post-flow controller calibration check (22% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.1 mL/minute; the final flow rate was .3.3 mL/minute. The final pressure recorded by the laboratory of the associated canister was -8.7 inches of mercury. No further action was required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 03/29/16

AIR

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607703
Report Date: 03/29/16

SAMPLE RESULTS

Lab ID:	L1607703-01	Date Collected:	03/15/16 14:00
Client ID:	FB-2	Date Received:	03/16/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/19/16 23:14		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	87		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607703
Report Date: 03/29/16

SAMPLE RESULTS

Lab ID:	L1607703-02	Date Collected:	03/15/16 17:15
Client ID:	AA14-001	Date Received:	03/16/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/19/16 23:49		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.020	0.020	--	0.136	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	81		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607703
Report Date: 03/29/16

SAMPLE RESULTS

Lab ID:	L1607703-03	Date Collected:	03/15/16 16:33
Client ID:	IA14-001	Date Received:	03/16/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/20/16 00:23		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.021	0.020	--	0.085	0.081	--		1
1,1,1-Trichloroethane	0.025	0.020	--	0.136	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.046	0.020	--	0.312	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	87		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607703
Report Date: 03/29/16

SAMPLE RESULTS

Lab ID:	L1607703-04	Date Collected:	03/15/16 12:27
Client ID:	IA14-007	Date Received:	03/16/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/20/16 00:57		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.023	0.020	--	0.093	0.081	--		1
1,1,1-Trichloroethane	0.022	0.020	--	0.120	0.109	--		1
Trichloroethene	0.022	0.020	--	0.118	0.107	--		1
Tetrachloroethene	0.065	0.020	--	0.441	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	86		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607703
Report Date: 03/29/16

SAMPLE RESULTS

Lab ID:	L1607703-05	Date Collected:	03/16/16 15:45
Client ID:	IA57-007	Date Received:	03/16/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/20/16 01:32		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.032	0.020	--	0.084	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.063	0.020	--	0.250	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.023	0.020	--	0.156	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	86		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	85		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607703
Report Date: 03/29/16

SAMPLE RESULTS

Lab ID:	L1607703-06	Date Collected:	03/16/16 17:10
Client ID:	IA57-002	Date Received:	03/16/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/20/16 02:06		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.303	0.020	--	1.20	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.025	0.020	--	0.134	0.107	--		1
Tetrachloroethene	0.033	0.020	--	0.224	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	87		60-140

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607703

Project Number: 3935.00 **Report Date:** 03/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/19/16 13:21

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-06 Batch: WG875515-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607703
Report Date: 03/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG875515-3								
Vinyl chloride	88		-		70-130	-		25
Chloroethane	88		-		70-130	-		25
1,1-Dichloroethene	96		-		70-130	-		25
trans-1,2-Dichloroethene	87		-		70-130	-		25
1,1-Dichloroethane	98		-		70-130	-		25
cis-1,2-Dichloroethene	105		-		70-130	-		25
1,2-Dichloroethane	105		-		70-130	-		25
1,1,1-Trichloroethane	90		-		70-130	-		25
Trichloroethene	102		-		70-130	-		25
Tetrachloroethene	130		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607703
Report Date: 03/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG875515-5 QC Sample: L1607339-01 Client ID: DUP Sample						
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	0.087	0.093	ppbV	7		25
Trichloroethene	0.031	0.032	ppbV	3		25
Tetrachloroethene	ND	ND	ppbV	NC		25

Project Name: FORMER IBM ENDICOTT

Lab Number: L1607703

Project Number: 3935.00

Report Date: 03/29/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1607703-01	FB-2	0494	#16 AMB	03/11/16	218518		-	-	-	Pass	4.5	0.7	146
L1607703-01	FB-2	2235	2.7L Can	03/11/16	218518	L1606581-04	Pass	-30.0	-4.9	-	-	-	-
L1607703-02	AA14-001	0374	#20 SV	03/11/16	218518		-	-	-	Pass	4.0	3.4	16
L1607703-02	AA14-001	490	2.7L Can	03/11/16	218518	L1606581-07	Pass	-30.0	-9.9	-	-	-	-
L1607703-03	IA14-001	0043	#16 AMB	03/14/16	218506		-	-	-	Pass	4.4	4.6	4
L1607703-03	IA14-001	360	2.7L Can	03/14/16	218506	L1606899-18	Pass	-29.8	-5.5	-	-	-	-
L1607703-04	IA14-007	0762	#4 SV	03/11/16	218518		-	-	-	Pass	4.5	4.7	4
L1607703-04	IA14-007	2217	2.7L Can	03/14/16	218506	L1606899-13	Pass	-29.8	-5.3	-	-	-	-
L1607703-05	IA57-007	0425	#16 AMB	03/15/16	218780		-	-	-	Pass	4.1	3.9	5
L1607703-05	IA57-007	282	2.7L CAN	03/15/16	218780	L1606899-21	Pass	-29.8	-9.1	-	-	-	-
L1607703-06	IA57-002	0765	#4 SV	03/11/16	218518		-	-	-	Pass	4.1	3.3	22
L1607703-06	IA57-002	2276	2.7L Can	03/14/16	218506	L1606899-10	Pass	-29.8	-8.7	-	-	-	-

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606581

Project Number: CANISTER QC INDIV **Report Date:** 03/29/16

Air Canister Certification Results

Lab ID:	L1606581-04	Date Collected:	03/08/16 19:06
Client ID:	CAN 2235 FC 785	Date Received:	03/08/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/09/16 00:15		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	95		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606581

Project Number: CANISTER QC INDIV **Report Date:** 03/29/16

Air Canister Certification Results

Lab ID:	L1606581-07	Date Collected:	03/08/16 19:06
Client ID:	CAN 490 FC 760	Date Received:	03/08/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/09/16 15:35		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/29/16

Air Canister Certification Results

Lab ID:	L1606899-10	Date Collected:	03/10/16 16:53
Client ID:	CAN 2276 FC 579	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 14:48		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	88		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/29/16

Air Canister Certification Results

Lab ID:	L1606899-13	Date Collected:	03/10/16 16:53
Client ID:	CAN 2217 FC 359	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 15:30		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	85		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/29/16

Air Canister Certification Results

Lab ID:	L1606899-18	Date Collected:	03/10/16 16:53
Client ID:	CAN 360 FC 043	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 16:38		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	88		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/29/16

Air Canister Certification Results

Lab ID:	L1606899-21	Date Collected:	03/10/16 16:53
Client ID:	CAN 282 FC 085	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 17:17		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	96		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	99		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607703
Report Date: 03/29/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
N/A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1607703-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607703-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607703-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607703-04A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607703-05A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607703-06A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607703
Project Number:	3935.00	**Report Date:**	03/29/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607703

Project Number: 3935.00 **Report Date:** 03/29/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 1

ALPHA ANALYTICAL — CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/17/16

ALPHA Job #: L1607703

Client Information

Client: Sanborn, Head & Associates, Inc
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: swarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☑ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☑ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☒ 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, chloroethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
607703-01	FB-2	3-15-16	13:00	14:00	-28.92	-4.83	AA	NDO	2.7	2235	0494	X							
-02	AA14-001	3-15-16	09:10	17:15	-29.02	-10.03		NDO		490	0374	X							
-03	IA14-001	3-15-16	08:30	16:33	-28.72	-4.90		NDO		360	0043	X							
-04	IA14-007	3-15-16	07:50	12:27	-28.76	-4.82		NDO		2217	0762	X							HOLD
-05	IA57-007	3-16-16	07:45	15:45	-29.01	-8.53		NDO		282	0425	X							
-06	IA57-002	3-16-16	08:35	17:10	-28.44	-8.07		NDO		2276	0765	X							

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type: CS

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	3-16-16 17:38	[signature]	3/16/16 17:38
[signature]	3/16/16	[signature]	3/17/16 0100
[signature]	3/17/16 0615	[signature]	3/17/16 06:15

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

ANALYTICAL REPORT

Lab Number:	L1607906
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	FORMER IBM ENDICOTT
Project Number:	3935.00
Report Date:	03/23/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607906
Report Date: 03/23/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1607906-01	IA57-006	AIR	ENDICOTT, NY	03/16/16 17:30	03/17/16
L1607906-02	AA57-001	AIR	ENDICOTT, NY	03/16/16 18:50	03/17/16
L1607906-03	IA57A-002	AIR	ENDICOTT, NY	03/16/16 17:21	03/17/16
L1607906-04	IA57A-001	AIR	ENDICOTT, NY	03/16/16 19:15	03/17/16
L1607906-05	DUP-3	AIR	ENDICOTT, NY	03/16/16 19:15	03/17/16
L1607906-06	IA57-004	AIR	ENDICOTT, NY	03/16/16 19:25	03/17/16

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607906
Project Number: 3935.00 **Report Date:** 03/23/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607906
Project Number: 3935.00 **Report Date:** 03/23/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 11, 14 and 15, 2016. The canister certification results are provided as an addendum.

Sample Receipt

The sample designated DUP-3 (L1607906-05) had a RPD for the pre- and post-flow controller calibration check (22% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.0 mL/minute; the final flow rate was 3.2 mL/minute. The final pressure recorded by the laboratory of the associated canister was -10.8 inches of mercury. No further action was required.

The sample designated IA57-004 (L1607906-06) had a RPD for the pre- and post-flow controller calibration check (58% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.0 mL/minute; the final flow rate was 2.2 mL/minute. The final pressure recorded by the laboratory of the associated canister was -10.8 inches of mercury. No further action was required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 03/23/16

AIR

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607906
Report Date: 03/23/16

SAMPLE RESULTS

Lab ID:	L1607906-01	Date Collected:	03/16/16 17:30
Client ID:	IA57-006	Date Received:	03/17/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/22/16 23:14		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	1.14	0.020	--	4.52	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	84		60-140
chlorobenzene-d5	88		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607906
Report Date: 03/23/16

SAMPLE RESULTS

Lab ID:	L1607906-02	Date Collected:	03/16/16 18:50
Client ID:	AA57-001	Date Received:	03/17/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/22/16 22:42		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	89		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607906
Report Date: 03/23/16

SAMPLE RESULTS

Lab ID:	L1607906-03	Date Collected:	03/16/16 17:21
Client ID:	IA57A-002	Date Received:	03/17/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/22/16 23:46		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.093	0.020	--	0.369	0.079	--		1
1,1-Dichloroethane	0.057	0.020	--	0.231	0.081	--		1
cis-1,2-Dichloroethene	0.036	0.020	--	0.143	0.079	--		1
1,2-Dichloroethane	0.039	0.020	--	0.158	0.081	--		1
1,1,1-Trichloroethane	0.088	0.020	--	0.480	0.109	--		1
Trichloroethene	0.480	0.020	--	2.58	0.107	--		1
Tetrachloroethene	0.037	0.020	--	0.251	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	85		60-140
bromochloromethane	84		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607906
Report Date: 03/23/16

SAMPLE RESULTS

Lab ID:	L1607906-04	Date Collected:	03/16/16 19:15
Client ID:	IA57A-001	Date Received:	03/17/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 00:18		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.087	0.020	--	0.345	0.079	--		1
1,1-Dichloroethane	0.033	0.020	--	0.134	0.081	--		1
cis-1,2-Dichloroethene	0.024	0.020	--	0.095	0.079	--		1
1,2-Dichloroethane	0.036	0.020	--	0.146	0.081	--		1
1,1,1-Trichloroethane	0.051	0.020	--	0.278	0.109	--		1
Trichloroethene	0.363	0.020	--	1.95	0.107	--		1
Tetrachloroethene	0.033	0.020	--	0.224	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	92		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607906
Report Date: 03/23/16

SAMPLE RESULTS

Lab ID:	L1607906-05	Date Collected:	03/16/16 19:15
Client ID:	DUP-3	Date Received:	03/17/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 00:49		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.031	0.020	--	0.082	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.095	0.020	--	0.377	0.079	--		1
1,1-Dichloroethane	0.034	0.020	--	0.138	0.081	--		1
cis-1,2-Dichloroethene	0.021	0.020	--	0.083	0.079	--		1
1,2-Dichloroethane	0.040	0.020	--	0.162	0.081	--		1
1,1,1-Trichloroethane	0.053	0.020	--	0.289	0.109	--		1
Trichloroethene	0.376	0.020	--	2.02	0.107	--		1
Tetrachloroethene	0.036	0.020	--	0.244	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	80		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607906
Report Date: 03/23/16

SAMPLE RESULTS

Lab ID:	L1607906-06	Date Collected:	03/16/16 19:25
Client ID:	IA57-004	Date Received:	03/17/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 01:21		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.308	0.020	--	1.22	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.049	0.020	--	0.332	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	83		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607906

Project Number: 3935.00 **Report Date:** 03/23/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/22/16 15:47

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-06 Batch: WG876375-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607906
Report Date: 03/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG876375-3								
Propylene	89		-		70-130	-		25
Dichlorodifluoromethane	89		-		70-130	-		25
Chloromethane	89		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	92		-		70-130	-		25
Vinyl chloride	91		-		70-130	-		25
1,3-Butadiene	97		-		70-130	-		25
Bromomethane	87		-		70-130	-		25
Chloroethane	90		-		70-130	-		25
Ethyl Alcohol	112		-		70-130	-		25
Vinyl bromide	89		-		70-130	-		25
Acetone	103		-		70-130	-		25
Trichlorofluoromethane	95		-		70-130	-		25
iso-Propyl Alcohol	106		-		70-130	-		25
Acrylonitrile	89		-		70-130	-		25
1,1-Dichloroethene	99		-		70-130	-		25
Methylene chloride	110		-		70-130	-		25
3-Chloropropene	109		-		70-130	-		25
Carbon disulfide	92		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	96		-		70-130	-		25
Halothane	103		-		70-130	-		25
trans-1,2-Dichloroethene	92		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607906
Report Date: 03/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG876375-3								
1,1-Dichloroethane	101		-		70-130	-		25
Methyl tert butyl ether	96		-		70-130	-		25
Vinyl acetate	**136**	Q	-		70-130	-		25
2-Butanone	103		-		70-130	-		25
cis-1,2-Dichloroethene	109		-		70-130	-		25
Ethyl Acetate	83		-		70-130	-		25
Chloroform	86		-		70-130	-		25
Tetrahydrofuran	85		-		70-130	-		25
1,2-Dichloroethane	85		-		70-130	-		25
n-Hexane	106		-		70-130	-		25
1,1,1-Trichloroethane	101		-		70-130	-		25
Benzene	95		-		70-130	-		25
Carbon tetrachloride	99		-		70-130	-		25
Cyclohexane	101		-		70-130	-		25
1,2-Dichloropropane	105		-		70-130	-		25
Bromodichloromethane	103		-		70-130	-		25
1,4-Dioxane	96		-		70-130	-		25
Trichloroethene	92		-		70-130	-		25
2,2,4-Trimethylpentane	108		-		70-130	-		25
cis-1,3-Dichloropropene	104		-		70-130	-		25
4-Methyl-2-pentanone	119		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607906
Report Date: 03/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG876375-3								
trans-1,3-Dichloropropene	90		-		70-130	-		25
1,1,2-Trichloroethane	101		-		70-130	-		25
Toluene	78		-		70-130	-		25
2-Hexanone	96		-		70-130	-		25
Dibromochloromethane	78		-		70-130	-		25
1,2-Dibromoethane	81		-		70-130	-		25
Tetrachloroethene	71		-		70-130	-		25
1,1,1,2-Tetrachloroethane	73		-		70-130	-		25
Chlorobenzene	80		-		70-130	-		25
Ethylbenzene	80		-		70-130	-		25
p/m-Xylene	81		-		70-130	-		25
Bromoform	73		-		70-130	-		25
Styrene	79		-		70-130	-		25
1,1,2,2-Tetrachloroethane	90		-		70-130	-		25
o-Xylene	84		-		70-130	-		25
Isopropylbenzene	77		-		70-130	-		25
4-Ethyltoluene	77		-		70-130	-		25
1,3,5-Trimethylbenzene	80		-		70-130	-		25
1,2,4-Trimethylbenzene	85		-		70-130	-		25
Benzyl chloride	82		-		70-130	-		25
1,3-Dichlorobenzene	81		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607906
Report Date: 03/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG876375-3								
1,4-Dichlorobenzene	79		-		70-130	-		25
sec-Butylbenzene	79		-		70-130	-		25
p-Isopropyltoluene	71		-		70-130	-		25
1,2-Dichlorobenzene	79		-		70-130	-		25
n-Butylbenzene	83		-		70-130	-		25
1,2,4-Trichlorobenzene	84		-		70-130	-		25
Naphthalene	84		-		70-130	-		25
1,2,3-Trichlorobenzene	80		-		70-130	-		25
Hexachlorobutadiene	79		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607906
Report Date: 03/23/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG876375-5 QC Sample: L1607911-01 Client ID: DUP Sample						
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	0.044	0.046	ppbV	4		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	0.426	0.437	ppbV	3		25
Trichloroethene	0.061	0.064	ppbV	5		25
Tetrachloroethene	0.053	0.054	ppbV	2		25

Project Name: FORMER IBM ENDICOTT

Lab Number: L1607906

Project Number: 3935.00

Report Date: 03/23/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1607906-01	IA57-006	0229	#16 AMB	03/15/16	218780		-	-	-	Pass	4.0	3.9	3
L1607906-01	IA57-006	155	2.7L Can	03/15/16	218780	L1606899-24	Pass	-29.8	-8.2	-	-	-	-
L1607906-02	AA57-001	0387	#16 AMB	03/14/16	218506		-	-	-	Pass	4.3	4.2	2
L1607906-02	AA57-001	2035	2.7L Can	03/14/16	218506	L1606899-14	Pass	-29.8	-5.9	-	-	-	-
L1607906-03	IA57A-002	0726	#16 AMB	03/15/16	218780		-	-	-	Pass	4.1	3.9	5
L1607906-03	IA57A-002	112	2.7L Can	03/15/16	218780	L1606899-25	Pass	-29.6	-9.0	-	-	-	-
L1607906-04	IA57A-001	0948	#4 AMB	03/15/16	218780		-	-	-	Pass	4.0	3.8	5
L1607906-04	IA57A-001	515	2.7L Can	03/11/16	218518	L1606581-06	Pass	-30.0	-8.4	-	-	-	-
L1607906-05	DUP-3	0719	#30 SV	03/11/16	218518		-	-	-	Pass	4.0	3.2	22
L1607906-05	DUP-3	1738	2.7L Can	03/14/16	218506	L1606899-05	Pass	-29.8	-10.8	-	-	-	-
L1607906-06	IA57-004	0760	#16 AMB	03/11/16	218518		-	-	-	Pass	4.0	2.2	58
L1607906-06	IA57-004	407	2.7L Can	03/15/16	218780	L1606899-20	Pass	-29.9	-10.8	-	-	-	-

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606581

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606581-06	Date Collected:	03/08/16 19:06
Client ID:	CAN 515 FC 374	Date Received:	03/08/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/09/16 15:00		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606899-05	Date Collected:	03/10/16 16:53
Client ID:	CAN 1738 FC 937	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/10/16 20:48		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	103		60-140
chlorobenzene-d5	96		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606899-14	Date Collected:	03/10/16 16:53
Client ID:	CAN 2035 FC 160	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 15:20		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	97		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606899-20	Date Collected:	03/10/16 16:53
Client ID:	CAN 407 FC 425	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 17:45		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	86		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	83		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606899-24	Date Collected:	03/10/16 16:53
Client ID:	CAN 155 FC 726	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/14/16 13:04		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606899-25	Date Collected:	03/10/16 16:53
Client ID:	CAN 112 FC 229	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/14/16 13:38		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	93		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	95		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607906
Report Date: 03/23/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
N/A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1607906-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607906-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607906-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607906-04A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607906-05A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607906-06A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607906
Project Number:	3935.00	**Report Date:**	03/23/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607906
Project Number:	3935.00	**Report Date:**	03/23/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 1

Date Rec'd in Lab: 3/18/16

ALPHA Job #: L1607906

ALPHA ANALYTICAL — CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Sanborn, Head & Associates, Inc.
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: swarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☑ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☑ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments: 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, Chloroethane

Project-Specific Target Compound List: ☑

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
L1607906-01	IA57-006	3-16-16	08:45	17:30	-28.83	-7.30	AA	NDO	2.7	155	0229	X							
-02	AA57-001	3-16-16	10:20	18:50	-28.91	-5.48		NDO		2035	0387	X							
-03	IA57A-002	3-16-16	09:15	17:21	-29.08	-7.87		NDO		112	0726	X							
-04	IA57A-001	3-16-16	09:25	19:15	-28.60	-7.38		NDO		515	0948	X							
-05	DUP-3	3-16-16	09:25	19:15	-28.69	-10.00		NDO		1738	0719	X							
-06	IA57-004	3-16-16	08:10	19:25	-29.08	-9.94		NDO		407	0760	X							
											Container Type	CS							

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Relinquished By:	Date/Time	Received By:	Date/Time:
[illegible]	3-17-16 13:00	[illegible] AAL	3-17-16 1300
[illegible]	3-18-16 4:20	Al Williams	3-18-16 4:20
Al Williams	3-18-16 4:55	[illegible]	3-18-16 4:55

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

ANALYTICAL REPORT

Lab Number:	L1607911
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	FORMER IBM ENDICOTT
Project Number:	3935.00
Report Date:	03/23/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607911
Report Date: 03/23/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1607911-01	IA264-001	AIR	ENDICOTT, NY	03/16/16 19:02	03/17/16
L1607911-02	AA264-001	AIR	ENDICOTT, NY	03/16/16 19:17	03/17/16
L1607911-03	UNUSED CAN #2077	AIR	ENDICOTT, NY		03/17/16
L1607911-04	UNUSED CAN #2220	AIR	ENDICOTT, NY		03/17/16

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607911
Project Number: 3935.00 **Report Date:** 03/23/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607911
Project Number:	3935.00	**Report Date:**	03/23/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 11 and 14, 2016. The canister certification results are provided as an addendum.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 03/23/16

AIR

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607911
Report Date: 03/23/16

SAMPLE RESULTS

Lab ID:	L1607911-01	Date Collected:	03/16/16 19:02
Client ID:	IA264-001	Date Received:	03/17/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 01:53		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.044	0.020	--	0.178	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.426	0.020	--	2.32	0.109	--		1
Trichloroethene	0.061	0.020	--	0.328	0.107	--		1
Tetrachloroethene	0.053	0.020	--	0.359	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607911
Report Date: 03/23/16

SAMPLE RESULTS

Lab ID:	L1607911-02	Date Collected:	03/16/16 19:17
Client ID:	AA264-001	Date Received:	03/17/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/22/16 22:10		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.067	0.020	--	0.366	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	92		60-140

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607911

Project Number: 3935.00 **Report Date:** 03/23/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/22/16 15:47

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-02 Batch: WG876375-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607911
Report Date: 03/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG876375-3								
Propylene	89		-		70-130	-		25
Dichlorodifluoromethane	89		-		70-130	-		25
Chloromethane	89		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	92		-		70-130	-		25
Vinyl chloride	91		-		70-130	-		25
1,3-Butadiene	97		-		70-130	-		25
Bromomethane	87		-		70-130	-		25
Chloroethane	90		-		70-130	-		25
Ethyl Alcohol	112		-		70-130	-		25
Vinyl bromide	89		-		70-130	-		25
Acetone	103		-		70-130	-		25
Trichlorofluoromethane	95		-		70-130	-		25
iso-Propyl Alcohol	106		-		70-130	-		25
Acrylonitrile	89		-		70-130	-		25
1,1-Dichloroethene	99		-		70-130	-		25
Methylene chloride	110		-		70-130	-		25
3-Chloropropene	109		-		70-130	-		25
Carbon disulfide	92		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	96		-		70-130	-		25
Halothane	103		-		70-130	-		25
trans-1,2-Dichloroethene	92		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607911
Report Date: 03/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG876375-3								
1,1-Dichloroethane	101		-		70-130	-		25
Methyl tert butyl ether	96		-		70-130	-		25
Vinyl acetate	**136**	Q	-		70-130	-		25
2-Butanone	103		-		70-130	-		25
cis-1,2-Dichloroethene	109		-		70-130	-		25
Ethyl Acetate	83		-		70-130	-		25
Chloroform	86		-		70-130	-		25
Tetrahydrofuran	85		-		70-130	-		25
1,2-Dichloroethane	85		-		70-130	-		25
n-Hexane	106		-		70-130	-		25
1,1,1-Trichloroethane	101		-		70-130	-		25
Benzene	95		-		70-130	-		25
Carbon tetrachloride	99		-		70-130	-		25
Cyclohexane	101		-		70-130	-		25
1,2-Dichloropropane	105		-		70-130	-		25
Bromodichloromethane	103		-		70-130	-		25
1,4-Dioxane	96		-		70-130	-		25
Trichloroethene	92		-		70-130	-		25
2,2,4-Trimethylpentane	108		-		70-130	-		25
cis-1,3-Dichloropropene	104		-		70-130	-		25
4-Methyl-2-pentanone	119		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607911
Report Date: 03/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG876375-3								
trans-1,3-Dichloropropene	90		-		70-130	-		25
1,1,2-Trichloroethane	101		-		70-130	-		25
Toluene	78		-		70-130	-		25
2-Hexanone	96		-		70-130	-		25
Dibromochloromethane	78		-		70-130	-		25
1,2-Dibromoethane	81		-		70-130	-		25
Tetrachloroethene	71		-		70-130	-		25
1,1,1,2-Tetrachloroethane	73		-		70-130	-		25
Chlorobenzene	80		-		70-130	-		25
Ethylbenzene	80		-		70-130	-		25
p/m-Xylene	81		-		70-130	-		25
Bromoform	73		-		70-130	-		25
Styrene	79		-		70-130	-		25
1,1,2,2-Tetrachloroethane	90		-		70-130	-		25
o-Xylene	84		-		70-130	-		25
Isopropylbenzene	77		-		70-130	-		25
4-Ethyltoluene	77		-		70-130	-		25
1,3,5-Trimethylbenzene	80		-		70-130	-		25
1,2,4-Trimethylbenzene	85		-		70-130	-		25
Benzyl chloride	82		-		70-130	-		25
1,3-Dichlorobenzene	81		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT

Project Number: 3935.00

Lab Number: L1607911

Report Date: 03/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG876375-3								
1,4-Dichlorobenzene	79		-		70-130	-		25
sec-Butylbenzene	79		-		70-130	-		25
p-Isopropyltoluene	71		-		70-130	-		25
1,2-Dichlorobenzene	79		-		70-130	-		25
n-Butylbenzene	83		-		70-130	-		25
1,2,4-Trichlorobenzene	84		-		70-130	-		25
Naphthalene	84		-		70-130	-		25
1,2,3-Trichlorobenzene	80		-		70-130	-		25
Hexachlorobutadiene	79		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607911
Report Date: 03/23/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG876375-5 QC Sample: L1607911-01 Client ID: IA264-001						
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	0.044	0.046	ppbV	4		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	0.426	0.437	ppbV	3		25
Trichloroethene	0.061	0.064	ppbV	5		25
Tetrachloroethene	0.053	0.054	ppbV	2		25

Project Name: FORMER IBM ENDICOTT

Lab Number: L1607911

Project Number: 3935.00

Report Date: 03/23/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1607911-01	IA264-001	0092	#16 AMB	03/14/16	218506		-	-	-	Pass	4.4	4.5	2
L1607911-01	IA264-001	2195	2.7L Can	03/14/16	218506	L1606899-11	Pass	-29.8	-6.6	-	-	-	-
L1607911-02	AA264-001	0937	#4 AMB	03/14/16	218506		-	-	-	Pass	4.3	4.4	2
L1607911-02	AA264-001	136	2.7L Can	03/11/16	218518	L1606581-08	Pass	-30.0	-7.1	-	-	-	-
L1607911-03	UNUSED CAN #2077	2077	2.7L Can	03/14/16	218506	L1606899-07	Pass	o/p	O/P	-	-	-	-
L1607911-04	UNUSED CAN #2220	2220	2.7L Can	03/10/16	217800	L1606339-01	Pass	o/p	O/P	-	-	-	-

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606339

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606339-01	Date Collected:	03/07/16 13:14
Client ID:	CAN 2220 FC A	Date Received:	03/07/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 07:47		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606581

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606581-08	Date Collected:	03/08/16 19:06
Client ID:	CAN 136 FC 762	Date Received:	03/08/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/09/16 16:09		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606899-07	Date Collected:	03/10/16 16:53
Client ID:	CAN 2077 FC B	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 13:08		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	93		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606899-11	Date Collected:	03/10/16 16:53
Client ID:	CAN 2195 FC 498	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 14:22		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	86		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	86		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607911
Report Date: 03/23/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
N/A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1607911-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607911-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607911-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()
L1607911-04A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607911
Project Number:	3935.00	**Report Date:**	03/23/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607911
Project Number:	3935.00	**Report Date:**	03/23/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 1

ALPHA ANALYTICAL — CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/18/16

ALPHA Job #: L1607911

Client Information

Client: Sanborn, Head & Associates, Inc.
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: swarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☑ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☑ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments: 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, Chloroethane

Project-Specific Target Compound List: ☒

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
607911-01	IA264-001	3-16-16	11:00	19:02	-28.87	-5.89	AA	CTN	2.7	2195	002	X							
-02	AA264-001	3-16-16	11:15	19:17	-28.95	-6.57	AA	CTN	2.7	136	0937	X							

Container Type: CS

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Relinquished By:	Date/Time	Received By:	Date/Time:
[illegible]	3-17-16 09:30	[illegible]	3-17-16 09:30
[illegible]	3-17-16 13:00	[illegible] AIR ALL	3-17-16 13:00
[illegible]	3-18-16 4:20	[illegible]	3-18-16 4:20
Al Williams	3-18-16 4:55	[illegible]	3/18/16 4:55

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

ANALYTICAL REPORT

Lab Number:	L1607912
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	FORMER IBM ENDICOTT
Project Number:	3935.00
Report Date:	03/23/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607912
Report Date: 03/23/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1607912-01	IA57A-003	AIR	ENDICOTT, NY	03/16/16 17:18	03/17/16
L1607912-02	IA57A-004	AIR	ENDICOTT, NY	03/16/16 17:15	03/17/16
L1607912-03	IA57-005	AIR	ENDICOTT, NY	03/16/16 16:55	03/17/16
L1607912-04	IA57-003	AIR	ENDICOTT, NY	03/16/16 17:00	03/17/16
L1607912-05	IA57-001	AIR	ENDICOTT, NY	03/16/16 17:05	03/17/16
L1607912-06	FB-3	AIR	ENDICOTT, NY	03/16/16 13:25	03/17/16

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607912
Project Number: 3935.00 **Report Date:** 03/23/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607912
Project Number:	3935.00	**Report Date:**	03/23/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 11, 14 and 15, 2016. The canister certification results are provided as an addendum.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 03/23/16

AIR

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607912
Report Date: 03/23/16

SAMPLE RESULTS

Lab ID:	L1607912-01	Date Collected:	03/16/16 17:18
Client ID:	IA57A-003	Date Received:	03/17/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 02:57		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.048	0.020	--	0.258	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	84		60-140
chlorobenzene-d5	91		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607912
Report Date: 03/23/16

SAMPLE RESULTS

Lab ID:	L1607912-02	Date Collected:	03/16/16 17:15
Client ID:	IA57A-004	Date Received:	03/17/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 03:29		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.288	0.020	--	1.14	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.025	0.020	--	0.134	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	94		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607912
Report Date: 03/23/16

SAMPLE RESULTS

Lab ID:	L1607912-03	Date Collected:	03/16/16 16:55
Client ID:	IA57-005	Date Received:	03/17/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 04:00		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.226	0.020	--	0.896	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.034	0.020	--	0.231	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	91		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607912
Report Date: 03/23/16

SAMPLE RESULTS

Lab ID:	L1607912-04	Date Collected:	03/16/16 17:00
Client ID:	IA57-003	Date Received:	03/17/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 04:32		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.262	0.020	--	1.04	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	91		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607912
Report Date: 03/23/16

SAMPLE RESULTS

Lab ID:	L1607912-05	Date Collected:	03/16/16 17:05
Client ID:	IA57-001	Date Received:	03/17/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 05:04		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.271	0.020	--	1.07	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	84		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1607912
Report Date: 03/23/16

SAMPLE RESULTS

Lab ID:	L1607912-06	Date Collected:	03/16/16 13:25
Client ID:	FB-3	Date Received:	03/17/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/22/16 21:37		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	100		60-140
bromochloromethane	102		60-140
chlorobenzene-d5	94		60-140

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1607912

Project Number: 3935.00 **Report Date:** 03/23/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/22/16 15:47

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-06 Batch: WG876375-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607912
Report Date: 03/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG876375-3								
Propylene	89		-		70-130	-		25
Dichlorodifluoromethane	89		-		70-130	-		25
Chloromethane	89		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	92		-		70-130	-		25
Vinyl chloride	91		-		70-130	-		25
1,3-Butadiene	97		-		70-130	-		25
Bromomethane	87		-		70-130	-		25
Chloroethane	90		-		70-130	-		25
Ethyl Alcohol	112		-		70-130	-		25
Vinyl bromide	89		-		70-130	-		25
Acetone	103		-		70-130	-		25
Trichlorofluoromethane	95		-		70-130	-		25
iso-Propyl Alcohol	106		-		70-130	-		25
Acrylonitrile	89		-		70-130	-		25
1,1-Dichloroethene	99		-		70-130	-		25
Methylene chloride	110		-		70-130	-		25
3-Chloropropene	109		-		70-130	-		25
Carbon disulfide	92		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	96		-		70-130	-		25
Halothane	103		-		70-130	-		25
trans-1,2-Dichloroethene	92		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607912
Report Date: 03/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG876375-3								
1,1-Dichloroethane	101		-		70-130	-		25
Methyl tert butyl ether	96		-		70-130	-		25
Vinyl acetate	**136**	Q	-		70-130	-		25
2-Butanone	103		-		70-130	-		25
cis-1,2-Dichloroethene	109		-		70-130	-		25
Ethyl Acetate	83		-		70-130	-		25
Chloroform	86		-		70-130	-		25
Tetrahydrofuran	85		-		70-130	-		25
1,2-Dichloroethane	85		-		70-130	-		25
n-Hexane	106		-		70-130	-		25
1,1,1-Trichloroethane	101		-		70-130	-		25
Benzene	95		-		70-130	-		25
Carbon tetrachloride	99		-		70-130	-		25
Cyclohexane	101		-		70-130	-		25
1,2-Dichloropropane	105		-		70-130	-		25
Bromodichloromethane	103		-		70-130	-		25
1,4-Dioxane	96		-		70-130	-		25
Trichloroethene	92		-		70-130	-		25
2,2,4-Trimethylpentane	108		-		70-130	-		25
cis-1,3-Dichloropropene	104		-		70-130	-		25
4-Methyl-2-pentanone	119		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607912
Report Date: 03/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG876375-3								
trans-1,3-Dichloropropene	90		-		70-130	-		25
1,1,2-Trichloroethane	101		-		70-130	-		25
Toluene	78		-		70-130	-		25
2-Hexanone	96		-		70-130	-		25
Dibromochloromethane	78		-		70-130	-		25
1,2-Dibromoethane	81		-		70-130	-		25
Tetrachloroethene	71		-		70-130	-		25
1,1,1,2-Tetrachloroethane	73		-		70-130	-		25
Chlorobenzene	80		-		70-130	-		25
Ethylbenzene	80		-		70-130	-		25
p/m-Xylene	81		-		70-130	-		25
Bromoform	73		-		70-130	-		25
Styrene	79		-		70-130	-		25
1,1,2,2-Tetrachloroethane	90		-		70-130	-		25
o-Xylene	84		-		70-130	-		25
Isopropylbenzene	77		-		70-130	-		25
4-Ethyltoluene	77		-		70-130	-		25
1,3,5-Trimethylbenzene	80		-		70-130	-		25
1,2,4-Trimethylbenzene	85		-		70-130	-		25
Benzyl chloride	82		-		70-130	-		25
1,3-Dichlorobenzene	81		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607912
Report Date: 03/23/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG876375-3								
1,4-Dichlorobenzene	79		-		70-130	-		25
sec-Butylbenzene	79		-		70-130	-		25
p-Isopropyltoluene	71		-		70-130	-		25
1,2-Dichlorobenzene	79		-		70-130	-		25
n-Butylbenzene	83		-		70-130	-		25
1,2,4-Trichlorobenzene	84		-		70-130	-		25
Naphthalene	84		-		70-130	-		25
1,2,3-Trichlorobenzene	80		-		70-130	-		25
Hexachlorobutadiene	79		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607912
Report Date: 03/23/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG876375-5 QC Sample: L1607911-01 Client ID: DUP Sample						
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	0.044	0.046	ppbV	4		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	0.426	0.437	ppbV	3		25
Trichloroethene	0.061	0.064	ppbV	5		25
Tetrachloroethene	0.053	0.054	ppbV	2		25

Project Name: FORMER IBM ENDICOTT

Lab Number: L1607912

Project Number: 3935.00

Report Date: 03/23/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1607912-01	IA57A-003	0541	#16 AMB	03/15/16	218780		-	-	-	Pass	4.3	4.6	7
L1607912-01	IA57A-003	139	2.7L Can	03/15/16	218780	L1606899-26	Pass	-29.8	-7.0	-	-	-	-
L1607912-02	IA57A-004	0158	#20 AMB	03/11/16	218518		-	-	-	Pass	4.2	4.4	5
L1607912-02	IA57A-004	2232	2.7L Can	03/14/16	218506	L1606899-17	Pass	-29.8	-7.3	-	-	-	-
L1607912-03	IA57-005	0786	#20 AMB	03/11/16	218518		-	-	-	Pass	4.5	4.4	2
L1607912-03	IA57-005	2017	2.7L Can	03/11/16	218518	L1606581-02	Pass	-30.0	-7.0	-	-	-	-
L1607912-04	IA57-003	0085	#16 AMB	03/15/16	218780		-	-	-	Pass	4.5	4.4	2
L1607912-04	IA57-003	537	2.7L Can	03/15/16	218780	L1606581-12	Pass	-29.9	-4.9	-	-	-	-
L1607912-05	IA57-001	0945	#4 AMB	03/15/16	218780		-	-	-	Pass	4.2	4.1	2
L1607912-05	IA57-001	525	2.7L Can	03/15/16	218780	L1606899-23	Pass	-29.3	-8.7	-	-	-	-
L1607912-06	FB-3	0237	#16 AMB	03/15/16	218780		-	-	-	Pass	4.3	4.2	2
L1607912-06	FB-3	393	2.7L Can	03/15/16	218780	L1606899-22	Pass	-29.8	-2.8	-	-	-	-

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606581

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606581-02	Date Collected:	03/08/16 19:06
Client ID:	CAN 2017 FC 158	Date Received:	03/08/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/08/16 23:06		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	95		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606581

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606581-12	Date Collected:	03/08/16 19:06
Client ID:	CAN 537 FC 948	Date Received:	03/08/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/09/16 18:48		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606899-17	Date Collected:	03/10/16 16:53
Client ID:	CAN 2232 FC 783	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 16:04		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	88		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	86		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606899-22	Date Collected:	03/10/16 16:53
Client ID:	CAN 393 FC 237	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 17:49		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	93		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	95		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606899-23	Date Collected:	03/10/16 16:53
Client ID:	CAN 525 FC 541	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 18:20		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	92		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	97		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 03/23/16

Air Canister Certification Results

Lab ID:	L1606899-26	Date Collected:	03/10/16 16:53
Client ID:	CAN 139 FC 945	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/14/16 14:12		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	93		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	94		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1607912
Report Date: 03/23/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
N/A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1607912-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607912-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607912-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607912-04A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607912-05A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1607912-06A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607912
Project Number:	3935.00	**Report Date:**	03/23/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1607912
Project Number:	3935.00	**Report Date:**	03/23/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/18/16

ALPHA Job #: L1607912

Client Information

Client: Sanborn, Head & Associates, Inc.
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: Swarner@Sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☑ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☑ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☒ 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, Chloroethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
L607912-01	IA57A-003	3-16-16	09:05	17:18	-28.75	-5.93	AA	NDO	2.7 L	139	0541	X							
-02	IA57A-004	3-16-16	08:55	17:15	-28.81	-6.25		NDO		2232	0158	X							
-03	IA57-005	3-16-16	07:55	16:55	-29.61	-6.20		NDO		2017	0786	X							
-04	IA57-003	3-16-16	08:20	17:00	-29.06	-3.94		NDO		537	0085	X							
-05	IA57-001	3-16-16	08:25	17:05	-28.96	-7.81		NDO		525	0945	X							
-06	FB-3	3-16-16	11:40	13:25	-28.77	-2.11		NDO		393	237	X							Nitrogen can #2077

AAOO

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type: CS

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	3-17-16 13:00	[signature] APL	3-17-16 13:00
[signature]	3-18-16 4:20	[signature]	3-18-16 4:20
[signature]	3-18-16 4:55	[signature]	3/18/16 4:55

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

ANALYTICAL REPORT

Lab Number:	L1608781
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	FORMER IBM ENDICOTT
Project Number:	3935.00
Report Date:	04/01/16

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1608781
Report Date: 04/01/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1608781-01	IA18-002	AIR	ENDICOTT, NY	03/24/16 16:20	03/25/16
L1608781-02	IA18-003	AIR	ENDICOTT, NY	03/24/16 16:18	03/25/16
L1608781-03	IA18-001	AIR	ENDICOTT, NY	03/24/16 16:21	03/25/16
L1608781-04	IA18-004	AIR	ENDICOTT, NY	03/24/16 16:23	03/25/16
L1608781-05	IA18-005	AIR	ENDICOTT, NY	03/24/16 16:25	03/25/16
L1608781-06	AA18-001	AIR	ENDICOTT, NY	03/24/16 15:51	03/25/16
L1608781-07	IA18-010	AIR	ENDICOTT, NY	03/24/16 16:26	03/25/16
L1608781-08	IA18-012	AIR	ENDICOTT, NY	03/24/16 16:27	03/25/16
L1608781-09	IA18-016	AIR	ENDICOTT, NY	03/24/16 17:01	03/25/16
L1608781-10	BLANK	AIR	ENDICOTT, NY	03/24/16 15:24	03/25/16
L1608781-11	UNUSED CAN#2194	AIR	ENDICOTT, NY		03/25/16
L1608781-12	UNUSED CAN#543	AIR	ENDICOTT, NY		03/25/16
L1608781-13	UNUSED CAN#201	AIR	ENDICOTT, NY		03/25/16
L1608781-14	UNUSED CAN#236	AIR	ENDICOTT, NY		03/25/16
L1608781-15	UNUSED CAN#500	AIR	ENDICOTT, NY		03/25/16

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1608781
Project Number: 3935.00 **Report Date:** 04/01/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1608781
Project Number:	3935.00	**Report Date:**	04/01/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 14 and 23, 2016. The canister certification results are provided as an addendum.

Sample Receipt

The sample designated AA18-001 (L1608781-06) had a RPD for the pre- and post-flow controller calibration check (39% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.3 mL/minute; the final flow rate was 2.9 mL/minute. The final pressure recorded by the laboratory of the associated canister was -7.5 inches of mercury. No further action was required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 04/01/16

AIR

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1608781
Report Date: 04/01/16

SAMPLE RESULTS

Lab ID:	L1608781-01	Date Collected:	03/24/16 16:20
Client ID:	IA18-002	Date Received:	03/25/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/16 19:50		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.024	0.020	--	0.095	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.054	0.020	--	0.295	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.023	0.020	--	0.156	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	92		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	91		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1608781
Report Date: 04/01/16

SAMPLE RESULTS

Lab ID:	L1608781-02	Date Collected:	03/24/16 16:18
Client ID:	IA18-003	Date Received:	03/25/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/16 20:59		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.024	0.020	--	0.095	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.055	0.020	--	0.300	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.023	0.020	--	0.156	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	89		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1608781
Report Date: 04/01/16

SAMPLE RESULTS

Lab ID:	L1608781-03	Date Collected:	03/24/16 16:21
Client ID:	IA18-001	Date Received:	03/25/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/16 21:33		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.021	0.020	--	0.055	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.033	0.020	--	0.131	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.051	0.020	--	0.278	0.109	--		1
Trichloroethene	0.049	0.020	--	0.263	0.107	--		1
Tetrachloroethene	0.024	0.020	--	0.163	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	92		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1608781
Report Date: 04/01/16

SAMPLE RESULTS

Lab ID:	L1608781-04	Date Collected:	03/24/16 16:23
Client ID:	IA18-004	Date Received:	03/25/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/16 22:07		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.026	0.020	--	0.103	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.057	0.020	--	0.311	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.029	0.020	--	0.197	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	89		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1608781
Report Date: 04/01/16

SAMPLE RESULTS

Lab ID:	L1608781-05	Date Collected:	03/24/16 16:25
Client ID:	IA18-005	Date Received:	03/25/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/16 22:42		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.046	0.020	--	0.182	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.047	0.020	--	0.256	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.021	0.020	--	0.142	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1608781
Report Date: 04/01/16

SAMPLE RESULTS

Lab ID:	L1608781-06	Date Collected:	03/24/16 15:51
Client ID:	AA18-001	Date Received:	03/25/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/16 19:16		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1608781
Report Date: 04/01/16

SAMPLE RESULTS

Lab ID:	L1608781-07	Date Collected:	03/24/16 16:26
Client ID:	IA18-010	Date Received:	03/25/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/16 23:16		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.030	0.020	--	0.164	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.034	0.020	--	0.231	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	88		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1608781
Report Date: 04/01/16

SAMPLE RESULTS

Lab ID:	L1608781-08	Date Collected:	03/24/16 16:27
Client ID:	IA18-012	Date Received:	03/25/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/16 23:50		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.026	0.020	--	0.142	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.031	0.020	--	0.210	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1608781
Report Date: 04/01/16

SAMPLE RESULTS

Lab ID:	L1608781-09	Date Collected:	03/24/16 17:01
Client ID:	IA18-016	Date Received:	03/25/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/01/16 00:24		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.060	0.020	--	0.327	0.109	--		1
Trichloroethene	0.025	0.020	--	0.134	0.107	--		1
Tetrachloroethene	0.026	0.020	--	0.176	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	87		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1608781
Report Date: 04/01/16

SAMPLE RESULTS

Lab ID:	L1608781-10	Date Collected:	03/24/16 15:24
Client ID:	BLANK	Date Received:	03/25/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/31/16 18:42		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.023	0.020	--	0.156	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	92		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	92		60-140

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1608781

Project Number: 3935.00 **Report Date:** 04/01/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/31/16 16:10

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-10 Batch: WG879218-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1608781
Report Date: 04/01/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-10 Batch: WG879218-3								
Propylene	99		-		70-130	-		25
Dichlorodifluoromethane	80		-		70-130	-		25
Chloromethane	91		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	93		-		70-130	-		25
Vinyl chloride	93		-		70-130	-		25
1,3-Butadiene	99		-		70-130	-		25
Bromomethane	89		-		70-130	-		25
Chloroethane	92		-		70-130	-		25
Ethyl Alcohol	87		-		70-130	-		25
Vinyl bromide	91		-		70-130	-		25
Acetone	92		-		70-130	-		25
Trichlorofluoromethane	94		-		70-130	-		25
iso-Propyl Alcohol	96		-		70-130	-		25
Acrylonitrile	82		-		70-130	-		25
1,1-Dichloroethene	91		-		70-130	-		25
Methylene chloride	96		-		70-130	-		25
3-Chloropropene	85		-		70-130	-		25
Carbon disulfide	86		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	92		-		70-130	-		25
Halothane	102		-		70-130	-		25
trans-1,2-Dichloroethene	84		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1608781
Report Date: 04/01/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-10 Batch: WG879218-3								
1,1-Dichloroethane	90		-		70-130	-		25
Methyl tert butyl ether	89		-		70-130	-		25
Vinyl acetate	92		-		70-130	-		25
2-Butanone	94		-		70-130	-		25
cis-1,2-Dichloroethene	99		-		70-130	-		25
Ethyl Acetate	88		-		70-130	-		25
Chloroform	93		-		70-130	-		25
Tetrahydrofuran	81		-		70-130	-		25
1,2-Dichloroethane	91		-		70-130	-		25
n-Hexane	92		-		70-130	-		25
1,1,1-Trichloroethane	94		-		70-130	-		25
Benzene	88		-		70-130	-		25
Carbon tetrachloride	93		-		70-130	-		25
Cyclohexane	91		-		70-130	-		25
1,2-Dichloropropane	93		-		70-130	-		25
Bromodichloromethane	92		-		70-130	-		25
1,4-Dioxane	92		-		70-130	-		25
Trichloroethene	96		-		70-130	-		25
2,2,4-Trimethylpentane	95		-		70-130	-		25
cis-1,3-Dichloropropene	95		-		70-130	-		25
4-Methyl-2-pentanone	101		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1608781
Report Date: 04/01/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-10 Batch: WG879218-3								
trans-1,3-Dichloropropene	79		-		70-130	-		25
1,1,2-Trichloroethane	96		-		70-130	-		25
Toluene	88		-		70-130	-		25
2-Hexanone	107		-		70-130	-		25
Dibromochloromethane	92		-		70-130	-		25
1,2-Dibromoethane	93		-		70-130	-		25
Tetrachloroethene	92		-		70-130	-		25
1,1,1,2-Tetrachloroethane	86		-		70-130	-		25
Chlorobenzene	94		-		70-130	-		25
Ethylbenzene	94		-		70-130	-		25
p/m-Xylene	95		-		70-130	-		25
Bromoform	87		-		70-130	-		25
Styrene	96		-		70-130	-		25
1,1,2,2-Tetrachloroethane	94		-		70-130	-		25
o-Xylene	95		-		70-130	-		25
Isopropylbenzene	91		-		70-130	-		25
4-Ethyltoluene	98		-		70-130	-		25
1,3,5-Trimethylbenzene	93		-		70-130	-		25
1,2,4-Trimethylbenzene	100		-		70-130	-		25
Benzyl chloride	83		-		70-130	-		25
1,3-Dichlorobenzene	104		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1608781
Report Date: 04/01/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-10 Batch: WG879218-3								
1,4-Dichlorobenzene	97		-		70-130	-		25
sec-Butylbenzene	94		-		70-130	-		25
p-Isopropyltoluene	86		-		70-130	-		25
1,2-Dichlorobenzene	98		-		70-130	-		25
n-Butylbenzene	100		-		70-130	-		25
1,2,4-Trichlorobenzene	99		-		70-130	-		25
Naphthalene	92		-		70-130	-		25
1,2,3-Trichlorobenzene	95		-		70-130	-		25
Hexachlorobutadiene	91		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1608781
Report Date: 04/01/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-10 QC Batch ID: WG879218-5 QC Sample: L1608781-01 Client ID: IA18-002						
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	0.024	0.023	ppbV	4		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	0.054	0.053	ppbV	2		25
Trichloroethene	ND	ND	ppbV	NC		25
Tetrachloroethene	0.023	0.023	ppbV	0		25

Project Name: FORMER IBM ENDICOTT

Lab Number: L1608781

Project Number: 3935.00

Report Date: 04/01/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1608781-01	IA18-002	0498	#16 AMB	03/14/16	218506		-	-	-	Pass	4.0	4.3	7
L1608781-01	IA18-002	383	2.7L Can	03/14/16	218506	L1606899-04	Pass	-29.8	-5.8	-	-	-	-
L1608781-02	IA18-003	0772	#4 AMB	03/23/16	218981		-	-	-	Pass	4.1	4.9	18
L1608781-02	IA18-003	122	2.7L Can	03/23/16	218981	L1607930-08	Pass	-30.0	-8.6	-	-	-	-
L1608781-03	IA18-001	0160	#16 AMB	03/14/16	218506		-	-	-	Pass	4.3	4.3	0
L1608781-03	IA18-001	187	2.7L Can	03/14/16	218506	L1606899-02	Pass	-29.7	-6.3	-	-	-	-
L1608781-04	IA18-004	0579	#30 AMB	03/14/16	218506		-	-	-	Pass	4.2	4.3	2
L1608781-04	IA18-004	339	2.7L Can	03/11/16	218518	L1606581-11	Pass	-30.0	-8.0	-	-	-	-
L1608781-05	IA18-005	0921	#4 AMB	03/14/16	218506		-	-	-	Pass	4.1	4.0	2
L1608781-05	IA18-005	452	2.7L Can	03/14/16	218506	L1606899-07	Pass	-29.8	-9.3	-	-	-	-
L1608781-06	AA18-001	0907	#4 AMB	03/23/16	218981		-	-	-	Pass	4.3	2.9	39
L1608781-06	AA18-001	2204	2.7L Can	03/23/16	218981	L1607930-06	Pass	-29.6	-7.5	-	-	-	-
L1608781-07	IA18-010	0446	#20 SV	03/23/16	218981		-	-	-	Pass	4.0	3.8	5
L1608781-07	IA18-010	2079	2.7L Can	03/23/16	218981	L1607688-01	Pass	-30.0	-7.9	-	-	-	-
L1608781-08	IA18-012	0761	#4 AMB	03/23/16	218981		-	-	-	Pass	4.1	4.7	14

Project Name: FORMER IBM ENDICOTT

Lab Number: L1608781

Project Number: 3935.00

Report Date: 04/01/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1608781-08	IA18-012	2186	2.7L Can	03/23/16	218981	L1607930-12	Pass	-30.0	-6.8	-	-	-	-
L1608781-09	IA18-016	0917	#4 amb	03/23/16	218981		-	-	-	Pass	4.0	3.9	3
L1608781-09	IA18-016	458	2.7L Can	03/23/16	218981	L1607930-10	Pass	-30.0	-10.7	-	-	-	-
L1608781-10	BLANK	1745	2.7L Can	03/23/16	218981	L1607930-16	Pass	-30.0	-3.2	-	-	-	-
L1608781-11	UNUSED CAN#2194	2194	2.7L Can	03/23/16	218981	L1607930-03	Pass	-30.0	-29.2	-	-	-	-
L1608781-12	UNUSED CAN#543	543	2.7L Can	03/23/16	218981	L1607930-17	Pass	-30.0	-29.2	-	-	-	-
L1608781-13	UNUSED CAN#201	201	2.7L Can	03/23/16	218981	L1607930-09	Pass	-30.0	-29.2	-	-	-	-
L1608781-14	UNUSED CAN#236	236	2.7L Can	03/23/16	218981	L1607930-04	Pass	-30.0	-29.0	-	-	-	-
L1608781-15	UNUSED CAN#500	500	2.7L Can	03/23/16	218981	L1607930-15	Pass	-30.0	-29.2	-	-	-	-

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606581

Project Number: CANISTER QC INDIV **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID:	L1606581-11	Date Collected:	03/08/16 19:06
Client ID:	CAN 339 FC 765	Date Received:	03/08/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/09/16 18:13		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	96		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID:	L1606899-02	Date Collected:	03/10/16 16:53
Client ID:	CAN 187 FC 387	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/10/16 19:13		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	92		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	96		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1606899

Project Number: CANISTER QC INDIV **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID:	L1606899-04	Date Collected:	03/10/16 16:53
Client ID:	CAN 383 FC 092	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/10/16 20:17		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	96		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1606899
Report Date: 04/01/16

Air Canister Certification Results

Lab ID:	L1606899-07	Date Collected:	03/10/16 16:53
Client ID:	CAN 2077 FC B	Date Received:	03/10/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/11/16 13:08		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	93		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1607688

Project Number: CANISTER QC BAT **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID:	L1607688-01	Date Collected:	03/16/16 16:00
Client ID:	CAN 2079 SHELF 3	Date Received:	03/17/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/17/16 11:21		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1607688

Project Number: CANISTER QC BAT **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID: L1607688-01 Date Collected: 03/16/16 16:00

Client ID: CAN 2079 SHELF 3 Date Received: 03/17/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1607688

Project Number: CANISTER QC BAT **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID: L1607688-01 Date Collected: 03/16/16 16:00

Client ID: CAN 2079 SHELF 3 Date Received: 03/17/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1607688

Project Number: CANISTER QC BAT **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID: L1607688-01 Date Collected: 03/16/16 16:00

Client ID: CAN 2079 SHELF 3 Date Received: 03/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1607688

Project Number: CANISTER QC BAT **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID: L1607688-01 Date Collected: 03/16/16 16:00

Client ID: CAN 2079 SHELF 3 Date Received: 03/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	89		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1607688
Report Date: 04/01/16

Air Canister Certification Results

Lab ID: L1607688-01
Client ID: CAN 2079 SHELF 3
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/17/16 11:21
Analyst: MB

Date Collected: 03/16/16 16:00
Date Received: 03/17/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1607688

Project Number: CANISTER QC BAT **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID: L1607688-01 Date Collected: 03/16/16 16:00

Client ID: CAN 2079 SHELF 3 Date Received: 03/17/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1607688

Project Number: CANISTER QC BAT **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID: L1607688-01 Date Collected: 03/16/16 16:00

Client ID: CAN 2079 SHELF 3 Date Received: 03/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1607930

Project Number: CANISTER QC INDIV **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID:	L1607930-03	Date Collected:	03/18/16 15:23
Client ID:	CAN 2194 FC 805	Date Received:	03/18/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/18/16 16:40		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	95		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1607930

Project Number: CANISTER QC INDIV **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID:	L1607930-04	Date Collected:	03/18/16 15:23
Client ID:	CAN 236 FC 773	Date Received:	03/18/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/18/16 18:16		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	95		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	97		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1607930

Project Number: CANISTER QC INDIV **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID:	L1607930-06	Date Collected:	03/18/16 15:23
Client ID:	CAN 2204 FC 761	Date Received:	03/18/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/18/16 19:23		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	93		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	93		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1607930

Project Number: CANISTER QC INDIV **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID:	L1607930-08	Date Collected:	03/18/16 15:23
Client ID:	CAN 122 FC 907	Date Received:	03/18/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/20/16 13:06		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	93		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1607930

Project Number: CANISTER QC INDIV **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID:	L1607930-09	Date Collected:	03/18/16 15:23
Client ID:	CAN 201 FC 936	Date Received:	03/18/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/20/16 13:40		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	93		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	94		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1607930

Project Number: CANISTER QC INDIV **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID:	L1607930-10	Date Collected:	03/18/16 15:23
Client ID:	CAN 458 FC 772	Date Received:	03/18/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/20/16 14:14		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	92		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1607930
Report Date: 04/01/16

Air Canister Certification Results

Lab ID:	L1607930-12	Date Collected:	03/18/16 15:23
Client ID:	CAN 2186 FC 401	Date Received:	03/18/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/20/16 15:27		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	91		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1607930
Report Date: 04/01/16

Air Canister Certification Results

Lab ID:	L1607930-15	Date Collected:	03/18/16 15:23
Client ID:	CAN 500 FC 446	Date Received:	03/18/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/20/16 17:09		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1607930
Report Date: 04/01/16

Air Canister Certification Results

Lab ID:	L1607930-16	Date Collected:	03/18/16 15:23
Client ID:	CAN 1745 FC 729	Date Received:	03/18/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/20/16 17:43		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1607930

Project Number: CANISTER QC INDIV **Report Date:** 04/01/16

Air Canister Certification Results

Lab ID:	L1607930-17	Date Collected:	03/18/16 15:23
Client ID:	CAN 543 FC 283	Date Received:	03/18/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/20/16 18:17		
Analyst:	AR		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1608781
Report Date: 04/01/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
N/A	Present/Intact
N/A2	Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1608781-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1608781-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1608781-03A	Canister - 2.7 Liter	N/A	N/A2		Y	Absent	TO15-SIM(30)
L1608781-04A	Canister - 2.7 Liter	N/A	N/A2		Y	Absent	TO15-SIM(30)
L1608781-05A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1608781-06A	Canister - 2.7 Liter	N/A	N/A2		Y	Absent	TO15-SIM(30)
L1608781-07A	Canister - 2.7 Liter	N/A	N/A2		Y	Absent	TO15-SIM(30)
L1608781-08A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1608781-09A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1608781-10A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1608781-11A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()
L1608781-12A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()
L1608781-13A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()
L1608781-14A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()
L1608781-15A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1608781
Project Number:	3935.00	**Report Date:**	04/01/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1608781
Project Number:	3935.00	**Report Date:**	04/01/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF ____

ALPHA ANALYTICAL — **CHAIN OF CUSTODY**

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/26/16

ALPHA Job #: L1608781

Client Information

Client: Sanborn, Head & Associates, Inc.
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: SWarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments: 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE

Project-Specific Target Compound List: ☐ cis-1,2-DCE, trans-1,2-DCE, Chloroethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
08781.01	IA18-002	3/24/16	0803	1620	-29.1	-5	AA	JVF	2.7	383	0498	X							
02	IA18-003	3/24/16	0759	1618	-26.6	-7.8	AA	JVF	2.7	122	772								
03	IA18-001	3/24/16	0805	1621	-28.5	-5.3	AA	JVF	2.7	187	0180								
04	IA18-004	3/24/16	0807	1623	-29.0	-7.1	AA	JVF	2.7	339	0579								
05	IA18-005	3/24/16	0808	1625	-28.0	-8.3	AA	JVF	2.7	452	0921								
06	AA18-001	3/24/16	0751	1551	-29.5	-6.8	AA	JVF	2.7	2204	0907								
07	IA18-010	3/24/16	0809	1626	-29	-5	AA	JVF	2.7	2079	446								
08	IA18-012	3/24/16	0819	1627	-29	-6.1	AA	JVF	2.7	2186	0761								
09	IA18-016	3/24/16	0822	1701	-29.5	-9.9	AA	JVF	2.7	458	0917								
10	Blank	3/24/16	1524	1524	-30	-5	AA	JVF	2.7	1745	FC(13)								

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type: CS

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	3/25/2016 17:20	[signature] AAL	3/25/16 1720
[signature]	3/25/16	[signature]	3/26/16 0045
[signature]	3/26/16 0700	[signature]	3/26/16 0700

Form No: 101-02 Rev: (25-Sep-15)

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/29/16

ALPHA Job #: L1608781

Client Information

Client: Sanborn Head & Associates
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: SWarner@Sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments: 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE

Project-Specific Target Compound List: ☐ cis-1,2-DCE, trans-1,2-DCE, Chloroethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
08781.06	AA18-001	3/24/16	0751	1551	-29.5	-6.8	AA	JVF	2.7	2204	0902	X							
.07	IA18-010	3/24/16	0809	1626	-29	-5	AA	JVF	2.7	2099	1446	X							
.03	IA18-001	3/24/16	0805	1621	-28.5	-5.3	AA	JVF	2.7	187	0180	X							
.04	IA18-004	3/24/16	0807	1623	-29.0	-7.1	AA	JVF	2.7	339	0579	X							

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type: CS

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
[illegible]	03/26 11:49	~~UPS~~ FedEx	
~~UPS~~ FedEx		[illegible] AAL	3/29/16 11:00

ANALYTICAL REPORT

Lab Number:	L1609679
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	FORMER IBM ENDICOTT
Project Number:	3935.00
Report Date:	04/12/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609679
Report Date: 04/12/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1609679-01	AA46-001	AIR	ENDICOTT, NY	04/01/16 16:57	04/04/16
L1609679-02	IA46-011	AIR	ENDICOTT, NY	04/01/16 19:33	04/04/16
L1609679-03	IA46-010	AIR	ENDICOTT, NY	04/01/16 19:30	04/04/16
L1609679-04	FB-5	AIR	ENDICOTT, NY	04/01/16 14:12	04/04/16
L1609679-05	IA46-005	AIR	ENDICOTT, NY	04/01/16 19:42	04/04/16
L1609679-06	IA46-006	AIR	ENDICOTT, NY	04/01/16 19:36	04/04/16
L1609679-07	IA46-007	AIR	ENDICOTT, NY	04/01/16 19:35	04/04/16
L1609679-08	IA46-008	AIR	ENDICOTT, NY	04/01/16 19:20	04/04/16
L1609679-09	IA46-009	AIR	ENDICOTT, NY	04/01/16 19:34	04/04/16
L1609679-10	DUP-4	AIR	ENDICOTT, NY	04/01/16 19:39	04/04/16
L1609679-11	IA46-001	AIR	ENDICOTT, NY	04/01/16 15:27	04/04/16
L1609679-12	IA46-002	AIR	ENDICOTT, NY	04/01/16 15:31	04/04/16
L1609679-13	IA46-003	AIR	ENDICOTT, NY	04/01/16 17:40	04/04/16
L1609679-14	IA46-004	AIR	ENDICOTT, NY	04/01/16 20:05	04/04/16
L1609679-15	IA45-001	AIR	ENDICOTT, NY	04/01/16 20:02	04/04/16

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1609679
Project Number: 3935.00 **Report Date:** 04/12/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1609679
Project Number: 3935.00 **Report Date:** 04/12/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 25, 2016. The canister certification results are provided as an addendum.

Sample Receipt

The sample designated AA46-001 (L1609679-01) had a RPD for the pre- and post-flow controller calibration check (24% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.5 mL/minute; the final flow rate was 5.7 mL/minute. The final pressure recorded by the laboratory of the associated canister was -4.1 inches of mercury. No further action was required.

The sample designated IA46-001 (L1609679-11) had a RPD for the pre- and post-flow controller calibration check (46% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.0 mL/minute; the final flow rate was 2.5 mL/minute. The final pressure recorded by the laboratory of the associated canister was -7.5 inches of mercury. No further action was required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 04/12/16

AIR

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-01	Date Collected:	04/01/16 16:57
Client ID:	AA46-001	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/11/16 23:06		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	91		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-02	Date Collected:	04/01/16 19:33
Client ID:	IA46-011	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/11/16 23:39		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.029	0.020	--	0.077	0.053	--		1
1,1-Dichloroethene	0.063	0.020	--	0.250	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.309	0.020	--	1.25	0.081	--		1
cis-1,2-Dichloroethene	0.065	0.020	--	0.258	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.569	0.020	--	3.10	0.109	--		1
Trichloroethene	0.299	0.020	--	1.61	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	91		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-03	Date Collected:	04/01/16 19:30
Client ID:	IA46-010	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/12/16 00:46		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.043	0.020	--	0.113	0.053	--		1
1,1-Dichloroethene	0.056	0.020	--	0.222	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.535	0.020	--	2.17	0.081	--		1
cis-1,2-Dichloroethene	0.090	0.020	--	0.357	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.738	0.020	--	4.03	0.109	--		1
Trichloroethene	0.382	0.020	--	2.05	0.107	--		1
Tetrachloroethene	0.034	0.020	--	0.231	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	86		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-04	Date Collected:	04/01/16 14:12
Client ID:	FB-5	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/11/16 22:32		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	131		60-140
chlorobenzene-d5	103		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-05	Date Collected:	04/01/16 19:42
Client ID:	IA46-005	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/12/16 01:20		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.059	0.020	--	0.156	0.053	--		1
1,1-Dichloroethene	0.026	0.020	--	0.103	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.290	0.020	--	1.17	0.081	--		1
cis-1,2-Dichloroethene	0.046	0.020	--	0.182	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.336	0.020	--	1.83	0.109	--		1
Trichloroethene	0.185	0.020	--	0.994	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	86		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-06	Date Collected:	04/01/16 19:36
Client ID:	IA46-006	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/12/16 01:53		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.021	0.020	--	0.055	0.053	--		1
1,1-Dichloroethene	0.060	0.020	--	0.238	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.639	0.020	--	2.59	0.081	--		1
cis-1,2-Dichloroethene	0.114	0.020	--	0.452	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.774	0.020	--	4.22	0.109	--		1
Trichloroethene	0.362	0.020	--	1.95	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	88		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-07	Date Collected:	04/01/16 19:35
Client ID:	IA46-007	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/12/16 02:27		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.021	0.020	--	0.055	0.053	--		1
1,1-Dichloroethene	0.074	0.020	--	0.293	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.666	0.020	--	2.70	0.081	--		1
cis-1,2-Dichloroethene	0.140	0.020	--	0.555	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.949	0.020	--	5.18	0.109	--		1
Trichloroethene	0.388	0.020	--	2.09	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	85		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-08	Date Collected:	04/01/16 19:20
Client ID:	IA46-008	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/12/16 03:01		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.031	0.020	--	0.082	0.053	--		1
1,1-Dichloroethene	0.058	0.020	--	0.230	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.343	0.020	--	1.39	0.081	--		1
cis-1,2-Dichloroethene	0.090	0.020	--	0.357	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.688	0.020	--	3.75	0.109	--		1
Trichloroethene	0.252	0.020	--	1.35	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	87		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-09	Date Collected:	04/01/16 19:34
Client ID:	IA46-009	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/12/16 03:34		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.023	0.020	--	0.061	0.053	--		1
1,1-Dichloroethene	0.060	0.020	--	0.238	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.406	0.020	--	1.64	0.081	--		1
cis-1,2-Dichloroethene	0.113	0.020	--	0.448	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.650	0.020	--	3.55	0.109	--		1
Trichloroethene	0.376	0.020	--	2.02	0.107	--		1
Tetrachloroethene	0.066	0.020	--	0.448	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	84		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-10	Date Collected:	04/01/16 19:39
Client ID:	DUP-4	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/12/16 04:08		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.022	0.020	--	0.058	0.053	--		1
1,1-Dichloroethene	0.058	0.020	--	0.230	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.630	0.020	--	2.55	0.081	--		1
cis-1,2-Dichloroethene	0.103	0.020	--	0.408	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.761	0.020	--	4.15	0.109	--		1
Trichloroethene	0.352	0.020	--	1.89	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	82		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-11	Date Collected:	04/01/16 15:27
Client ID:	IA46-001	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/12/16 04:42		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.058	0.020	--	0.235	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.084	0.020	--	0.458	0.109	--		1
Trichloroethene	0.056	0.020	--	0.301	0.107	--		1
Tetrachloroethene	0.026	0.020	--	0.176	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	82		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-12	Date Collected:	04/01/16 15:31
Client ID:	IA46-002	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/12/16 05:15		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.027	0.020	--	0.071	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.102	0.020	--	0.413	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.138	0.020	--	0.753	0.109	--		1
Trichloroethene	0.090	0.020	--	0.484	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	85		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-13	Date Collected:	04/01/16 17:40
Client ID:	IA46-003	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/12/16 05:49		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.059	0.020	--	0.239	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.087	0.020	--	0.475	0.109	--		1
Trichloroethene	0.060	0.020	--	0.322	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	83		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-14	Date Collected:	04/01/16 20:05
Client ID:	IA46-004	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/12/16 06:23		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.182	0.020	--	0.737	0.081	--		1
cis-1,2-Dichloroethene	0.028	0.020	--	0.111	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.216	0.020	--	1.18	0.109	--		1
Trichloroethene	0.127	0.020	--	0.683	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	85		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609679
Report Date: 04/12/16

SAMPLE RESULTS

Lab ID:	L1609679-15	Date Collected:	04/01/16 20:02
Client ID:	IA45-001	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/12/16 06:56		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.027	0.020	--	0.071	0.053	--		1
1,1-Dichloroethene	0.037	0.020	--	0.147	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.272	0.020	--	1.10	0.081	--		1
cis-1,2-Dichloroethene	0.067	0.020	--	0.266	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.586	0.020	--	3.20	0.109	--		1
Trichloroethene	0.321	0.020	--	1.73	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	84		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	85		60-140

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1609679

Project Number: 3935.00 **Report Date:** 04/12/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 04/11/16 15:32

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-15 Batch: WG882564-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609679
Report Date: 04/12/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-15 Batch: WG882564-3								
Vinyl chloride	100		-		70-130	-		25
Chloroethane	101		-		70-130	-		25
1,1-Dichloroethene	103		-		70-130	-		25
trans-1,2-Dichloroethene	76		-		70-130	-		25
1,1-Dichloroethane	88		-		70-130	-		25
cis-1,2-Dichloroethene	95		-		70-130	-		25
1,2-Dichloroethane	84		-		70-130	-		25
1,1,1-Trichloroethane	101		-		70-130	-		25
Trichloroethene	96		-		70-130	-		25
Tetrachloroethene	91		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609679
Report Date: 04/12/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-15 QC Batch ID: WG882564-5 QC Sample: L1609679-02 Client ID: IA46-011						
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	0.029	0.028	ppbV	4		25
1,1-Dichloroethene	0.063	0.065	ppbV	3		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	0.309	0.379	ppbV	20		25
cis-1,2-Dichloroethene	0.065	0.067	ppbV	3		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	0.569	0.602	ppbV	6		25
Trichloroethene	0.299	0.316	ppbV	6		25
Tetrachloroethene	ND	ND	ppbV	NC		25

Project Name: FORMER IBM ENDICOTT

Lab Number: L1609679

Project Number: 3935.00

Report Date: 04/12/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1609679-01	AA46-001	0951	#4 AMB	03/25/16	219002		-	-	-	Pass	4.5	5.7	24
L1609679-01	AA46-001	1732	2.7L Can	03/25/16	219002	L1608350-08	Pass	-30.0	-4.1	-	-	-	-
L1609679-02	IA46-011	0594	#16 AMB	03/25/16	219002		-	-	-	Pass	4.1	5.0	20
L1609679-02	IA46-011	191B	2.7L Can	03/25/16	219002	L1608350-05	Pass	-30.0	-5.6	-	-	-	-
L1609679-03	IA46-010	0143	#16 AMB	03/25/16	219002		-	-	-	Pass	4.0	3.8	5
L1609679-03	IA46-010	470	2.7L Can	03/25/16	219002	L1608350-07	Pass	-29.4	-9.8	-	-	-	-
L1609679-04	FB-5	0043	#16 AMB	03/25/16	219002		-	-	-	Pass	4.1	4.0	2
L1609679-04	FB-5	125	2.7L Can	03/25/16	219002	L1608350-03	Pass	-30.0	-10.2	-	-	-	-
L1609679-05	IA46-005	0803	#4 AMB	03/25/16	219002		-	-	-	Pass	4.4	4.1	7
L1609679-05	IA46-005	147	2.7L Can	03/25/16	219002	L1608350-11	Pass	-29.5	-6.7	-	-	-	-
L1609679-06	IA46-006	0794	#3 AMB	03/25/16	219002		-	-	-	Pass	4.2	4.3	2
L1609679-06	IA46-006	488	2.7L Can	03/25/16	219002	L1608350-04	Pass	-29.8	-7.4	-	-	-	-
L1609679-07	IA46-007	0395	#16 AMB	03/25/16	219002		-	-	-	Pass	4.1	3.9	5
L1609679-07	IA46-007	504	2.7L Can	03/25/16	219002	L1608350-20	Pass	-30.0	-9.9	-	-	-	-
L1609679-08	IA46-008	0616	#16 AMB	03/25/16	219002		-	-	-	Pass	4.4	4.4	0

Project Name: FORMER IBM ENDICOTT

Lab Number: L1609679

Project Number: 3935.00

Report Date: 04/12/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1609679-08	IA46-008	457	2.7L Can	03/25/16	219002	L1608350-19	Pass	-30.0	-6.1	-	-	-	-
L1609679-09	IA46-009	0347	#16 AMB	03/25/16	219002		-	-	-	Pass	4.3	4.2	2
L1609679-09	IA46-009	475	2.7L Can	03/25/16	219002	L1608350-18	Pass	-30.0	-6.4	-	-	-	-
L1609679-10	DUP-4	0121	#16 AMB	03/25/16	219002		-	-	-	Pass	4.3	4.7	9
L1609679-10	DUP-4	209	2.7L Can	03/25/16	219002	L1608350-14	Pass	-29.8	-5.3	-	-	-	-
L1609679-11	IA46-001	0778	#4 SV	03/25/16	219002		-	-	-	Pass	4.0	2.5	46
L1609679-11	IA46-001	2078	2.7L Can	03/25/16	219002	L1608350-10	Pass	-30.0	-7.5	-	-	-	-
L1609679-12	IA46-002	0380	#16 AMB	03/25/16	219002		-	-	-	Pass	4.1	3.7	10
L1609679-12	IA46-002	129	2.7L Can	03/25/16	219002	L1608350-02	Pass	-30.0	-8.9	-	-	-	-
L1609679-13	IA46-003	0723	#30 SV	03/25/16	219002		-	-	-	Pass	4.5	4.7	4
L1609679-13	IA46-003	2280	2.7L Can	03/25/16	219002	L1608350-13	Pass	-30.0	-9.8	-	-	-	-
L1609679-14	IA46-004	0241	#16 AMB	03/25/16	219002		-	-	-	Pass	4.5	4.2	7
L1609679-14	IA46-004	502	2.7L Can	03/25/16	219002	L1608350-01	Pass	-30.0	-6.8	-	-	-	-
L1609679-15	IA45-001	0632	#16 AMB	03/25/16	219002		-	-	-	Pass	4.2	3.8	10
L1609679-15	IA45-001	468	2.7L Can	03/25/16	219002	L1608350-06	Pass	-30.0	-10.5	-	-	-	-

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1608350

Project Number: CANISTER QC INDIV **Report Date:** 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-01	Date Collected:	03/23/16 08:00
Client ID:	CAN 502 FC 241	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 18:19		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	91		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1608350

Project Number: CANISTER QC INDIV **Report Date:** 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-02	Date Collected:	03/23/16 08:00
Client ID:	CAN 129 FC 380	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 18:53		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	86		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1608350
Report Date: 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-03	Date Collected:	03/23/16 08:00
Client ID:	CAN 125 FC 043	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 19:26		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	84		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	89		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1608350
Report Date: 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-04	Date Collected:	03/23/16 08:00
Client ID:	CAN 488 FC 794	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 20:00		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	82		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	86		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1608350

Project Number: CANISTER QC INDIV **Report Date:** 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-05	Date Collected:	03/23/16 08:00
Client ID:	CAN 191B FC 594	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 20:34		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	78		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	83		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1608350

Project Number: CANISTER QC INDIV **Report Date:** 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-06	Date Collected:	03/23/16 08:00
Client ID:	CAN 468 FC 632	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 21:08		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	82		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	85		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1608350
Report Date: 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-07	Date Collected:	03/23/16 08:00
Client ID:	CAN 470 FC 143	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 21:41		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	81		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	85		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1608350

Project Number: CANISTER QC INDIV **Report Date:** 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-08	Date Collected:	03/23/16 08:00
Client ID:	CAN 1732 FC 951	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 22:15		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	77		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	81		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1608350
Report Date: 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-10	Date Collected:	03/23/16 08:00
Client ID:	CAN 2078 FC 778	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 23:23		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	78		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	81		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1608350

Project Number: CANISTER QC INDIV **Report Date:** 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-11	Date Collected:	03/23/16 08:00
Client ID:	CAN 147 FC 803	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/23/16 23:57		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	77		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	80		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1608350

Project Number: CANISTER QC INDIV **Report Date:** 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-13	Date Collected:	03/23/16 08:00
Client ID:	CAN 2280 FC 723	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/24/16 01:04		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	79		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	83		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1608350
Report Date: 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-14	Date Collected:	03/23/16 08:00
Client ID:	CAN 209 FC 121	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/24/16 01:38		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	78		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	81		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1608350
Report Date: 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-18	Date Collected:	03/23/16 08:00
Client ID:	CAN 475 FC 347	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/24/16 11:01		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	85		60-140
bromochloromethane	103		60-140
chlorobenzene-d5	90		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1608350

Project Number: CANISTER QC INDIV **Report Date:** 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-19	Date Collected:	03/23/16 08:00
Client ID:	CAN 457 FC 616	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/24/16 11:35		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	84		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	86		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1608350

Project Number: CANISTER QC INDIV **Report Date:** 04/12/16

Air Canister Certification Results

Lab ID:	L1608350-20	Date Collected:	03/23/16 08:00
Client ID:	CAN 504 FC 395	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/24/16 12:09		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	81		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	83		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609679
Report Date: 04/12/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information **Custody Seal**
Cooler
N/A Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1609679-01A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1609679-02A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1609679-03A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1609679-04A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1609679-05A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1609679-06A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1609679-07A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1609679-08A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1609679-09A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1609679-10A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1609679-11A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1609679-12A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1609679-13A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1609679-14A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)
L1609679-15A	Canister - 2.7 Liter	N/A	N/A	N/A	Y	Absent	TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1609679
Project Number:	3935.00	**Report Date:**	04/12/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1609679
Project Number:	3935.00	**Report Date:**	04/12/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1609679
Project Number: 3935.00 **Report Date:** 04/12/16

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 2

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4/5/16

ALPHA Job #: L1 609679

Client Information

Client: Sanborn Head & Associates
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: SWarner@Sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: (Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments: 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE

Project-Specific Target Compound List: ☐ cis-1,2-DCE, trans-1,2-DCE, Chloroethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15		Sample Comments (i.e. PID)
609679-01	AA46-001	4/1/2016	09:15	16:57	-28.69	-3.92	AA	CTN	2.7	1772	0951	X						
-02	IA46-011	4/1/2016	11:29	19:33	-28.61	-4.86	AA	CTN	2.7	1918	594	X						
-03	IA46-010	4/1/2016	11:25	19:30	-28.68	-9.20	AA	CTN	2.7	470	0143	X						
-04	FB-S	4/1/2016	13:09	14:12	-27.09	0.0	AA	CTN	2.7	125	0643	X						
-05	IA46-005	4/1/2016	11:41	19:42	-28.59	-6.35	AA	CTN	2.7	147	0803	X					CTN	
-06	IA46-006	4/1/2016	11:38	19:36	-28.61	-6.84	AA	CTN	2.7	488	0794	X						
-07	IA46-007	4/1/2016	11:32	19:35	-28.82	-9.27	AA	CTN	2.7	504	395	X						
-08	IA46-008	4/1/2016	11:19	19:20	-28.67	-5.45	AA	CTN	2.7	457	0616	X						
-09	IA46-009	4/1/2016	11:15	19:34	-28.48	-5.51	AA	CTN	2.7	475	0347	X						
-10	DUP-4	4/1/2016	11:38	19:39	-28.40	-4.62	AA	CTN	2.7	209	0121	X						
											Container Type	CS						

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	4/4 15:15	[signature]	4/4 15:15
[signature]	4/5/16 0420	[signature]	4/5/16 0210
		[signature]	4/5/16 0420

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

AIR ANALYSIS

PAGE 2 OF 2

ALPHA ANALYTICAL — *CHAIN OF CUSTODY*

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4/5/16

ALPHA Job #: L1609679

Client Information

Client: Sanborn Head & Associates, Inc.
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: swarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker: (Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments: 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, chloroform

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15		Sample Comments (i.e. PID)
-11	IA46-001	4/1/2016	07:16	15:27	-28.84	-6.90	AA	CTN	2.7	2078	0776	X						
-12	IA46-002	4/1/2016	07:27	15:31	-29.22	-8.50	AA	CTN	2.7	129	0380	X						
-13	IA46-003	4/1/2016	07:40	17:40	-28.99	-9.12	AA	CTN	2.7	2280	0723	X						CTN
-14	IA46-004	4/1/2016	11:56	20:05	-28.60	-6.08	AA	CTN	2.7	502	0241	X						
-15	IA45-001	4/1/2016	11:46	20:02	-29.79	-10.05	AA	CTN	2.7	468	0632	X						

CTN

CTN

CTN

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type		CS					

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	4/4 15:15	[signature]	4/4 15:15
[signature]	4/4	[signature]	4/5/16 0210
[signature]	4/5/16 0420	[signature]	4/5/16 0420

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

ANALYTICAL REPORT

Lab Number:	L1609705
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	FORMER IBM ENDICOTT
Project Number:	3935.00
Report Date:	04/19/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1609705-01	SSV42-016	SOIL_VAPOR	ENDICOTT, NY	04/01/16 10:43	04/04/16
L1609705-02	SSV42-001	SOIL_VAPOR	ENDICOTT, NY	04/01/16 10:48	04/04/16
L1609705-03	SSV42-005	SOIL_VAPOR	ENDICOTT, NY	04/01/16 10:51	04/04/16
L1609705-04	SSV42-006	SOIL_VAPOR	ENDICOTT, NY	04/01/16 10:56	04/04/16
L1609705-05	SSV42-007	SOIL_VAPOR	ENDICOTT, NY	04/01/16 11:00	04/04/16
L1609705-06	SSV42-003	SOIL_VAPOR	ENDICOTT, NY	04/01/16 11:04	04/04/16
L1609705-07	SSV42-012	SOIL_VAPOR	ENDICOTT, NY	04/01/16 11:08	04/04/16
L1609705-08	SSV42-013	SOIL_VAPOR	ENDICOTT, NY	04/01/16 11:12	04/04/16
L1609705-09	SSV42-014	SOIL_VAPOR	ENDICOTT, NY	04/01/16 11:16	04/04/16
L1609705-10	SSV42-015	SOIL_VAPOR	ENDICOTT, NY	04/01/16 11:21	04/04/16
L1609705-11	SSV42-010	SOIL_VAPOR	ENDICOTT, NY	04/01/16 11:26	04/04/16
L1609705-12	SSV42-009	SOIL_VAPOR	ENDICOTT, NY	04/01/16 11:36	04/04/16
L1609705-13	SSV42-004	SOIL_VAPOR	ENDICOTT, NY	04/01/16 11:36	04/04/16
L1609705-14	SSV42-002	SOIL_VAPOR	ENDICOTT, NY	04/01/16 11:42	04/04/16
L1609705-15	SSV42-011	SOIL_VAPOR	ENDICOTT, NY	04/01/16 13:55	04/04/16
L1609705-16	SSV42-008	SOIL_VAPOR	ENDICOTT, NY	04/01/16 14:03	04/04/16
L1609705-17	SSV42-DUP1	SOIL_VAPOR	ENDICOTT, NY	04/01/16 14:03	04/04/16
L1609705-18	SSV42-EB1	SOIL_VAPOR	ENDICOTT, NY	04/01/16 13:50	04/04/16
L1609705-19	SSV46-034	SOIL_VAPOR	ENDICOTT, NY	04/02/16 09:16	04/04/16
L1609705-20	SSV46-035	SOIL_VAPOR	ENDICOTT, NY	04/02/16 09:10	04/04/16
L1609705-21	SSV46-028	SOIL_VAPOR	ENDICOTT, NY	04/02/16 09:30	04/04/16
L1609705-22	SSV46-027	SOIL_VAPOR	ENDICOTT, NY	04/02/16 09:33	04/04/16
L1609705-23	SSV46-026	SOIL_VAPOR	ENDICOTT, NY	04/02/16 09:38	04/04/16
L1609705-24	SSV46-025	SOIL_VAPOR	ENDICOTT, NY	04/02/16 09:41	04/04/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1609705-25	SSV46-023	SOIL_VAPOR	ENDICOTT, NY	04/02/16 09:45	04/04/16
L1609705-26	SSV46-022	SOIL_VAPOR	ENDICOTT, NY	04/02/16 09:51	04/04/16
L1609705-27	SSV46-024	SOIL_VAPOR	ENDICOTT, NY	04/02/16 09:57	04/04/16
L1609705-28	SSV46-021	SOIL_VAPOR	ENDICOTT, NY	04/02/16 10:01	04/04/16
L1609705-29	SSV46-016	SOIL_VAPOR	ENDICOTT, NY	04/02/16 10:06	04/04/16
L1609705-30	SSV46-015	SOIL_VAPOR	ENDICOTT, NY	04/02/16 10:10	04/04/16
L1609705-31	SSV46-008	SOIL_VAPOR	ENDICOTT, NY	04/02/16 10:23	04/04/16
L1609705-32	SSV46-007	SOIL_VAPOR	ENDICOTT, NY	04/02/16 10:20	04/04/16
L1609705-33	SSV46-009	SOIL_VAPOR	ENDICOTT, NY	04/02/16 10:28	04/04/16
L1609705-34	SSV46-006	SOIL_VAPOR	ENDICOTT, NY	04/02/16 10:39	04/04/16
L1609705-35	SSV46-002	SOIL_VAPOR	ENDICOTT, NY	04/02/16 10:47	04/04/16
L1609705-36	SSV46-001	SOIL_VAPOR	ENDICOTT, NY	04/02/16 10:45	04/04/16
L1609705-37	SSV46-003	SOIL_VAPOR	ENDICOTT, NY	04/02/16 11:04	04/04/16
L1609705-38	SSV46-DUP2	SOIL_VAPOR	ENDICOTT, NY	04/02/16 11:04	04/04/16
L1609705-39	SSV46-004	SOIL_VAPOR	ENDICOTT, NY	04/02/16 11:32	04/04/16
L1609705-40	SSV46-010	SOIL_VAPOR	ENDICOTT, NY	04/02/16 12:03	04/04/16
L1609705-41	SSV46-011	SOIL_VAPOR	ENDICOTT, NY	04/02/16 11:24	04/04/16
L1609705-42	SSV46-012	SOIL_VAPOR	ENDICOTT, NY	04/02/16 11:41	04/04/16
L1609705-43	SSV46-013	SOIL_VAPOR	ENDICOTT, NY	04/02/16 11:51	04/04/16
L1609705-44	SSV46-014	SOIL_VAPOR	ENDICOTT, NY	04/02/16 12:08	04/04/16
L1609705-45	SSV42-017	SOIL_VAPOR	ENDICOTT, NY	04/02/16 14:49	04/04/16
L1609705-46	SSV46-018	SOIL_VAPOR	ENDICOTT, NY	04/02/16 14:17	04/04/16
L1609705-47	SSV46-019	SOIL_VAPOR	ENDICOTT, NY	04/02/16 14:05	04/04/16
L1609705-48	SSV46-020	SOIL_VAPOR	ENDICOTT, NY	04/02/16 14:25	04/04/16
L1609705-49	SSV46-032	SOIL_VAPOR	ENDICOTT, NY	04/02/16 14:42	04/04/16
L1609705-50	SSV46-DUP1	SOIL_VAPOR	ENDICOTT, NY	04/02/16 14:42	04/04/16
L1609705-51	SSV46-031	SOIL_VAPOR	ENDICOTT, NY	04/02/16 14:52	04/04/16
L1609705-52	SSV46-030	SOIL_VAPOR	ENDICOTT, NY	04/02/16 14:58	04/04/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1609705-53	SSV46-029	SOIL_VAPOR	ENDICOTT, NY	04/02/16 14:59	04/04/16
L1609705-54	SSV46-EB1	SOIL_VAPOR	ENDICOTT, NY	04/02/16 17:00	04/04/16

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1609705
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Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1609705
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Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 24, 31 and April 1, 2016. The canister certification results are provided as an addendum.

Sample L1609705-01, -11, -14 and -15: The samples were diluted and re-analyzed to quantify the results within the calibration range. The results should be considered estimated, and are qualified with an E flag, for any compound that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

Sample L1609705-02 through -07, -09, -10, -12, -13 and -16: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

Sample L1609705-17: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

Sample L1609705-35 through -39, -41, -42, -46 and -47: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

Sample L1609705-53: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

Sample Receipt

The canister ID number listed on the chain of custody form for the sample designated SSV46-026 (L1609705-23) is 496 however it should be 497.

The sample designated SSV42-016 (L1609705-01) had a RPD for the pre- and post-flow controller calibration check (44% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow

Case Narrative (continued)

controller was 36.0 mL/minute; the final flow rate was 22.9 mL/minute. The final pressure recorded by the laboratory of the associated canister was -6.1 inches of mercury. No further action was required.

The sample designated SSV42-014 (L1609705-09) had a RPD for the pre- and post-flow controller calibration check (37% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 30.0 mL/minute; the final flow rate was 43.4mL/minute. The final pressure recorded by the laboratory of the associated canister was -6.9 inches of mercury. No further action was required.

The sample designated SSV42-008 (L1609705-16) had a RPD for the pre- and post-flow controller calibration check (47% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 31.8 mL/minute; the final flow rate was 51.1 mL/minute. The final pressure recorded by the laboratory of the associated canister was -7.2 inches of mercury. No further action was required.

The sample designated SSV46-026 (L1609705-23) had a RPD for the pre- and post-flow controller calibration check (41% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 36.0 mL/minute; the final flow rate was 54.5 mL/minute. The final pressure recorded by the laboratory of the associated canister was -0.7 inches of mercury. No further action was required.

The sample designated SSV46-025 (L1609705-24) had a RPD for the pre- and post-flow controller calibration check (41% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 30.0 mL/minute; the final flow rate was 45.5 mL/minute. The final pressure recorded by the laboratory of the associated canister was -2.1 inches of mercury. No further action was required.

The sample designated SSV46-022 (L1609705-26) had a RPD for the pre- and post-flow controller calibration check (30% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 30.8 mL/minute; the final flow rate was 41.6 mL/minute. The final pressure recorded by the laboratory of the associated canister was -8.1 inches of mercury. No further action was required.

Case Narrative (continued)

The sample designated SSV46-016 (L1609705-29) had a RPD for the pre- and post-flow controller calibration check (29% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 30.0 mL/minute; the final flow rate was 22.4 mL/minute. The final pressure recorded by the laboratory of the associated canister was -10.5 inches of mercury. No further action was required.

The sample designated SSV46-009 (L1609705-33) had a RPD for the pre- and post-flow controller calibration check (26% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 32.6 mL/minute; the final flow rate was 42.3 mL/minute. The final pressure recorded by the laboratory of the associated canister was -3.7 inches of mercury. No further action was required.

The sample designated SSV46-006 (L1609705-34) had a RPD for the pre- and post-flow controller calibration check (24% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 30.0 mL/minute; the final flow rate was 38.1 mL/minute. The final pressure recorded by the laboratory of the associated canister was -6.1 inches of mercury. No further action was required.

The sample designated SSV46-001 (L1609705-36) had a RPD for the pre- and post-flow controller calibration check (35% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 32.5 mL/minute; the final flow rate was 46.2 mL/minute. The final pressure recorded by the laboratory of the associated canister was -4.8 inches of mercury. No further action was required.

The sample designated SSV46-003 (L1609705-37) had a RPD for the pre- and post-flow controller calibration check (46% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 35.8 mL/minute; the final flow rate was 22.4 mL/minute. The final pressure recorded by the laboratory of the associated canister was -14.8 inches of mercury. No further action was required.

The sample designated SSV46-004 (L1609705-39) had a RPD for the pre- and post-flow controller calibration check (36% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 32.2 mL/minute; the final flow rate was 22.3 mL/minute. The final pressure recorded by the

Case Narrative (continued)

laboratory of the associated canister was -10.1 inches of mercury. No further action was required.

The sample designated SSV46-012 (L1609705-42) had a RPD for the pre- and post-flow controller calibration check (26% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 35.0 mL/minute; the final flow rate was 26.9 mL/minute. The final pressure recorded by the laboratory of the associated canister was -9.9 inches of mercury. No further action was required.

The sample designated SSV46-014 (L1609705-44) had a RPD for the pre- and post-flow controller calibration check (57% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 36.0 mL/minute; the final flow rate was 20.1 mL/minute. The final pressure recorded by the laboratory of the associated canister was -10.8 inches of mercury. No further action was required.

The sample designated SSV42-017 (L1609705-45) had a RPD for the pre- and post-flow controller calibration check (21% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 33.0 mL/minute; the final flow rate was 26.8 mL/minute. The final pressure recorded by the laboratory of the associated canister was -5.3 inches of mercury. No further action was required.

The sample designated SSV46-019 (L1609705-47) had a RPD for the pre- and post-flow controller calibration check (48% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 36.0 mL/minute; the final flow rate was 58.5 mL/minute. The final pressure recorded by the laboratory of the associated canister was -3.2 inches of mercury. No further action was required.

The sample designated SSV46-020 (L1609705-48) had a RPD for the pre- and post-flow controller calibration check (32% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 30.0 mL/minute; the final flow rate was 41.4 mL/minute. The final pressure recorded by the laboratory of the associated canister was -7.7 inches of mercury. No further action was required.

The sample designated SSV46-030 (L1609705-52) had a RPD for the pre- and post-flow controller

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Case Narrative (continued)

calibration check (24% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 33.0 mL/minute; the final flow rate was 25.9 mL/minute. The final pressure recorded by the laboratory of the associated canister was -10.6 inches of mercury. No further action was required.

The sample designated SSV46-029 (L1609705-53) had a RPD for the pre- and post-flow controller calibration check (23% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 36.0 mL/minute; the final flow rate was 45.5 mL/minute. The final pressure recorded by the laboratory of the associated canister was -4.1 inches of mercury. No further action was required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 04/19/16

AIR

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-01 D
Client ID: SSV42-016
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/17/16 19:09
Analyst: MB

Date Collected: 04/01/16 10:43
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
Chloroethane	ND	2.00	--	ND	5.28	--		10
1,1-Dichloroethene	2.13	2.00	--	8.45	7.93	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	2.17	2.00	--	8.78	8.09	--		10
cis-1,2-Dichloroethene	6.88	2.00	--	27.3	7.93	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
1,1,1-Trichloroethane	63.8	2.00	--	348	10.9	--		10
Trichloroethene	1120	2.00	--	6020	10.7	--	E	10
Tetrachloroethene	9.90	2.00	--	67.1	13.6	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	85		60-140

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SAMPLE RESULTS

Lab ID:	L1609705-01 D2	Date Collected:	04/01/16 10:43
Client ID:	SSV42-016	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 08:58		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	1140	4.02	--	6130	21.6	--		20.1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	88		60-140

Project Name: FORMER IBM ENDICOTT
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Lab Number: L1609705
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SAMPLE RESULTS

Lab ID: L1609705-02 D
Client ID: SSV42-001
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/17/16 19:41
Analyst: MB

Date Collected: 04/01/16 10:48
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.667	--	ND	1.71	--		3.333
Chloroethane	ND	0.667	--	ND	1.76	--		3.333
1,1-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
trans-1,2-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
1,1-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
cis-1,2-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
1,2-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
1,1,1-Trichloroethane	7.92	0.667	--	43.2	3.64	--		3.333
Trichloroethene	203	0.667	--	1090	3.58	--		3.333
Tetrachloroethene	3.91	0.667	--	26.5	4.52	--		3.333

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	84		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-03 D
Client ID: SSV42-005
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/17/16 20:44
Analyst: MB

Date Collected: 04/01/16 10:51
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
Chloroethane	ND	2.00	--	ND	5.28	--		10
1,1-Dichloroethene	ND	2.00	--	ND	7.93	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	2.94	2.00	--	11.9	8.09	--		10
cis-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
1,1,1-Trichloroethane	137	2.00	--	747	10.9	--		10
Trichloroethene	968	2.00	--	5200	10.7	--		10
Tetrachloroethene	10.0	2.00	--	67.8	13.6	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	85		60-140

Project Name: FORMER IBM ENDICOTT
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Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-04 D
Client ID: SSV42-006
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/17/16 21:15
Analyst: MB

Date Collected: 04/01/16 10:56
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
Chloroethane	ND	2.00	--	ND	5.28	--		10
1,1-Dichloroethene	8.22	2.00	--	32.6	7.93	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	6.73	2.00	--	27.2	8.09	--		10
cis-1,2-Dichloroethene	18.1	2.00	--	71.8	7.93	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
1,1,1-Trichloroethane	158	2.00	--	862	10.9	--		10
Trichloroethene	884	2.00	--	4750	10.7	--		10
Tetrachloroethene	10.3	2.00	--	69.8	13.6	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	85		60-140

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Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-05 D
Client ID: SSV42-007
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/17/16 21:46
Analyst: MB

Date Collected: 04/01/16 11:00
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
Chloroethane	ND	2.00	--	ND	5.28	--		10
1,1-Dichloroethene	ND	2.00	--	ND	7.93	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	2.15	2.00	--	8.70	8.09	--		10
cis-1,2-Dichloroethene	48.9	2.00	--	194	7.93	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
1,1,1-Trichloroethane	46.9	2.00	--	256	10.9	--		10
Trichloroethene	817	2.00	--	4390	10.7	--		10
Tetrachloroethene	4.66	2.00	--	31.6	13.6	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	80		60-140

Project Name: FORMER IBM ENDICOTT
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Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-06 D
Client ID: SSV42-003
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/17/16 22:18
Analyst: MB

Date Collected: 04/01/16 11:04
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
Chloroethane	ND	2.00	--	ND	5.28	--		10
1,1-Dichloroethene	ND	2.00	--	ND	7.93	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	ND	2.00	--	ND	8.09	--		10
cis-1,2-Dichloroethene	12.6	2.00	--	50.0	7.93	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
1,1,1-Trichloroethane	38.3	2.00	--	209	10.9	--		10
Trichloroethene	776	2.00	--	4170	10.7	--		10
Tetrachloroethene	3.58	2.00	--	24.3	13.6	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	81		60-140

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SAMPLE RESULTS

Lab ID:	L1609705-07 D	Date Collected:	04/01/16 11:08
Client ID:	SSV42-012	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/17/16 22:49		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.667	--	ND	1.71	--		3.333
Chloroethane	ND	0.667	--	ND	1.76	--		3.333
1,1-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
trans-1,2-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
1,1-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
cis-1,2-Dichloroethene	1.96	0.667	--	7.77	2.64	--		3.333
1,2-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
1,1,1-Trichloroethane	7.68	0.667	--	41.9	3.64	--		3.333
Trichloroethene	257	0.667	--	1380	3.58	--		3.333
Tetrachloroethene	1.62	0.667	--	11.0	4.52	--		3.333

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		60-140
Bromochloromethane	84		60-140
chlorobenzene-d5	79		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-08	Date Collected:	04/01/16 11:12
Client ID:	SSV42-013	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/17/16 23:23		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	0.208	0.200	--	0.842	0.809	--		1
cis-1,2-Dichloroethene	2.93	0.200	--	11.6	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	3.52	0.200	--	19.2	1.09	--		1
Trichloroethene	97.9	0.200	--	526	1.07	--		1
Tetrachloroethene	1.05	0.200	--	7.12	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	86		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-09 D
Client ID: SSV42-014
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/17/16 23:55
Analyst: MB

Date Collected: 04/01/16 11:16
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	1.00	--	ND	2.56	--		5
Chloroethane	ND	1.00	--	ND	2.64	--		5
1,1-Dichloroethene	ND	1.00	--	ND	3.96	--		5
trans-1,2-Dichloroethene	ND	1.00	--	ND	3.96	--		5
1,1-Dichloroethane	ND	1.00	--	ND	4.05	--		5
cis-1,2-Dichloroethene	8.82	1.00	--	35.0	3.96	--		5
1,2-Dichloroethane	ND	1.00	--	ND	4.05	--		5
1,1,1-Trichloroethane	12.5	1.00	--	68.2	5.46	--		5
Trichloroethene	264	1.00	--	1420	5.37	--		5
Tetrachloroethene	2.18	1.00	--	14.8	6.78	--		5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	80		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-10 D
Client ID: SSV42-015
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/18/16 00:28
Analyst: MB

Date Collected: 04/01/16 11:21
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.333	--	ND	0.851	--		1.667
Chloroethane	ND	0.333	--	ND	0.879	--		1.667
1,1-Dichloroethene	ND	0.333	--	ND	1.32	--		1.667
trans-1,2-Dichloroethene	ND	0.333	--	ND	1.32	--		1.667
1,1-Dichloroethane	ND	0.333	--	ND	1.35	--		1.667
cis-1,2-Dichloroethene	ND	0.333	--	ND	1.32	--		1.667
1,2-Dichloroethane	ND	0.333	--	ND	1.35	--		1.667
1,1,1-Trichloroethane	4.94	0.333	--	27.0	1.82	--		1.667
Trichloroethene	105	0.333	--	564	1.79	--		1.667
Tetrachloroethene	6.91	0.333	--	46.9	2.26	--		1.667

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	81		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-11	Date Collected:	04/01/16 11:26
Client ID:	SSV42-010	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 01:02		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	3.44	0.200	--	18.8	1.09	--		1
Trichloroethene	142	0.200	--	763	1.07	--	E	1
Tetrachloroethene	2.15	0.200	--	14.6	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	83		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-11 D	Date Collected:	04/01/16 11:26
Client ID:	SSV42-010	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 09:30		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	140	0.500	--	752	2.69	--		2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	79		60-140
Bromochloromethane	82		60-140
chlorobenzene-d5	75		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-12 D
Client ID: SSV42-009
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/18/16 01:34
Analyst: MB

Date Collected: 04/01/16 11:36
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.400	--	ND	1.02	--		2
Chloroethane	ND	0.400	--	ND	1.06	--		2
1,1-Dichloroethene	ND	0.400	--	ND	1.59	--		2
trans-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2
1,1-Dichloroethane	ND	0.400	--	ND	1.62	--		2
cis-1,2-Dichloroethene	0.936	0.400	--	3.71	1.59	--		2
1,2-Dichloroethane	ND	0.400	--	ND	1.62	--		2
1,1,1-Trichloroethane	7.29	0.400	--	39.8	2.18	--		2
Trichloroethene	187	0.400	--	1000	2.15	--		2
Tetrachloroethene	8.26	0.400	--	56.0	2.71	--		2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		60-140
Bromochloromethane	84		60-140
chlorobenzene-d5	80		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-13 D
Client ID: SSV42-004
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/18/16 02:06
Analyst: MB

Date Collected: 04/01/16 11:36
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.400	--	ND	1.02	--		2
Chloroethane	ND	0.400	--	ND	1.06	--		2
1,1-Dichloroethene	ND	0.400	--	ND	1.59	--		2
trans-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2
1,1-Dichloroethane	ND	0.400	--	ND	1.62	--		2
cis-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2
1,2-Dichloroethane	ND	0.400	--	ND	1.62	--		2
1,1,1-Trichloroethane	2.94	0.400	--	16.0	2.18	--		2
Trichloroethene	117	0.400	--	629	2.15	--		2
Tetrachloroethene	2.41	0.400	--	16.3	2.71	--		2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	82		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-14 D
Client ID: SSV42-002
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/18/16 02:38
Analyst: MB

Date Collected: 04/01/16 11:42
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.667	--	ND	1.71	--		3.333
Chloroethane	ND	0.667	--	ND	1.76	--		3.333
1,1-Dichloroethene	4.90	0.667	--	19.4	2.64	--		3.333
trans-1,2-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
1,1-Dichloroethane	8.18	0.667	--	33.1	2.70	--		3.333
cis-1,2-Dichloroethene	74.2	0.667	--	294	2.64	--		3.333
1,2-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
1,1,1-Trichloroethane	221	0.667	--	1210	3.64	--		3.333
Trichloroethene	1700	0.667	--	9140	3.58	--	E	3.333
Tetrachloroethene	10.8	0.667	--	73.2	4.52	--		3.333

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	81		60-140
Bromochloromethane	84		60-140
chlorobenzene-d5	76		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-14 D2	Date Collected:	04/01/16 11:42
Client ID:	SSV42-002	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 10:04		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	1950	11.8	--	10500	63.4	--		59.24

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	85		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-15 D
Client ID: SSV42-011
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/18/16 07:55
Analyst: MB

Date Collected: 04/01/16 13:55
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
Chloroethane	ND	2.00	--	ND	5.28	--		10
1,1-Dichloroethene	ND	2.00	--	ND	7.93	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	ND	2.00	--	ND	8.09	--		10
cis-1,2-Dichloroethene	16.3	2.00	--	64.6	7.93	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
1,1,1-Trichloroethane	41.3	2.00	--	225	10.9	--		10
Trichloroethene	1040	2.00	--	5590	10.7	--	E	10
Tetrachloroethene	6.82	2.00	--	46.2	13.6	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	88		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-15 D2	Date Collected:	04/01/16 13:55
Client ID:	SSV42-011	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 10:35		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	1120	4.04	--	6020	21.7	--		20.18

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	85		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-16 D
Client ID: SSV42-008
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/18/16 08:26
Analyst: MB

Date Collected: 04/01/16 14:03
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
Chloroethane	ND	2.00	--	ND	5.28	--		10
1,1-Dichloroethene	ND	2.00	--	ND	7.93	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	3.32	2.00	--	13.4	8.09	--		10
cis-1,2-Dichloroethene	35.5	2.00	--	141	7.93	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
1,1,1-Trichloroethane	66.6	2.00	--	363	10.9	--		10
Trichloroethene	941	2.00	--	5060	10.7	--		10
Tetrachloroethene	5.09	2.00	--	34.5	13.6	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	83		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-17 D
Client ID: SSV42-DUP1
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/17/16 20:26
Analyst: MB

Date Collected: 04/01/16 14:03
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
Chloroethane	ND	2.00	--	ND	5.28	--		10
1,1-Dichloroethene	ND	2.00	--	ND	7.93	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	3.40	2.00	--	13.8	8.09	--		10
cis-1,2-Dichloroethene	30.0	2.00	--	119	7.93	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
1,1,1-Trichloroethane	73.7	2.00	--	402	10.9	--		10
Trichloroethene	907	2.00	--	4870	10.7	--		10
Tetrachloroethene	16.1	2.00	--	109	13.6	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	83		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-18
Client ID: SSV42-EB1
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/17/16 21:00
Analyst: MB

Date Collected: 04/01/16 13:50
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Trichloroethene	0.763	0.200	--	4.10	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	88		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-19	Date Collected:	04/02/16 09:16
Client ID:	SSV46-034	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/17/16 21:34		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	1.22	0.200	--	6.66	1.09	--		1
Trichloroethene	1.86	0.200	--	10.0	1.07	--		1
Tetrachloroethene	0.434	0.200	--	2.94	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	88		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-20	Date Collected:	04/02/16 09:10
Client ID:	SSV46-035	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/17/16 22:08		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Trichloroethene	0.315	0.200	--	1.69	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	89		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-21	Date Collected:	04/02/16 09:30
Client ID:	SSV46-028	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/17/16 22:41		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	0.309	0.200	--	1.69	1.09	--		1
Trichloroethene	3.07	0.200	--	16.5	1.07	--		1
Tetrachloroethene	17.6	0.200	--	119	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	86		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-22	Date Collected:	04/02/16 09:33
Client ID:	SSV46-027	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/17/16 23:15		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	1.19	0.200	--	4.82	0.809	--		1
cis-1,2-Dichloroethene	0.820	0.200	--	3.25	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	1.39	0.200	--	7.58	1.09	--		1
Trichloroethene	3.42	0.200	--	18.4	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	96		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-23	Date Collected:	04/02/16 09:38
Client ID:	SSV46-026	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/17/16 23:49		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	0.515	0.200	--	2.08	0.809	--		1
cis-1,2-Dichloroethene	0.237	0.200	--	0.940	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	1.02	0.200	--	5.57	1.09	--		1
Trichloroethene	3.57	0.200	--	19.2	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	97		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-24	Date Collected:	04/02/16 09:41
Client ID:	SSV46-025	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 00:23		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	3.83	0.200	--	20.9	1.09	--		1
Trichloroethene	0.220	0.200	--	1.18	1.07	--		1
Tetrachloroethene	0.471	0.200	--	3.19	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	113		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	113		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-25	Date Collected:	04/02/16 09:45
Client ID:	SSV46-023	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 00:57		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	0.233	0.200	--	1.27	1.09	--		1
Trichloroethene	0.942	0.200	--	5.06	1.07	--		1
Tetrachloroethene	2.75	0.200	--	18.6	1.36	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	95		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	94		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-26	Date Collected:	04/02/16 09:51
Client ID:	SSV46-022	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 01:30		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	4.64	0.200	--	18.8	0.809	--		1
cis-1,2-Dichloroethene	1.44	0.200	--	5.71	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	10.3	0.200	--	56.2	1.09	--		1
Trichloroethene	3.80	0.200	--	20.4	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	91		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-27	Date Collected:	04/02/16 09:57
Client ID:	SSV46-024	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 02:04		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	0.673	0.200	--	2.72	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	0.990	0.200	--	5.40	1.09	--		1
Trichloroethene	1.56	0.200	--	8.38	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	88		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-28	Date Collected:	04/02/16 10:01
Client ID:	SSV46-021	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 07:46		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	0.245	0.200	--	0.971	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	6.27	0.200	--	25.4	0.809	--		1
cis-1,2-Dichloroethene	4.13	0.200	--	16.4	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	17.3	0.200	--	94.4	1.09	--		1
Trichloroethene	6.27	0.200	--	33.7	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	112		60-140
chlorobenzene-d5	94		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-29	Date Collected:	04/02/16 10:06
Client ID:	SSV46-016	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 08:20		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	0.267	0.200	--	1.08	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	1.20	0.200	--	6.55	1.09	--		1
Trichloroethene	0.229	0.200	--	1.23	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	86		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	86		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-30	Date Collected:	04/02/16 10:10
Client ID:	SSV46-015	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 16:18		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	0.302	0.200	--	1.20	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	3.34	0.200	--	13.5	0.809	--		1
cis-1,2-Dichloroethene	1.72	0.200	--	6.82	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	7.64	0.200	--	41.7	1.09	--		1
Trichloroethene	2.91	0.200	--	15.6	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	83		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	94		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-31	Date Collected:	04/02/16 10:23
Client ID:	SSV46-008	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 16:50		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	92		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-32	Date Collected:	04/02/16 10:20
Client ID:	SSV46-007	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 18:06		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	1.28	0.200	--	5.07	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	6.55	0.200	--	26.5	0.809	--		1
cis-1,2-Dichloroethene	1.76	0.200	--	6.98	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	8.94	0.200	--	48.8	1.09	--		1
Trichloroethene	4.16	0.200	--	22.4	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	88		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-33	Date Collected:	04/02/16 10:28
Client ID:	SSV46-009	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 19:09		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	0.262	0.200	--	1.04	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	2.61	0.200	--	10.6	0.809	--		1
cis-1,2-Dichloroethene	0.609	0.200	--	2.41	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	11.7	0.200	--	63.8	1.09	--		1
Trichloroethene	1.06	0.200	--	5.70	1.07	--		1
Tetrachloroethene	0.431	0.200	--	2.92	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	98		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-34	Date Collected:	04/02/16 10:39
Client ID:	SSV46-006	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 19:40		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	1.09	0.200	--	4.32	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	24.0	0.200	--	97.1	0.809	--		1
cis-1,2-Dichloroethene	0.606	0.200	--	2.40	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	37.0	0.200	--	202	1.09	--		1
Trichloroethene	11.0	0.200	--	59.1	1.07	--		1
Tetrachloroethene	0.613	0.200	--	4.16	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	100		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-35 D	Date Collected:	04/02/16 10:47
Client ID:	SSV46-002	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/19/16 00:22		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	2.00	--	ND	5.11	--		10
Chloroethane	ND	2.00	--	ND	5.28	--		10
1,1-Dichloroethene	49.3	2.00	--	195	7.93	--		10
trans-1,2-Dichloroethene	ND	2.00	--	ND	7.93	--		10
1,1-Dichloroethane	230	2.00	--	931	8.09	--		10
cis-1,2-Dichloroethene	20.9	2.00	--	82.9	7.93	--		10
1,2-Dichloroethane	ND	2.00	--	ND	8.09	--		10
1,1,1-Trichloroethane	764	2.00	--	4170	10.9	--		10
Trichloroethene	41.8	2.00	--	225	10.7	--		10
Tetrachloroethene	ND	2.00	--	ND	13.6	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-36 D
Client ID: SSV46-001
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/19/16 00:53
Analyst: MB

Date Collected: 04/02/16 10:45
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	4.02	--	ND	10.3	--		20.13
Chloroethane	6.06	4.02	--	16.0	10.6	--		20.13
1,1-Dichloroethene	59.8	4.02	--	237	15.9	--		20.13
trans-1,2-Dichloroethene	5.05	4.02	--	20.0	15.9	--		20.13
1,1-Dichloroethane	1790	4.02	--	7240	16.3	--		20.13
cis-1,2-Dichloroethene	14.2	4.02	--	56.3	15.9	--		20.13
1,2-Dichloroethane	ND	4.02	--	ND	16.3	--		20.13
1,1,1-Trichloroethane	407	4.02	--	2220	21.9	--		20.13
Trichloroethene	50.4	4.02	--	271	21.6	--		20.13
Tetrachloroethene	ND	4.02	--	ND	27.3	--		20.13

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	91		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-37 D
Client ID: SSV46-003
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/19/16 01:25
Analyst: MB

Date Collected: 04/02/16 11:04
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	18.7	--	ND	47.8	--		93.71
Chloroethane	ND	18.7	--	ND	49.3	--		93.71
1,1-Dichloroethene	396	18.7	--	1570	74.1	--		93.71
trans-1,2-Dichloroethene	20.0	18.7	--	79.3	74.1	--		93.71
1,1-Dichloroethane	1400	18.7	--	5670	75.7	--		93.71
cis-1,2-Dichloroethene	529	18.7	--	2100	74.1	--		93.71
1,2-Dichloroethane	ND	18.7	--	ND	75.7	--		93.71
1,1,1-Trichloroethane	4070	18.7	--	22200	102	--		93.71
Trichloroethene	4180	18.7	--	22500	100	--		93.71
Tetrachloroethene	ND	18.7	--	ND	127	--		93.71

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	91		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-38 D
Client ID: SSV46-DUP2
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/19/16 01:56
Analyst: MB

Date Collected: 04/02/16 11:04
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	16.4	--	ND	41.9	--		81.87
Chloroethane	21.6	16.4	--	57.0	43.3	--		81.87
1,1-Dichloroethene	405	16.4	--	1610	65.0	--		81.87
trans-1,2-Dichloroethene	20.2	16.4	--	80.1	65.0	--		81.87
1,1-Dichloroethane	1470	16.4	--	5950	66.4	--		81.87
cis-1,2-Dichloroethene	568	16.4	--	2250	65.0	--		81.87
1,2-Dichloroethane	ND	16.4	--	ND	66.4	--		81.87
1,1,1-Trichloroethane	4350	16.4	--	23700	89.5	--		81.87
Trichloroethene	4570	16.4	--	24600	88.1	--		81.87
Tetrachloroethene	ND	16.4	--	ND	111	--		81.87

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-39 D
Client ID: SSV46-004
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/19/16 02:27
Analyst: MB

Date Collected: 04/02/16 11:32
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	21.8	--	ND	55.7	--		108.8
Chloroethane	ND	21.8	--	ND	57.5	--		108.8
1,1-Dichloroethene	148	21.8	--	587	86.4	--		108.8
trans-1,2-Dichloroethene	ND	21.8	--	ND	86.4	--		108.8
1,1-Dichloroethane	597	21.8	--	2420	88.2	--		108.8
cis-1,2-Dichloroethene	122	21.8	--	484	86.4	--		108.8
1,2-Dichloroethane	ND	21.8	--	ND	88.2	--		108.8
1,1,1-Trichloroethane	1290	21.8	--	7040	119	--		108.8
Trichloroethene	6010	21.8	--	32300	117	--		108.8
Tetrachloroethene	ND	21.8	--	ND	148	--		108.8

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-40
Client ID: SSV46-010
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/18/16 20:11
Analyst: MB

Date Collected: 04/02/16 12:03
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	1.14	0.200	--	4.61	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	3.86	0.200	--	21.1	1.09	--		1
Trichloroethene	9.69	0.200	--	52.1	1.07	--		1
Tetrachloroethene	0.285	0.200	--	1.93	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	92		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-41 D
Client ID: SSV46-011
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/18/16 20:42
Analyst: MB

Date Collected: 04/02/16 11:24
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.400	--	ND	1.02	--		2
Chloroethane	ND	0.400	--	ND	1.06	--		2
1,1-Dichloroethene	ND	0.400	--	ND	1.59	--		2
trans-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2
1,1-Dichloroethane	19.4	0.400	--	78.5	1.62	--		2
cis-1,2-Dichloroethene	18.6	0.400	--	73.7	1.59	--		2
1,2-Dichloroethane	ND	0.400	--	ND	1.62	--		2
1,1,1-Trichloroethane	40.7	0.400	--	222	2.18	--		2
Trichloroethene	130	0.400	--	699	2.15	--		2
Tetrachloroethene	0.400	0.400	--	2.71	2.71	--		2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	95		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-42 D
Client ID: SSV46-012
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/18/16 21:14
Analyst: MB

Date Collected: 04/02/16 11:41
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.500	--	ND	1.28	--		2.5
Chloroethane	ND	0.500	--	ND	1.32	--		2.5
1,1-Dichloroethene	1.01	0.500	--	4.00	1.98	--		2.5
trans-1,2-Dichloroethene	1.58	0.500	--	6.26	1.98	--		2.5
1,1-Dichloroethane	42.2	0.500	--	171	2.02	--		2.5
cis-1,2-Dichloroethene	56.7	0.500	--	225	1.98	--		2.5
1,2-Dichloroethane	ND	0.500	--	ND	2.02	--		2.5
1,1,1-Trichloroethane	88.3	0.500	--	482	2.73	--		2.5
Trichloroethene	173	0.500	--	930	2.69	--		2.5
Tetrachloroethene	ND	0.500	--	ND	3.39	--		2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	85		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	88		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-43
Client ID: SSV46-013
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/18/16 21:45
Analyst: MB

Date Collected: 04/02/16 11:51
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	0.672	0.200	--	2.72	0.809	--		1
cis-1,2-Dichloroethene	0.255	0.200	--	1.01	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	0.757	0.200	--	4.13	1.09	--		1
Trichloroethene	2.46	0.200	--	13.2	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	89		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-44
Client ID: SSV46-014
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/18/16 22:16
Analyst: MB

Date Collected: 04/02/16 12:08
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	0.640	0.200	--	2.59	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	6.96	0.200	--	38.0	1.09	--		1
Trichloroethene	18.8	0.200	--	101	1.07	--		1
Tetrachloroethene	0.332	0.200	--	2.25	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	96		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-45	Date Collected:	04/02/16 14:49
Client ID:	SSV42-017	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/18/16 22:48		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	1.87	0.200	--	7.57	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	1.91	0.200	--	10.4	1.09	--		1
Trichloroethene	2.25	0.200	--	12.1	1.07	--		1
Tetrachloroethene	0.416	0.200	--	2.82	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	95		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-46 D
Client ID: SSV46-018
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/18/16 23:19
Analyst: MB

Date Collected: 04/02/16 14:17
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.333	--	ND	0.851	--		1.667
Chloroethane	ND	0.333	--	ND	0.879	--		1.667
1,1-Dichloroethene	2.88	0.333	--	11.4	1.32	--		1.667
trans-1,2-Dichloroethene	0.945	0.333	--	3.75	1.32	--		1.667
1,1-Dichloroethane	21.5	0.333	--	87.0	1.35	--		1.667
cis-1,2-Dichloroethene	37.9	0.333	--	150	1.32	--		1.667
1,2-Dichloroethane	ND	0.333	--	ND	1.35	--		1.667
1,1,1-Trichloroethane	102	0.333	--	557	1.82	--		1.667
Trichloroethene	84.6	0.333	--	455	1.79	--		1.667
Tetrachloroethene	ND	0.333	--	ND	2.26	--		1.667

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-47 D
Client ID: SSV46-019
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/18/16 23:51
Analyst: MB

Date Collected: 04/02/16 14:05
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.400	--	ND	1.02	--		2
Chloroethane	ND	0.400	--	ND	1.06	--		2
1,1-Dichloroethene	2.33	0.400	--	9.24	1.59	--		2
trans-1,2-Dichloroethene	2.15	0.400	--	8.52	1.59	--		2
1,1-Dichloroethane	15.7	0.400	--	63.5	1.62	--		2
cis-1,2-Dichloroethene	74.9	0.400	--	297	1.59	--		2
1,2-Dichloroethane	ND	0.400	--	ND	1.62	--		2
1,1,1-Trichloroethane	21.5	0.400	--	117	2.18	--		2
Trichloroethene	144	0.400	--	774	2.15	--		2
Tetrachloroethene	ND	0.400	--	ND	2.71	--		2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	96		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-48
Client ID: SSV46-020
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/19/16 02:24
Analyst: MB

Date Collected: 04/02/16 14:25
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	0.452	0.200	--	1.79	0.793	--		1
1,1-Dichloroethane	2.07	0.200	--	8.38	0.809	--		1
cis-1,2-Dichloroethene	11.3	0.200	--	44.8	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	2.86	0.200	--	15.6	1.09	--		1
Trichloroethene	82.5	0.200	--	443	1.07	--		1
Tetrachloroethene	0.417	0.200	--	2.83	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	85		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-49	Date Collected:	04/02/16 14:42
Client ID:	SSV46-032	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/19/16 02:58		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	2.44	0.200	--	13.3	1.09	--		1
Trichloroethene	1.70	0.200	--	9.14	1.07	--		1
Tetrachloroethene	0.709	0.200	--	4.81	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	85		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-50	Date Collected:	04/02/16 14:42
Client ID:	SSV46-DUP1	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/19/16 03:32		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	2.45	0.200	--	13.4	1.09	--		1
Trichloroethene	1.83	0.200	--	9.83	1.07	--		1
Tetrachloroethene	0.799	0.200	--	5.42	1.36	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	86		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	79		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-51	Date Collected:	04/02/16 14:52
Client ID:	SSV46-031	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/19/16 04:06		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	0.471	0.200	--	2.57	1.09	--		1
Trichloroethene	0.212	0.200	--	1.14	1.07	--		1
Tetrachloroethene	0.696	0.200	--	4.72	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	85		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-52	Date Collected:	04/02/16 14:58
Client ID:	SSV46-030	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/19/16 07:42		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	1.93	0.200	--	7.65	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	1.97	0.200	--	7.97	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	8.73	0.200	--	47.6	1.09	--		1
Trichloroethene	1.68	0.200	--	9.03	1.07	--		1
Tetrachloroethene	0.875	0.200	--	5.93	1.36	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	97		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID: L1609705-53 D
Client ID: SSV46-029
Sample Location: ENDICOTT, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/19/16 08:14
Analyst: MB

Date Collected: 04/02/16 14:59
Date Received: 04/04/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.667	--	ND	1.71	--		3.333
Chloroethane	ND	0.667	--	ND	1.76	--		3.333
1,1-Dichloroethene	61.3	0.667	--	243	2.64	--		3.333
trans-1,2-Dichloroethene	0.690	0.667	--	2.74	2.64	--		3.333
1,1-Dichloroethane	108	0.667	--	437	2.70	--		3.333
cis-1,2-Dichloroethene	3.31	0.667	--	13.1	2.64	--		3.333
1,2-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
1,1,1-Trichloroethane	185	0.667	--	1010	3.64	--		3.333
Trichloroethene	70.2	0.667	--	377	3.58	--		3.333
Tetrachloroethene	0.986	0.667	--	6.69	4.52	--		3.333

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	88		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

SAMPLE RESULTS

Lab ID:	L1609705-54	Date Collected:	04/02/16 17:00
Client ID:	SSV46-EB1	Date Received:	04/04/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15		
Analytical Date:	04/19/16 08:48		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	87		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	83		60-140

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1609705

Project Number: 3935.00 **Report Date:** 04/19/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/17/16 13:59

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 17-29 Batch: WG884487-4								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1609705

Project Number: 3935.00 **Report Date:** 04/19/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/17/16 15:24

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-16 Batch: WG884499-4								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1609705

Project Number: 3935.00 **Report Date:** 04/19/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/18/16 15:07

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 30-47 Batch: WG884769-4								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1609705

Project Number: 3935.00 **Report Date:** 04/19/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/18/16 16:37

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 48-54 Batch: WG884794-4								
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 17-29 Batch: WG884487-3								
Chlorodifluoromethane	84		-		70-130	-		
Propylene	97		-		70-130	-		
Propane	96		-		70-130	-		
Dichlorodifluoromethane	96		-		70-130	-		
Chloromethane	101		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	96		-		70-130	-		
Methanol	99		-		70-130	-		
Vinyl chloride	98		-		70-130	-		
1,3-Butadiene	103		-		70-130	-		
Butane	100		-		70-130	-		
Bromomethane	88		-		70-130	-		
Chloroethane	95		-		70-130	-		
Ethyl Alcohol	106		-		70-130	-		
Dichlorofluoromethane	91		-		70-130	-		
Vinyl bromide	87		-		70-130	-		
Acrolein	89		-		70-130	-		
Acetone	96		-		70-130	-		
Acetonitrile	96		-		70-130	-		
Trichlorofluoromethane	92		-		70-130	-		
iso-Propyl Alcohol	92		-		70-130	-		
Acrylonitrile	94		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 17-29 Batch: WG884487-3								
Pentane	99		-		70-130	-		
Ethyl ether	104		-		70-130	-		
1,1-Dichloroethene	98		-		70-130	-		
tert-Butyl Alcohol	93		-		70-130	-		
Methylene chloride	110		-		70-130	-		
3-Chloropropene	109		-		70-130	-		
Carbon disulfide	96		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	94		-		70-130	-		
trans-1,2-Dichloroethene	89		-		70-130	-		
1,1-Dichloroethane	100		-		70-130	-		
Methyl tert butyl ether	79		-		70-130	-		
Vinyl acetate	125		-		70-130	-		
2-Butanone	92		-		70-130	-		
cis-1,2-Dichloroethene	100		-		70-130	-		
Ethyl Acetate	88		-		70-130	-		
Chloroform	87		-		70-130	-		
Tetrahydrofuran	94		-		70-130	-		
2,2-Dichloropropane	78		-		70-130	-		
1,2-Dichloroethane	84		-		70-130	-		
n-Hexane	110		-		70-130	-		
Isopropyl Ether	94		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 17-29 Batch: WG884487-3								
Ethyl-Tert-Butyl-Ether	98		-		70-130	-		
1,1,1-Trichloroethane	103		-		70-130	-		
1,1-Dichloropropene	98		-		70-130	-		
Benzene	102		-		70-130	-		
Carbon tetrachloride	104		-		70-130	-		
Cyclohexane	108		-		70-130	-		
Tertiary-Amyl Methyl Ether	95		-		70-130	-		
Dibromomethane	98		-		70-130	-		
1,2-Dichloropropane	112		-		70-130	-		
Bromodichloromethane	105		-		70-130	-		
1,4-Dioxane	99		-		70-130	-		
Trichloroethene	97		-		70-130	-		
2,2,4-Trimethylpentane	114		-		70-130	-		
Methyl Methacrylate	106		-		70-130	-		
Heptane	115		-		70-130	-		
cis-1,3-Dichloropropene	108		-		70-130	-		
4-Methyl-2-pentanone	119		-		70-130	-		
trans-1,3-Dichloropropene	94		-		70-130	-		
1,1,2-Trichloroethane	106		-		70-130	-		
Toluene	93		-		70-130	-		
1,3-Dichloropropane	97		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 17-29 Batch: WG884487-3								
2-Hexanone	118		-		70-130	-		
Dibromochloromethane	100		-		70-130	-		
1,2-Dibromoethane	98		-		70-130	-		
Butyl Acetate	96		-		70-130	-		
Octane	90		-		70-130	-		
Tetrachloroethene	94		-		70-130	-		
1,1,1,2-Tetrachloroethane	93		-		70-130	-		
Chlorobenzene	96		-		70-130	-		
Ethylbenzene	99		-		70-130	-		
p/m-Xylene	102		-		70-130	-		
Bromoform	105		-		70-130	-		
Styrene	99		-		70-130	-		
1,1,2,2-Tetrachloroethane	115		-		70-130	-		
o-Xylene	105		-		70-130	-		
1,2,3-Trichloropropane	97		-		70-130	-		
Nonane (C9)	110		-		70-130	-		
Isopropylbenzene	97		-		70-130	-		
Bromobenzene	95		-		70-130	-		
o-Chlorotoluene	93		-		70-130	-		
n-Propylbenzene	96		-		70-130	-		
p-Chlorotoluene	92		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 17-29 Batch: WG884487-3								
4-Ethyltoluene	98		-		70-130	-		
1,3,5-Trimethylbenzene	100		-		70-130	-		
tert-Butylbenzene	100		-		70-130	-		
1,2,4-Trimethylbenzene	110		-		70-130	-		
Decane (C10)	105		-		70-130	-		
Benzyl chloride	110		-		70-130	-		
1,3-Dichlorobenzene	104		-		70-130	-		
1,4-Dichlorobenzene	102		-		70-130	-		
sec-Butylbenzene	100		-		70-130	-		
p-Isopropyltoluene	91		-		70-130	-		
1,2-Dichlorobenzene	101		-		70-130	-		
n-Butylbenzene	103		-		70-130	-		
1,2-Dibromo-3-chloropropane	97		-		70-130	-		
Undecane	108		-		70-130	-		
Dodecane (C12)	112		-		70-130	-		
1,2,4-Trichlorobenzene	101		-		70-130	-		
Naphthalene	92		-		70-130	-		
1,2,3-Trichlorobenzene	94		-		70-130	-		
Hexachlorobutadiene	104		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-16 Batch: WG884499-3								
Chlorodifluoromethane	84		-		70-130	-		
Propylene	97		-		70-130	-		
Propane	82		-		70-130	-		
Dichlorodifluoromethane	110		-		70-130	-		
Chloromethane	92		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	97		-		70-130	-		
Methanol	87		-		70-130	-		
Vinyl chloride	95		-		70-130	-		
1,3-Butadiene	96		-		70-130	-		
Butane	89		-		70-130	-		
Bromomethane	92		-		70-130	-		
Chloroethane	96		-		70-130	-		
Ethyl Alcohol	93		-		70-130	-		
Dichlorofluoromethane	88		-		70-130	-		
Vinyl bromide	94		-		70-130	-		
Acrolein	88		-		70-130	-		
Acetone	85		-		70-130	-		
Acetonitrile	91		-		70-130	-		
Trichlorofluoromethane	96		-		70-130	-		
iso-Propyl Alcohol	86		-		70-130	-		
Acrylonitrile	89		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-16 Batch: WG884499-3								
Pentane	90		-		70-130	-		
Ethyl ether	93		-		70-130	-		
1,1-Dichloroethene	95		-		70-130	-		
tert-Butyl Alcohol	93		-		70-130	-		
Methylene chloride	97		-		70-130	-		
3-Chloropropene	96		-		70-130	-		
Carbon disulfide	92		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	96		-		70-130	-		
trans-1,2-Dichloroethene	86		-		70-130	-		
1,1-Dichloroethane	93		-		70-130	-		
Methyl tert butyl ether	94		-		70-130	-		
Vinyl acetate	114		-		70-130	-		
2-Butanone	94		-		70-130	-		
cis-1,2-Dichloroethene	104		-		70-130	-		
Ethyl Acetate	92		-		70-130	-		
Chloroform	97		-		70-130	-		
Tetrahydrofuran	88		-		70-130	-		
2,2-Dichloropropane	88		-		70-130	-		
1,2-Dichloroethane	97		-		70-130	-		
n-Hexane	86		-		70-130	-		
Isopropyl Ether	85		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-16 Batch: WG884499-3								
Ethyl-Tert-Butyl-Ether	87		-		70-130	-		
1,1,1-Trichloroethane	93		-		70-130	-		
1,1-Dichloropropene	91		-		70-130	-		
Benzene	91		-		70-130	-		
Carbon tetrachloride	92		-		70-130	-		
Cyclohexane	89		-		70-130	-		
Tertiary-Amyl Methyl Ether	88		-		70-130	-		
Dibromomethane	86		-		70-130	-		
1,2-Dichloropropane	93		-		70-130	-		
Bromodichloromethane	94		-		70-130	-		
1,4-Dioxane	94		-		70-130	-		
Trichloroethene	94		-		70-130	-		
2,2,4-Trimethylpentane	90		-		70-130	-		
Methyl Methacrylate	89		-		70-130	-		
Heptane	88		-		70-130	-		
cis-1,3-Dichloropropene	102		-		70-130	-		
4-Methyl-2-pentanone	92		-		70-130	-		
trans-1,3-Dichloropropene	87		-		70-130	-		
1,1,2-Trichloroethane	96		-		70-130	-		
Toluene	94		-		70-130	-		
1,3-Dichloropropane	91		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-16 Batch: WG884499-3								
2-Hexanone	105		-		70-130	-		
Dibromochloromethane	98		-		70-130	-		
1,2-Dibromoethane	99		-		70-130	-		
Butyl Acetate	92		-		70-130	-		
Octane	91		-		70-130	-		
Tetrachloroethene	96		-		70-130	-		
1,1,1,2-Tetrachloroethane	92		-		70-130	-		
Chlorobenzene	98		-		70-130	-		
Ethylbenzene	98		-		70-130	-		
p/m-Xylene	98		-		70-130	-		
Bromoform	99		-		70-130	-		
Styrene	98		-		70-130	-		
1,1,2,2-Tetrachloroethane	103		-		70-130	-		
o-Xylene	101		-		70-130	-		
1,2,3-Trichloropropane	92		-		70-130	-		
Nonane (C9)	89		-		70-130	-		
Isopropylbenzene	96		-		70-130	-		
Bromobenzene	92		-		70-130	-		
o-Chlorotoluene	92		-		70-130	-		
n-Propylbenzene	94		-		70-130	-		
p-Chlorotoluene	91		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-16 Batch: WG884499-3								
4-Ethyltoluene	94		-		70-130	-		
1,3,5-Trimethylbenzene	98		-		70-130	-		
tert-Butylbenzene	99		-		70-130	-		
1,2,4-Trimethylbenzene	108		-		70-130	-		
Decane (C10)	93		-		70-130	-		
Benzyl chloride	106		-		70-130	-		
1,3-Dichlorobenzene	105		-		70-130	-		
1,4-Dichlorobenzene	102		-		70-130	-		
sec-Butylbenzene	97		-		70-130	-		
p-Isopropyltoluene	90		-		70-130	-		
1,2-Dichlorobenzene	103		-		70-130	-		
n-Butylbenzene	100		-		70-130	-		
1,2-Dibromo-3-chloropropane	99		-		70-130	-		
Undecane	98		-		70-130	-		
Dodecane (C12)	109		-		70-130	-		
1,2,4-Trichlorobenzene	117		-		70-130	-		
Naphthalene	104		-		70-130	-		
1,2,3-Trichlorobenzene	104		-		70-130	-		
Hexachlorobutadiene	108		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 30-47 Batch: WG884769-3								
Chlorodifluoromethane	91		-		70-130	-		
Propylene	100		-		70-130	-		
Propane	99		-		70-130	-		
Dichlorodifluoromethane	**168**	Q	-		70-130	-		
Chloromethane	87		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	108		-		70-130	-		
Methanol	80		-		70-130	-		
Vinyl chloride	85		-		70-130	-		
1,3-Butadiene	90		-		70-130	-		
Butane	78		-		70-130	-		
Bromomethane	84		-		70-130	-		
Chloroethane	87		-		70-130	-		
Ethyl Alcohol	86		-		70-130	-		
Dichlorofluoromethane	82		-		70-130	-		
Vinyl bromide	87		-		70-130	-		
Acrolein	85		-		70-130	-		
Acetone	88		-		70-130	-		
Acetonitrile	81		-		70-130	-		
Trichlorofluoromethane	95		-		70-130	-		
iso-Propyl Alcohol	91		-		70-130	-		
Acrylonitrile	81		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 30-47 Batch: WG884769-3								
Pentane	83		-		70-130	-		
Ethyl ether	86		-		70-130	-		
1,1-Dichloroethene	90		-		70-130	-		
tert-Butyl Alcohol	87		-		70-130	-		
Methylene chloride	92		-		70-130	-		
3-Chloropropene	101		-		70-130	-		
Carbon disulfide	86		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	89		-		70-130	-		
trans-1,2-Dichloroethene	76		-		70-130	-		
1,1-Dichloroethane	89		-		70-130	-		
Methyl tert butyl ether	92		-		70-130	-		
2-Butanone	91		-		70-130	-		
cis-1,2-Dichloroethene	99		-		70-130	-		
Ethyl Acetate	95		-		70-130	-		
Chloroform	93		-		70-130	-		
Tetrahydrofuran	92		-		70-130	-		
2,2-Dichloropropane	91		-		70-130	-		
1,2-Dichloroethane	98		-		70-130	-		
n-Hexane	82		-		70-130	-		
Isopropyl Ether	74		-		70-130	-		
Ethyl-Tert-Butyl-Ether	78		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 30-47 Batch: WG884769-3								
1,1,1-Trichloroethane	94		-		70-130	-		
1,1-Dichloropropene	94		-		70-130	-		
Benzene	91		-		70-130	-		
Carbon tetrachloride	107		-		70-130	-		
Cyclohexane	101		-		70-130	-		
Tertiary-Amyl Methyl Ether	88		-		70-130	-		
Dibromomethane	81		-		70-130	-		
1,2-Dichloropropane	90		-		70-130	-		
Bromodichloromethane	96		-		70-130	-		
1,4-Dioxane	91		-		70-130	-		
Trichloroethene	85		-		70-130	-		
2,2,4-Trimethylpentane	95		-		70-130	-		
Methyl Methacrylate	92		-		70-130	-		
Heptane	108		-		70-130	-		
cis-1,3-Dichloropropene	100		-		70-130	-		
4-Methyl-2-pentanone	100		-		70-130	-		
trans-1,3-Dichloropropene	86		-		70-130	-		
1,1,2-Trichloroethane	91		-		70-130	-		
Toluene	91		-		70-130	-		
1,3-Dichloropropane	87		-		70-130	-		
2-Hexanone	100		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 30-47 Batch: WG884769-3								
Dibromochloromethane	106		-		70-130	-		
1,2-Dibromoethane	92		-		70-130	-		
Butyl Acetate	92		-		70-130	-		
Octane	91		-		70-130	-		
Tetrachloroethene	92		-		70-130	-		
1,1,1,2-Tetrachloroethane	95		-		70-130	-		
Chlorobenzene	92		-		70-130	-		
Ethylbenzene	100		-		70-130	-		
p/m-Xylene	96		-		70-130	-		
Bromoform	105		-		70-130	-		
Styrene	98		-		70-130	-		
1,1,2,2-Tetrachloroethane	102		-		70-130	-		
o-Xylene	101		-		70-130	-		
1,2,3-Trichloropropane	87		-		70-130	-		
Nonane (C9)	102		-		70-130	-		
Isopropylbenzene	92		-		70-130	-		
Bromobenzene	85		-		70-130	-		
o-Chlorotoluene	89		-		70-130	-		
n-Propylbenzene	89		-		70-130	-		
p-Chlorotoluene	89		-		70-130	-		
4-Ethyltoluene	92		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

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Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 30-47 Batch: WG884769-3								
1,3,5-Trimethylbenzene	96		-		70-130	-		
tert-Butylbenzene	92		-		70-130	-		
1,2,4-Trimethylbenzene	100		-		70-130	-		
Decane (C10)	91		-		70-130	-		
Benzyl chloride	111		-		70-130	-		
1,3-Dichlorobenzene	88		-		70-130	-		
1,4-Dichlorobenzene	87		-		70-130	-		
sec-Butylbenzene	89		-		70-130	-		
p-Isopropyltoluene	83		-		70-130	-		
1,2-Dichlorobenzene	88		-		70-130	-		
n-Butylbenzene	84		-		70-130	-		
1,2-Dibromo-3-chloropropane	91		-		70-130	-		
Undecane	91		-		70-130	-		
Dodecane (C12)	93		-		70-130	-		
1,2,4-Trichlorobenzene	82		-		70-130	-		
Naphthalene	84		-		70-130	-		
1,2,3-Trichlorobenzene	79		-		70-130	-		
Hexachlorobutadiene	88		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 48-54 Batch: WG884794-3								
Chlorodifluoromethane	83		-		70-130	-		
Propylene	96		-		70-130	-		
Propane	82		-		70-130	-		
Dichlorodifluoromethane	100		-		70-130	-		
Chloromethane	94		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	98		-		70-130	-		
Methanol	89		-		70-130	-		
Vinyl chloride	98		-		70-130	-		
1,3-Butadiene	98		-		70-130	-		
Butane	91		-		70-130	-		
Bromomethane	93		-		70-130	-		
Chloroethane	99		-		70-130	-		
Ethyl Alcohol	94		-		70-130	-		
Dichlorofluoromethane	90		-		70-130	-		
Vinyl bromide	95		-		70-130	-		
Acrolein	88		-		70-130	-		
Acetone	87		-		70-130	-		
Acetonitrile	95		-		70-130	-		
Trichlorofluoromethane	98		-		70-130	-		
iso-Propyl Alcohol	88		-		70-130	-		
Acrylonitrile	91		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 48-54 Batch: WG884794-3								
Pentane	92		-		70-130	-		
Ethyl ether	90		-		70-130	-		
1,1-Dichloroethene	94		-		70-130	-		
tert-Butyl Alcohol	90		-		70-130	-		
Methylene chloride	97		-		70-130	-		
3-Chloropropene	94		-		70-130	-		
Carbon disulfide	89		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	93		-		70-130	-		
trans-1,2-Dichloroethene	83		-		70-130	-		
1,1-Dichloroethane	92		-		70-130	-		
Methyl tert butyl ether	91		-		70-130	-		
Vinyl acetate	115		-		70-130	-		
2-Butanone	91		-		70-130	-		
cis-1,2-Dichloroethene	102		-		70-130	-		
Ethyl Acetate	92		-		70-130	-		
Chloroform	94		-		70-130	-		
Tetrahydrofuran	87		-		70-130	-		
2,2-Dichloropropane	85		-		70-130	-		
1,2-Dichloroethane	95		-		70-130	-		
n-Hexane	89		-		70-130	-		
Isopropyl Ether	86		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 48-54 Batch: WG884794-3								
Ethyl-Tert-Butyl-Ether	86		-		70-130	-		
1,1,1-Trichloroethane	92		-		70-130	-		
1,1-Dichloropropene	92		-		70-130	-		
Benzene	91		-		70-130	-		
Carbon tetrachloride	91		-		70-130	-		
Cyclohexane	91		-		70-130	-		
Tertiary-Amyl Methyl Ether	87		-		70-130	-		
Dibromomethane	88		-		70-130	-		
1,2-Dichloropropane	95		-		70-130	-		
Bromodichloromethane	93		-		70-130	-		
1,4-Dioxane	95		-		70-130	-		
Trichloroethene	96		-		70-130	-		
2,2,4-Trimethylpentane	93		-		70-130	-		
Methyl Methacrylate	91		-		70-130	-		
Heptane	90		-		70-130	-		
cis-1,3-Dichloropropene	102		-		70-130	-		
4-Methyl-2-pentanone	93		-		70-130	-		
trans-1,3-Dichloropropene	85		-		70-130	-		
1,1,2-Trichloroethane	96		-		70-130	-		
Toluene	92		-		70-130	-		
1,3-Dichloropropane	90		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00
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Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 48-54 Batch: WG884794-3								
2-Hexanone	102		-		70-130	-		
Dibromochloromethane	94		-		70-130	-		
1,2-Dibromoethane	95		-		70-130	-		
Butyl Acetate	90		-		70-130	-		
Octane	89		-		70-130	-		
Tetrachloroethene	94		-		70-130	-		
1,1,1,2-Tetrachloroethane	89		-		70-130	-		
Chlorobenzene	96		-		70-130	-		
Ethylbenzene	96		-		70-130	-		
p/m-Xylene	96		-		70-130	-		
Bromoform	94		-		70-130	-		
Styrene	96		-		70-130	-		
1,1,2,2-Tetrachloroethane	103		-		70-130	-		
o-Xylene	100		-		70-130	-		
1,2,3-Trichloropropane	90		-		70-130	-		
Nonane (C9)	89		-		70-130	-		
Isopropylbenzene	93		-		70-130	-		
Bromobenzene	90		-		70-130	-		
o-Chlorotoluene	89		-		70-130	-		
n-Propylbenzene	92		-		70-130	-		
p-Chlorotoluene	88		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 48-54 Batch: WG884794-3								
4-Ethyltoluene	92		-		70-130	-		
1,3,5-Trimethylbenzene	95		-		70-130	-		
tert-Butylbenzene	98		-		70-130	-		
1,2,4-Trimethylbenzene	106		-		70-130	-		
Decane (C10)	92		-		70-130	-		
Benzyl chloride	100		-		70-130	-		
1,3-Dichlorobenzene	102		-		70-130	-		
1,4-Dichlorobenzene	100		-		70-130	-		
sec-Butylbenzene	96		-		70-130	-		
p-Isopropyltoluene	87		-		70-130	-		
1,2-Dichlorobenzene	100		-		70-130	-		
n-Butylbenzene	98		-		70-130	-		
1,2-Dibromo-3-chloropropane	95		-		70-130	-		
Undecane	96		-		70-130	-		
Dodecane (C12)	106		-		70-130	-		
1,2,4-Trichlorobenzene	113		-		70-130	-		
Naphthalene	102		-		70-130	-		
1,2,3-Trichlorobenzene	99		-		70-130	-		
Hexachlorobutadiene	102		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 17-29 QC Batch ID: WG884487-5 QC Sample: L1611031-01 Client ID: DUP Sample						
Dichlorodifluoromethane	0.526	0.428	ppbV	21		25
Chloromethane	0.504	0.501	ppbV	1		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,3-Butadiene	1.97	1.90	ppbV	4		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethyl Alcohol	39.6	39.8	ppbV	1		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	359	361	ppbV	1		25
Trichlorofluoromethane	0.247	0.241	ppbV	2		25
iso-Propyl Alcohol	46.4	48.4	ppbV	4		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
tert-Butyl Alcohol	7.52	7.77	ppbV	3		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	0.268	0.269	ppbV	0		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 17-29 QC Batch ID: WG884487-5 QC Sample: L1611031-01 Client ID: DUP Sample					
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
2-Butanone	17.0	16.5	ppbV	3	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethyl Acetate	8.10	8.34	ppbV	3	25
Chloroform	1.57	1.59	ppbV	1	25
Tetrahydrofuran	5.77	5.83	ppbV	1	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	8.47	8.32	ppbV	2	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	5.51	5.51	ppbV	0	25
Carbon tetrachloride	ND	ND	ppbV	NC	25
Cyclohexane	2.29	2.37	ppbV	3	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	1.18	1.14	ppbV	3	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
2,2,4-Trimethylpentane	2.46	2.49	ppbV	1	25
Heptane	12.0	11.5	ppbV	4	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 17-29 QC Batch ID: WG884487-5 QC Sample: L1611031-01 Client ID: DUP Sample					
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	3.91	3.84	ppbV	2	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	30.8	30.3	ppbV	2	25
2-Hexanone	1.17	1.20	ppbV	3	25
Dibromochloromethane	1.00	1.00	ppbV	0	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	1.42	1.44	ppbV	1	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	14.2	14.2	ppbV	0	25
p/m-Xylene	56.9	55.9	ppbV	2	25
Bromoform	0.327	0.322	ppbV	2	25
Styrene	0.278	0.288	ppbV	4	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	13.8	13.8	ppbV	0	25
4-Ethyltoluene	1.59	1.58	ppbV	1	25
1,3,5-Trimethylbenzene	1.63	1.65	ppbV	1	25
1,2,4-Trimethylbenzene	5.61	5.52	ppbV	2	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 17-29 QC Batch ID: WG884487-5 QC Sample: L1611031-01 Client ID: DUP Sample					
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-16 QC Batch ID: WG884499-5 QC Sample: L1609705-02 Client ID: SSV42-001					
Vinyl chloride	ND	ND	ppbV	NC	25
Chloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	7.92	8.10	ppbV	2	25
Trichloroethene	203	204	ppbV	0	25
Tetrachloroethene	3.91	4.03	ppbV	3	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 30-47 QC Batch ID: WG884769-5 QC Sample: L1609705-32 Client ID: SSV46-007					
Vinyl chloride	ND	ND	ppbV	NC	25
Chloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethene	1.28	1.26	ppbV	2	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
1,1-Dichloroethane	6.55	6.49	ppbV	1	25
cis-1,2-Dichloroethene	1.76	1.69	ppbV	4	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	8.94	9.00	ppbV	1	25
Trichloroethene	4.16	3.97	ppbV	5	25
Tetrachloroethene	ND	ND	ppbV	NC	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 48-54 QC Batch ID: WG884794-5 QC Sample: L1610560-01 Client ID: DUP Sample					
Dichlorodifluoromethane	0.445	0.368	ppbV	19	25
Chloromethane	ND	ND	ppbV	NC	25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC	25
Vinyl chloride	ND	ND	ppbV	NC	25
1,3-Butadiene	ND	ND	ppbV	NC	25
Bromomethane	ND	ND	ppbV	NC	25
Chloroethane	ND	ND	ppbV	NC	25
Ethyl Alcohol	ND	ND	ppbV	NC	25
Vinyl bromide	ND	ND	ppbV	NC	25
Acetone	2.05	2.08	ppbV	1	25
Trichlorofluoromethane	0.223	0.230	ppbV	3	25
iso-Propyl Alcohol	0.500	0.551	ppbV	10	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
tert-Butyl Alcohol	ND	ND	ppbV	NC	25
Methylene chloride	ND	ND	ppbV	NC	25
3-Chloropropene	ND	ND	ppbV	NC	25
Carbon disulfide	0.274	0.280	ppbV	2	25
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND	ppbV	NC	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 48-54 QC Batch ID: WG884794-5 QC Sample: L1610560-01 Client ID: DUP Sample					
1,1-Dichloroethane	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
2-Butanone	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Ethyl Acetate	ND	ND	ppbV	NC	25
Chloroform	0.699	0.742	ppbV	6	25
Tetrahydrofuran	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
n-Hexane	ND	ND	ppbV	NC	25
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
Benzene	ND	ND	ppbV	NC	25
Carbon tetrachloride	ND	ND	ppbV	NC	25
Cyclohexane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
Bromodichloromethane	ND	ND	ppbV	NC	25
1,4-Dioxane	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC	25
Heptane	ND	ND	ppbV	NC	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 48-54 QC Batch ID: WG884794-5 QC Sample: L1610560-01 Client ID: DUP Sample					
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Toluene	ND	ND	ppbV	NC	25
2-Hexanone	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
Tetrachloroethene	0.256	0.275	ppbV	7	25
Chlorobenzene	ND	ND	ppbV	NC	25
Ethylbenzene	ND	ND	ppbV	NC	25
p/m-Xylene	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
o-Xylene	ND	ND	ppbV	NC	25
4-Ethyltoluene	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC	25

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 48-54 QC Batch ID: WG884794-5 QC Sample: L1610560-01 Client ID: DUP Sample					
Benzyl chloride	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC	25
Hexachlorobutadiene	ND	ND	ppbV	NC	25

Project Name: FORMER IBM ENDICOTT

Lab Number: L1609705

Project Number: 3935.00

Report Date: 04/19/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1609705-01	SSV42-016	0391	#30 SV	03/24/16	219223		-	-	-	Pass	36.0	22.9	44
L1609705-01	SSV42-016	2021	2.7L Can	03/24/16	219223	L1608295-01	Pass	-29.9	-6.1	-	-	-	-
L1609705-02	SSV42-001	0717	#30 SV	03/24/16	219223		-	-	-	Pass	30.0	35.0	15
L1609705-02	SSV42-001	2212	2.7L Can	03/24/16	219223	L1608295-01	Pass	-29.9	-6.9	-	-	-	-
L1609705-03	SSV42-005	0753	#30 SV	03/24/16	219223		-	-	-	Pass	35.2	37.1	5
L1609705-03	SSV42-005	2244	2.7L Can	03/24/16	219223	L1608295-01	Pass	-29.9	-5.8	-	-	-	-
L1609705-04	SSV42-006	0448	#90 SV	03/24/16	219223		-	-	-	Pass	34.4	35.4	3
L1609705-04	SSV42-006	111	2.7L Can	03/24/16	219223	L1608295-01	Pass	-29.9	-8.3	-	-	-	-
L1609705-05	SSV42-007	0649	#30 SV	03/24/16	219223		-	-	-	Pass	35.0	34.3	2
L1609705-05	SSV42-007	2182	2.7L Can	03/24/16	219223	L1608295-01	Pass	-29.9	-8.5	-	-	-	-
L1609705-06	SSV42-003	0744	#30 SV	03/24/16	219223		-	-	-	Pass	36.0	37.1	3
L1609705-06	SSV42-003	2025	2.7L Can	03/24/16	219223	L1608295-01	Pass	-29.9	-6.9	-	-	-	-
L1609705-07	SSV42-012	0015	#90 SV	03/24/16	219223		-	-	-	Pass	34.0	33.8	1
L1609705-07	SSV42-012	492	2.7L Can	03/24/16	219223	L1608102-01	Pass	-29.9	-9.5	-	-	-	-
L1609705-08	SSV42-013	0934	#2 SV	03/24/16	219223		-	-	-	Pass	36.0	37.2	3

Project Name: FORMER IBM ENDICOTT

Lab Number: L1609705

Project Number: 3935.00

Report Date: 04/19/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1609705-08	SSV42-013	454	2.7L Can	03/24/16	219223	L1608102-01	Pass	-29.9	-5.5	-	-	-	-
L1609705-09	SSV42-014	0356	#90 SV	03/24/16	219223		-	-	-	Pass	30.0	43.4	37
L1609705-09	SSV42-014	467	2.7L Can	03/24/16	219223	L1608102-01	Pass	-29.2	-6.9	-	-	-	-
L1609705-10	SSV42-015	0228	#30 SV	03/24/16	219223		-	-	-	Pass	30.0	29.8	1
L1609705-10	SSV42-015	364	2.7L Can	03/24/16	219223	L1608102-01	Pass	-29.4	-11.8	-	-	-	-
L1609705-11	SSV42-010	0407	#30 SV	03/24/16	219223		-	-	-	Pass	32.0	33.4	4
L1609705-11	SSV42-010	327	2.7L Can	03/24/16	219223	L1608102-01	Pass	-29.9	-10.1	-	-	-	-
L1609705-12	SSV42-009	0166	#30 SV	03/24/16	219223		-	-	-	Pass	30.0	27.3	9
L1609705-12	SSV42-009	260	2.7L Can	03/24/16	219223	L1608102-01	Pass	-29.9	-11.3	-	-	-	-
L1609705-13	SSV42-004	0656	#30 SV	03/24/16	219223		-	-	-	Pass	36.0	40.7	12
L1609705-13	SSV42-004	149	2.7L Can	03/24/16	219223	L1608102-01	Pass	-29.4	-4.0	-	-	-	-
L1609705-14	SSV42-002	0156	#90 SV	03/24/16	219223		-	-	-	Pass	30.0	29.4	2
L1609705-14	SSV42-002	1724	2.7L Can	03/24/16	219223	L1608102-01	Pass	-29.9	-11.5	-	-	-	-
L1609705-15	SSV42-011	0489	#90 SV	03/31/16	219511		-	-	-	Pass	35.9	37.3	4
L1609705-15	SSV42-011	328	2.7L Can	03/31/16	219511	L1608850-01	Pass	-30.0	-6.3	-	-	-	-

Project Name: FORMER IBM ENDICOTT

Lab Number: L1609705

Project Number: 3935.00

Report Date: 04/19/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1609705-16	SSV42-008	0353	#90 SV	03/31/16	219511		-	-	-	Pass	31.8	51.1	47
L1609705-16	SSV42-008	261	2.7L Can	03/31/16	219511	L1608850-01	Pass	-30.0	-7.2	-	-	-	-
L1609705-17	SSV42-DUP1	0099	#90 SV	03/31/16	219511		-	-	-	Pass	35.9	36.2	1
L1609705-17	SSV42-DUP1	2037	2.7L Can	03/31/16	219511	L1608850-01	Pass	-30.0	-9.1	-	-	-	-
L1609705-18	SSV42-EB1	0404	#30 SV	03/24/16	219223		-	-	-	Pass	35.7	36.5	2
L1609705-18	SSV42-EB1	263	2.7L Can	03/24/16	219223	L1608295-01	Pass	-29.9	-6.7	-	-	-	-
L1609705-19	SSV46-034	0916	#4 AMB	04/01/16	219514		-	-	-	Pass	36.0	42.4	16
L1609705-19	SSV46-034	2206	2.7L Can	04/01/16	219514	L1609067-02	Pass	-28.9	-3.7	-	-	-	-
L1609705-20	SSV46-035	0256	#16 AMB	04/01/16	219514		-	-	-	Pass	31.7	33.4	5
L1609705-20	SSV46-035	354	2.7L Can	04/01/16	219514	L1609067-02	Pass	-29.8	-7.3	-	-	-	-
L1609705-21	SSV46-028	0138	#90 SV	04/01/16	219514		-	-	-	Pass	34.5	36.9	7
L1609705-21	SSV46-028	321	2.7L Can	04/01/16	219514	L1609224-01	Pass	-29.6	-4.9	-	-	-	-
L1609705-22	SSV46-027	0922	#4 AMB	04/01/16	219514		-	-	-	Pass	36.0	35.6	1
L1609705-22	SSV46-027	518	2.7L Can	04/01/16	219514	L1609067-02	Pass	-29.6	-6.1	-	-	-	-
L1609705-23	SSV46-026	0185	#90 AMB	04/01/16	219514		-	-	-	Pass	36.0	54.5	41

Project Name: FORMER IBM ENDICOTT

Lab Number: L1609705

Project Number: 3935.00

Report Date: 04/19/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1609705-23	SSV46-026	497	2.7L Can	04/01/16	219514	L1609224-01	Pass	-29.6	-0.7	-	-	-	-
L1609705-24	SSV46-025	0791	#3 AMB	04/01/16	219514		-	-	-	Pass	30.0	45.5	41
L1609705-24	SSV46-025	500	2.7L Can	04/01/16	219514	L1609224-01	Pass	-29.6	-2.1	-	-	-	-
L1609705-25	SSV46-023	0733	#16 AMB	04/01/16	219514		-	-	-	Pass	36	40.8	13
L1609705-25	SSV46-023	421	2.7L Can	04/01/16	219514	L1609067-02	Pass	-29.6	-3.7	-	-	-	-
L1609705-26	SSV46-022	0019	#20 SV	03/31/16	219511		-	-	-	Pass	30.8	41.6	30
L1609705-26	SSV46-022	126	2.7L Can	03/31/16	219511	L1608901-01	Pass	-30.0	-8.1	-	-	-	-
L1609705-27	SSV46-024	0079	#90 AMB	03/31/16	219511		-	-	-	Pass	32.3	28.3	13
L1609705-27	SSV46-024	367	2.7L Can	04/01/16	219514	L1609067-02	Pass	-29.6	-8.8	-	-	-	-
L1609705-28	SSV46-021	0083	#90 SV	03/31/16	219511		-	-	-	Pass	32.5	30.7	6
L1609705-28	SSV46-021	485	2.7L Can	03/31/16	219511	L1609067-01	Pass	-30.0	-9.4	-	-	-	-
L1609705-29	SSV46-016	0422	#16 AMB	04/01/16	219514		-	-	-	Pass	30.0	22.4	29
L1609705-29	SSV46-016	2197	2.7L Can	04/01/16	219514	L1609224-01	Pass	-29.6	-10.5	-	-	-	-
L1609705-30	SSV46-015	0807	#4 AMB	04/01/16	219514		-	-	-	Pass	30.0	30.9	3
L1609705-30	SSV46-015	387	2.7L Can	04/01/16	219514	L1609067-02	Pass	-29.6	-9.3	-	-	-	-

Project Name: FORMER IBM ENDICOTT

Lab Number: L1609705

Project Number: 3935.00

Report Date: 04/19/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1609705-31	SSV46-008	0375	#30 AMB	03/31/16	219511		-	-	-	Pass	36.0	36.0	0
L1609705-31	SSV46-008	103	2.7L Can	03/31/16	219511	L1608901-01	Pass	-30.0	-5.0	-	-	-	-
L1609705-32	SSV46-007	0674	#16 SV	04/01/16	219514		-	-	-	Pass	36.0	39.8	10
L1609705-32	SSV46-007	1716	2.7L Can	04/01/16	219514	L1608901-01	Pass	-30.0	-3.4	-	-	-	-
L1609705-33	SSV46-009	0049	#90 SV	04/01/16	219514		-	-	-	Pass	32.6	42.3	26
L1609705-33	SSV46-009	554	2.7L Can	04/01/16	219514	L1609224-01	Pass	-29.6	-3.7	-	-	-	-
L1609705-34	SSV46-006	0718	#30 SV	03/31/16	219511		-	-	-	Pass	30.0	38.1	24
L1609705-34	SSV46-006	401	2.7L Can	03/31/16	219511	L1608901-01	Pass	-30.0	-6.1	-	-	-	-
L1609705-35	SSV46-002	0178	#90 SV	03/31/16	219511		-	-	-	Pass	36.0	41.8	15
L1609705-35	SSV46-002	150	2.7L Can	04/01/16	219514	L1609224-01	Pass	-29.6	-3.8	-	-	-	-
L1609705-36	SSV46-001	0320	#90 SV	04/01/16	219514		-	-	-	Pass	32.5	46.2	35
L1609705-36	SSV46-001	240	2.7L Can	04/01/16	219514	L1609224-01	Pass	-29.6	-4.8	-	-	-	-
L1609705-37	SSV46-003	0926	#2 SV	03/31/16	219511		-	-	-	Pass	35.8	22.4	46
L1609705-37	SSV46-003	477	2.7L Can	03/31/16	219511	L1608901-01	Pass	-30.0	-14.8	-	-	-	-
L1609705-38	SSV46-DUP2	0682	#30 AMB	03/31/16	219511		-	-	-	Pass	36.0	40.1	11

Project Name: FORMER IBM ENDICOTT

Lab Number: L1609705

Project Number: 3935.00

Report Date: 04/19/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1609705-38	SSV46-DUP2	1750	2.7L Can	03/31/16	219511	L1608901-01	Pass	-30.0	-4.0	-	-	-	-
L1609705-39	SSV46-004	0314	#30 AMB	03/31/16	219511		-	-	-	Pass	32.2	22.3	36
L1609705-39	SSV46-004	182	2.7L Can	03/31/16	219511	L1608901-01	Pass	-30.0	-10.1	-	-	-	-
L1609705-40	SSV46-010	0346	#90 SV	04/01/16	219514		-	-	-	Pass	36.0	31.3	14
L1609705-40	SSV46-010	374	2.7L Can	04/01/16	219514	L1609067-02	Pass	-29.6	-7.4	-	-	-	-
L1609705-41	SSV46-011	0799	#3 AMB	03/31/16	219511		-	-	-	Pass	36.0	32.6	10
L1609705-41	SSV46-011	357	2.7L Can	03/31/16	219511	L1609067-01	Pass	-30.0	-7.6	-	-	-	-
L1609705-42	SSV46-012	0194	#90 SV	03/31/16	219511		-	-	-	Pass	35.0	26.9	26
L1609705-42	SSV46-012	400	2.7L Can	03/31/16	219511	L1608901-01	Pass	-30.0	-9.9	-	-	-	-
L1609705-43	SSV46-013	0724	#30 SV	04/01/16	219514		-	-	-	Pass	34.5	30.5	12
L1609705-43	SSV46-013	2188	2.7L Can	04/01/16	219514	L1609224-01	Pass	-29.6	-10.6	-	-	-	-
L1609705-44	SSV46-014	0648	#30 SV	04/01/16	219514		-	-	-	Pass	36.0	20.1	57
L1609705-44	SSV46-014	144	2.7L Can	04/01/16	219514	L1609224-01	Pass	-29.6	-10.8	-	-	-	-
L1609705-45	SSV42-017	0047	#90 SV	04/01/16	219514		-	-	-	Pass	33.0	26.8	21
L1609705-45	SSV42-017	543	2.7L Can	04/01/16	219514	L1609224-01	Pass	-29.6	-5.3	-	-	-	-

Project Name: FORMER IBM ENDICOTT

Lab Number: L1609705

Project Number: 3935.00

Report Date: 04/19/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1609705-46	SSV46-018	0301	#16 AMB	04/01/16	219514		-	-	-	Pass	33.2	33.0	1
L1609705-46	SSV46-018	2036	2.7L Can	04/01/16	219514	L1609224-01	Pass	-29.6	-6.6	-	-	-	-
L1609705-47	SSV46-019	0449	#90 SV	04/01/16	219514		-	-	-	Pass	36.0	58.5	48
L1609705-47	SSV46-019	2194	2.7L Can	04/01/16	219514	L1609224-01	Pass	-29.6	-3.2	-	-	-	-
L1609705-48	SSV46-020	0333	#90 SV	03/31/16	219511		-	-	-	Pass	30.0	41.4	32
L1609705-48	SSV46-020	425	2.7L Can	03/31/16	219511	L1609067-01	Pass	-30.0	-7.7	-	-	-	-
L1609705-49	SSV46-032	0575	#30 AMB	03/31/16	219511		-	-	-	Pass	36.0	35.9	0
L1609705-49	SSV46-032	385	2.7L Can	03/31/16	219511	L1609067-01	Pass	-30.0	-5.6	-	-	-	-
L1609705-50	SSV46-DUP1	0324	#90 SV	04/01/16	219514		-	-	-	Pass	31.9	32.4	2
L1609705-50	SSV46-DUP1	201	2.7L Can	04/01/16	219514	L1609224-01	Pass	-29.6	-10.0	-	-	-	-
L1609705-51	SSV46-031	0281	#90 SV	03/31/16	219511		-	-	-	Pass	36.0	40.3	11
L1609705-51	SSV46-031	200	2.7L Can	03/31/16	219511	L1609067-01	Pass	-30.0	-6.7	-	-	-	-
L1609705-52	SSV46-030	0316	#90 SV	04/01/16	219514		-	-	-	Pass	33.0	25.9	24
L1609705-52	SSV46-030	423	2.7L Can	04/01/16	219514	L1609067-02	Pass	-29.6	-10.6	-	-	-	-
L1609705-53	SSV46-029	0142	#16 AMB	04/01/16	219514		-	-	-	Pass	36.0	45.5	23

Project Name: FORMER IBM ENDICOTT

Lab Number: L1609705

Project Number: 3935.00

Report Date: 04/19/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1609705-53	SSV46-029	236	2.7L Can	04/01/16	219514	L1609224-01	Pass	-29.6	-4.1	-	-	-	-
L1609705-54	SSV46-EB1	0171	#90 SV	04/01/16	219514		-	-	-	Pass	32.0	33.1	3
L1609705-54	SSV46-EB1	147B	2.7L Can	04/01/16	219514	L1609067-02	Pass	-29.6	-15.6	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1608102
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1608102-01
Client ID: CAN 468 SHELF 1
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/21/16 18:13
Analyst: MB

Date Collected: 03/21/16 09:00
Date Received: 03/21/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608102

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608102-01 Date Collected: 03/21/16 09:00

Client ID: CAN 468 SHELF 1 Date Received: 03/21/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608102

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608102-01 Date Collected: 03/21/16 09:00

Client ID: CAN 468 SHELF 1 Date Received: 03/21/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608102

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608102-01 Date Collected: 03/21/16 09:00

Client ID: CAN 468 SHELF 1 Date Received: 03/21/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608102

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608102-01 Date Collected: 03/21/16 09:00

Client ID: CAN 468 SHELF 1 Date Received: 03/21/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	88		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608102

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID:	L1608102-01	Date Collected:	03/21/16 09:00
Client ID:	CAN 468 SHELF 1	Date Received:	03/21/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/21/16 18:13		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608102

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608102-01 Date Collected: 03/21/16 09:00

Client ID: CAN 468 SHELF 1 Date Received: 03/21/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608102

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608102-01 Date Collected: 03/21/16 09:00

Client ID: CAN 468 SHELF 1 Date Received: 03/21/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	94		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1608295
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1608295-01
Client ID: CAN 191B SHELF 2
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/23/16 11:05
Analyst: RY

Date Collected: 03/22/16 16:00
Date Received: 03/23/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608295

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608295-01 Date Collected: 03/22/16 16:00

Client ID: CAN 191B SHELF 2 Date Received: 03/23/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608295

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608295-01 Date Collected: 03/22/16 16:00

Client ID: CAN 191B SHELF 2 Date Received: 03/23/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608295

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608295-01 Date Collected: 03/22/16 16:00

Client ID: CAN 191B SHELF 2 Date Received: 03/23/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608295

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608295-01 Date Collected: 03/22/16 16:00

Client ID: CAN 191B SHELF 2 Date Received: 03/23/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	88		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1608295
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1608295-01
Client ID: CAN 191B SHELF 2
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/23/16 11:05
Analyst: RY

Date Collected: 03/22/16 16:00
Date Received: 03/23/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608295

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608295-01 Date Collected: 03/22/16 16:00

Client ID: CAN 191B SHELF 2 Date Received: 03/23/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1608295
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1608295-01
Client ID: CAN 191B SHELF 2
Sample Location:

Date Collected: 03/22/16 16:00
Date Received: 03/23/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	93		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	90		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1608850
Report Date: 04/19/16

Air Canister Certification Results

Lab ID:	L1608850-01	Date Collected:	03/28/16 09:00
Client ID:	CAN 205 SHELF 1	Date Received:	03/28/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/28/16 20:42		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608850

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608850-01 Date Collected: 03/28/16 09:00

Client ID: CAN 205 SHELF 1 Date Received: 03/28/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608850

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608850-01 Date Collected: 03/28/16 09:00

Client ID: CAN 205 SHELF 1 Date Received: 03/28/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608850

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608850-01 Date Collected: 03/28/16 09:00

Client ID: CAN 205 SHELF 1 Date Received: 03/28/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608850

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608850-01 Date Collected: 03/28/16 09:00

Client ID: CAN 205 SHELF 1 Date Received: 03/28/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	90		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1608850
Report Date: 04/19/16

Air Canister Certification Results

Lab ID:	L1608850-01	Date Collected:	03/28/16 09:00
Client ID:	CAN 205 SHELF 1	Date Received:	03/28/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/28/16 20:42		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608850

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608850-01 Date Collected: 03/28/16 09:00

Client ID: CAN 205 SHELF 1 Date Received: 03/28/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608850

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608850-01 Date Collected: 03/28/16 09:00

Client ID: CAN 205 SHELF 1 Date Received: 03/28/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1608901
Report Date: 04/19/16

Air Canister Certification Results

Lab ID:	L1608901-01	Date Collected:	03/28/16 16:00
Client ID:	CAN 1716 SHELF 2	Date Received:	03/29/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/29/16 17:17		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608901

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608901-01 Date Collected: 03/28/16 16:00

Client ID: CAN 1716 SHELF 2 Date Received: 03/29/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1608901
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1608901-01
Client ID: CAN 1716 SHELF 2
Sample Location:

Date Collected: 03/28/16 16:00
Date Received: 03/29/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1608901
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1608901-01
Client ID: CAN 1716 SHELF 2
Sample Location:

Date Collected: 03/28/16 16:00
Date Received: 03/29/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608901

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608901-01 Date Collected: 03/28/16 16:00

Client ID: CAN 1716 SHELF 2 Date Received: 03/29/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1608901
Report Date: 04/19/16

Air Canister Certification Results

Lab ID:	L1608901-01	Date Collected:	03/28/16 16:00
Client ID:	CAN 1716 SHELF 2	Date Received:	03/29/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/29/16 17:17		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608901

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608901-01 Date Collected: 03/28/16 16:00

Client ID: CAN 1716 SHELF 2 Date Received: 03/29/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1608901

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1608901-01 Date Collected: 03/28/16 16:00

Client ID: CAN 1716 SHELF 2 Date Received: 03/29/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1609067
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1609067-01
Client ID: CAN 379 SHELF 8
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/30/16 10:03
Analyst: MB

Date Collected: 03/29/16 16:00
Date Received: 03/30/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1609067

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1609067-01 Date Collected: 03/29/16 16:00

Client ID: CAN 379 SHELF 8 Date Received: 03/30/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1609067

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1609067-01 Date Collected: 03/29/16 16:00

Client ID: CAN 379 SHELF 8 Date Received: 03/30/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1609067
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1609067-01
Client ID: CAN 379 SHELF 8
Sample Location:

Date Collected: 03/29/16 16:00
Date Received: 03/30/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1609067

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1609067-01 Date Collected: 03/29/16 16:00

Client ID: CAN 379 SHELF 8 Date Received: 03/30/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1609067
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1609067-01
Client ID: CAN 379 SHELF 8
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/30/16 10:03
Analyst: MB

Date Collected: 03/29/16 16:00
Date Received: 03/30/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1609067

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1609067-01 Date Collected: 03/29/16 16:00

Client ID: CAN 379 SHELF 8 Date Received: 03/30/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1609067

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1609067-01 Date Collected: 03/29/16 16:00

Client ID: CAN 379 SHELF 8 Date Received: 03/30/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	98		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1609067
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1609067-02
Client ID: CAN 248 SHELF 13
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/30/16 10:37
Analyst: MB

Date Collected: 03/29/16 16:00
Date Received: 03/30/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1609067

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1609067-02 Date Collected: 03/29/16 16:00

Client ID: CAN 248 SHELF 13 Date Received: 03/30/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1609067
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1609067-02
Client ID: CAN 248 SHELF 13
Sample Location:

Date Collected: 03/29/16 16:00
Date Received: 03/30/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1609067

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1609067-02 Date Collected: 03/29/16 16:00

Client ID: CAN 248 SHELF 13 Date Received: 03/30/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1609067

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1609067-02 Date Collected: 03/29/16 16:00

Client ID: CAN 248 SHELF 13 Date Received: 03/30/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1609067
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1609067-02
Client ID: CAN 248 SHELF 13
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/30/16 10:37
Analyst: MB

Date Collected: 03/29/16 16:00
Date Received: 03/30/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1609067

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1609067-02 Date Collected: 03/29/16 16:00

Client ID: CAN 248 SHELF 13 Date Received: 03/30/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1609067
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1609067-02
Client ID: CAN 248 SHELF 13
Sample Location:
Date Collected: 03/29/16 16:00
Date Received: 03/30/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	98		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1609224
Report Date: 04/19/16

Air Canister Certification Results

Lab ID:	L1609224-01	Date Collected:	03/30/16 16:00
Client ID:	CAN 381 SHELF 1	Date Received:	03/31/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15		
Analytical Date:	03/31/16 10:25		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1609224
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1609224-01
Client ID: CAN 381 SHELF 1
Sample Location:

Date Collected: 03/30/16 16:00
Date Received: 03/31/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1609224
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1609224-01
Client ID: CAN 381 SHELF 1
Sample Location:

Date Collected: 03/30/16 16:00
Date Received: 03/31/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1609224
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1609224-01
Client ID: CAN 381 SHELF 1
Sample Location:

Date Collected: 03/30/16 16:00
Date Received: 03/31/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1609224

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1609224-01 Date Collected: 03/30/16 16:00

Client ID: CAN 381 SHELF 1 Date Received: 03/31/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	95		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1609224
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1609224-01
Client ID: CAN 381 SHELF 1
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/31/16 10:25
Analyst: RY

Date Collected: 03/30/16 16:00
Date Received: 03/31/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1609224

Project Number: CANISTER QC BAT **Report Date:** 04/19/16

Air Canister Certification Results

Lab ID: L1609224-01 Date Collected: 03/30/16 16:00

Client ID: CAN 381 SHELF 1 Date Received: 03/31/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1609224
Report Date: 04/19/16

Air Canister Certification Results

Lab ID: L1609224-01
Client ID: CAN 381 SHELF 1
Sample Location:

Date Collected: 03/30/16 16:00
Date Received: 03/31/16
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	97		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information **Custody Seal**

Cooler

N/A Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1609705-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-04A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-05A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-06A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-07A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-08A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-09A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-10A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-11A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-12A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-13A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-14A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-15A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-16A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-17A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-18A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-19A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-20A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-21A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-22A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-23A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-24A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-25A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-26A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-27A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-28A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-29A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name: FORMER IBM ENDICOTT
Project Number: 3935.00

Lab Number: L1609705
Report Date: 04/19/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1609705-30A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-31A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-32A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-33A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-34A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-35A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-36A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-37A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-38A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-39A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-40A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-41A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-42A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-43A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-44A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-45A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-46A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-47A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-48A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-49A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-50A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-51A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-52A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-53A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)
L1609705-54A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1609705
Project Number:	3935.00	**Report Date:**	04/19/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name:	FORMER IBM ENDICOTT	**Lab Number:**	L1609705
Project Number:	3935.00	**Report Date:**	04/19/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: FORMER IBM ENDICOTT **Lab Number:** L1609705
Project Number: 3935.00 **Report Date:** 04/19/16

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 6

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4/5/16

ALPHA Job #: L1609705

Client Information

Client: Sanborn Head & Associates
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-419-6119
Fax:
Email: swarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott Facility
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments: 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE

Project-Specific Target Compound List: ☐ cis-1,2-DCE, trans-1,2-DCE, chloroethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs	Fixed Gases	Sulfides & Mercaptans by TO-15		Sample Comments (i.e. PID)
CTN							AA	CTN	2.7			X						
L609705-01	SSV42-016	4/1/16	0942	1043	-28.42	-5.37	SV	JWC	2.7	2021	0391	X						PID= 44.2 ppm
-02	SSV42-001	4/1/16	0946	1048	-28.43	-6.11				2212	0717	X						PID= 276.6 ppm
-03	SSV42-005	4/1/16	0951	1051	-28.35	-4.98				2244	0793	X						Final vacuum = -4.98 PID= 462 ppm
-04	SSV42-006	4/1/16	0956	1056	-28.41	-7.75				111	0448	X			CTN			PID= 442 ppm
-05	SSV42-007	4/1/16	1000	1100	-28.29	-7.90				2182	0649	X						PID= 45 ppm
-06	SSV42-003	4/1/16	1004	1104	-28.36	-6.03				2025	0744	X						PID= 51.4 ppm
-07	SSV42-012	4/1/16	1008	1108	-28.36	-9.02				492	0015	X						PID= 21.4 ppm
-08	SSV42-013	4/1/16	1012	1112	-27.74	-4.85				454	0934	X						PID= 5.5 ppm
-09	SSV42-014	4/1/16	1016	1116	-26.97	-5.48				467	0356	X						PID= 44.5 ppm
										Container Type		CS						

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Relinquished By:	Date/Time	Received By:	Date/Time:
[illegible]	4/4/16 18:15	[illegible] HAL	4/4/16 18:15
[illegible]	4/4/16	[illegible]	4/5/16 01:30
[illegible]	4/5/16	[illegible]	4/5/16 9:15
[illegible]	4/5/16 10:05	[illegible]	4/5/16 1005

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

AIR ANALYSIS

PAGE 2 OF 6

Date Rec'd in Lab: 4/5/16

ALPHA Job #: L1609705

ALPHA ANALYTICAL

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Sanborn Head & Associates
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: swarner@sanbornhead.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments: 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE,

Project-Specific Target Compound List: ☐ cis-1,2-DCE, trans-1,2-DCE, Chloroethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
-10	SSV42-015	4/1/16	1020	1121	-27.87	-10.33	SV	JWC	2.7	364	0228	X							PID= 343 ppm
-11	SSV42-010	4/1/16	1025	1126	-27.41	-9.30	SV	JWC	2.7	327	0407	X							PID= >15,000 ppm
-12	SSV42-009	4/1/16	1030	1136	-28.96	-10.48	SV	JWC	2.7	260	0166	X							PID=4906 ppm
-13	SSV42-004	4/1/16	1036	1136	-28.91	-3.16	SV	JWC	2.7	149	0696	X			CTN				PID= 66 ppm
-14	SSV42-002	4/1/16	1042	1142	-28.96	-10.77	SV	JWC	2.7	1724	0196	X							PID= 72 ppm
-15	SSV42-011	4/1/16	1255	1355	-28.36	-5.43	SV	JWC	2.7	328	0489	X							PID= 1513 ppm
-16	SSV42-008	4/1/16	1303	1403	-28.92	-6.91	SV	JWC	2.7	261	0353	X							PID= 368 ppm
-17	SSV42-DUP1	4/1/16	1303	1403	-28.96	-8.99	SV	JWC	2.7	2037	0099	X							PID= 367 ppm
-18	SSV42-EB1	4/1/16	1250	1350	-27.91	-5.85	SV	JWC	2.7	253	0404	X							PID= — ppm
-19	SSV46-034	4/2/16	0817	0916	-27.95	-2.82	SV	JWC	2.7	2206	0918	X							PID= >15,000

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
[illegible]	4/4/16 15:15	[illegible] AAL	4/4/16 18:10
[illegible]	4/4/16	[illegible]	4/5/16 01:30
[illegible]	4/5/16 09:15	[illegible]	4/5/16 9:15
[illegible]	4-5-16 10:05	[illegible]	4/5/16 10:05

AIR ANALYSIS

PAGE 3 OF 8

Date Rec'd in Lab: 4/5/16

ALPHA Job #: L1609705

ALPHA ANALYTICAL

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Sanborn Head & Associates
Address: 20 Foundry Street
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Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

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Criteria Checker:
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Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments: 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE,

Project-Specific Target Compound List: ☐ cis-1,2-DCE, trans-1,2-DCE, chloroethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
-20	SSV46-035	4/2/16	0810	9:10	-28.79	-6.82	SV	JWC	2.7	394	0256	X							PID= 1.855 ppm
-21	SSV46-028		0829	0930	-28.46	-4.51				321	0138	X							PID= 83 ppm
-22	SSV46-027		0833	0933	-28.62	-5.52				518	0922	X							PID= 114 ppm
-23	SSV46-026		0838	0938	-29.00	-0.08				496	0185	X			CTN				PID= 433 ppm
-24	SSV46-025		0841	0941	-28.73	-1.32				500	0791	X							PID= 396 ppm
-25	SSV46-023		0845	0945	-28.67	-3.02				421	0733	X							PID= 76 ppm
-26	SSV46-022		0848	0951	-28.56	-7.41				126	0019	X							PID= 101 ppm
-27	SSV46-024		0857	0957	-28.60	-8.25				367	0079	X							PID= 85 ppm
-28	SSV46-021		0901	1001	-28.67	-8.72				485	0083	X							PID= 104 ppm
-29	SSV46-016		0906	1006	-28.62	-9.78				297	0422	X							PID= 66.8 ppm

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
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Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
[illegible]	4/4/16 1815	[illegible] AAL	4/4/16 18:15
[illegible]	4/4/16	[illegible]	4/5/16 01:30
[illegible]	4/5/16 0915	[illegible]	4/5/16 9:15
[illegible]	4-5-16	[illegible]	4/5/16 10:05

AIR ANALYSIS

PAGE 4 OF 6

Date Rec'd in Lab: 4/5/16

ALPHA Job #: L1609705

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320 Forbes Blvd, Mansfield, MA 02048
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Phone: 603-415-6119
Fax:
Email: S warner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: ~~3935.00~~ CTN, Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
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Criteria Checker:
(Default based on Regulatory Criteria Indicated)
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Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments: 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE

Project-Specific Target Compound List: ☐ cis-1,2-DCE, trans-1,2-DCE, chloroform

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract non-petroleum HCs	Fixed Gases ☐	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
-30	SSV46-015	4/2/16	0910	1010	-28.81	-8.72	SV	JWC	2.7	387	0807	X							PID = 85.7 ppm
-31	SSV46-008		0918	1023	-28.84	~~-4.36~~ -4.38				103	0375	X							PID = 0.1 ppm
-32	SSV46-007		0921	1026	-28.75	-2.91				1716	0674	X							PID = 231.5 ppm
-33	SSV46-009		0924	1028	-28.97	-3.01				554	0049	X			CTN				PID = 21.8 ppm
-34	SSV46-006		0939	1039	-29.24	-3.01				401	0718	X							PID = 79.1 ppm
-35	SSV46-002		0947	1047	-28.44	-3.01				150	0178	X							PID = 4925 ppm
-36	SSV46-001		0954	1045	-28.83	-2.99				240	0326	X							PID = 203 ppm
-37	SSV46-003		1002	1104	-29.15	-14.70				477	0926	X							PID = 376 ppm
-38	SSV46-DVP2		1002	1104	-28.32	-3.00				1750	0682	X							PID = 376 ppm
-39	SSV46-004		1012	1132	-29.01	-9.63				182	0314	X							PID = 111.5 ppm

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[illegible]	4/4/16 1815	[illegible] AAL	4/4/16 18:5
[illegible]	4/4/16	[illegible]	4/5/16 0130
D. Barsky	4/5/16 0913	[illegible]	4/5/16 9:15
[illegible]	4/5/16 10:05	[illegible]	4/5/16 10:05

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

AIR ANALYSIS

PAGE 5 OF 6

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4/5/16

ALPHA Job #: L1609705

Client Information

Client: Sanborn Head & Associates
Address: 20 Foundry Street, Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: swarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Categories	

Other Project Specific Requirements/Comments: 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE
Project-Specific Target Compound List: ☐ cis-1,2-DCE, trans-1,2-DCE, chloroethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
-40	SSV46-010	4/2/16	1103	1203	-28.60	-6.53	SV	JWC	2.7	374	0346	X							PID=41.3 ppm
-41	SSV46-011	4/2/16	1024	1124	-28.23	-7.09				357	0799	X							PID=34.6 ppm
-42	SSV46-012		1031	1141	-28.55	-9.07				400	0194	X							PID=130.2 ppm
-43	SSV46-013		1036	1151	-28.67	-9.71				2188	0724	X			✓				PID=1013 ppm
-44	SSV46-014		1041	1208	-28.68	-9.90				144	0048	X							PID=126.7 ppm
-45	SSV46-017		1314	1449	-28.35	-4.28				543	0047	X							PID=73.7 ppm
-46	SSV46-018		1317	1417	-28.55	-5.89				2076	0301	X							PID=226.7 ppm
-47	SSV46-019		1322	1405	-28.36	-2.00				2194	0449	X							PID=>5000 ppm
-48	SSV46-020		1325	1425	-28.46	-6.74				425	0333	X							PID=490.1 ppm
-49	SSV46-032		1336	1442	-28.36	-4.67				385	0575	X							PID=184 ppm

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
[illegible]	4/4/16 1815	[illegible] HAL	4/4/16 18:15
[illegible]	4/4/16	[illegible]	4/5/16 01:30
D. Bombe	4.5.16 0945	[illegible]	4-5-16 9:15
[illegible]	4/5/16 1025		

AIR ANALYSIS

PAGE 6 OF 6

Date Rec'd in Lab: 4/5/16

ALPHA Job #: L1609705

ALPHA ANALYTICAL

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Sanborn Head & Associates
Address: 20 Foundry Street
Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: Swarner@sanbornhead.com

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Project Information

Project Name: Former IBM Endicott
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments: 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE

Project-Specific Target Compound List: ☐ Cis-1,2-DCE, trans-1,2-DCE, Chloroethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ☐	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
-30	SSV46-DUP1	4/2/16	1336	1442	-29.19	-9.74	SV	JWC	2.7	201	0324	X							PID = 18 ppm
-31	SSV46-031	4/2/16	1352	1452	-29.16	-6.78	SV	JWC	2.7	200	0281	X							PID = 28 ppm
-52	SSV46-030	4/2/16	1358	1458	-28.13	-7.71	SV	JWC	2.7	423	0316	X							PID = >15000 ppm
-53	SSV46-029	4/2/16	1401	1459	-28.49	-2.80	SV	JWC	2.7	236	0142	X							PID = 6526 ppm
-54	SSV46-EB1	4/2/16	1555	1700	-26.53	-13.32	SV	JWC	2.7	1478	0171	X							PID = — ppm

CTN

CTN

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	4/4/16 1815	[signature] AAL	4/4/16 18:15
[signature]	4/4/16	[signature]	4/5/16 0130
[signature]	4/5/16 0915	[signature]	4/5/16 9:15
[signature] AAL	4/5/16 10:05	[signature]	4/5/16 10:05

ANALYTICAL REPORT

Lab Number:	L1610061
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	FORMER IBM ENDICOTT FACILITY
Project Number:	3935.00
Report Date:	04/14/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORMER IBM ENDICOTT FACILITY
Project Number: 3935.00

Lab Number: L1610061
Report Date: 04/14/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1610061-01	AA42-001	AIR	ENDICOTT, NY	04/05/16 15:39	04/06/16
L1610061-02	IA42-005	AIR	ENDICOTT, NY	04/05/16 15:10	04/06/16
L1610061-03	IA42-010	AIR	ENDICOTT, NY	04/05/16 15:18	04/06/16
L1610061-04	IA42-002	AIR	ENDICOTT, NY	04/05/16 15:23	04/06/16
L1610061-05	IA42-008	AIR	ENDICOTT, NY	04/05/16 15:27	04/06/16

Project Name: FORMER IBM ENDICOTT FACILITY **Lab Number:** L1610061
Project Number: 3935.00 **Report Date:** 04/14/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	FORMER IBM ENDICOTT FACILITY	**Lab Number:**	L1610061
Project Number:	3935.00	**Report Date:**	04/14/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 25 and April 1, 2016. The canister certification results are provided as an addendum.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 04/14/16

AIR

Project Name: FORMER IBM ENDICOTT FACILITY
Project Number: 3935.00
Lab Number: L1610061
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID:	L1610061-01	Date Collected:	04/05/16 15:39
Client ID:	AA42-001	Date Received:	04/06/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/13/16 18:17		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	92		60-140

Project Name: FORMER IBM ENDICOTT FACILITY
Project Number: 3935.00
Lab Number: L1610061
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID:	L1610061-02	Date Collected:	04/05/16 15:10
Client ID:	IA42-005	Date Received:	04/06/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/13/16 18:51		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	0.020	0.020	--	0.079	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.073	0.020	--	0.398	0.109	--		1
Trichloroethene	0.581	0.020	--	3.12	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	91		60-140

Project Name: FORMER IBM ENDICOTT FACILITY
Project Number: 3935.00
Lab Number: L1610061
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID:	L1610061-03	Date Collected:	04/05/16 15:18
Client ID:	IA42-010	Date Received:	04/06/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/13/16 20:00		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.024	0.020	--	0.131	0.109	--		1
Trichloroethene	0.120	0.020	--	0.645	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	92		60-140

Project Name: FORMER IBM ENDICOTT FACILITY
Project Number: 3935.00
Lab Number: L1610061
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID:	L1610061-04	Date Collected:	04/05/16 15:23
Client ID:	IA42-002	Date Received:	04/06/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/13/16 20:34		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.027	0.020	--	0.147	0.109	--		1
Trichloroethene	0.259	0.020	--	1.39	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140

Project Name: FORMER IBM ENDICOTT FACILITY
Project Number: 3935.00
Lab Number: L1610061
Report Date: 04/14/16

SAMPLE RESULTS

Lab ID:	L1610061-05	Date Collected:	04/05/16 15:27
Client ID:	IA42-008	Date Received:	04/06/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/13/16 21:08		
Analyst:	MB		

	ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.023	0.020	--	0.125	0.109	--		1
Trichloroethene	0.135	0.020	--	0.726	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	90		60-140

Project Name: FORMER IBM ENDICOTT FACILITY
Project Number: 3935.00

Lab Number: L1610061
Report Date: 04/14/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 04/13/16 17:01

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-05 Batch: WG883350-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT FACILITY
Project Number: 3935.00

Lab Number: L1610061
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05 Batch: WG883350-3								
Propylene	86		-		70-130	-		25
Dichlorodifluoromethane	77		-		70-130	-		25
Chloromethane	85		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	91		-		70-130	-		25
Vinyl chloride	90		-		70-130	-		25
1,3-Butadiene	91		-		70-130	-		25
Bromomethane	89		-		70-130	-		25
Chloroethane	90		-		70-130	-		25
Ethyl Alcohol	78		-		70-130	-		25
Vinyl bromide	89		-		70-130	-		25
Acetone	81		-		70-130	-		25
Trichlorofluoromethane	88		-		70-130	-		25
iso-Propyl Alcohol	86		-		70-130	-		25
Acrylonitrile	77		-		70-130	-		25
1,1-Dichloroethene	93		-		70-130	-		25
Methylene chloride	94		-		70-130	-		25
3-Chloropropene	82		-		70-130	-		25
Carbon disulfide	96		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	93		-		70-130	-		25
Halothane	97		-		70-130	-		25
trans-1,2-Dichloroethene	87		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT FACILITY
Project Number: 3935.00

Lab Number: L1610061
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05 Batch: WG883350-3								
1,1-Dichloroethane	96		-		70-130	-		25
Methyl tert butyl ether	91		-		70-130	-		25
Vinyl acetate	96		-		70-130	-		25
2-Butanone	91		-		70-130	-		25
cis-1,2-Dichloroethene	102		-		70-130	-		25
Ethyl Acetate	95		-		70-130	-		25
Chloroform	99		-		70-130	-		25
Tetrahydrofuran	76		-		70-130	-		25
1,2-Dichloroethane	90		-		70-130	-		25
n-Hexane	96		-		70-130	-		25
1,1,1-Trichloroethane	96		-		70-130	-		25
Benzene	96		-		70-130	-		25
Carbon tetrachloride	94		-		70-130	-		25
Cyclohexane	94		-		70-130	-		25
1,2-Dichloropropane	104		-		70-130	-		25
Bromodichloromethane	97		-		70-130	-		25
1,4-Dioxane	99		-		70-130	-		25
Trichloroethene	97		-		70-130	-		25
2,2,4-Trimethylpentane	101		-		70-130	-		25
cis-1,3-Dichloropropene	107		-		70-130	-		25
4-Methyl-2-pentanone	101		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT FACILITY
Project Number: 3935.00

Lab Number: L1610061
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05 Batch: WG883350-3								
trans-1,3-Dichloropropene	71		-		70-130	-		25
1,1,2-Trichloroethane	84		-		70-130	-		25
Toluene	70		-		70-130	-		25
2-Hexanone	80		-		70-130	-		25
Dibromochloromethane	78		-		70-130	-		25
1,2-Dibromoethane	81		-		70-130	-		25
Tetrachloroethene	75		-		70-130	-		25
1,1,1,2-Tetrachloroethane	85		-		70-130	-		25
Chlorobenzene	94		-		70-130	-		25
Ethylbenzene	97		-		70-130	-		25
p/m-Xylene	98		-		70-130	-		25
Bromoform	90		-		70-130	-		25
Styrene	96		-		70-130	-		25
1,1,2,2-Tetrachloroethane	107		-		70-130	-		25
o-Xylene	99		-		70-130	-		25
Isopropylbenzene	90		-		70-130	-		25
4-Ethyltoluene	97		-		70-130	-		25
1,3,5-Trimethylbenzene	91		-		70-130	-		25
1,2,4-Trimethylbenzene	100		-		70-130	-		25
Benzyl chloride	88		-		70-130	-		25
1,3-Dichlorobenzene	101		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT FACILITY
Project Number: 3935.00

Lab Number: L1610061
Report Date: 04/14/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05 Batch: WG883350-3								
1,4-Dichlorobenzene	95		-		70-130	-		25
sec-Butylbenzene	93		-		70-130	-		25
p-Isopropyltoluene	83		-		70-130	-		25
1,2-Dichlorobenzene	96		-		70-130	-		25
n-Butylbenzene	106		-		70-130	-		25
1,2,4-Trichlorobenzene	103		-		70-130	-		25
Naphthalene	93		-		70-130	-		25
1,2,3-Trichlorobenzene	98		-		70-130	-		25
Hexachlorobutadiene	96		-		70-130	-		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	103				70-130
Toluene-d8	71				70-130
Bromofluorobenzene	97				70-130

Lab Duplicate Analysis
Batch Quality Control

Project Name: FORMER IBM ENDICOTT FACILITY
Project Number: 3935.00

Lab Number: L1610061
Report Date: 04/14/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG883350-5 QC Sample: L1610061-02 Client ID: IA42-005						
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	0.020	0.020	ppbV	0		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	0.073	0.074	ppbV	1		25
Trichloroethene	0.581	0.587	ppbV	1		25
Tetrachloroethene	ND	ND	ppbV	NC		25

Project Name: FORMER IBM ENDICOTT FACILITY

Lab Number: L1610061

Project Number: 3935.00

Report Date: 04/14/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1610061-01	AA42-001	0784	#20 AMB	03/25/16	219002		-	-	-	Pass	4.1	4.0	2
L1610061-01	AA42-001	472	2.7L Can	03/25/16	219002	L1608350-16	Pass	-29.8	-5.0	-	-	-	-
L1610061-02	IA42-005	0437	#16 AMB	04/01/16	219708		-	-	-	Pass	4.1	4.2	2
L1610061-02	IA42-005	556	2.7L Can	04/01/16	219708	L1609228-04	Pass	-29.6	-7.2	-	-	-	-
L1610061-03	IA42-010	0413	#16 AMB	04/01/16	219708		-	-	-	Pass	4.4	4.6	4
L1610061-03	IA42-010	529	2.7L Can	04/01/16	219708	L1609228-02	Pass	-29.6	-5.4	-	-	-	-
L1610061-04	IA42-002	0012	#16 AMB	04/01/16	219708		-	-	-	Pass	4.5	4.4	2
L1610061-04	IA42-002	1727	2.7L Can	04/01/16	219708	L1609228-03	Pass	-29.6	-5.2	-	-	-	-
L1610061-05	IA42-008	0272	#30 SV	04/01/16	219708		-	-	-	Pass	4.2	4.4	5
L1610061-05	IA42-008	324	2.7L Can	04/01/16	219708	L1609228-01	Pass	-29.6	-6.3	-	-	-	-

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1608350

Project Number: CANISTER QC INDIV **Report Date:** 04/14/16

Air Canister Certification Results

Lab ID:	L1608350-16	Date Collected:	03/23/16 08:00
Client ID:	CAN 472 FC 784	Date Received:	03/23/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	03/24/16 02:46		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	77		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	80		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1609228
Report Date: 04/14/16

Air Canister Certification Results

Lab ID: L1609228-01
Client ID: CAN 324 FC 272
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/31/16 10:37
Analyst: RY

Date Collected: 03/31/16 09:32
Date Received: 03/31/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1609228

Project Number: CANISTER QC INDIV **Report Date:** 04/14/16

Air Canister Certification Results

Lab ID: L1609228-01 Date Collected: 03/31/16 09:32

Client ID: CAN 324 FC 272 Date Received: 03/31/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1609228
Report Date: 04/14/16

Air Canister Certification Results

Lab ID: L1609228-01
Client ID: CAN 324 FC 272
Sample Location:

Date Collected: 03/31/16 09:32
Date Received: 03/31/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	75		60-140
chlorobenzene-d5	81		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1609228
Report Date: 04/14/16

Air Canister Certification Results

Lab ID: L1609228-02
Client ID: CAN 529 FC 413
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/31/16 11:07
Analyst: RY

Date Collected: 03/31/16 09:32
Date Received: 03/31/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1609228

Project Number: CANISTER QC INDIV **Report Date:** 04/14/16

Air Canister Certification Results

Lab ID: L1609228-02 Date Collected: 03/31/16 09:32

Client ID: CAN 529 FC 413 Date Received: 03/31/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1609228
Report Date: 04/14/16

Air Canister Certification Results

Lab ID: L1609228-02
Client ID: CAN 529 FC 413
Sample Location:

Date Collected: 03/31/16 09:32
Date Received: 03/31/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	89		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1609228
Report Date: 04/14/16

Air Canister Certification Results

Lab ID: L1609228-03
Client ID: CAN 1727 FC 012
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/31/16 11:39
Analyst: RY

Date Collected: 03/31/16 09:32
Date Received: 03/31/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1609228
Report Date: 04/14/16

Air Canister Certification Results

Lab ID: L1609228-03
Client ID: CAN 1727 FC 012
Sample Location:

Date Collected: 03/31/16 09:32
Date Received: 03/31/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1609228

Project Number: CANISTER QC INDIV **Report Date:** 04/14/16

Air Canister Certification Results

Lab ID: L1609228-03 Date Collected: 03/31/16 09:32

Client ID: CAN 1727 FC 012 Date Received: 03/31/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	88		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	90		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1609228
Report Date: 04/14/16

Air Canister Certification Results

Lab ID: L1609228-04
Client ID: CAN 556 FC 437
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/31/16 11:34
Analyst: RY

Date Collected: 03/31/16 09:32
Date Received: 03/31/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
Halothane	ND	0.050	--	ND	0.404	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1609228

Project Number: CANISTER QC INDIV **Report Date:** 04/14/16

Air Canister Certification Results

Lab ID: L1609228-04 Date Collected: 03/31/16 09:32

Client ID: CAN 556 FC 437 Date Received: 03/31/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1609228

Project Number: CANISTER QC INDIV **Report Date:** 04/14/16

Air Canister Certification Results

Lab ID: L1609228-04 Date Collected: 03/31/16 09:32

Client ID: CAN 556 FC 437 Date Received: 03/31/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	97		60-140

Project Name: FORMER IBM ENDICOTT FACILITY
Project Number: 3935.00

Lab Number: L1610061
Report Date: 04/14/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
N/A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1610061-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1610061-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1610061-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1610061-04A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1610061-05A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	FORMER IBM ENDICOTT FACILITY	**Lab Number:**	L1610061
Project Number:	3935.00	**Report Date:**	04/14/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name:	FORMER IBM ENDICOTT FACILITY	**Lab Number:**	L1610061
Project Number:	3935.00	**Report Date:**	04/14/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 4/5/16

ALPHA Job #: L1610061

Client Information

Client: Sanborn Head & Associates, Inc.
Address: 20 Foundry Street, Concord, NH 03301
Phone: 603-415-6119
Fax:
Email: swarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Former IBM Endicott Facility
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	Category B	

Other Project Specific Requirements/Comments: 1,1,1-TCA, PCE, TCE, VC, 1,1-DCA, 1,2-DCA, 1,1-DCE,
Project-Specific Target Compound List: ☐ cis-1,2-DCE, trans-1,2-DCE, chloroethane

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs	Fixed Gases	Sulfides & Mercaptans by TO-15		Sample Comments (i.e. PID)
L1610061-01	AA42-001	4/5/16	0739	1539	-29.32	-6.61	AA	CTN	2.7	472	0984	X						
-02	IA42-005	4/5/16	0710	1510	-29.64	-7.32	AA	CTN	2.7	556	0437	X						CTN
-03	IA42-010	4/5/16	0718	1518	-29.39	-5.41	AA	CTN	2.7	529	0413	X						
-04	IA42-002	4/5/16	0723	1523	-29.32	-5.01	AA	CTN	2.7	1727	0012	X						
-05	IA42-008	4/5/16	0727	1527	-29.65	-9.38	AA	CTN	2.7	324	0272	X						
										CTN								
											CTN							

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type: S

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	04/06/16 0603	[signature] AAL	04/06/16 1803
[signature]	4/7/16	[signature]	4/6/16 01:10
[signature]	4/6/16 0450	[signature]	4/5/16 0450

ANALYTICAL REPORT

Lab Number:	L1616267
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	ENDICOTT IA
Project Number:	3935.00
Report Date:	05/31/16

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Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: ENDICOTT IA
Project Number: 3935.00

Lab Number: L1616267
Report Date: 05/31/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1616267-01	IA19-001	AIR	ENDICOTT, NY	05/25/16 13:33	05/26/16
L1616267-02	IA41-025	AIR	ENDICOTT, NY	05/25/16 15:51	05/26/16
L1616267-03	IA41-023	AIR	ENDICOTT, NY	05/25/16 15:57	05/26/16
L1616267-04	IA41-022	AIR	ENDICOTT, NY	05/25/16 16:02	05/26/16
L1616267-05	IA41-029	AIR	ENDICOTT, NY	05/25/16 16:07	05/26/16
L1616267-06	IA41-020	AIR	ENDICOTT, NY	05/25/16 16:12	05/26/16
L1616267-07	IA41-021	AIR	ENDICOTT, NY	05/25/16 16:19	05/26/16
L1616267-08	FD41-021	AIR	ENDICOTT, NY	05/25/16 16:19	05/26/16
L1616267-09	AA19-001	AIR	ENDICOTT, NY	05/25/16 16:33	05/26/16
L1616267-10	EB-1	AIR	ENDICOTT, NY	05/26/16 12:10	05/26/16
L1616267-11	UNUSED CAN #2216	AIR	ENDICOTT, NY		05/26/16
L1616267-12	UNUSED CAN #398	AIR	ENDICOTT, NY		05/26/16

Project Name: ENDICOTT IA
Project Number: 3935.00
Lab Number: L1616267
Report Date: 05/31/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: ENDICOTT IA **Lab Number:** L1616267
Project Number: 3935.00 **Report Date:** 05/31/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on May 19, 2016. The canister certification results are provided as an addendum.

Sample Receipt

The flow controller ID number listed on the chain of custody form for the sample designated IA41-021 (L1616267-07) is 0764 however it should be 0769.

The sample designated IA19-001 (L1616267-01) had a RPD for the pre- and post-flow controller calibration check (59% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 4.1 mL/minute; the final flow rate was 7.5 mL/minute. The final pressure recorded by the laboratory of the associated canister was -3.3 inches of mercury. No further action was required.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 05/31/16

AIR

Project Name: ENDICOTT IA
Project Number: 3935.00
Lab Number: L1616267
Report Date: 05/31/16

SAMPLE RESULTS

Lab ID: L1616267-01
Client ID: IA19-001
Sample Location: ENDICOTT, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/28/16 21:28
Analyst: RY

Date Collected: 05/25/16 13:33
Date Received: 05/26/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.396	0.020	--	1.57	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.026	0.020	--	0.142	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	82		60-140

Project Name: ENDICOTT IA
Project Number: 3935.00
Lab Number: L1616267
Report Date: 05/31/16

SAMPLE RESULTS

Lab ID: L1616267-02
Client ID: IA41-025
Sample Location: ENDICOTT, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/28/16 22:02
Analyst: RY

Date Collected: 05/25/16 15:51
Date Received: 05/26/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.063	0.020	--	0.166	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.039	0.020	--	0.158	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.125	0.020	--	0.682	0.109	--		1
Trichloroethene	0.020	0.020	--	0.107	0.107	--		1
Tetrachloroethene	0.026	0.020	--	0.176	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	80		60-140

Project Name: ENDICOTT IA
Project Number: 3935.00
Lab Number: L1616267
Report Date: 05/31/16

SAMPLE RESULTS

Lab ID: L1616267-03
Client ID: IA41-023
Sample Location: ENDICOTT, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/28/16 22:36
Analyst: RY

Date Collected: 05/25/16 15:57
Date Received: 05/26/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.059	0.020	--	0.156	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.027	0.020	--	0.109	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.134	0.020	--	0.731	0.109	--		1
Trichloroethene	0.023	0.020	--	0.124	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	81		60-140

Project Name: ENDICOTT IA
Project Number: 3935.00
Lab Number: L1616267
Report Date: 05/31/16

SAMPLE RESULTS

Lab ID: L1616267-04
Client ID: IA41-022
Sample Location: ENDICOTT, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/28/16 23:10
Analyst: RY

Date Collected: 05/25/16 16:02
Date Received: 05/26/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.072	0.020	--	0.190	0.053	--		1
1,1-Dichloroethene	0.139	0.020	--	0.551	0.079	--		1
trans-1,2-Dichloroethene	0.042	0.020	--	0.167	0.079	--		1
1,1-Dichloroethane	0.755	0.020	--	3.06	0.081	--		1
cis-1,2-Dichloroethene	0.067	0.020	--	0.266	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	3.37	0.020	--	18.4	0.109	--		1
Trichloroethene	0.098	0.020	--	0.527	0.107	--		1
Tetrachloroethene	0.130	0.020	--	0.882	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	81		60-140

Project Name: ENDICOTT IA
Project Number: 3935.00
Lab Number: L1616267
Report Date: 05/31/16

SAMPLE RESULTS

Lab ID: L1616267-05
Client ID: IA41-029
Sample Location: ENDICOTT, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/28/16 23:44
Analyst: RY

Date Collected: 05/25/16 16:07
Date Received: 05/26/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.066	0.020	--	0.174	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	0.057	0.020	--	0.231	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.202	0.020	--	1.10	0.109	--		1
Trichloroethene	0.028	0.020	--	0.150	0.107	--		1
Tetrachloroethene	0.027	0.020	--	0.183	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	80		60-140

Project Name: ENDICOTT IA
Project Number: 3935.00
Lab Number: L1616267
Report Date: 05/31/16

SAMPLE RESULTS

Lab ID: L1616267-06
Client ID: IA41-020
Sample Location: ENDICOTT, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/29/16 00:18
Analyst: RY

Date Collected: 05/25/16 16:12
Date Received: 05/26/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.068	0.020	--	0.179	0.053	--		1
1,1-Dichloroethene	0.138	0.020	--	0.547	0.079	--		1
trans-1,2-Dichloroethene	0.030	0.020	--	0.119	0.079	--		1
1,1-Dichloroethane	0.836	0.020	--	3.38	0.081	--		1
cis-1,2-Dichloroethene	0.068	0.020	--	0.270	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	3.40	0.020	--	18.6	0.109	--		1
Trichloroethene	0.099	0.020	--	0.532	0.107	--		1
Tetrachloroethene	0.253	0.020	--	1.72	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	78		60-140

Project Name: ENDICOTT IA
Project Number: 3935.00
Lab Number: L1616267
Report Date: 05/31/16

SAMPLE RESULTS

Lab ID: L1616267-07
Client ID: IA41-021
Sample Location: ENDICOTT, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/29/16 00:52
Analyst: RY

Date Collected: 05/25/16 16:19
Date Received: 05/26/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.065	0.020	--	0.172	0.053	--		1
1,1-Dichloroethene	0.172	0.020	--	0.682	0.079	--		1
trans-1,2-Dichloroethene	0.214	0.020	--	0.848	0.079	--		1
1,1-Dichloroethane	0.652	0.020	--	2.64	0.081	--		1
cis-1,2-Dichloroethene	0.086	0.020	--	0.341	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	3.66	0.020	--	20.0	0.109	--		1
Trichloroethene	0.127	0.020	--	0.683	0.107	--		1
Tetrachloroethene	0.082	0.020	--	0.556	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	80		60-140

Project Name: ENDICOTT IA
Project Number: 3935.00
Lab Number: L1616267
Report Date: 05/31/16

SAMPLE RESULTS

Lab ID: L1616267-08
Client ID: FD41-021
Sample Location: ENDICOTT, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/29/16 01:26
Analyst: RY

Date Collected: 05/25/16 16:19
Date Received: 05/26/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	0.068	0.020	--	0.179	0.053	--		1
1,1-Dichloroethene	0.173	0.020	--	0.686	0.079	--		1
trans-1,2-Dichloroethene	0.215	0.020	--	0.852	0.079	--		1
1,1-Dichloroethane	0.980	0.020	--	3.97	0.081	--		1
cis-1,2-Dichloroethene	0.093	0.020	--	0.369	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	3.68	0.020	--	20.1	0.109	--		1
Trichloroethene	0.126	0.020	--	0.677	0.107	--		1
Tetrachloroethene	0.082	0.020	--	0.556	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	81		60-140

Project Name: ENDICOTT IA
Project Number: 3935.00
Lab Number: L1616267
Report Date: 05/31/16

SAMPLE RESULTS

Lab ID: L1616267-09
Client ID: AA19-001
Sample Location: ENDICOTT, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/28/16 20:20
Analyst: RY

Date Collected: 05/25/16 16:33
Date Received: 05/26/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.026	0.020	--	0.103	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	0.028	0.020	--	0.153	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	80		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	80		60-140

Project Name: ENDICOTT IA
Project Number: 3935.00
Lab Number: L1616267
Report Date: 05/31/16

SAMPLE RESULTS

Lab ID: L1616267-10
Client ID: EB-1
Sample Location: ENDICOTT, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/28/16 19:46
Analyst: RY

Date Collected: 05/26/16 12:10
Date Received: 05/26/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	83		60-140

Project Name: ENDICOTT IA
Project Number: 3935.00

Lab Number: L1616267
Report Date: 05/31/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 05/28/16 16:04

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-10 Batch: WG898779-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: ENDICOTT IA
Project Number: 3935.00

Lab Number: L1616267
Report Date: 05/31/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-10 Batch: WG898779-3								
Propylene	108		-		70-130	-		25
Dichlorodifluoromethane	102		-		70-130	-		25
Chloromethane	107		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	97		-		70-130	-		25
Vinyl chloride	102		-		70-130	-		25
1,3-Butadiene	108		-		70-130	-		25
Bromomethane	95		-		70-130	-		25
Chloroethane	99		-		70-130	-		25
Ethyl Alcohol	116		-		70-130	-		25
Vinyl bromide	90		-		70-130	-		25
Acetone	96		-		70-130	-		25
Trichlorofluoromethane	96		-		70-130	-		25
iso-Propyl Alcohol	101		-		70-130	-		25
Acrylonitrile	101		-		70-130	-		25
1,1-Dichloroethene	100		-		70-130	-		25
Methylene chloride	112		-		70-130	-		25
3-Chloropropene	116		-		70-130	-		25
Carbon disulfide	95		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	94		-		70-130	-		25
Halothane	75		-		70-130	-		25
trans-1,2-Dichloroethene	100		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: ENDICOTT IA
Project Number: 3935.00

Lab Number: L1616267
Report Date: 05/31/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-10 Batch: WG898779-3								
1,1-Dichloroethane	86		-		70-130	-		25
Methyl tert butyl ether	78		-		70-130	-		25
2-Butanone	94		-		70-130	-		25
cis-1,2-Dichloroethene	91		-		70-130	-		25
Ethyl Acetate	81		-		70-130	-		25
Chloroform	86		-		70-130	-		25
Tetrahydrofuran	89		-		70-130	-		25
1,2-Dichloroethane	88		-		70-130	-		25
n-Hexane	100		-		70-130	-		25
1,1,1-Trichloroethane	107		-		70-130	-		25
Benzene	98		-		70-130	-		25
Carbon tetrachloride	108		-		70-130	-		25
Cyclohexane	99		-		70-130	-		25
1,2-Dichloropropane	107		-		70-130	-		25
Bromodichloromethane	109		-		70-130	-		25
1,4-Dioxane	102		-		70-130	-		25
Trichloroethene	97		-		70-130	-		25
2,2,4-Trimethylpentane	112		-		70-130	-		25
cis-1,3-Dichloropropene	104		-		70-130	-		25
4-Methyl-2-pentanone	125		-		70-130	-		25
trans-1,3-Dichloropropene	98		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: ENDICOTT IA
Project Number: 3935.00

Lab Number: L1616267
Report Date: 05/31/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-10 Batch: WG898779-3								
1,1,2-Trichloroethane	105		-		70-130	-		25
Toluene	89		-		70-130	-		25
2-Hexanone	120		-		70-130	-		25
Dibromochloromethane	97		-		70-130	-		25
1,2-Dibromoethane	93		-		70-130	-		25
Tetrachloroethene	87		-		70-130	-		25
1,1,1,2-Tetrachloroethane	90		-		70-130	-		25
Chlorobenzene	91		-		70-130	-		25
Ethylbenzene	92		-		70-130	-		25
p/m-Xylene	100		-		70-130	-		25
Bromoform	98		-		70-130	-		25
Styrene	98		-		70-130	-		25
1,1,2,2-Tetrachloroethane	100		-		70-130	-		25
o-Xylene	99		-		70-130	-		25
Isopropylbenzene	94		-		70-130	-		25
4-Ethyltoluene	102		-		70-130	-		25
1,3,5-Trimethylbenzene	99		-		70-130	-		25
1,2,4-Trimethylbenzene	105		-		70-130	-		25
Benzyl chloride	110		-		70-130	-		25
1,3-Dichlorobenzene	102		-		70-130	-		25
1,4-Dichlorobenzene	93		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: ENDICOTT IA
Project Number: 3935.00

Lab Number: L1616267
Report Date: 05/31/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-10 Batch: WG898779-3								
sec-Butylbenzene	100		-		70-130	-		25
p-Isopropyltoluene	88		-		70-130	-		25
1,2-Dichlorobenzene	100		-		70-130	-		25
n-Butylbenzene	107		-		70-130	-		25
1,2,4-Trichlorobenzene	97		-		70-130	-		25
Naphthalene	99		-		70-130	-		25
1,2,3-Trichlorobenzene	98		-		70-130	-		25
Hexachlorobutadiene	103		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: ENDICOTT IA
Project Number: 3935.00

Lab Number: L1616267
Report Date: 05/31/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-10 QC Batch ID: WG898779-5 QC Sample: L1616267-01 Client ID: IA19-001						
Vinyl chloride	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	0.396	0.392	ppbV	1		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	0.026	0.027	ppbV	4		25
Trichloroethene	ND	0.022	ppbV	NC		25
Tetrachloroethene	ND	ND	ppbV	NC		25

Project Name: ENDICOTT IA

Project Number: 3935.00

Lab Number: L1616267

Report Date: 05/31/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1616267-01	IA19-001	0947	#4 AMB	05/19/16	222160		-	-	-	Pass	4.1	7.5	59
L1616267-01	IA19-001	2177	2.7L Can	05/19/16	222160	L1614817-11	Pass	-29.7	-3.3	-	-	-	-
L1616267-02	IA41-025	0542	#16 AMB	05/19/16	222160		-	-	-	Pass	4.1	4.1	0
L1616267-02	IA41-025	2195	2.7L Can	05/19/16	222160	L1614817-06	Pass	-29.8	-8.7	-	-	-	-
L1616267-03	IA41-023	0429	#30 SV	05/19/16	222160		-	-	-	Pass	4.2	4.3	2
L1616267-03	IA41-023	495	2.7L Can	05/19/16	222160	L1612409-10	Pass	-29.6	-8.0	-	-	-	-
L1616267-04	IA41-022	0400	#16 AMB	05/19/16	222160		-	-	-	Pass	4.5	4.2	7
L1616267-04	IA41-022	386	2.7L Can	05/19/16	222160	L1612409-06	Pass	-29.5	-7.4	-	-	-	-
L1616267-05	IA41-029	0411	#16 AMB	05/19/16	222160		-	-	-	Pass	4.3	4.3	0
L1616267-05	IA41-029	341	2.7L Can	05/19/16	222160	L1614817-01	Pass	-29.7	-9.2	-	-	-	-
L1616267-06	IA41-020	0905	#4 AMB	05/19/16	222160		-	-	-	Pass	4.1	3.9	5
L1616267-06	IA41-020	2031	2.7L Can	05/19/16	222160	L1614817-10	Pass	-30.0	-11.0	-	-	-	-
L1616267-07	IA41-021	0769	#4 AMB	05/19/16	222160		-	-	-	Pass	4.2	4.2	0
L1616267-07	IA41-021	136	2.7L Can	05/19/16	222160	L1612409-16	Pass	-30.0	-10.5	-	-	-	-
L1616267-08	FD41-021	0907	#4 AMB	05/19/16	222160		-	-	-	Pass	4.1	4.4	7

Project Name: ENDICOTT IA

Project Number: 3935.00

Lab Number: L1616267

Report Date: 05/31/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1616267-08	FD41-021	115	2.7L Can	05/19/16	222160	L1614817-02	Pass	-29.6	-9.3	-	-	-	-
L1616267-09	AA19-001	0790	#16 AMB	05/19/16	222160		-	-	-	Pass	4.1	4.2	2
L1616267-09	AA19-001	231	2.7L Can	05/19/16	222160	L1614817-03	Pass	-29.3	-9.1	-	-	-	-
L1616267-10	EB-1	0945	#4 AMB	05/19/16	222160		-	-	-	Pass	4.2	4.0	5
L1616267-10	EB-1	535	2.7L Can	05/19/16	222160	L1612409-03	Pass	-30.0	-7.1	-	-	-	-
L1616267-11	UNUSED CAN #2216	0906	#4 AMB	05/19/16	222160		-	-	-	Pass	4.5	4.9	9
L1616267-11	UNUSED CAN #2216	2216	2.7L Can	05/19/16	222160	L1614817-04	Pass	-29.6	-20.1	-	-	-	-
L1616267-12	UNUSED CAN #398	398	2.7L Can	05/19/16	222160	L1612409-18	Pass	O/P	-1.8	-	-	-	-

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1612409

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID:	L1612409-03	Date Collected:	04/27/16 09:46
Client ID:	CAN 535 FC 945	Date Received:	04/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/27/16 16:41		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	85		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	88		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1612409

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID:	L1612409-06	Date Collected:	04/27/16 09:46
Client ID:	CAN 386 FC 400	Date Received:	04/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/27/16 18:16		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	85		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	86		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1612409

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID:	L1612409-10	Date Collected:	04/27/16 09:46
Client ID:	CAN 495 FC 429	Date Received:	04/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/27/16 20:22		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	86		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	86		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1612409

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID:	L1612409-16	Date Collected:	04/27/16 09:46
Client ID:	CAN 136 FC 769	Date Received:	04/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/27/16 23:29		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	84		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	85		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1612409

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID:	L1612409-18	Date Collected:	04/27/16 09:46
Client ID:	CAN 398 FC B	Date Received:	04/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/28/16 00:31		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	85		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	86		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1614817
Report Date: 05/31/16

Air Canister Certification Results

Lab ID:	L1614817-01	Date Collected:	05/17/16 11:51
Client ID:	CAN 341 FC 411	Date Received:	05/17/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	05/17/16 18:52		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID: L1614817-01 Date Collected: 05/17/16 11:51

Client ID: CAN 341 FC 411 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID: L1614817-01 Date Collected: 05/17/16 11:51

Client ID: CAN 341 FC 411 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	82		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1614817
Report Date: 05/31/16

Air Canister Certification Results

Lab ID:	L1614817-02	Date Collected:	05/17/16 11:51
Client ID:	CAN 115 FC 907	Date Received:	05/17/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	05/17/16 19:25		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID: L1614817-02 Date Collected: 05/17/16 11:51

Client ID: CAN 115 FC 907 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID: L1614817-02 Date Collected: 05/17/16 11:51

Client ID: CAN 115 FC 907 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	81		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID:	L1614817-03	Date Collected:	05/17/16 11:51
Client ID:	CAN 231 FC 790	Date Received:	05/17/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	05/17/16 19:58		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID: L1614817-03 Date Collected: 05/17/16 11:51

Client ID: CAN 231 FC 790 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID: L1614817-03 Date Collected: 05/17/16 11:51

Client ID: CAN 231 FC 790 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	80		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID:	L1614817-04	Date Collected:	05/17/16 11:51
Client ID:	CAN 2216 FC 906	Date Received:	05/17/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	05/17/16 20:31		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID: L1614817-04 Date Collected: 05/17/16 11:51

Client ID: CAN 2216 FC 906 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID: L1614817-04 Date Collected: 05/17/16 11:51

Client ID: CAN 2216 FC 906 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	81		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	80		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1614817
Report Date: 05/31/16

Air Canister Certification Results

Lab ID: L1614817-06
Client ID: CAN 2195 FC 542
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/17/16 21:39
Analyst: RY

Date Collected: 05/17/16 11:51
Date Received: 05/17/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID: L1614817-06 Date Collected: 05/17/16 11:51

Client ID: CAN 2195 FC 542 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID: L1614817-06 Date Collected: 05/17/16 11:51

Client ID: CAN 2195 FC 542 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	82		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	81		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID:	L1614817-10	Date Collected:	05/17/16 11:51
Client ID:	CAN 2031 FC 905	Date Received:	05/17/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	05/17/16 23:54		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID: L1614817-10 Date Collected: 05/17/16 11:51

Client ID: CAN 2031 FC 905 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID: L1614817-10 Date Collected: 05/17/16 11:51

Client ID: CAN 2031 FC 905 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	78		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1614817
Report Date: 05/31/16

Air Canister Certification Results

Lab ID:	L1614817-11	Date Collected:	05/17/16 11:51
Client ID:	CAN 2177 FC 947	Date Received:	05/17/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	05/18/16 00:28		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID: L1614817-11 Date Collected: 05/17/16 11:51

Client ID: CAN 2177 FC 947 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 05/31/16

Air Canister Certification Results

Lab ID: L1614817-11 Date Collected: 05/17/16 11:51

Client ID: CAN 2177 FC 947 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	84		60-140
chlorobenzene-d5	78		60-140

Project Name: ENDICOTT IA
Project Number: 3935.00

Lab Number: L1616267
Report Date: 05/31/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
N/A	Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1616267-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616267-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616267-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616267-04A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616267-05A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616267-06A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616267-07A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616267-08A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616267-09A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616267-10A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616267-11A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()
L1616267-12A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	ENDICOTT IA	**Lab Number:**	L1616267
Project Number:	3935.00	**Report Date:**	05/31/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name:	ENDICOTT IA	**Lab Number:**	L1616267
Project Number:	3935.00	**Report Date:**	05/31/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: ENDICOTT IA
Project Number: 3935.00
Lab Number: L1616267
Report Date: 05/31/16

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 5/27/16

ALPHA Job #: L1616267

Client Information

Client: Sanborn Head
Address: 20 Foundry St
Concord, NH 03301
Phone: 603-229-1900
Fax: —
Email: swarner@sanbornhead.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Endicott IA
Project Location: Endicott, NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☒ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
NY	CAT-5	

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☒ Endicott Site Specific list

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
16267.01	IA19-001	5/25/16	0744	1333	29.32	2.33	AA	SHA	2.7L	2177	947	X	X						
02	IA41-025		0751	1551	29.41	7.81				2195	542	X	X						
03	IA41-023		0757	1557	29.42	7.17				495	429	X	X						
04	IA41-022		0802	1602	29.21	6.58				386	460	X	X						
05	IA41-029		0807	1607	29.13	7.95				341	411	X	X						
06	IA41-020		0812	1612	29.20	10.13				2031	905	X	X						
07	IA41-021		0819	1619	29.27	9.74				136	764	X	X						
08	FD41-021		0819	1619	29.34	8.47				115	907	X	X						
09	AA19-001		0833	1633	29.28	7.89				231	790	X	X						
10	EB-1	5/26/16	0905	1210	29.42	5.30				535	945	X	X						
											Container Type	CS	CS						

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	5/26/16 2010	[signature]	5/26/16 2010
[signature]	5/27/16 0540	[signature]	5/27/16 0540

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

ANALYTICAL REPORT

Lab Number:	L1616853
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	Not Specified
Project Number:	3935.00
Report Date:	06/07/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616853
Report Date: 06/07/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1616853-01	IA57A-001	AIR	ENDICOTT, NY	06/01/16 17:37	06/03/16
L1616853-02	IA57A-002	AIR	ENDICOTT, NY	06/01/16 17:38	06/03/16
L1616853-03	IA57A-003	AIR	ENDICOTT, NY	06/01/16 17:39	06/03/16
L1616853-04	FD57A-001	AIR	ENDICOTT, NY	06/01/16 17:37	06/03/16
L1616853-05	AA57A-001	AIR	ENDICOTT, NY	06/01/16 17:39	06/03/16
L1616853-06	UNUSED CANISTER 2276	AIR	ENDICOTT, NY		06/03/16
L1616853-07	UNUSED CANISTER 453	AIR	ENDICOTT, NY		06/03/16

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616853
Report Date: 06/07/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616853
Report Date: 06/07/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on May 19, 2016. The canister certification results are provided as an addendum.

Sample Receipt

The flow controller ID number listed on the chain of custody form for the sample designated AA57A-001 (L1616853-05) is 382 however it should be 389

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative

Date: 06/07/16

AIR

Project Name:

Project Number: 3935.00

Lab Number: L1616853

Report Date: 06/07/16

SAMPLE RESULTS

Lab ID:	L1616853-01	Date Collected:	06/01/16 17:37
Client ID:	IA57A-001	Date Received:	06/03/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/06/16 17:02		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.300	0.020	--	1.19	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.028	0.020	--	0.113	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.235	0.020	--	1.26	0.107	--		1
Tetrachloroethene	0.034	0.020	--	0.231	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	93		60-140

Project Name:

Project Number: 3935.00

Lab Number: L1616853

Report Date: 06/07/16

SAMPLE RESULTS

Lab ID:	L1616853-02	Date Collected:	06/01/16 17:38
Client ID:	IA57A-002	Date Received:	06/03/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/06/16 17:34		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.319	0.020	--	1.26	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.021	0.020	--	0.085	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.190	0.020	--	1.02	0.107	--		1
Tetrachloroethene	0.032	0.020	--	0.217	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	92		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	94		60-140

Project Name:

Project Number: 3935.00

Lab Number: L1616853

Report Date: 06/07/16

SAMPLE RESULTS

Lab ID:	L1616853-03	Date Collected:	06/01/16 17:39
Client ID:	IA57A-003	Date Received:	06/03/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/06/16 18:06		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.042	0.020	--	0.167	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.058	0.020	--	0.312	0.107	--		1
Tetrachloroethene	0.140	0.020	--	0.949	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	94		60-140

Project Name:

Project Number: 3935.00

Lab Number: L1616853

Report Date: 06/07/16

SAMPLE RESULTS

Lab ID:	L1616853-04	Date Collected:	06/01/16 17:37
Client ID:	FD57A-001	Date Received:	06/03/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/06/16 18:38		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.298	0.020	--	1.18	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	0.028	0.020	--	0.113	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.238	0.020	--	1.28	0.107	--		1
Tetrachloroethene	0.032	0.020	--	0.217	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	93		60-140

Project Name:

Project Number: 3935.00

Lab Number: L1616853

Report Date: 06/07/16

SAMPLE RESULTS

Lab ID:	L1616853-05	Date Collected:	06/01/16 17:39
Client ID:	AA57A-001	Date Received:	06/03/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/06/16 16:30		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	93		60-140

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616853
Report Date: 06/07/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 06/06/16 15:07

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-05 Batch: WG901024-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616853
Report Date: 06/07/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05 Batch: WG901024-3								
Dichlorodifluoromethane	78		-		70-130	-		25
Chloromethane	97		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	97		-		70-130	-		25
Vinyl chloride	98		-		70-130	-		25
1,3-Butadiene	104		-		70-130	-		25
Bromomethane	98		-		70-130	-		25
Chloroethane	98		-		70-130	-		25
Acetone	95		-		70-130	-		25
Trichlorofluoromethane	101		-		70-130	-		25
Acrylonitrile	91		-		70-130	-		25
1,1-Dichloroethene	96		-		70-130	-		25
Methylene chloride	98		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	97		-		70-130	-		25
Halothane	92		-		70-130	-		25
trans-1,2-Dichloroethene	84		-		70-130	-		25
1,1-Dichloroethane	93		-		70-130	-		25
Methyl tert butyl ether	97		-		70-130	-		25
2-Butanone	101		-		70-130	-		25
cis-1,2-Dichloroethene	106		-		70-130	-		25
Chloroform	99		-		70-130	-		25
1,2-Dichloroethane	96		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616853
Report Date: 06/07/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05 Batch: WG901024-3								
1,1,1-Trichloroethane	98		-		70-130	-		25
Benzene	95		-		70-130	-		25
Carbon tetrachloride	102		-		70-130	-		25
1,2-Dichloropropane	98		-		70-130	-		25
Bromodichloromethane	98		-		70-130	-		25
1,4-Dioxane	100		-		70-130	-		25
Trichloroethene	105		-		70-130	-		25
cis-1,3-Dichloropropene	106		-		70-130	-		25
4-Methyl-2-pentanone	103		-		70-130	-		25
trans-1,3-Dichloropropene	89		-		70-130	-		25
1,1,2-Trichloroethane	103		-		70-130	-		25
Toluene	96		-		70-130	-		25
Dibromochloromethane	105		-		70-130	-		25
1,2-Dibromoethane	104		-		70-130	-		25
Tetrachloroethene	102		-		70-130	-		25
1,1,1,2-Tetrachloroethane	99		-		70-130	-		25
Chlorobenzene	103		-		70-130	-		25
Ethylbenzene	102		-		70-130	-		25
p/m-Xylene	103		-		70-130	-		25
Bromoform	105		-		70-130	-		25
Styrene	104		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616853
Report Date: 06/07/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05 Batch: WG901024-3								
1,1,2,2-Tetrachloroethane	105		-		70-130	-		25
o-Xylene	104		-		70-130	-		25
Isopropylbenzene	101		-		70-130	-		25
4-Ethyltoluene	100		-		70-130	-		25
1,3,5-Trimethylbenzene	104		-		70-130	-		25
1,2,4-Trimethylbenzene	110		-		70-130	-		25
1,3-Dichlorobenzene	112		-		70-130	-		25
1,4-Dichlorobenzene	111		-		70-130	-		25
sec-Butylbenzene	104		-		70-130	-		25
p-Isopropyltoluene	98		-		70-130	-		25
1,2-Dichlorobenzene	113		-		70-130	-		25
n-Butylbenzene	114		-		70-130	-		25
1,2,4-Trichlorobenzene	**131**	Q	-		70-130	-		25
Naphthalene	125		-		70-130	-		25
1,2,3-Trichlorobenzene	125		-		70-130	-		25
Hexachlorobutadiene	112		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616853
Report Date: 06/07/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG901024-5 QC Sample: L1616960-01 Client ID: DUP Sample						
Vinyl chloride	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Carbon tetrachloride	0.064	0.065	ppbV	2		25
Trichloroethene	ND	ND	ppbV	NC		25
Tetrachloroethene	0.031	0.031	ppbV	0		25

Project Name:

Project Number: 3935.00

Lab Number: L1616853

Report Date: 06/07/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1616853-01	IA57A-001	0696	#16 AMB	05/19/16	222160		-	-	-	Pass	4.2	4.0	5
L1616853-01	IA57A-001	2179	2.7L Can	05/19/16	222160	L1612409-13	Pass	-29.6	-7.3	-	-	-	-
L1616853-02	IA57A-002	0917	#4 amb	05/19/16	222160		-	-	-	Pass	4.3	5.0	15
L1616853-02	IA57A-002	570	2.7L Can	05/19/16	222160	L1614817-09	Pass	-30.0	-6.1	-	-	-	-
L1616853-03	IA57A-003	0358	#20 SV	05/19/16	222160		-	-	-	Pass	4.5	4.2	7
L1616853-03	IA57A-003	1733	2.7L Can	05/19/16	222160	L1612409-04	Pass	-30.0	-6.0	-	-	-	-
L1616853-04	FD57A-001	0396	#16 AMB	05/19/16	222160		-	-	-	Pass	4.4	4.5	2
L1616853-04	FD57A-001	119	2.7L Can	05/19/16	222160	L1612409-09	Pass	-29.7	-6.2	-	-	-	-
L1616853-05	AA57A-001	0632	#16 AMB	05/19/16	222160		-	-	-	Pass	4.4	4.3	2
L1616853-05	AA57A-001	389	2.7L Can	05/19/16	222160	L1612409-05	Pass	-29.9	-7.5	-	-	-	-
L1616853-06	UNUSED CANISTER 2276	0229	#16 AMB	06/01/16	223084		-	-	-	Pass	4.5	4.5	0
L1616853-06	UNUSED CANISTER 2276	2276	2.7L Can	06/01/16	223084	L1616174-03	Pass	-29.7	-29.6	-	-	-	-
L1616853-07	UNUSED CANISTER 453	0762	#4 SV	05/19/16	222160		-	-	-	Pass	4.3	3.7	15
L1616853-07	UNUSED CANISTER 453	453	2.7L Can	05/19/16	222160	L1612409-11	Pass	-29.6	-25.4	-	-	-	-

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1612409

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID:	L1612409-04	Date Collected:	04/27/16 09:46
Client ID:	CAN 1733 FC 358	Date Received:	04/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/27/16 17:13		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	85		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	88		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1612409

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID:	L1612409-05	Date Collected:	04/27/16 09:46
Client ID:	CAN 389 FC 632	Date Received:	04/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/27/16 17:45		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	85		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	86		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1612409

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID:	L1612409-09	Date Collected:	04/27/16 09:46
Client ID:	CAN 119 FC 696	Date Received:	04/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/27/16 19:51		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	86		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	86		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1612409

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID:	L1612409-11	Date Collected:	04/27/16 09:46
Client ID:	CAN 453 FC 762	Date Received:	04/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/27/16 20:54		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	85		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	86		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1612409

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID:	L1612409-13	Date Collected:	04/27/16 09:46
Client ID:	CAN 2179 FC 396	Date Received:	04/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	04/27/16 21:56		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	85		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	85		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1614817
Report Date: 06/07/16

Air Canister Certification Results

Lab ID: L1614817-09
Client ID: CAN 570 FC 917
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/17/16 23:21
Analyst: RY

Date Collected: 05/17/16 11:51
Date Received: 05/17/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID: L1614817-09 Date Collected: 05/17/16 11:51

Client ID: CAN 570 FC 917 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID: L1614817-09 Date Collected: 05/17/16 11:51

Client ID: CAN 570 FC 917 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	85		60-140
chlorobenzene-d5	78		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1616174

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID:	L1616174-03	Date Collected:	05/27/16 14:35
Client ID:	CAN 2276 FC 229	Date Received:	05/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	05/28/16 18:05		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	85		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	83		60-140

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616853
Report Date: 06/07/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information	Custody Seal
Cooler	
N/A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1616853-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616853-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616853-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616853-04A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616853-05A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616853-06A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()
L1616853-07A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	Not Specified	**Lab Number:**	L1616853
Project Number:	3935.00	**Report Date:**	06/07/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Project Name: Not Specified **Lab Number:** L1616853

Project Number: 3935.00 **Report Date:** 06/07/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: Not Specified
Project Number: 3935.00
Lab Number: L1616853
Report Date: 06/07/16

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

PAGE ____ OF ____

Date Rec'd in Lab: 6/3/16

ALPHA Job #: L1616853

ALPHA ANALYTICAL

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: SHA - Sanborn Head
Address: 21 Foundry Street
Concord NH 03301
Phone: 603 229 1900
Fax:
Email:

❑ These samples have been previously analyzed by Alpha

Project Information

Project Name:
Project Location: Endicott NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

☑ Standard ❑ RUSH (only confirmed if pre-approved!)

Date Due: **Time:**

Report Information - Data Deliverables

❑ FAX
❑ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☑ EMAIL (standard pdf report)
❑ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

❑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ❑

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	ANALYSIS TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ❑	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
6853 -01	1A57A-001	6/1	854	1737	-28.8	-5.6	AA	JVF	2.7	2179	696		X						
-02	1A57A-002	|	859	1738	-29.1	-4.7	|	|	|	570	917		X						
-03	1A57A-003	|	904	1739	-29.9	-5.6	|	|	|	1733	358		X						
-04	FD57A-001	|	856	1737	-29.5	-5.4	|	|	|	119	396		X						
-05	AA57A-001	V	908	1734	-30.3	-5.8	V	V	V	382	632		X						

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
James Floyd [signature]	6/3/16 11:15	[signature]	6/3/16 11:15
[signature]	6/3/16 14:95	[signature]	6/3/16 14:95

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

ANALYTICAL REPORT

Lab Number:	L1616856
Client:	Sanborn, Head & Associates, Inc. 20 Foundry Street Concord, NH 03301
ATTN:	Samuel Warner
Phone:	(603) 415-6119
Project Name:	Not Specified
Project Number:	3935.00
Report Date:	06/07/16

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), ME (MA00030), PA (68-02089), VA (460194), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), USFWS (Permit #LE2069641), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616856
Report Date: 06/07/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1616856-01	IA57A-001	AIR	ENDICOTT, NY	06/02/16 15:00	06/03/16
L1616856-02	IA57A-002	AIR	ENDICOTT, NY	06/02/16 13:40	06/03/16
L1616856-03	IA57A-003	AIR	ENDICOTT, NY	06/02/16 15:30	06/03/16
L1616856-04	NB57A-001	AIR	ENDICOTT, NY	06/02/16 15:41	06/03/16
L1616856-05	UNUSED CANISTER N2	AIR	ENDICOTT, NY		06/03/16

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616856
Report Date: 06/07/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616856
Report Date: 06/07/16

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on May 19 and June 1, 2016. The canister certification results are provided as an addendum.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative

Date: 06/07/16

AIR

Project Name:

Project Number: 3935.00

Lab Number: L1616856

Report Date: 06/07/16

SAMPLE RESULTS

Lab ID:	L1616856-01	Date Collected:	06/02/16 15:00
Client ID:	IA57A-001	Date Received:	06/03/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/06/16 19:10		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.063	0.020	--	0.250	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.122	0.020	--	0.656	0.107	--		1
Tetrachloroethene	0.024	0.020	--	0.163	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	94		60-140

Project Name:

Project Number: 3935.00

Lab Number: L1616856

Report Date: 06/07/16

SAMPLE RESULTS

Lab ID:	L1616856-02	Date Collected:	06/02/16 13:40
Client ID:	IA57A-002	Date Received:	06/03/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/06/16 19:41		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.066	0.020	--	0.262	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.112	0.020	--	0.602	0.107	--		1
Tetrachloroethene	0.020	0.020	--	0.136	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	94		60-140

Project Name:

Project Number: 3935.00

Lab Number: L1616856

Report Date: 06/07/16

SAMPLE RESULTS

Lab ID:	L1616856-03	Date Collected:	06/02/16 15:30
Client ID:	IA57A-003	Date Received:	06/03/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/06/16 20:13		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	0.030	0.020	--	0.119	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	0.049	0.020	--	0.263	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	93		60-140

Project Name:

Project Number: 3935.00

Lab Number: L1616856

Report Date: 06/07/16

SAMPLE RESULTS

Lab ID:	L1616856-04	Date Collected:	06/02/16 15:41
Client ID:	NB57A-001	Date Received:	06/03/16
Sample Location:	ENDICOTT, NY	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	06/06/16 15:58		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.035	0.020	--	0.237	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616856
Report Date: 06/07/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 06/06/16 15:07

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-04 Batch: WG901024-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616856
Report Date: 06/07/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04 Batch: WG901024-3								
Dichlorodifluoromethane	78		-		70-130	-		25
Chloromethane	97		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	97		-		70-130	-		25
Vinyl chloride	98		-		70-130	-		25
1,3-Butadiene	104		-		70-130	-		25
Bromomethane	98		-		70-130	-		25
Chloroethane	98		-		70-130	-		25
Acetone	95		-		70-130	-		25
Trichlorofluoromethane	101		-		70-130	-		25
Acrylonitrile	91		-		70-130	-		25
1,1-Dichloroethene	96		-		70-130	-		25
Methylene chloride	98		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	97		-		70-130	-		25
Halothane	92		-		70-130	-		25
trans-1,2-Dichloroethene	84		-		70-130	-		25
1,1-Dichloroethane	93		-		70-130	-		25
Methyl tert butyl ether	97		-		70-130	-		25
2-Butanone	101		-		70-130	-		25
cis-1,2-Dichloroethene	106		-		70-130	-		25
Chloroform	99		-		70-130	-		25
1,2-Dichloroethane	96		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616856
Report Date: 06/07/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04 Batch: WG901024-3								
1,1,1-Trichloroethane	98		-		70-130	-		25
Benzene	95		-		70-130	-		25
Carbon tetrachloride	102		-		70-130	-		25
1,2-Dichloropropane	98		-		70-130	-		25
Bromodichloromethane	98		-		70-130	-		25
1,4-Dioxane	100		-		70-130	-		25
Trichloroethene	105		-		70-130	-		25
cis-1,3-Dichloropropene	106		-		70-130	-		25
4-Methyl-2-pentanone	103		-		70-130	-		25
trans-1,3-Dichloropropene	89		-		70-130	-		25
1,1,2-Trichloroethane	103		-		70-130	-		25
Toluene	96		-		70-130	-		25
Dibromochloromethane	105		-		70-130	-		25
1,2-Dibromoethane	104		-		70-130	-		25
Tetrachloroethene	102		-		70-130	-		25
1,1,1,2-Tetrachloroethane	99		-		70-130	-		25
Chlorobenzene	103		-		70-130	-		25
Ethylbenzene	102		-		70-130	-		25
p/m-Xylene	103		-		70-130	-		25
Bromoform	105		-		70-130	-		25
Styrene	104		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616856
Report Date: 06/07/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04 Batch: WG901024-3								
1,1,2,2-Tetrachloroethane	105		-		70-130	-		25
o-Xylene	104		-		70-130	-		25
Isopropylbenzene	101		-		70-130	-		25
4-Ethyltoluene	100		-		70-130	-		25
1,3,5-Trimethylbenzene	104		-		70-130	-		25
1,2,4-Trimethylbenzene	110		-		70-130	-		25
1,3-Dichlorobenzene	112		-		70-130	-		25
1,4-Dichlorobenzene	111		-		70-130	-		25
sec-Butylbenzene	104		-		70-130	-		25
p-Isopropyltoluene	98		-		70-130	-		25
1,2-Dichlorobenzene	113		-		70-130	-		25
n-Butylbenzene	114		-		70-130	-		25
1,2,4-Trichlorobenzene	**131**	Q	-		70-130	-		25
Naphthalene	125		-		70-130	-		25
1,2,3-Trichlorobenzene	125		-		70-130	-		25
Hexachlorobutadiene	112		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616856
Report Date: 06/07/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG901024-5 QC Sample: L1616960-01 Client ID: DUP Sample						
Vinyl chloride	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Carbon tetrachloride	0.064	0.065	ppbV	2		25
Trichloroethene	ND	ND	ppbV	NC		25
Tetrachloroethene	0.031	0.031	ppbV	0		25

Project Name:

Lab Number: L1616856

Project Number: 3935.00

Report Date: 06/07/16

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1616856-01	IA57A-001	0949	#4 AMB	05/19/16	222160		-	-	-	Pass	4.3	4.3	0
L1616856-01	IA57A-001	225	2.7L Can	05/19/16	222160	L1614817-12	Pass	-29.6	-4.6	-	-	-	-
L1616856-02	IA57A-002	0284	#16 AMB	05/19/16	222160		-	-	-	Pass	4.1	3.7	10
L1616856-02	IA57A-002	252	2.7L Can	05/19/16	222160	L1614817-07	Pass	-29.6	-4.6	-	-	-	-
L1616856-03	IA57A-003	0004	#16 AMB	05/19/16	222160		-	-	-	Pass	4.4	4.0	10
L1616856-03	IA57A-003	215	2.7L Can	05/19/16	222160	L1614817-08	Pass	-29.7	-6.4	-	-	-	-
L1616856-04	NB57A-001	0794	#3 AMB	06/01/16	223084		-	-	-	Pass	4.5	5.4	18
L1616856-04	NB57A-001	2246	2.7L Can	06/01/16	223084	L1616174-02	Pass	-29.7	-5.6	-	-	-	-
L1616856-05	UNUSED CANISTER N2	2076	2.7L Can	06/01/16	223084	L1616174-05	Pass	30.0	7.3	-	-	-	-

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID:	L1614817-07	Date Collected:	05/17/16 11:51
Client ID:	CAN 252 FC 284	Date Received:	05/17/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	05/17/16 22:13		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID: L1614817-07 Date Collected: 05/17/16 11:51

Client ID: CAN 252 FC 284 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID: L1614817-07 Date Collected: 05/17/16 11:51

Client ID: CAN 252 FC 284 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	81		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	79		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1614817
Report Date: 06/07/16

Air Canister Certification Results

Lab ID:	L1614817-08	Date Collected:	05/17/16 11:51
Client ID:	CAN 215 FC 004	Date Received:	05/17/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	05/17/16 22:47		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID: L1614817-08 Date Collected: 05/17/16 11:51

Client ID: CAN 215 FC 004 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID: L1614817-08 Date Collected: 05/17/16 11:51

Client ID: CAN 215 FC 004 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	80		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	78		60-140

Project Name: INDIV. CANISTER CERTIFICATION
Project Number: CANISTER QC INDIV

Lab Number: L1614817
Report Date: 06/07/16

Air Canister Certification Results

Lab ID: L1614817-12
Client ID: CAN 225 FC 949
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 05/18/16 01:02
Analyst: RY

Date Collected: 05/17/16 11:51
Date Received: 05/17/16
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.500	--	ND	0.500	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID: L1614817-12 Date Collected: 05/17/16 11:51

Client ID: CAN 225 FC 949 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	0.983	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.500	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.500	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1614817

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID: L1614817-12 Date Collected: 05/17/16 11:51

Client ID: CAN 225 FC 949 Date Received: 05/17/16

Sample Location: Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	78		60-140
bromochloromethane	84		60-140
chlorobenzene-d5	77		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1616174

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID:	L1616174-02	Date Collected:	05/27/16 14:35
Client ID:	CAN 2246 FC 794	Date Received:	05/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	05/28/16 17:31		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	82		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	77		60-140

Project Name: INDIV. CANISTER CERTIFICATION **Lab Number:** L1616174

Project Number: CANISTER QC INDIV **Report Date:** 06/07/16

Air Canister Certification Results

Lab ID:	L1616174-05	Date Collected:	05/27/16 14:35
Client ID:	CAN 2076 FC B	Date Received:	05/27/16
Sample Location:		Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	05/28/16 19:12		
Analyst:	RY		

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	85		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	82		60-140

Project Name: Not Specified
Project Number: 3935.00

Lab Number: L1616856
Report Date: 06/07/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information **Custody Seal**

Cooler

N/A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1616856-01A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616856-02A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616856-03A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616856-04A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1616856-05A	Canister - 2.7 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	Not Specified	**Lab Number:**	L1616856
Project Number:	3935.00	**Report Date:**	06/07/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Project Name: Not Specified **Lab Number:** L1616856

Project Number: 3935.00 **Report Date:** 06/07/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: Not Specified
Project Number: 3935.00
Lab Number: L1616856
Report Date: 06/07/16

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl, Caprolactam
EPA 8270D-SIM Isotope Dilution: SCM: 1,4-Dioxane
SM 2540D: TSS
SM2540G: SCM: Percent Solids
EPA 1631E: SCM: Mercury
EPA 7474: SCM: Mercury
EPA 8081B: NPW and SCM: Mirex, Hexachlorobenzene.
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA 8270-SIM: NPW and SCM: Alkylated PAHs.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene, n-Butylbenzene, n-Propylbenzene, sec-Butylbenzene, tert-Butylbenzene.
Biological Tissue Matrix: ***8270D-SIM; 3050B; 3051A; 7471B; 8081B; 8082A; 6020A:*** Lead***; 8270D:*** bis(2-ethylhexyl)phthalate, Butylbenzylphthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, Di-n-octyl phthalate, Fluoranthene, Pentachlorophenol.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F,**
EPA 353.2: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Serial_No:06071615:09

AIR ANALYSIS

PAGE_____ OF _____

Date Rec'd in Lab: 6/3/16

ALPHA Job #: L1616856

ALPHA ANALYTICAL

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: Sanborn Head (SHA)
Address: 21 Foundry St
Concord NH 03301
Phone: 603 229 1900
Fax:
Email:

❑ These samples have been previously analyzed by Alpha

Project Information

Project Name:
Project Location: Endicott NY
Project #: 3935.00
Project Manager: Sam Warner
ALPHA Quote #:

Turn-Around Time

❑ Standard ❑ RUSH *(only confirmed if pre-approved!)*

Date Due: **Time:**

Report Information - Data Deliverables

❑ FAX
❑ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
❑ EMAIL (standard pdf report)
❑ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

❑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ❑

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	ANALYSIS TO-15	TO-15 SIM	APH Subtract Non-petroleum HCs ❑	Fixed Gases	Sulfides & Mercaptans by TO-15			Sample Comments (i.e. PID)
6856-01	1A57A-001	6/2	715	1500	-27.5	-3.5	AA	JJF	2.7	225	949		X						
-02	1A57A-002	6/2	717	1340	-29.3	-3.6	|	|	|	252	284		X						
-03	1A57A-003	6/2	719	1530	-29.3	-5.8	|	|	|	215	4		X						
-04	NB57A-001	6/2	1400	1541	-29.3	-4.4	✓	✓	✓	2246	794		X						

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
James Ford [signature]	6/3/16 11:15	[signature]	6/3/16 11:15
[signature]	6/3/16 14:45	[signature]	6/3/16 14:95

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

APPENDIX D

DATA VALIDATION REPORTS

In- Depth Data Usability Review
Method TO-15 SIM Analysis

Client:	Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)
Site:	Former IBM Facility, Endicott, New York Endicott VI 3935
Laboratory:	Alpha Analytical, Mansfield, Massachusetts
SDG:	L1606848
Date(s) of Collection:	March 8, 2016 - March 9, 2016
Number and type Samples & analyses:	15 Indoor Air and 3 Ambient Air samples for ten project-specific VOCs by Method TO-15 SIM
Senior Data Reviewers:	Dr. Nancy C. Rothman, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	April 22, 2016

An In-Depth Data Usability Review (DUR) was performed on the Work Orders identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York*, prepared by Sanborn, Head & Associates, January 2016; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

2 Farmers Circle, Arlington, Massachusetts 02474 781-643-4294 schapnick@neh-inc.com
34 Pheasant Run Drive, Skillman, New Jersey 08558 908-874-5686 nrothman@neh-inc.com

I. Sample Descriptions and Analytical Parameters

The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this In-Depth data usability review are listed in Table 1. Any deviations noted for sample collection or receipt (*e.g.*, temperature or preservation issues) are included in Section III, below.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
IA32-001	L1606848-01	3/8/16	Indoor Air	VOCs	Field Sample
IA32-002	L1606848-02	3/8/16	Indoor Air	VOCs	Field Sample [used for LD]
IA32-003	L1606848-03	3/8/16	Indoor Air	VOCs	Field Sample
IA32-004	L1606848-04	3/8/16	Indoor Air	VOCs	Field Sample
IA32-007	L1606848-05	3/8/16	Indoor Air	VOCs	Field Sample
AA32-001	L1606848-06	3/8/16	Ambient Air	VOCs	Field Sample
IA40-001	L1606848-07	3/9/16	Indoor Air	VOCs	Field Sample
DUP-1	L1606848-08	3/9/16	Indoor Air	VOCs	Field Duplicate of IA40-001
IA40-003	L1606848-09	3/9/16	Indoor Air	VOCs	Field Sample
IA40-005	L1606848-10	3/9/16	Indoor Air	VOCs	Field Sample
AA33-001	L1606848-11	3/9/16	Ambient Air	VOCs	Field Sample
IA40-002	L1606848-12	3/9/16	Indoor Air	VOCs	Field Sample
IA40-008	L1606848-13	3/9/16	Indoor Air	VOCs	Field Sample
IA33-002	L1606848-14	3/9/16	Indoor Air	VOCs	Field Sample
AA40-001	L1606848-15	3/9/16	Ambient Air	VOCs	Field Sample
IA33-003	L1606848-16	3/9/16	Indoor Air	VOCs	Field Sample
IA40-006	L1606848-17	3/9/16	Indoor Air	VOCs	Field Sample
IA40-007	L1606848-18	3/9/16	Indoor Air	VOCs	Field Sample [used for LD]

Analytical method reference:

VOC: Method TO-15 operated in Selected Ion Monitoring (SIM) mode for the analysis of 10 project-specific VOCs [tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, and chloroethane]

II. Data Deficiencies, Analytical Protocol Deviations, and Quality Control Problems

The following QC elements, as applicable to the analytical methods, were reviewed during this validation:

- Data package completeness and reporting protocols
- Sample receipt, holding times, and canister condition
- Calibration criteria (instrument tuning, initial and continuing calibration verifications)
- Method and field blank results
- Laboratory Control Sample (LCS) recoveries
- Internal Standard (IS) and Surrogate Recoveries
- Sample/Laboratory Duplicate (LD) or sample/Field Duplicate (FD) Relative Percent Differences (RPDs)
- Sample result reporting (including reporting limits and units)
- Other method-specific QC if applicable and reported
- Deficiencies or protocol deviations as noted in the Laboratory Narrative

During this review of VOCs several results were estimated (J, UJ, or EB) due to QC issues. Table 2 summarizes the actions taken during this review. NEH generated validated data spreadsheets based on the electronic project database files received from SHA for this Work Order. All results were considered acceptable compared to QAPP and method criteria and usable for project decisions with the understanding of the potential uncertainty (bias) in the qualified results.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
DUP-1 IA32-002 IA32-003 IA32-004 IA32-007 IA33-002 IA33-003 IA40-001 IA40-002 IA40-003 IA40-005 IA40-006 IA40-007 IA40-008	Tetrachloroethene	EB	H	Equipment Blank Action

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
AA40-001 IA32-001	All VOCs except: Tetrachloroethene	J or UJ	I	Flow Controller imprecision
AA40-001 IA32-001	Tetrachloroethene	JEB	I	Flow Controller imprecision + Equipment Blank Action

Qualifiers: U = Analyte is non-detect at or above the sample-specific reporting limit (RL); UJ = Non-detect is estimated at the RL; J = Result is estimated; EB = Analyte was also present in a Field Equipment Blank; R = Result is rejected and is unusable for project decisions.

Bias: L = Low; H = High; I = Indeterminate

The following sections document the QC reviewed in terms of the project data quality objectives (DQO) of accuracy, precision, representativeness, comparability, and sensitivity. The attached In-Depth Data Usability Review Checklist includes all QA/QC reviewed during validation. The DQO of completeness can be evaluated by the project manager after all data are generated.

Data Package Completeness and Reporting Protocols

- The initial and continuing calibrations for VOCs contained many compounds in addition to the targets requested. During this review, only the target compounds were assessed.

Sample Receipt, Holding Times, and Canister Condition

- The samples were received intact and the canister vacuums (initial field, field final, and lab receipt) were acceptable for all samples.
- For all samples except IA32-001 and AA40-001, the pre- and post-calibration verifications of the flow controllers were acceptable. For samples IA32-001 and AA40-001, the pre- and post-calibration RPDs exceeded 20% indicating a potential issue with representativeness of the sample collections. All VOCs for these two samples were estimated (J or UJ) with indeterminate bias as shown in Table 2.
- All samples were analyzed within holding time.

Calibration Criteria

- Five samples were analyzed beyond 12 hours from the instrument tune, which is a requirement specified in NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC criteria, February 2008. However, since Method TO-15 allows samples to be analyzed within 24 hours of a valid tune, no action was taken except to note this discrepancy.
- There were no issues with the instrument tuning or initial and continuing calibrations.

Method and Field Blank Results

- The Method Blanks associated with these samples were non-detect for all VOCs.
- The Field Blank, FB-1 (reported in SDG L1607184), reported a detected result for tetrachloroethene. A comparison of the FB-1 tetrachloroethene value with the samples led to estimation (EB) of all detected tetrachloroethene results with possible high bias, unless other issues affect the data, due to the presence of this compound in the field blank and samples at a comparable level.

Laboratory Control Sample (LCS) Recoveries

- There were no issues with the accuracy of the laboratory control samples (LCS).

Internal Standard and Surrogate Recoveries

- There were no issues with internal standard or surrogate recoveries.

Matrix Quality Control (Laboratory Duplicate and Field Duplicate Samples)

- Laboratory duplicate (LD) analysis was performed on samples IA32-002 and IA40-007. Sample/LD precision was acceptable for both sets of data indicating acceptable precision for analysis of these samples at Alpha for the target VOCs.
- The field duplicate pair IA40-001 and DUP-1 results met criteria for all ten target compounds. These results are an indication of acceptable precision and representativeness of the samples to the locations collected for VOC analysis in air.

Sample result reporting (including reporting limits and units)

- Sensitivity requirements compared to the Reporting Limits (RLs) defined in Table B.1 of the Work Plan were met for all samples.
- A check on the calculations made by Alpha to report calibration statistics, sample-specific RLs, and results indicated that the laboratory reported the data properly. See the In-Depth Review Checklist (attached) for details.

TO-15 In-Depth Data Review Checklist

Lab: Alpha Analytical, Mansfield, Massachusetts

Project ID: L1606848

The Data Validation Criteria used within this checklist are based upon the following:

Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York, prepared by Sanborn, Head & Associates, January 2016 [QAPP present in Appendix B];

Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999;

USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision;

NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC criteria, February 2008;

USEPA Region II SOP HW-31, *Validating Air Sample, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and

USEPA Contract Laboratory Program National Functional Guideline for Organic Data Review; Publication USEPA540/R-07/003, July 2007.

Date Reviewed: April 21, 2015

Data Reviewer: *Nancy C. Rothman, Ph.D.*
New Environmental Horizons, Inc.

II. Data Package Completeness

The data package is reviewed for completeness as follows:

Were all required reporting forms and associated raw data included in the data package? **Yes (see note below).**

Was the data accompanied by a Data Review Checklist / Project Narrative explaining any non-compliance issues with the analyses? **Yes.**

Were all sample analyses requested on the Chain-of-Custody performed by the laboratory? **Yes**.

Were there any Chain-of-custody deviations noted? (e.g., labeling discrepancy between SUMMA canisters, obvious problems with canisters, etc.) **No.** Was a "Sample Discrepancy Report" Issued? **No.**

ACTION:

Comments:

14 Indoor Air, 3 Ambient Air, and 1 FD were collected on 3/8/16 and 3/9/16 in 2.7 L Summa Canisters. Sample collection times were approximately 8 hours – SHA adjusted sample collection times to obtain field final vacuums between 4.5 – 9.9 "Hg. The sample receipt date at the lab was indicated as 3/9/16 on several forms (e.g., "Sample Log-in Sheet"); however, COC also shows the samples were received on 3/10/16. The samples may have been received at the Westborough lab on 3/9/16 and then transferred to the Mansfield lab on 3/10/16 for analysis, which is the reason for there being two sample receipt dates. The data are all associated with the receipt date of 3/9/16, which is when Alpha took custody of these canisters.

Analysis was for Method TO-15 for 10 project-specific VOCs.

Case Narrative Review

1. Review the Case Narrative provided with the data package. Were there any issues addressed in the case narrative that were not addressed in the Data Usability Checklist. Was the narrative complete? **Yes**. If modifications to the TO-15 method were made, did Alpha clearly identify them in the project? **Yes.**

Comments:

Narrative indicates the canisters were released from the lab on March 7, 2016.

Narrative indicates discrepancies for flow controllers.

III. Review of Volatile Air Data

1. Canister Condition

The quality control related to the canisters is reviewed to ensure the accuracy of the reported results.

Does the laboratory indicate that the canisters were cleaned prior to being shipped to the field for analysis? **Yes.** Was the cleanliness of the canisters verified by analysis? **Yes.** Were the canisters leak checked by the laboratory prior to shipment to the field? **Unknown.** Was data presented in the data package to verify these results or did the laboratory indicate these canister conditions in their narrative? **Yes**

Were all Canisters at 28″Hg ± 2″Hg in the field prior to sample collection (NYSDEC mod)? **Yes**. Were the vacuums as received at Alpha after sample collection between 3-10″Hg (QAPP criteria)? **Yes**. Did the final field vacuum (as recorded on COC) and lab receipt vacuum agree for each canister (i.e., were within ≤ ±5″ Hg)? **Yes**. Were the RPDs of the pre- and post-flow controller calibration checks ≤20? **NA.**

Were there any anomalies noted in the field sampling records about the SUMMA canister conditions? **No**. If yes, list issues below.

Action: If there is no indication about how the canisters were prepared, contact the laboratory for documentation. If there were issues noted in the field sampling logs or on the COC about the canister conditions, action may be required to qualify sample data as estimated (J or UJ) or, if issues are deemed severe enough, data may require rejection (R). If contaminants of concern were reported in the "cleaned" canisters prior to sample collection, action to negate (U) data flowing Blank Action process may be warranted. Professional judgment is required in data qualification.
If the initial Pressure (vacuum) in the field of a canister is < 26″ Hg, or pressure of a canister upon receipt at the lab is > 10″ Hg, or the receipt pressure measured at Alpha is > ± 5″ Hg from the final pressure recorded for the canister in the field (as it appears on the COC), estimate all results (J and UJ). If the flow controller pre- and post- flow calibrations have RPDs > 20%, estimated (J or UJ) all results.

Comments:

Canister certifications were present for each canister used and all were non-detect for 10 target compounds at 0.02 U ppbV. Prior to sample collection, all field vacuums were > 29 "Hg.
All canisters field final and lab receipt vacuums agreed within ± 5″ Hg – no action.

All canisters had both field final and lab receipt vacuums within QAPP criteria except sample IA32-001 with lab receipt vacuum at 10.7 "Hg, which is slightly high. RPD ≤ 20% for the pre- and post-calibrations of all flow controllers except for the flow controllers for IA32-001 and AA40-001 (RPDs = 47% and 28%, respectively).

****ACTION: All results for IA32-001 and AA40-001 estimated (J or UJ) with indeterminate bias due to Flow controller imprecision.***

2. Holding Times

Holding times are reviewed to ensure the accuracy of the reported results.

Were the samples analyzed within 30 days of sample receipt? **Yes**. If no, list below the affected samples and the number of days outside of holding time.

Action: If HT > 30 days, estimate (J) detects and reject (R) non-detects, or use professional judgment.

Comments:

Samples were not over-pressurized (Alpha used a vacuum pump procedure as described in the Work Plan) and all samples were analyzed by 3/14/16 – HT met, no action required.

3. GC/MS Instrument Performance Check

The BFB instrument performance checks (tunes) are reviewed to assess the accuracy and sensitivity of the results relative to instrument performance.

Review the tune summaries for BFB

Were all TO-15 defined mass calibration and ion abundance criteria met for the BFB analyses? **Yes**. If no, list below the tune and affected samples.

BFB MASS INTENSITY CRITERIA PER METHOD TO-15

m/z	Required Intensity (relative abundance)
50	8.0 to 40.0% of m/z 95
75	30.0 to 66.0% of m/z 95
95	Base peak, 100% relative abundance
96	5.0 to 9.0% of m/z 95
173	Less than 2.0% of m/z 174
174	50.0 to 120.0% of m/z 95
175	4.0 to 9.0% of m/z 174
176	93.0 to 101.0% of m/z 174
177	5.0 to 9.0% of m/z 176

Review the raw data for one tune. Did the laboratory obtain the BFB mass spectrum in a straight-forward manner (e.g., average of three scans centered across the BFB peak with background subtraction from a scan within 20 scans prior to the BFB scan)? **Yes**. If no, list below the method used to obtain the mass spectrum and the affected samples.

Were all samples (including QC) analyzed within 12 hours of an acceptable tune (Region 9 TO-15 QC requirement)? **No**. If no, list below the affected samples.

Action: If the mass assignment criteria were not met reject (R) all associated data. Use professional judgment to qualify data acquired outside of tune time.

Comments:

All samples were analyzed within 12-hrs of a valid BFB tune except for samples IA40-005, AA33-001, IA40-002, IA40-008, and IA33-002, which were analyzed beyond 12 hrs from BFB tune on 3/12-3/13/16. Since Method TO-15 allows for a 24-hr tune, no action taken except to note this deviation from NYSDEC protocol.

4. Initial Calibration

The initial calibration (ICAL) data are reviewed to determine if the standards were compliant with the method protocols.

Review the Initial Calibration Data Summary. Check and recalculate the RRFs, avg. RRF and %RSD for at least one volatile analyte across the ICAL. Does the avg. RRF and %RSD check back to the raw data? **Yes** . Were the RRFs for all analytes in the standard all greater than or equal to 0.05 (HW-31 criteria)? **Yes.**

Were at least five concentration levels of each compound analyzed during the initial calibration? **Yes.** Were all calibration standards analyzed within 12 hours of BFB tune? **Yes.**

Were retention times for each target analyte stable across the calibration (i.e., within ± 0.06 RRT units of the mean RT for each compound)? **Yes.**

Did the initial calibration meet %RSD criteria of ≤ 30% for all project target analytes? **Yes**. Was the average %RSD across all analytes ≤ 30%? **Yes.**

Action: If RRF < 0.05, estimate (J) positive detects and reject (R) non-detects. If the %RSD >30%, qualify positive and non-detected results as estimated (J and UJ). Sound technical judgment should be used in qualification of the data. The results for each sample associated with ICAL should be evaluated to determine if a result reported would be impacted by the miss-calibration.

ICAL Check: Compound Checked Trichloroethene / IS = 1,4-Difluorobenzene –SIM AIRPIANO2

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7
Concentration (ppbV)	0.02	0.04	0.1	0.2	0.5	1.0	5.0
Response Cpd	389	747	1760	4264	10493	20848	91541
Response IS	440998	429589	430144	440311	432918	424612	444195
Conc. IS	10	10	10	10	10	10	10
RRF	0.441	0.4347	0.4092	0.4842	0.4848	0.4910	0.4122

	Level 8	Level 9	Level 10	Avg. RRF	%RSD
Concentration (ppbV)	10	20	50		
Response Cpd	177332	363490	827007		
Response IS	440922	440711	435862		
Conc. IS	10	10	10		
RRF	0.4022	0.4124	0.3795	0.4351	9.04%

Instruments AIRPAINO1 and AIRPIANO2 used and for both, all 10 Target compounds were calibrated down to 0.02 ppbV. %RSD and min RRFs met criteria for these compounds – no action required.

5. Continuing Calibration Check

The continuing calibration (CCAL or CCV) data are reviewed to determine if the standards were contractually compliant.

Review the Continuing Calibrations and Summaries. Check and recalculate the RRF and %D (or %Rec or %R) for at least one of the target volatile compounds in one of the CCALs. Does the RRF and %D check back to the raw data? **Yes**. Were the RRFs for all analytes in the standard all greater than or equal to 0.05? **Yes.**

Was a continuing calibration check performed every 12 hours following tuning verification of the instrument? **Yes**. If no, list below all the affected samples.

Were the target analytes recovered within the expected retention time window based upon the initial calibration (i.e., drift of instrument was acceptable)? **Yes**.

Did the continuing calibrations meet criteria for verification of %D ≤ ± 30% for all 8 target compounds? **Yes.**

Were the daily calibration RRFs used to calculate sample results for those samples analyzed within the same 12-hour tune ? **No.** (Region 9 TO-15 QC mod) If no, were the average RRFs from the ICAL used (SW-846 and Method TO-15 requirements)? **Yes.**

Action: If a %D > ± 30%, this compound should be checked in each sample.
Non-detects: If the CCAL indicates the system had enhanced detection of the compound on the day of CCAL as compared in the ICAL, and the compound is non-detect in the associated samples, no action is required. If the CCAL indicates a loss in instrument sensitivity on day of analysis for detection of a compound, estimate (UJ) the result with possible low bias.
Positive detects if the ICAL RRFs are used for sample quantitation: If CCAL %D shows loss in instrument sensitivity, estimated (J) result with possible low bias. If CCAL %D shows increase in instrument sensitivity, estimated (J) result with possible high bias.
Positive detects if the CCAL RRFs are used for sample quantitation: estimate (J) results with indeterminate bias.

CCAL Check: Standard ID AIRPIANO1 3/12/16 Compound Checked Tetrachloroethene

Responses	RRF	avg. RRF ICAL	% D
Cpd: 176871 @ 5ppbV	2.237	2.807	20.3%
IS: 158126@10 ppbV			

Lab used convention that negative %D is decreased sensitivity and positive %D is enhanced sensitivity. All target compounds met RRF and %D criteria in CCALs. No Action required.

6. Laboratory Method and Field Equipment Blank Results

   Laboratory method and field blank (equipment blanks) results are reviewed to assess the presence of contaminants, which affect the accuracy and sensitivity of the results. See Table 2a. where the Holding Time and Associated QC Table was completed for the samples within this SDG.

   Were equipment blanks (EB) associated with the samples received at the lab? **No**.

   Was each sample analysis associated with an appropriate method blank? **Yes**. Was there a method blank for each 12-hour tune? **Yes.** If no, list below affected samples.

   Review the reporting forms for each method and equipment blank. Were any target compounds in the blanks detected? **No**.

Action: - Blanks should not contain contaminants above the RL. The Blank Action Level is defined as five times the level seen in the blanks on a sample-specific basis (i.e., all dilutions for a sample analysis taken into consideration). The following actions should be taken if conditions warrant:

Method Blank Evaluation

1. If the reported result in a sample is below the reporting limit (sample < RL) and if the method blank contains a result above the sample-equivalent level reported, the result in the sample should be negated (U) and raised to the sample-specific RL for that sample
2. If the sample result is between the reporting limit and the blank Action Level for the method blank (RL < sample < Action Level), the result for the sample is negated (U) at the level found in the sample.
3. If the sample result is greater than the RL and the blank Action Level, no action is taken.

Equipment Blank Evaluation

1. If the reported result in a sample is below the blank Action Level, the result should be qualified (EB) to indicate that the results may be biased high (false positive).

Comments:
Blanks evaluated: MBs: WG873301-4 & WG873640-4

FB-1, reported in SDG L1607184

6. Laboratory and Field Blank Results - continued

Blank ID	Contaminant / Level ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Sample/Reported Result ($\mu g/m^3$)	Corrected Result
WG873301-4	None		No Blank Action Required	
WG873640-4	None		No Blank Action Required	
FB-1	Tetrachloroethene 0.644	3.22	AA40-001 0.156	0.156 EB
			DUP-1 0.698	0.698 EB
			IA32-001 0.515	0.515 EB
			IA32-002 0.387	0.387 EB
			IA32-003 0.441	0.441 EB
			IA32-004 0.468	0.468 EB
			IA32-007 0.42	0.42 EB
			IA33-002 0.597	0.597 EB
			IA33-003 0.264	0.264 EB
			IA40-001 0.773	0.773 EB
			IA40-002 0.692	0.692 EB
			IA40-003 0.8	0.8 EB
			IA40-005 0.753	0.753 EB
			IA40-006 1.17	1.17 EB
			IA40-007 1.32	1.32 EB
			IA40-008 0.814	0.814 EB

7. Internal Standards

Review the Internal Standard (IS) Recovery Summary information.

Was the Retention Time for the IS' within ± 0.33 min of the corresponding IS in the associated CCAL? **Yes**. Were the Area Counts for each IS within 60% to 140% of the Areas from the associated CCAL? **Yes.**

Action: Action is taken on only those compounds associated with a specific IS. If 20% < IS Response < 60% compared to IS in CCAL, estimate all associated compound results (J and UJ) with possible low bias. If the IS response is > 140%, estimate (J) positive results with possible high bias, no action required for non-detects. If the IS response is < 20% relative to CCAL, estimate detects (J) and reject (R) non-detect. If surrogate recovery > 10% but <70%, U/UJ results, if %Rec > 130%, J detects only.

Comment:

IS = Bromochloromethane, 1,4-Difluorobenzene, and Chlorobenzene-d5 (as specified in Region 9 TO-15 QC requirements)

All IS' met criteria in all samples and QC – No Action required.

8. Laboratory Control Sample Analysis

The Laboratory Control Samples (LCS) are reviewed to assess the accuracy of the results relative to the analytical procedure.

Review the raw data and recovery information for the LCS.

Did the laboratory perform a LCS daily prior to sample analysis (at least once per every 12-hour tune)? **Yes**. If no, list below the affected samples.

Were the LCS recoveries within 70-130% for the target compounds? **Yes**. If no, was only 1 of the 6 standard compounds outside criteria? **NA**. Was reanalysis of the samples performed if the LCS or LCSD was outside of acceptance criteria? **NA**.

Was an LCSD performed? **No.** If yes, was the RPD between the LCS/LCSD ≤ 25%. **NA.**

Action: If the LCS recoveries are above criteria, estimate (J) positive results due to potential high bias, no qualification of non-detected results is necessary. If the LCS recoveries are between 10% and the lower recovery limit, estimate (J and UJ) positive and non-detect results for the samples associated with the analytical batch due to potential low bias in the results. If the recovery in the LCS is less than 10%, estimate (J) positive results due to low bias and use professional judgment to estimate (UJ) or reject (R) non-detect results due to potential false negatives. If the LCS/LCSD RPD > 25%, estimate results (J and UJ) for those compounds affected in the analytical batch.

Comments:
LCS only: WG873301-3 & WG873640-43. All 10 target compounds reported %Rec within criteria – acceptable accuracy for analysis demonstrated. LD done instead of LCSD.

9. Sample Quantitation/Reporting Limits

Review raw data and reporting forms. What was the lowest concentration (ppbv) standard analyzed with the samples? 0.02 ppbV Were the sample-specific RLs based on these standards? **Yes**

$\mu g/m^3$ = (ppbv x Mwt x DF) / 24.45

where: Mwt = Molecular weight for the compound, g/mole
DF = Dilution Factor for analysis, unitless
24.45 = RT/P from ideal gas law with R at 0.08206 L-atm/mole-K; P = 1 atm (Standard pressure), and T = 25°C=298K (Room Temperature)

Reporting Limit checked (pick a non-detect in one sample and using the sample-specific DF, verify the RL
Compound checked: 1,1-Dichloroethene in AA32-001
Mwt = 96.95
RL basis = 0.02 ppbV standard
DF = 1

RL calculated 0.079 $\mu g/m^3$; RL reported 0.079 $\mu g/m^3$ √

Were all the compounds in the calibration standards reported for the samples? **No.** Were Tentatively Identified Compounds (TICs) reported for the samples? **No.**

Did the sample-specific RLs for non-detected data meet the following levels (Table B.1 of RFI Work Plan)? **Yes, all RLs were ≤ RL required in Work Plan. Lab analyzed all 10 targets by SIM rather than Full Scan and SIM. Sensitivity acceptable, no action required.**

Table B.1 from Work Plan:

Target Analyte Name		Full Scan (Full) or SIM		RL ($\mu g/m^3$)
Tetrachloroethene (PCE)		Full		1.4
Trichloroethene (TCE)		SIM		0.22
cis-1,2-Dichloroethene (cDCE)		Full		0.80
trans-1,2-Dichloroethene (tDCE)		Full		0.80
1,1-Dichloroethene (DCE)		Full		0.80
Vinyl chloride (VC)		SIM		0.052
1,1,1-Trichloroethane (TCA)		Full		1.1
1,1-Dichloroethane (1,1-DCA)		Full		0.81
1,2-Dichloroethane (1,2-DCA)		Full		0.81
Chloroethane		Full		2.6

10. Sample Qualitative and Quantitative Determination

Were the canisters pressurized with zero grade nitrogen or humid air prior to analysis? **No.** If yes, was a dilution factor applied to the sample data? **NA**

For samples, check the Mass Spectra of all positive detects. Did the Mass Spectra meet criteria (e.g., all ions > 10% matched those in reference spectra, etc. – SOP/method criteria)? **Yes**

Was the retention time (RT) for the detected result within ± 0.06 relative RT minutes of the standard component RT? **Yes.** Did the primary/quantitation ion and secondary ion maximize at the same relative RT? **Yes**

Were all components reported in the samples quantitated within the calibration region of the instrument for the detected analytes? **Yes.** Were results reported below the sample-specific RL reported as estimated due to uncertainty in quantitation? **NA.** Were there any other data qualifiers on the results which may affect usability of the data? **NA.** Explain all qualifiers below.

Comments:

Sample spectra for all detects verified – all results were reported properly.

There were no qualifiers other than "U" reported on the data (i.e., there were no "J" or "E" qualified data reported).

11. Laboratory Duplicates and Field Duplicate Precision

Laboratory Duplicates (LDs) and Field Duplicate (FD) samples are reviewed to assess representativeness of the sample aliquot to the area sampled and the precision of the results relative to field sampling techniques. RFI Work Plan Table B.2 requires at least one FD sample per SDG.

Was an FD reported in this SDG? **Yes.**

Action: For LDs, if RPD > 25% and both results are > 5xRL, then estimate both results (J) with indeterminate bias. If RPD > 25% and one result > 5xRL and the other < 5xRL, estimate both results (J). If one result is non-detect, and the other is < RL or < 5xRL, do not take action. If one result is non-detect and the other is > 5xRL, estimate (J and UJ) both results.

For FDs, If RPD > 30% and both results are > 5xRL, then estimate both results (J) with indeterminate bias. If RPD > 30% and one result > 5xRL and the other < 5xRL, estimate both results (J). If one result is non-detect, and the other is < RL or < 5xRL, do not take action. If one result is non-detect and the other is > 5xRL, estimate (J and UJ) both results.

Comments:

LDs performed on IA32-002 & IA40-007. The Form 3 in the data package gives a comparison between the sample/LD for each of these two sets of LDs. RPDs for detected results were within criteria – no action required.

FD pair = IA40-001 / DUP-1 – A comparison of detected results shown below

Analyte Name	RL	Sample ug/m3	Q	Sample Result Level	FD ug/m3	Q	FD Result Level	RPD	Action
1,2-Dichloroethane	0.081	0.113		< 5 x RL	0.081	U	RL	NA	None
Tetrachloroethene	0.136	0.773	EB	>5 x RL	0.698	EB	> 5 x RL	10.2%	None
1,1,1-Trichloroethane	0.109	0.136		< 5 x RL	0.136		< 5 x RL	0%	None
Trichloroethene	0.107	0.446		< 5 x RL	0.537		> 5 x RL	18.5%	None

Q = validator qualifier; NA = RPD not calculated since 1 result ND

LD and FD precision acceptable – No Action required.

12. Additional QA/QC Issues

Were there any additional QA/QC issues noted in the project narrative or found during this review that were not previously addressed? **No.**

List any additional issues which may affect the quality of the results. List the affected samples, QA/QC issue, and necessary actions taken in the comments section below.

There were no other issues noted in the data – No Actions required.

IV. Example Sample Calculations

Review of one sample per data package is performed to determine if sample results were correctly calculated and reported.

Sample ID: IA32-007 was selected for review in this data package.

A. Data Sheet Review

Were the data sheets completed according to the method requirements? **Yes**. If no, list below the affected fields.

B. Quantitation Review

Reproduce a calculation for one volatile analyte in one of the samples that contained a positive result and compare the calculated result to the result reported by the laboratory.

Analyte Checked: Trichloroethene

Laboratory Result: 1.23 µg/m^3 Calculated Result: 1.23 µg/m^3 √

Example Calculation:

Sample DF = 1; TCE Response = 6332
1,4-Difluorobenzene IS Response = 686893 @ 10 ppbV
Average RRF from ICAL (AIRPIANO1) = 0.4031

Conc. (ppbV) = (6332 x 10 x 1) / (686893 x 0.4031) = 0.2287 ppbV

TCE Mwt = 131.4

Conc. (µg/m^3) = (02287 x 131.4)/24.45 = 1.23 µg/m^3

Data Usability Checklist Review
Method TO-15 SIM Analysis

Client:	Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)
Site:	Former IBM Facility, Endicott, New York Endicott VI 3935
Laboratory:	Alpha Analytical, Mansfield, Massachusetts
SDG:	L1607184
Date(s) of Collection:	March 9, 2016 through March 11, 2016
Number and type Samples & analyses:	11 Indoor Air, 2 Ambient Air, and 1 Field Blank sample for ten project-specific VOCs by Method TO-15 SIM
Senior Data Reviewers:	Dr. Nancy C. Rothman, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	June 15, 2016

A Data Usability Checklist Review (DUR) was performed on the SDG identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York*, prepared by Sanborn, Head & Associates, January 2016; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

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The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this data usability checklist review are listed in Table 1. Any deviations noted for sample collection or receipt are included in the attached Data Review Checklist.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
IA40-004	L1607184-01	3/9/2016	Indoor Air	VOCs	Field Sample
FB-1	L1607184-02	3/10/2016	Air	VOCs	Field Blank
IA19-001	L1607184-03	3/10/2016	Indoor Air	VOCs	Field Sample
IA41-020	L1607184-04	3/10/2016	Indoor Air	VOCs	Field Sample
IA41-021	L1607184-05	3/10/2016	Indoor Air	VOCs	Field Sample
IA41-022	L1607184-06	3/10/2016	Indoor Air	VOCs	Field Sample
IA41-023	L1607184-07	3/10/2016	Indoor Air	VOCs	Field Sample
AA41-001	L1607184-08	3/10/2016	Ambient Air	VOCs	Field Sample
AA19-001	L1607184-09	3/10/2016	Ambient Air	VOCs	Field Sample
IA41-024	L1607184-10	3/10/2016	Indoor Air	VOCs	Field Sample
IA41-025	L1607184-11	3/10/2016	Indoor Air	VOCs	Field Sample
IA47-001	L1607184-12	3/11/2016	Indoor Air	VOCs	Field Sample
IA47-009	L1607184-13	3/11/2016	Indoor Air	VOCs	Field Sample
IA47-003	L1607184-14	3/11/2016	Indoor Air	VOCs	Field Sample

Analytical method reference:

VOC: Method TO-15 operated in Selected Ion Monitoring (SIM) mode for the analysis of 10 project-specific VOCs [tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, and chloroethane]

All data are considered usable for project decisions as they meet accuracy, precision, and sensitivity requirements of the site Work Plan, NYSDEC ASP, and EPA TO-15, with the understanding of potential uncertainty in qualified results (J, JEB, EB, or UJ) as listed in Table 2.

The Air Data Review Checklist, attached, was completed during this assessment to document the review.

There were no Field Duplicate samples associated with the samples in this SDG; therefore, precision from field collection through analysis could not be assessed.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
IA40-004 IA41-021 IA41-024 IA41-025	All VOCs except: Tetrachloroethene	J or UJ	I	Flow Controller imprecision
IA40-004 IA41-021 IA41-024 IA41-025	Tetrachloroethene	JEB	I	Flow Controller imprecision + Equipment Blank Action
IA19-001 IA41-020 IA41-022 IA41-023 AA19-001	Tetrachloroethene	EB	H	Equipment Blank Action

Qualifiers: U = Analyte is non-detect at or above the sample-specific reporting limit (RL); UJ = Non-detect is estimated at the RL; J = Result is estimated; EB = Analyte was also present in a Field Equipment Blank; R = Result is rejected and is unusable for project decisions.

Bias: L = Low; H = High; I = Indeterminate

Data Usability Checklist Review
Method TO-15 SIM Analysis

Client:	Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)
Site:	Former IBM Facility, Endicott, New York Endicott VI 3935
Laboratory:	Alpha Analytical, Mansfield, Massachusetts
SDG:	L1607339
Date(s) of Collection:	March 11, 2016
Number and type Samples & analyses:	3 Indoor Air and 1 Ambient Air samples for ten project-specific VOCs by Method TO-15 SIM
Senior Data Reviewers:	Dr. Nancy C. Rothman, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	April 29, 2016

A Data Usability Checklist Review (DUR) was performed on the SDG identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York*, prepared by Sanborn, Head & Associates, January 2016; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

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The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this data usability checklist review are listed in Table 1. Any deviations noted for sample collection or receipt are included in the attached Data Review Checklist.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
IA47-002	L1607339-01	3/11/16	Indoor Air	VOCs	Field Sample [used for LD]
IA47-010	L1607339-02	3/11/16	Indoor Air	VOCs	Field Sample
IA47-005	L1607339-03	3/11/16	Indoor Air	VOCs	Field Sample
AA47-001	L1607339-04	3/11/16	Ambient Air	VOCs	Field Sample

Analytical method reference:

VOC: Method TO-15 operated in Selected Ion Monitoring (SIM) mode for the analysis of 10 project-specific VOCs [tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, and chloroethane]

All data are considered usable for project decisions as they meet accuracy, precision, and sensitivity requirements of the site Work Plan, NYSDEC ASP, and EPA TO-15, with the understanding of potential uncertainty in qualified results (J or UJ) as listed in Table 2.

The Air Data Review Checklist, attached, was completed during this assessment to document the review.

There were no Field Duplicate samples associated with the samples in this SDG; therefore, precision from field collection through analysis could not be assessed.

Table 2. Summary of Data Validation Actions

Field Sample ID	**Analyte**	**Qualifier**	**Bias**	**Validation Comments**
IA47-005 AA47-001	All VOCs	J or UJ	I	Flow Controller imprecision

Qualifiers: U = Analyte is non-detect at or above the sample-specific reporting limit (RL); UJ = Non-detect is estimated at the RL; J = Result is estimated; EB = Analyte was also present in a Field Equipment Blank; R = Result is rejected and is unusable for project decisions.

Bias: L = Low; H = High; I = Indeterminate

Data Usability Checklist Review
Method TO-15 SIM Analysis

Client:	Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)
Site:	Former IBM Facility, Endicott, New York Endicott VI 3935
Laboratory:	Alpha Analytical, Mansfield, Massachusetts
SDG:	L1607702
Date(s) of Collection:	March 15, 2016
Number and type Samples & analyses:	6 Indoor Air samples for ten project-specific VOCs by Method TO-15 SIM
Senior Data Reviewers:	Dr. Nancy C. Rothman, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	May 2, 2016

A Data Usability Checklist Review (DUR) was performed on the SDG identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York*, prepared by Sanborn, Head & Associates, January 2016; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

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The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this data usability checklist review are listed in Table 1. Any deviations noted for sample collection or receipt are included in the attached Data Review Checklist.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
IA14-005	L1607702-01	3/15/16	Indoor Air	VOCs	Field Sample
IA14-006	L1607702-02	3/15/16	Indoor Air	VOCs	Field Sample
IA14-008	L1607702-03	3/15/16	Indoor Air	VOCs	Field Sample
DUP-2	L1607702-04	3/15/16	Indoor Air	VOCs	Field Duplicate of IA14-008
IA14-002	L1607702-05	3/15/16	Indoor Air	VOCs	Field Sample
IA14-004	L1607702-06	3/15/16	Indoor Air	VOCs	Field Sample

Analytical method reference:

VOC: Method TO-15 operated in Selected Ion Monitoring (SIM) mode for the analysis of 10 project-specific VOCs [tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, and chloroethane]

All data are considered usable for project decisions as they meet accuracy, precision, and sensitivity requirements of the site Work Plan, NYSDEC ASP, and EPA TO-15, with the understanding of potential uncertainty in qualified results (J) as listed in Table 2.

The Air Data Review Checklist, attached, was completed during this assessment to document the review.

The field duplicate pair IA14-008 and DUP-2 results met criteria for all ten target compounds. These results are an indication of acceptable precision and representativeness of the samples to the locations collected for VOC analysis in air.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
IA14-005 IA14-006 IA14-008 DUP-2 IA14-002 IA14-004	Tetrachloroethene	J	H	High Calibration verification

Qualifiers: U = Analyte is non-detect at or above the sample-specific reporting limit (RL); UJ = Non-detect is estimated at the RL; J = Result is estimated; EB = Analyte was also present in a Field Equipment Blank; R = Result is rejected and is unusable for project decisions.

Bias: L = Low; H = High; I = Indeterminate

Data Usability Checklist Review
Method TO-15 SIM Analysis

Client:	Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)
Site:	Former IBM Facility, Endicott, New York Endicott VI 3935
Laboratory:	Alpha Analytical, Mansfield, Massachusetts
SDG:	L1607703
Date(s) of Collection:	March 15, 2016 & March 16, 2016
Number and type Samples & analyses:	4 Indoor Air, 1 Ambient Air, and 1 Field Blank sample for ten project-specific VOCs by Method TO-15 SIM
Senior Data Reviewers:	Dr. Nancy C. Rothman, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	May 2, 2016

A Data Usability Checklist Review (DUR) was performed on the SDG identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York*, prepared by Sanborn, Head & Associates, January 2016; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

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The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this data usability checklist review are listed in Table 1. Any deviations noted for sample collection or receipt are included in the attached Data Review Checklist.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
FB-2	L1607703-01	3/15/16	Air	VOCs	Field Blank
AA14-001	L1607703-02	3/15/16	Ambient Air	VOCs	Field Sample
IA14-001	L1607703-03	3/15/16	Indoor Air	VOCs	Field Sample
IA14-007	L1607703-04	3/15/16	Indoor Air	VOCs	Field Sample
IA57-007	L1607703-05	3/16/16	Indoor Air	VOCs	Field Sample
IA57-002	L1607703-06	3/16/16	Indoor Air	VOCs	Field Sample

Analytical method reference:

VOC: Method TO-15 operated in Selected Ion Monitoring (SIM) mode for the analysis of 10 project-specific VOCs [tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, and chloroethane]

All data are considered usable for project decisions as they meet accuracy, precision, and sensitivity requirements of the site Work Plan, NYSDEC ASP, and EPA TO-15, with the understanding of potential uncertainty in qualified results (J or UJ) as listed in Table 2.

The Air Data Review Checklist, attached, was completed during this assessment to document the review.

There were no Field Duplicate samples associated with the samples in this SDG; therefore, precision from field collection through analysis could not be assessed.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
FB-2	All VOCs	UJ	I	Flow Controller imprecision
IA57-002	All VOCs except: Tetrachloroethene	J or UJ	I	Flow Controller imprecision
IA57-002	Tetrachloroethene	J	I	Flow Controller imprecision + High Calibration verification
AA14-001 IA14-001 IA57-007 IA14-007	Tetrachloroethene	J	H	High Calibration verification

Qualifiers: U = Analyte is non-detect at or above the sample-specific reporting limit (RL); UJ = Non-detect is estimated at the RL; J = Result is estimated; EB = Analyte was also present in a Field Equipment Blank; R = Result is rejected and is unusable for project decisions.

Bias: L = Low; H = High; I = Indeterminate

Data Usability Checklist Review
Method TO-15 SIM Analysis

Client:	Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)
Site:	Former IBM Facility, Endicott, New York Endicott VI 3935
Laboratory:	Alpha Analytical, Mansfield, Massachusetts
SDG:	L1607906
Date(s) of Collection:	March 16, 2016
Number and type Samples & analyses:	11 Indoor Air, 2 Ambient Air, and 1 Field Blank sample for ten project-specific VOCs by Method TO-15 SIM
Senior Data Reviewers:	Dr. Nancy C. Rothman, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	June 15, 2016

A Data Usability Checklist Review (DUR) was performed on the SDG identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York*, prepared by Sanborn, Head & Associates, January 2016; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

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The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this data usability checklist review are listed in Table 1. Any deviations noted for sample collection or receipt are included in the attached Data Review Checklist.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
IA57-006	L1607906-01	3/16/2016	Indoor Air	VOCs	Field Sample
AA57-001	L1607906-02	3/16/2016	Ambient Air	VOCs	Field Sample
IA57A-002	L1607906-03	3/16/2016	Indoor Air	VOCs	Field Sample
IA57A-001	L1607906-04	3/16/2016	Indoor Air	VOCs	Field Sample
DUP-3	L1607906-05	3/16/2016	Indoor Air	VOCs	Field Duplicate of IA57A-001
IA57-004	L1607906-06	3/16/2016	Indoor Air	VOCs	Field Sample

Analytical method reference:

VOC: Method TO-15 operated in Selected Ion Monitoring (SIM) mode for the analysis of 10 project-specific VOCs [tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, and chloroethane]

All data are considered usable for project decisions as they meet accuracy, precision, and sensitivity requirements of the site Work Plan, NYSDEC ASP, and EPA TO-15, with the understanding of potential uncertainty in qualified results (J or UJ) as listed in Table 2.

The Air Data Review Checklist, attached, was completed during this assessment to document the review.

The field duplicate pair IA57A-001 and DUP-3 results met criteria for all ten target compounds. These results are an indication of acceptable precision and representativeness of the samples to the locations collected for VOC analysis in air.

Table 2. Summary of Data Validation Actions

Field Sample ID	**Analyte**	**Qualifier**	**Bias**	**Validation Comments**
DUP-3 IA57-004	All VOCs	J or UJ	I	Flow Controller imprecision

Qualifiers: U = Analyte is non-detect at or above the sample-specific reporting limit (RL); UJ = Non-detect is estimated at the RL; J = Result is estimated; EB = Analyte was also present in a Field Equipment Blank; R = Result is rejected and is unusable for project decisions.

Bias: L = Low; H = High; I = Indeterminate

Data Usability Checklist Review
Method TO-15 SIM Analysis

Client:	Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)
Site:	Former IBM Facility, Endicott, New York Endicott VI 3935
Laboratory:	Alpha Analytical, Mansfield, Massachusetts
SDG:	L1607911
Date(s) of Collection:	March 16, 2016
Number and type Samples & analyses:	1 Indoor Air and 1 Ambient Air sample for ten project-specific VOCs by Method TO-15 SIM
Senior Data Reviewers:	Dr. Nancy C. Rothman, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	May 11, 2016

A Data Usability Checklist Review (DUR) was performed on the SDG identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York*, prepared by Sanborn, Head & Associates, January 2016; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

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The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this data usability checklist review are listed in Table 1. Any deviations noted for sample collection or receipt are included in the attached Data Review Checklist.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
IA264-001	L1607911-01	3/16/16	Indoor Air	VOCs	Field Sample [used for Lab Duplicate]
AA264-001	L1607911-02	3/16/16	Ambient Air	VOCs	Field Sample

Analytical method reference:

VOC: Method TO-15 operated in Selected Ion Monitoring (SIM) mode for the analysis of 10 project-specific VOCs [tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, and chloroethane]

All data are considered usable for project decisions as they meet accuracy, precision, and sensitivity requirements of the site Work Plan, NYSDEC ASP, and EPA TO-15. The data as reported by the laboratory were unchanged as a consequence of this review.

The Air Data Review Checklist, attached, was completed during this assessment to document the review.

There were no Field Duplicate samples associated with the samples in this SDG; therefore, precision from field collection through analysis could not be assessed.

Data Usability Checklist Review
Method TO-15 SIM Analysis

Client:	Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)
Site:	Former IBM Facility, Endicott, New York Endicott VI 3935
Laboratory:	Alpha Analytical, Mansfield, Massachusetts
SDG:	L1607912
Date(s) of Collection:	March 16, 2016
Number and type Samples & analyses:	5 Indoor Air and 1 Field Blank sample for ten project-specific VOCs by Method TO-15 SIM
Senior Data Reviewers:	Dr. Nancy C. Rothman, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	May 11, 2016

A Data Usability Checklist Review (DUR) was performed on the SDG identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York*, prepared by Sanborn, Head & Associates, January 2016; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

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The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this data usability checklist review are listed in Table 1. Any deviations noted for sample collection or receipt are included in the attached Data Review Checklist.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
IA57A-003	L1607912-01	3/16/16	Indoor Air	VOCs	Field Sample
IA57A-004	L1607912-02	3/16/16	Indoor Air	VOCs	Field Sample
IA57-005	L1607912-03	3/16/16	Indoor Air	VOCs	Field Sample
IA57-003	L1607912-04	3/16/16	Indoor Air	VOCs	Field Sample
IA57-001	L1607912-05	3/16/16	Indoor Air	VOCs	Field Sample
FB-3	L1607912-06	3/16/16	Air	VOCs	Field Blank

Analytical method reference:

VOC: Method TO-15 operated in Selected Ion Monitoring (SIM) mode for the analysis of 10 project-specific VOCs [tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, and chloroethane]

All data are considered usable for project decisions as they meet accuracy, precision, and sensitivity requirements of the site Work Plan, NYSDEC ASP, and EPA TO-15. The data as reported by the laboratory were unchanged as a consequence of this review.

The Air Data Review Checklist, attached, was completed during this assessment to document the review.

There were no Field Duplicate samples associated with the samples in this SDG; therefore, precision from field collection through analysis could not be assessed.

Data Usability Checklist Review
Method TO-15 SIM Analysis

Client:	Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)
Site:	Former IBM Facility, Endicott, New York Endicott VI 3935
Laboratory:	Alpha Analytical, Mansfield, Massachusetts
SDG:	L1608781
Date(s) of Collection:	March 24, 2016
Number and type Samples & analyses:	8 Indoor Air, 1 Ambient Air, and 1 Field Blank sample for ten project-specific VOCs by Method TO-15 SIM
Senior Data Reviewers:	Dr. Nancy C. Rothman, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	May 11, 2016

A Data Usability Checklist Review (DUR) was performed on the SDG identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York*, prepared by Sanborn, Head & Associates, January 2016; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this data usability checklist review are listed in Table 1. Any deviations noted for sample collection or receipt are included in the attached Data Review Checklist.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
IA18-002	L1608781-01	3/24/16	Indoor Air	VOCs	Field Sample [used for Lab Dup]
IA18-003	L1608781-02	3/24/16	Indoor Air	VOCs	Field Sample
IA18-001	L1608781-03	3/24/16	Indoor Air	VOCs	Field Sample
IA18-004	L1608781-04	3/24/16	Indoor Air	VOCs	Field Sample
IA18-005	L1608781-05	3/24/16	Indoor Air	VOCs	Field Sample
AA18-001	L1608781-06	3/24/16	Ambient Air	VOCs	Field Sample
IA18-010	L1608781-07	3/24/16	Indoor Air	VOCs	Field Sample
IA18-012	L1608781-08	3/24/16	Indoor Air	VOCs	Field Sample
IA18-016	L1608781-09	3/24/16	Indoor Air	VOCs	Field Sample
FB-4 *	L1608781-10	3/24/16	Air	VOCs	Field Blank

* This Field Blank was received at Alpha with the client ID “BLANK” and was changed to “FB-4” in the EDD by SHA.

Analytical method reference:

VOC: Method TO-15 operated in Selected Ion Monitoring (SIM) mode for the analysis of 10 project-specific VOCs [tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, and chloroethane]

All data are considered usable for project decisions as they meet accuracy, precision, and sensitivity requirements of the site Work Plan, NYSDEC ASP, and EPA TO-15, with the understanding of potential uncertainty in qualified results (UJ or EB) as listed in Table 2.

The Air Data Review Checklist, attached, was completed during this assessment to document the review.

There were no Field Duplicate samples associated with the samples in this SDG; therefore, precision from field collection through analysis could not be assessed.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
AA18-001	All VOCs	UJ	I	Flow Controller imprecision
IA18-002 IA18-003 IA18-001 IA18-004 IA18-005 IA18-010 IA18-012 IA18-016	Tetrachloroethene	EB	H	Equipment Blank Action

Qualifiers: U = Analyte is non-detect at or above the sample-specific reporting limit (RL); UJ = Non-detect is estimated at the RL; J = Result is estimated; EB = Analyte was also present in a Field Equipment Blank; R = Result is rejected and is unusable for project decisions.

Bias: L = Low; H = High; I = Indeterminate

Data Usability Checklist Review
Method TO-15 SIM Analysis

Client:	Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)
Site:	Former IBM Facility, Endicott, New York Endicott VI 3935
Laboratory:	Alpha Analytical, Mansfield, Massachusetts
SDG:	L1609679
Date(s) of Collection:	April 1, 2016
Number and type Samples & analyses:	13 Indoor Air, 1 Ambient Air, and 1 Field Blank sample for ten project-specific VOCs by Method TO-15 SIM
Senior Data Reviewers:	Dr. Nancy C. Rothman, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	May 16, 2016

A Data Usability Checklist Review (DUR) was performed on the SDG identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York*, prepared by Sanborn, Head & Associates, January 2016; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

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The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this data usability checklist review are listed in Table 1. Any deviations noted for sample collection or receipt are included in the attached Data Review Checklist.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
AA46-001	L1609679-01	4/1/2016	Ambient Air	VOCs	Field Sample
IA46-011	L1609679-02	4/1/2016	Indoor Air	VOCs	Field Sample [used for Lab Dup]
IA46-010	L1609679-03	4/1/2016	Indoor Air	VOCs	Field Sample
FB-5	L1609679-04	4/1/2016	Air	VOCs	Field Blank
IA46-005	L1609679-05	4/1/2016	Indoor Air	VOCs	Field Sample
IA46-006	L1609679-06	4/1/2016	Indoor Air	VOCs	Field Sample
IA46-007	L1609679-07	4/1/2016	Indoor Air	VOCs	Field Sample
IA46-008	L1609679-08	4/1/2016	Indoor Air	VOCs	Field Sample
IA46-009	L1609679-09	4/1/2016	Indoor Air	VOCs	Field Sample
DUP-4	L1609679-10	4/1/2016	Indoor Air	VOCs	Field Duplicate of IA46-006
IA46-001	L1609679-11	4/1/2016	Indoor Air	VOCs	Field Sample
IA46-002	L1609679-12	4/1/2016	Indoor Air	VOCs	Field Sample
IA46-003	L1609679-13	4/1/2016	Indoor Air	VOCs	Field Sample
IA46-004	L1609679-14	4/1/2016	Indoor Air	VOCs	Field Sample
IA45-001	L1609679-15	4/1/2016	Indoor Air	VOCs	Field Sample

Analytical method reference:

VOC: Method TO-15 operated in Selected Ion Monitoring (SIM) mode for the analysis of 10 project-specific VOCs [tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, and chloroethane]

All data are considered usable for project decisions as they meet accuracy, precision, and sensitivity requirements of the site Work Plan, NYSDEC ASP, and EPA TO-15, with the understanding of potential uncertainty in qualified results (J or UJ) as listed in Table 2.

The Air Data Review Checklist, attached, was completed during this assessment to document the review.

The field duplicate pair IA46-006 and DUP-4 results met criteria for all ten target compounds. These results are an indication of acceptable precision and representativeness of the samples to the locations collected for VOC analysis in air.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
AA46-001 IA46-001	All VOCs	J or UJ	I	Flow Controller imprecision
FB-5	All VOCs	UJ	I	Field final and Receipt vacuums disagree

Qualifiers: U = Analyte is non-detect at or above the sample-specific reporting limit (RL); UJ = Non-detect is estimated at the RL; J = Result is estimated; EB = Analyte was also present in a Field Equipment Blank; R = Result is rejected and is unusable for project decisions.

Bias: L = Low; H = High; I = Indeterminate

Data Usability Checklist Review
Method TO-15 SIM Analysis

Client:	Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)
Site:	Former IBM Facility, Endicott, New York Endicott VI 3935
Laboratory:	Alpha Analytical, Mansfield, Massachusetts
SDG:	L1610061
Date(s) of Collection:	April 5, 2016
Number and type Samples & analyses:	4 Indoor Air and 1 Ambient Air samples for ten project-specific VOCs by Method TO-15 SIM
Senior Data Reviewers:	Dr. Nancy C. Rothman, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	May 16, 2016

A Data Usability Checklist Review (DUR) was performed on the SDG identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York*, prepared by Sanborn, Head & Associates, January 2016; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

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The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this data usability checklist review are listed in Table 1. Any deviations noted for sample collection or receipt are included in the attached Data Review Checklist.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
AA42-001	L1610061-01	4/5/16	Ambient Air	VOCs	Field Sample
IA42-005	L1610061-02	4/5/16	Indoor Air	VOCs	Field Sample [used for Lab Dup]
IA42-010	L1610061-03	4/5/16	Indoor Air	VOCs	Field Sample
IA42-002	L1610061-04	4/5/16	Indoor Air	VOCs	Field Sample
IA42-008	L1610061-05	4/5/16	Indoor Air	VOCs	Field Sample

Analytical method reference:

VOC: Method TO-15 operated in Selected Ion Monitoring (SIM) mode for the analysis of 10 project-specific VOCs [tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, and chloroethane]

All data are considered usable for project decisions as they meet accuracy, precision, and sensitivity requirements of the site Work Plan, NYSDEC ASP, and EPA TO-15. The data as reported by the laboratory were unchanged as a consequence of this review.

The Air Data Review Checklist, attached, was completed during this assessment to document the review.

There were no Field Duplicate samples associated with the samples in this SDG; therefore, precision from field collection through analysis could not be assessed.

Data Usability Checklist Review
Method TO-15 SIM Analysis

Client:	Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)
Site:	Former IBM Facility, Endicott, New York Endicott VI 3935
Laboratory:	Alpha Analytical, Mansfield, Massachusetts
SDG:	L1616267
Date(s) of Collection:	May 25, 2016
Number and type Samples & analyses:	8 Indoor Air, 1 Ambient Air, and 1 Field Blank sample for ten project-specific VOCs by Method TO-15 SIM
Senior Data Reviewers:	Dr. Nancy C. Rothman, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	June 23, 2016

A Data Usability Checklist Review (DUR) was performed on the SDG identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York*, prepared by Sanborn, Head & Associates, January 2016; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

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The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this data usability checklist review are listed in Table 1. Any deviations noted for sample collection or receipt are included in the attached Data Review Checklist.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
IA19-001	L1616267-01	5/25/2016	Indoor Air	VOCs	Field Sample
IA41-025	L1616267-02	5/25/2016	Indoor Air	VOCs	Field Sample
IA41-023	L1616267-03	5/25/2016	Indoor Air	VOCs	Field Sample
IA41-022	L1616267-04	5/25/2016	Indoor Air	VOCs	Field Sample
IA41-029	L1616267-05	5/25/2016	Indoor Air	VOCs	Field Sample
IA41-020	L1616267-06	5/25/2016	Indoor Air	VOCs	Field Sample
IA41-021	L1616267-07	5/25/2016	Indoor Air	VOCs	Field Sample
FD41-021	L1616267-08	5/25/2016	Indoor Air	VOCs	Field Duplicate of IA41-021
AA19-001	L1616267-09	5/25/2016	Ambient Air	VOCs	Field Sample
EB-1	L1616267-10	5/26/2016	Air	VOCs	Equipment Blank

Analytical method reference:

VOC: Method TO-15 operated in Selected Ion Monitoring (SIM) mode for the analysis of 10 project-specific VOCs [tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, and chloroethane]

All data are considered usable for project decisions as they meet accuracy, precision, and sensitivity requirements of the site Work Plan, NYSDEC ASP, and EPA TO-15, with the understanding of potential uncertainty in qualified results (J or UJ) as listed in Table 2.

The Air Data Review Checklist, attached, was completed during this assessment to document the review.

The field duplicate pair IA41-021 and FD41-021 results met criteria for all target compounds except 1,1-dichloroethane. These results are an indication of acceptable precision and representativeness of the samples to the locations collected for VOC analysis in air except for 1,1-dichloroethane.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
IA19-001	All VOCs	J or UJ	I	Flow Controller imprecision
IA41-021 FD41-021	1,1-Dichloroethane	J	I	FD imprecision

Qualifiers: *U = Analyte is non-detect at or above the sample-specific reporting limit (RL); UJ = Non-detect is estimated at the RL; J = Result is estimated; EB = Analyte was also present in a Field Equipment Blank; R = Result is rejected and is unusable for project decisions.*

Bias: *L = Low; H = High; I = Indeterminate*

Abbreviations used in Table 2:
FD = Field Duplicate

Data Usability Checklist Review
Method TO-15 SIM Analysis

Client:	Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)
Site:	Former IBM Facility, Endicott, New York Endicott VI 3935
Laboratory:	Alpha Analytical, Mansfield, Massachusetts
SDG:	L1616853
Date(s) of Collection:	June 1, 2016
Number and type Samples & analyses:	4 Indoor Air and 1 Ambient Air samples for ten project-specific VOCs by Method TO-15 SIM
Senior Data Reviewers:	Dr. Nancy C. Rothman, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	June 23, 2016

A Data Usability Checklist Review (DUR) was performed on the SDG identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York*, prepared by Sanborn, Head & Associates, January 2016; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

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The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this data usability checklist review are listed in Table 1. Any deviations noted for sample collection or receipt are included in the attached Data Review Checklist.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
IA57A-001	L1616853-01	6/1/16	Indoor Air	VOCs	Field Sample
IA57A-002	L1616853-02	6/1/16	Indoor Air	VOCs	Field Sample
IA57A-003	L1616853-03	6/1/16	Indoor Air	VOCs	Field Sample
FD57A-001	L1616853-04	6/1/16	Indoor Air	VOCs	Field Duplicate of IA57A-001
AA57A-001	L1616853-05	6/1/16	Ambient Air	VOCs	Field Sample

Analytical method reference:

VOC: Method TO-15 operated in Selected Ion Monitoring (SIM) mode for the analysis of 10 project-specific VOCs [tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, and chloroethane]

All data are considered usable for project decisions as they meet accuracy, precision, and sensitivity requirements of the site Work Plan, NYSDEC ASP, and EPA TO-15, with the understanding of potential uncertainty in qualified results (EB) as listed in Table 2.

The Air Data Review Checklist, attached, was completed during this assessment to document the review.

The field duplicate pair IA57A-001 and FD57A-001 results met criteria for all target compounds. These results are an indication of acceptable precision and representativeness of the samples to the locations collected for VOC analysis in air.

Table 2. Summary of Data Validation Actions

Field Sample ID	**Analyte**	**Qualifier**	**Bias**	**Validation Comments**
IA57A-001 IA57A-002 IA57A-003 FD57A-001	Tetrachloroethene	EB	H	Equipment Blank Action

Qualifiers: *U = Analyte is non-detect at or above the sample-specific reporting limit (RL); UJ = Non-detect is estimated at the RL; J = Result is estimated; EB = Analyte was also present in a Field Equipment Blank; R = Result is rejected and is unusable for project decisions.*

Bias: *L = Low; H = High; I = Indeterminate*

Data Usability Checklist Review
Method TO-15 SIM Analysis

Client:	Sanborn, Head & Associates, Inc., Concord, New Hampshire (SHA)
Site:	Former IBM Facility, Endicott, New York Endicott VI 3935
Laboratory:	Alpha Analytical, Mansfield, Massachusetts
SDG:	L1616856
Date(s) of Collection:	June 2, 2016
Number and type Samples & analyses:	3 Indoor Air and 1 Field Blank sample for ten project-specific VOCs by Method TO-15 SIM
Senior Data Reviewers:	Dr. Nancy C. Rothman, New Environmental Horizons, Inc. Susan D. Chapnick, New Environmental Horizons, Inc.
Date Completed:	June 23, 2016

A Data Usability Checklist Review (DUR) was performed on the SDG identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Work Plan, Indoor Air Assessment, Former IBM Endicott Facility, Endicott, New York*, prepared by Sanborn, Head & Associates, January 2016; NYSDEC Analytical Services Protocol, June 2005 with NYSDEC Modifications to the EPA Region 9 TO-15 QA/QC Criteria, February 2008; USEPA Region 9, *Volatile Organic Compounds (VOCs) in Air (Ambient Air/Soil Vapor/Stack Gas) Samples Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/ Mass Spectrometry (GC/MS), EPA Method TO-15* (January 1999), 01/21/2000 revision; USEPA Region II SOP HW-31, *Validating Air Samples, Volatile Organic Analysis of Ambient Air in Canisters by Method TO-15*, Rev. 4, August 2009; and Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*, Publication EPA/625/R-96/010b, January 1999; 2) to determine if the data met project data quality objectives for acceptable accuracy, precision, sensitivity; and technical usability; and 3) to update the project database with appropriate data quality qualifiers.

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The sample IDs, date of sampling, identification of quality control (QC) samples, if applicable, and the analytical parameters reviewed in this data usability checklist review are listed in Table 1. Any deviations noted for sample collection or receipt are included in the attached Data Review Checklist.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab Sample ID	Collection Date	Matrix	Analytical Parameters	Sample Type
IA57A-001	L1616856-01	6/2/2016	Indoor Air	VOCs	Field Sample
IA57A-002	L1616856-02	6/2/2016	Indoor Air	VOCs	Field Sample
IA57A-003	L1616856-03	6/2/2016	Indoor Air	VOCs	Field Sample
NB57A-001	L1616856-04	6/2/2016	Nitrogen	VOCs	Equipment Blank

Analytical method reference:

VOC: Method TO-15 operated in Selected Ion Monitoring (SIM) mode for the analysis of 10 project-specific VOCs [tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, vinyl chloride, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, and chloroethane]

All data are considered usable for project decisions as they meet accuracy, precision, and sensitivity requirements of the site Work Plan, NYSDEC ASP, and EPA TO-15, with the understanding of potential uncertainty in qualified results (EB) as listed in Table 2.

The Air Data Review Checklist, attached, was completed during this assessment to document the review.

There were no Field Duplicate samples associated with the samples in this SDG; therefore, precision from field collection through analysis could not be assessed.

Table 2. Summary of Data Validation Actions

Field Sample ID	**Analyte**	**Qualifier**	**Bias**	**Validation Comments**
IA57A-001 IA57A-002	Tetrachloroethene	EB	H	Equipment Blank Action

Qualifiers: U = Analyte is non-detect at or above the sample-specific reporting limit (RL); UJ = Non-detect is estimated at the RL; J = Result is estimated; EB = Analyte was also present in a Field Equipment Blank; R = Result is rejected and is unusable for project decisions.

Bias: L = Low; H = High; I = Indeterminate