*8976 Wellington Road*
*Manassas, VA 20109*

January 16, 2009

Robert C. Knizek, P.E.
Director, Remedial Bureau E
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7013

Re: Transmittal of Semiannual Report – Soil Vapor Monitoring Through October 2008
Comprehensive Operations, Maintenance and Monitoring Program
Order on Consent Index # A7-0502-0104, Site # 704014

Dear Mr. Knizek:

Enclosed with this transmittal letter please find our revised Semiannual Soil Vapor Monitoring Report. The revised report reflects clarifications completed at the request of NYSDEC and NYSDOH.

This report has been prepared in accordance with the requirements set forth in the referenced Order on Consent.

Should you have any questions concerning this submittal, please contact me at (703) 257-1606.

Sincerely,

M. E. Meyers

Mitchell E. Meyers
Program Manager

cc: K. Lynch, NYSDEC Region 7
D. Tuohy, NYSDEC - Albany
G. Litwin, NYSDOH – Troy
P. Speranza, EIT

SHA

IMPROVING EARTH

# SEMIANNUAL REPORT
# SOIL VAPOR MONITORING THROUGH OCTOBER 2008

**Comprehensive Operations, Maintenance & Monitoring Program**
**Endicott, New York**

SANBORN, HEAD & ASSOCIATES, INC.

SANBORN, HEAD & ASSOCIATES, INC.
95 High Street ▪ Portland, ME 04101
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January 16, 2009

File No. 2755.01

Mr. Mitchell E. Meyers
IBM Corporate Environmental Affairs
8976 Wellington Road
Manassas, Virginia 20110

Re: Semiannual Report
Soil Vapor Monitoring Through October 2008
Comprehensive Operations, Maintenance and Monitoring Program
Endicott, New York

Dear Mr. Meyers:

We have enclosed our report summarizing soil vapor monitoring conducted in the Village of Endicott, and the Town of Union New York through October 2008. The monitoring is being conducted as a component of the Comprehensive Operations, Maintenance and Monitoring Plan (COM&M Plan). The work is part of IBM's required activities under Administrative Order on Consent #A7-0502-0104 (Order) as agreed upon between IBM and the New York Department of Environmental Conservation (NYSDEC).

We understand that this report will be submitted to the NYSDEC as a part of required deliverables under the Order. Thank you for the opportunity to be of service on this important project.

Very truly yours,

SANBORN, HEAD & ASSOCIATES, INC.

Daniel B. Carr, P.E., P.G.
Principal and Vice President

Erica M. Bradstreet
Senior Project Geologist

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# SEMIANNUAL REPORT
# SOIL VAPOR MONITORING THROUGH OCTOBER 2008

**Comprehensive Operations, Maintenance & Monitoring Program**
**Endicott, NY**

*Prepared for*
**IBM Corporate Environmental Affairs**

*Prepared by*
**Sanborn, Head & Associates, Inc.**

File 2755.01
January 2009

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# EXECUTIVE SUMMARY

This Annual Report presents the findings of routine soil vapor monitoring in the Groundwater Vapor Project area within the Village of Endicott and Town of Union, New York. The monitoring is being conducted at fixed locations within and along the borders of properties to which IBM offered ventilation systems to address the potential for vapor intrusion. The monitoring program has been in place since mid-2004 to track the presence of certain volatile organic compounds (VOCs) – principally trichloroethene (TCE) – that drove the decision for IBM to offer ventilation systems to the property owners. The text, tables, and figures of this report present the data, findings, and inference derived from sampling and laboratory analysis conducted bi-monthly from June through October 2008. It also summarizes a review of apparent trends in groundwater and soil vapor concentrations over the entire period of monitoring.

Since the monitoring program has been in place, concentrations of TCE in soil vapor have generally declined by ½ order of magnitude to several orders of magnitude, out of proportion to improvements in groundwater quality, particularly at foundation depth. As discussed in previous reports, a reduced presence of TCE in soil vapor has been observed both in areas where additional groundwater extraction has been implemented and where no additional remedial actions have been taken. Over the past two years, we have demonstrated that a bi-monthly sampling frequency is warranted to characterize seasonal variations and long-term trends. The data continue to demonstrate a high degree of repeatability and continue to support the limits of ventilation as protective.

It is on the basis of this data that we believe it is appropriate to modify the scope of the monitoring program. Specifically, we propose to reduce the number of locations sampled to a selection of locations four times a year, while continuing to sample all locations twice a year, in February and August, corresponding to seasonal high and low conditions. Other minor refinements to the monitoring program are also discussed in the text.

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20090116 Semiannual Executive Summary.doc

# 1.0 INTRODUCTION

This Semiannual Report for the Endicott Soil Vapor Monitoring Program (Semiannual Report) summarizes the findings of routine soil vapor monitoring program completed through October 2008 under IBM's Comprehensive Operations, Maintenance and Monitoring Plan (COM&M Plan). The objective of the program is to monitor for changes in the presence of certain volatile organic compounds (VOCs) that drove decisions for installation of ventilation systems to address potential for vapors to enter human occupied structures (vapor intrusion potential).

Sanborn Head & Associates, Inc. (SHA) prepared this report for IBM's submittal to the New York Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH), collectively the "Agencies", as a component of deliverables that IBM agreed to provide under the COM&M Plan. The field sampling, analytical laboratory testing, and the preparation of this report were completed in accordance with the Agency-approved COM&M Plan. SHA's services and this document are subject to the limitations outlined in the text and Appendix A.

## 1.1 Background

IBM has installed and is maintaining ventilation systems in buildings within certain areas of the Village of Endicott, and Town of Union, New York. The ventilation systems were installed to address vapor intrusion potential. The limits of properties offered ventilation systems, or the geographic limits of ventilation, are shown on Figure 1. Trichloroethene (TCE) is the primary VOC found in soil vapor within the largest contiguous ventilation area. Other compounds including 1,1,1-Trichloroethane (TCA), tetrachloroethene (PCE) and their biochemical breakdown products are also found in this area, but at lower frequencies of detection and generally at lower concentrations. Multiple sources contribute to the subsurface presence of VOCs that are unrelated to IBM operations.

The limits of ventilation were established based on concurrent sampling of indoor air, substructure soil vapor, and ambient air at representative properties in the first four months of 2003 and confirmed through sampling conducted during two subsequent heating seasons. The soil vapor monitoring program began in August 2004.

Collection, field screening, and laboratory analysis of soil vapor samples was conducted on a monthly basis for fifteen consecutive months from August 2004 to October 2005 and bi-monthly since that time. Soil vapor samples are from permanent installations, referred to as "implants" which are located within and along the periphery of the ventilation areas. The implant locations are shown on Figure 1, relative to the ventilation areas and the nearby monitoring wells.

Where the depth to water table was sufficient, the soil vapor monitoring implants include one installed proximate to the water table (water table depth), and one installed at a depth of 7 to 8 feet below ground surface (bgs) which is roughly equivalent to foundation depth for structures with basements (foundation depth).

Data from the water table depth implants were intended for use as a primary indicator of soil vapor concentration trends, driven primarily by changes in groundwater levels and quality. The data from foundation depth implants have been used to assess possible trends in soil vapor concentrations that may indicate changes in vapor intrusion potential. In some locations where the water table is relatively deep, intermediate depth implants have also been monitored. The implant completion details are summarized in Table 1.

### 1.2 Scope of Work

Since submittal of the Annual Report[1], routine bi-monthly soil vapor monitoring has been conducted in June, August, and October 2008. Samples were collected from installations maintained at thirty-five locations. Graphical summaries depicting groundwater and soil vapor data for TCE are presented in Appendix B.3 as Figures B.1 through B.37. A tabular summary of soil vapor data recorded during the last 12 months is provided on compact disc in Appendix C.

In August 2008, IBM installed two additional vapor implants at the OU#4-Former Ideal Cleaners site, an area where tetrachloroethene (PCE) is the primary compound of concern. The locations of the points designated EN08-38S and EN08-39S are shown on Figure 1. The initial round of sampling was completed in late August 2008. Since that time, the sampling was has been conducted bi-weekly by SHA personnel.

### 1.3 Climatic Conditions and Groundwater Levels during the Monitoring Period

The soil vapor sampling was conducted under a variety of climatic conditions and under conditions of variable groundwater levels. Climatic and groundwater level measurements recorded during the period were reviewed as a context for the findings discussed in Section 2.0.

#### *1.3.1 Climactic Conditions*

Soil vapor concentrations are influenced by the moisture content of soils located between the water table and the ground surface (vadose zone soils). VOC mass transport occurs predominantly in the inter-granular pore space that contains variable amounts of water and gas. In general, infiltration of water into the vadose zone is expected to increase during wet weather outside the growing season when evapotranspiration is minimal, and decline during dry weather in the growing season when vegetation is withdrawing moisture from the subsurface.

Figure 2 depicts the deviation from historical monthly average precipitation through October 2008 as a context for the soil vapor monitoring program. As shown by the plot of cumulative deviation from average precipitation, wetter than average conditions have been recorded from late 2003, after the ventilation limits had largely been established, through the monitoring period discussed in this report. As of October 2008, the cumulative deviation from monthly average precipitation was about +30.5 inches, with a peak of around +33 inches in March 2008. The cumulative deviation of precipitation is compared to the estimated 30 to 100 inches of water

[1] Sanborn, Head & Associates, Inc., June 13, 2008, Annual Report, Soil Vapor Monitoring Through April 2008.

estimated to be residing in the vadose zone in soil moisture profiling. In past reports, we have estimated that infiltration transport times across the vadose zone range from about 2 to 6 years under normal average precipitation. Accordingly, given the duration of wetter than average conditions, it is likely that increased soil moisture conditions may be observed across the entire vadose zone and be reflected in changes in the position of the water table. In other words, the wet weather has been of sufficient duration to raise the water table as there has been sufficient time for displacement of soil moisture across the vadose zone.

Plots depicting records of daily precipitation, temperature, and barometric pressure were prepared based on data available from the Greater Binghamton Airport (GBA). As shown on Figures B.2.1 and B.2.2 in Appendix B, the last three soil vapor sampling events were conducted under rising, steady, and falling barometric pressure conditions. No precipitation was recorded during the June and August sampling events while approximately four tenths of an inch was recorded during the October 2008 sampling.

### *1.3.2 Groundwater Levels*

Since June 2004, IBM has substantially expanded extraction and treatment of VOC-containing groundwater, which has altered groundwater levels and flow directions and induced changes in groundwater water quality within the soil vapor monitoring area. The extraction wells are centered on the largest contiguous ventilation area north of East Main Street and south of North Street and their operation has lowered groundwater levels, substantially dewatering much of the VOC-containing upper water bearing zone. Figure 1 depicts groundwater contours and dewatered "dry" areas as interpreted by Groundwater Sciences Corporation (GSC)[2] in their Semiannual Groundwater Monitoring Status Report that provides additional detail regarding groundwater level and quality trends.

In the report of June 2008[3], we noted an observed decline in water levels of about 3 to 11 feet in wells proximal to implants based on data from January 2007. In contrast, the groundwater elevation contour plan depicted on Figure 1 indicates that water levels at certain locations beneath the largest contiguous ventilation area from North Street to south of Tracy Street were as much as six feet higher in May 2008. The greatest rise in groundwater levels were observed in wells proximal to EN04-9, EN04-29, and EN04-30. However, at approximately 60-percent of implant locations the water level data indicate continued declines by as much as four feet in the area along Tracy Street and Grant Avenue and at least one-half foot in the eastern portion of the monitoring area.

---

[2] Groundwater Sciences Corporation, October 14, 2008, Semiannual Groundwater Data Summary Report, Endicott, New York. *Figure 1-3, Groundwater Elevation Contour Map Upper Aquifer Water Table – May 29, 2008, received electronically November 6, 2008*.

[3] Sanborn, Head & Associates, Inc., June 5, 2007, Annual Report, Soil Vapor Monitoring through April 2007, pg 4.

## 2.0 DATA AND FINDINGS

Overall, the data from sampling of soil vapor monitoring points continue to support the geographic limits of ventilation as protective. As discussed further in Section 2.2, soil vapor concentrations at foundation depth near and within the limits of ventilation have generally declined, or have not materially increased, at the majority of monitoring locations since the limits of ventilation were established.

The data recorded in three monitoring events conducted since April 2008 continue to show a pattern of declining concentrations from the fall through spring followed by increasing concentrations during summer months. As documented in past reports, we believe that this cyclic pattern now observed for a four year period can be explained by cycling of moisture in the vadose zone.

### 2.1 Overall Trends in Groundwater Quality

Groundwater quality data compiled by GSC have been posted on graphical time-series plots included as Appendix B.3. In general, these plots show less than one-half order of magnitude variation in TCE concentration in samples of groundwater. As noted below, the soil vapor data has continued to show little temporal correlation with groundwater data.

### 2.2 Overall Trends in Soil Vapor Concentrations

Plan view graphics to aid in communicating soil vapor concentrations trends are included in the report as Figure 3. Figures 3A and 3B were generated based on average TCE data collected during the first non-heating season after vapor implants were installed (August through October 2004), and Figures 3C and 3D reflect averaged data recorded in the last non-heating season (April through October 2008). Accordingly, the images depict data from sampling from both foundation depth and water table depth, about four years apart. The images support an overall reduced presence of VOCs, both at foundation depth and the water table depth implants since establishment of the limits of ventilation. The data show reductions approaching or exceeding an order of magnitude both near and away from areas of increased groundwater withdrawal.

### 2.3 OU#4 Soil Vapor Monitoring

Data recorded in sampling of soil vapor at the two new soil vapor implants in the OU#4 area is summarized in a memorandum report included as Appendix B.4. The PCE results to date are shown on Exhibit A:

Exhibit A – PCE in Soil Vapor from OU#4 Implants

As illustrated, PCE has been detected at approximately four orders of magnitude greater concentrations at EN08-39, located in the southeast corner of OU#4. The analytical results from four sampling events conducted by SHA indicate lower concentrations since the first sampling.

### 2.4 Quality Assurance/Quality Control

The following is a summary of Quality Assurance/Quality Control (QA/QC) measures taken in accordance with Project Data Quality Objectives (DQO). QA/QC measures include the use of tracer gas in the field, field screening of soil vapor samples, and laboratory measures for quality assurance samples including duplicates, equipment blanks, and laboratory control samples. New Environmental Horizons, Inc. (NEH) completed an independent data validation and usability assessment of the data. All data collected during the period were considered usable and met the project data quality objectives. Less than 1% of the data were subject to data qualifier "flags" indicating the results were "estimated" values. The NEH data flags are included in Table C.1. Copies of the NEH Data Usability Assessment reports are included in Appendix C.

## 3.0 CONCLUSIONS AND RECOMMENDATIONS

IBM has successfully implemented a program of soil vapor monitoring for over five years since substantial establishment of the limits of ventilation. The data continue to support the limits of ventilation as conservative in that all of the monitoring locations near the ventilation limits have exhibited only trace concentrations, or a stable or declining VOC presence. Overall, the data continue to indicate a declining VOC presence in soil vapor out of proportion to improvements in groundwater quality and apparently attributable to both natural processes and IBM's groundwater remediation efforts.

Over the past two years, we have demonstrated that a bi-monthly sampling frequency is warranted to characterize seasonal variations and long-term trends. The data continue to demonstrate a high degree of repeatability. It is on the basis of this data that we believe the scope of monitoring can be reduced without materially limiting our ability to document and communicate apparent temporal or spatial trends.. Specifically, as detailed in the Table .B.5.1 in Appendix B.5, we propose to continue sampling on a bi-monthly basis, or six times per year. However, for all but two events we propose to limit the sampling to a selection of representative locations.

The twelve implants chosen[4] for bi-monthly sampling as listed in Table B.5.1 were selected to provide coverage of the geographic area and bias to locations where substantial VOC concentrations have been found in past sampling. The selected implants consistently exhibit a detectable presence of TCE as well as detections of PCE and cis1,2-Dichloroethene (cDCE) which will allow tracking of concentration trends across the ventilation areas. The locations omitted from the bimonthly sampling include four locations where with TCE has not been detected, and 10 locations where the compound was only detected at deminimis concentrations with no observable temporal trend. Other locations omitted from the bi-monthly sampling rounds include those excluded based on geographic redundancy. Also as shown on Table B.5.1, we propose to sample the greater set of locations twice a year in February and August, corresponding to seasonal high and low conditions soil vapor conditions observed historically.

We believe that the continuing monitoring of representative locations on a bimonthly basis with two comprehensive events corresponding to seasonal high and low soil vapor conditions will allow for substantially similar graphical reporting. As shown below in Exhibit B and on Figures B.5.1 and B.5.2, the average of concentrations recorded in February and August samplings are comparable to the arithmetic average of values for the heating and non-heating season, respectively.

[4] We propose that the following implant locations continue to be sampled six times per year EN04-2, EN04-7, EN04-9, EN04-11, EN04-12, EN04-17, EN07-28, EN04-29, EN04-30, EN05-33, EN05-34, and EN06-37.

Exhibit B- Scatterplot Comparison of Heating and Non-Heating Season Averages with Values Recorded in February and August 2008.

We also propose that the intermediate depth implants be eliminated from the sampling schedule. The locations will be maintained and could be added to the sampling program should anomalous changes be observed in sampling of the water table and foundation depth implants.

Finally, we propose eliminating field screening of tedlar bag samples with photoionization detector (PID) and flame ionization detectors (FID). This practice was initiated to screen for particularly elevated vapor concentrations that would require substantial dilution at the analytical laboratory. Such conditions have not been found in four years of sampling. Such screening has not been sufficiently correlated to soil vapor sampling results to warrant continuation of this practice.

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# TABLES

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# TABLE 1
## Summary of Soil Vapor Monitoring Implants
Semiannual Report - Soil Vapor Monitoring Through October 2008
Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

| Location Designation [1] | Installation Date | Implant Type [2] | | Subsurface Conditions at Installation | | | | Completion Details | Groundwater Conditions At Installation | | | May 2008 Groundwater Conditions | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Remediation Progress Monitoring | Ventilation Perimeter Monitoring | Nearby Monitoring Well [3] | Date Recorded/ Depth to Water Table [4] | Nominal Implant Depth ( ft. bgs) | Inferred Stratum Screened | | Distance Above Water Table[5] (ft) | Vadose Zone Between Shallow and Deep Implants[6] (ft) | Saturated Screened Interval[7] (ft) | Distance Above Water Table[5] (ft) | Saturated Screened Interval[7] (ft) | Difference [8] (ft) |
| EN04-1S | Jul-04 | | X | EN-094 | 7/26/04 28.47 | 8 | Fill Over Sand | 0-1' Concrete Surface Seal<br>1-6.8 Bentonite Seal<br>6.8-8.5' Sand Filter Pack<br>8-8.5' Screened Interval | 5.5 | 13.5 | 10.5 | 6.8 | 9.2 | -1.3 |
| EN04-1D | Jul-04 | | | | | 23 | Sand | 0-1' Concrete Surface Seal<br>1-22' Bentonite Seal<br>22-23' Glass Bead Filter Pack<br>22.5-23' Screened Interval | | | | | | |
| EN04-2S | Jul-04 | X | | EN-450 | 8/5/04 25.17 | 8 | Fill | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 5.2 | 11 | 4.8 | 8 | 2 | -2.8 |
| EN04-2D | Jul-04 | | | | | 20 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-19' Bentonite Seal<br>19-20' Glass Bead Filter Pack<br>19.5-20' Screened Interval | | | | | | |
| EN04-3S | Jul-04 | | X | EN-203 | 7/26/04 24.86 | 8 | Sand | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 5.9 | 10 | 10.1 | 11.6 | 4.4 | -5.7 |
| EN04-3D | Jul-04 | | | | | 19 | Sand | 0-1' Concrete Surface Seal<br>1-18' Bentonite Seal<br>18-19' Glass Bead Filter Pack<br>18.5-19' Screened Interval | | | | | | |
| EN04-4S | Jul-04 | | X | EN-022 | 8/5/04 22.98 | 8 | Fill | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 6 | 8 | 0 | 6 | 0 | 0 |
| EN04-4D | Jul-04 | | | | | 17 | Gravel | 0-1' Concrete Surface Seal<br>1-16' Bentonite Seal<br>16-17' Glass Bead Filter Pack<br>16.5-17' Screened Interval | | | | | | |
| EN04-5S | Jul-04 | | X | EN-459A | 8/18/04 40.01 | 8 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 5 | 25 | 10 | 6.2 | 8.8 | -1.2 |
| EN04-5D | Jul-04 | | | | | 34 | Sand | 0-1' Concrete Surface Seal<br>1-33' Bentonite Seal<br>33-34' Glass Bead Filter Pack<br>33.5-34' Screened Interval | | | | | | |
| EN04-6S | Jul-04 | | X | EN-310 | 7/29/04 <28 | 8 | Sand | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 1 | 18 | 0 | 1 | 0 | 0 |
| EN04-6D | Jul-04 | | | | | 27 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-26' Bentonite Seal<br>26-27' Glass Bead Filter Pack<br>26.5-27' Screened Interval | | | | | | |
| EN04-7S | Jul-04 | X | | EN-311 | 7/28/04 43.7 | 8 | Sand Over Sand & Gravel | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 9.7 | 25 | 1.3 | 9.2 | 1.8 | 0.5 |
| EN04-7D | Jul-04 | | | | | 34 | Poorly Sorted Sand | 0-1' Concrete Surface Seal<br>1-33' Bentonite Seal<br>33-34' Glass Bead Filter Pack<br>33.5-34' Screened Interval | | | | | | |

# TABLE 1
## Summary of Soil Vapor Monitoring Implants
Semiannual Report - Soil Vapor Monitoring Through October 2008
Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

| Location Designation [1] | Installation Date | Implant Type [2] | | Subsurface Conditions at Installation | | | | Completion Details | Groundwater Conditions At Installation | | | May 2008 Groundwater Conditions | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Remediation Progress Monitoring | Ventilation Perimeter Monitoring | Nearby Monitoring Well [3] | Date Recorded/ Depth to Water Table [4] | Nominal Implant Depth ( ft. bgs) | Inferred Stratum Screened | | Distance Above Water Table[5] (ft) | Vadose Zone Between Shallow and Deep Implants[6] (ft) | Saturated Screened Interval[7] (ft) | Distance Above Water Table[5] (ft) | Saturated Screened Interval[7] (ft) | Difference [8] (ft) |
| EN04-8S | Jul/Aug-02 | X | | EN-430 | 4/16/04 20.84 | 8 | Sand & Gravel | 0-2' Concrete Surface Seal<br>2-6.75' Bentonite Seal<br>6.75-7.75' Glass Bead Filter Pack | 8 | 2.8 | 2.2 | NM | NM | NM |
| EN04-8D | Jul/Aug-02 | | | | | 12 | Sand & Gravel | 0-2' Concrete Surface Seal<br>2-10.5' Bentonite Seal<br>10.5-11.7' Glass Bead Filter Pack | | | | | | |
| EN04-9S | Jul/Aug-02 | X | | EN-279 | 11/3/03 26.23 | 8 | Welll Sorted Sand | 0-2' Concrete Surface Seal<br>2-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 6 | 11 | 8 | 9.5 | 4.5 | -3.5 |
| EN04-9D | Jul/Aug-02 | | | | | 20 | Well Sorted Sand | 0-2' Concrete Surface Seal<br>2-19' Bentonite Seal<br>19-20' Glass Bead Filter Pack<br>19.5-20' Screened Interval | | | | | | |
| EN04-10S | Jul/Aug-02 | X | | EN-077 | 11/3/04 26.18 | 8 | Gravel | 0-2' Concrete Surface Seal<br>2-6.5' Bentonite Seal<br>6.5-7.5' Glass Bead Filter Pack<br>7-7.5' Screened Interval | 6.3 | 11.2 | 1.3 | 6.4 | 1.2 | -0.1 |
| EN04-10D | Jul/Aug-02 | | | | | 20 | Well Sorted Sand | 0-2' Concrete Surface Seal<br>2-18.7' Bentonite Seal<br>18.7-19.7' Glass Bead Filter Pack | | | | | | |
| EN04-11S | Jul-04 | X | | EN-215A | 7/29/04 28.17 | 8 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8.5' Sand Filter Pack<br>8-8.5' Screened Interval | 7.2 | 11.5 | 7.2 | 14.4 | 0 | -7.2 |
| EN04-11D | Jul-04 | | | | | 21 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-20' Bentonite Seal<br>20-21' Glass Bead Filter Pack<br>20.5-21' Screened Interval | | | | | | |
| EN04-12S | Jul-04 | X | | EN-214A | 7/30/04 25.18 | 8 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 6.2 | 10 | 11.8 | 11.6 | 6.4 | -5.4 |
| EN04-12D | Jul-04 | | | | | 19 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-18' Bentonite Seal<br>18-19' Glass Bead Filter Pack<br>18.5-19' Screened Interval | | | | | | |
| EN04-13S | Jul-04 | X | | EN-449 | 7/29/04 36.05 | 8 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 6 | 21 | 13.5 | 10.8 | 8.7 | -4.8 |
| EN04-13D | Jul-04 | | | | | 30 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-29' Bentonite Seal<br>29-30' Glass Bead Filter Pack<br>29.5-30' Screened Interval | | | | | | |
| EN04-14S | Jul-04 | X | | EN-462 | 8/5/04 40.09 | 8 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 5 | 25 | 4 | 5.1 | 3.9 | -0.1 |
| EN04-14D | Jul-04 | | | | | 34 | Poorly Sorted Sand | 0-1' Concrete Surface Seal<br>1-33' Bentonite Seal<br>33-34' Glass Bead Filter Pack<br>33.5-34' Screened Interval | | | | | | |

# TABLE 1
## Summary of Soil Vapor Monitoring Implants
Semiannual Report - Soil Vapor Monitoring Through October 2008
Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

| Location Designation [1] | Installation Date | Implant Type [2] | | Subsurface Conditions at Installation | | | | Completion Details | Groundwater Conditions At Installation | | | May 2008 Groundwater Conditions | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Remediation Progress Monitoring | Ventilation Perimeter Monitoring | Nearby Monitoring Well [3] | Date Recorded/ Depth to Water Table [4] | Nominal Implant Depth ( ft. bgs) | Inferred Stratum Screened | | Distance Above Water Table[5] (ft) | Vadose Zone Between Shallow and Deep Implants[6] (ft) | Saturated Screened Interval[7] (ft) | Distance Above Water Table[5] (ft) | Saturated Screened Interval[7] (ft) | Difference [8] (ft) |
| EN04-15S | Jul-04 | | X | EN-162 | 7/29/04 35.33 | 8 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 5.3 | 21 | 6.2 | 6.9 | 4.6 | -1.6 |
| EN04-15D | Jul-04 | | | | | 30 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-29' Bentonite Seal<br>29-30' Glass Bead Filter Pack<br>29.5-30' Screened Interval | | | | | | |
| EN04-16S | Jul-04 | X | | EN-206 | 7/27/04 39.54 | 8 | Fill | 0-1' Concrete Surface Seal<br>1-7.3' Bentonite Seal<br>7.3-8.5' Sand Filter Pack<br>8-8.5' Screened Interval | 5.5 | 24.5 | 10.5 | 8.4 | 7.6 | -2.9 |
| EN04-16D | Jul-04 | | | | | 34 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-33' Bentonite Seal<br>33-34' Glass Bead Filter Pack<br>33.5-34' Screened Interval | | | | | | |
| EN04-17S | Jul-04 | X | | EN-401 | 7/29/04 35.5 | 8 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 7.5 | 19 | 3.5 | 9.2 | 1.8 | -1.7 |
| EN04-17D | Jul-04 | | | | | 28 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-27' Bentonite Seal<br>27-28' Glass Bead Filter Pack<br>27.5-28' Screened Interval | | | | | | |
| EN04-18S | Jul-04 | | X | EN-217A | 7/29/04 36.69 | 8 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 5.9 | 22 | 5.3 | 8.5 | 2.7 | -2.6 |
| EN04-18D | Jul-04 | | | | | 31 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-30' Bentonite Seal<br>30-31' Glass Bead Filter Pack<br>30.5-31' Screened Interval | | | | | | |
| EN04-19S | Jul-04 | X | | EN-426 | 7/26/04 35.39 | 8 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 5.9 | 20.5 | 4.6 | 7.2 | 3.3 | -1.3 |
| EN04-19D | Jul-04 | | | | | 29.5 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-28.5' Bentonite Seal<br>28.5-29.5' Glass Bead Filter Pack | | | | | | |
| EN04-20S | Jul-04 | | X | EN-207 | 7/27/04 43.2 | 8 | Gravel | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 7.7 | 25.5 | 4.3 | 8.1 | 3.9 | -0.4 |
| EN04-20I | Jul-04 | | | | | 24 | Gravel | 0-1' Concrete Surface Seal<br>1-23' Bentonite Seal<br>23-24' Glass Bead Filter Pack<br>23.5-24' Screened Interval | | 9.5 | | | | |
| EN04-20D | Jul-04 | | | | | 36 | Sand | 0-1' Concrete Surface Seal<br>1-20' Formation Material<br>20-33.5' Bentonite Seal<br>33.5-35.5' Glass Bead Filter Pack | | | | | | |

# TABLE 1
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Semiannual Report - Soil Vapor Monitoring Through October 2008
Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

| Location Designation [1] | Installation Date | Implant Type [2] | | Subsurface Conditions at Installation | | | | Completion Details | Groundwater Conditions At Installation | | | May 2008 Groundwater Conditions | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Remediation Progress Monitoring | Ventilation Perimeter Monitoring | Nearby Monitoring Well [3] | Date Recorded/ Depth to Water Table [4] | Nominal Implant Depth ( ft. bgs) | Inferred Stratum Screened | | Distance Above Water Table[5] (ft) | Vadose Zone Between Shallow and Deep Implants[6] (ft) | Saturated Screened Interval[7] (ft) | Distance Above Water Table[5] (ft) | Saturated Screened Interval[7] (ft) | Difference [8] (ft) |
| EN04-21S | Jul-04 | | X | EN-468 | 10/14/04 34.43 | 7.5 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-6.5' Bentonite Seal<br>6.5-7.5' Glass Bead Filter Pack<br>7-7.5' Screened Interval | 12 | 14.5 | 4 | 14.2 | 1.8 | -2.2 |
| EN04-21D | Jul-04 | | | | | 23 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-12' Formation Material<br>12-22' Bentonite Seal<br>22-23' Glass Bead Filter Pack<br>22.5-23' Screened Interval | | | | | | |
| EN04-22S | Jul/Aug-02 | X | | EN-80* and EN-393* | 7/27/04 18.75 | 8 | Well Sorted Sand | 0-2' Concrete Surface Seal<br>2-7.1' Bentonite Seal<br>7.1-7.5' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 2.8 | 7 | 6 | 2.5 | 6.3 | 0.3 |
| EN04-22D | Jul/Aug-02 | | | | | 16 | Well Sorted Sand | 0-2' Concrete Surface Seal<br>2-15' Bentonite Seal<br>15-16' Glass Bead Filter Pack<br>15.5-16' Screened Interval | | | | | | |
| EN04-23S | Jul-04 | | X | EN-174 | 7/30/04 26.48 | 8 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 3.5 | 14 | 4.5 | 5.4 | 2.6 | -1.9 |
| EN04-23I | Jul-04 | | | | | 15 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-14' Bentonite Seal<br>14-15' Glass Bead Filter Pack<br>14.5-15' Screened Interval | | 7 | | | | |
| EN04-23D | Jul-04 | | | | | 23 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-22' Bentonite Seal<br>22-23' Glass Bead Filter Pack<br>22.5-23' Screened Interval | | | | | | |
| EN04-24S | Jul-04 | | X | EN-65 | 7/29/04 22.89 | 8 | Fill | 0-1' Concrete Surface Seal<br>1-6.5' Bentonite Seal<br>6.5-8.5' Sand Filter Pack<br>8-8.5' Screened Interval | 3.9 | 9.5 | 17.8 | 5.6 | 16.1 | -1.7 |
| EN04-24D | Jul-04 | | | | | 19 | Poorly Sorted Sand | 0-1' Concrete Surface Seal<br>1-18' Bentonite Seal<br>18-19' Glass Bead Filter Pack<br>18.5-19' Screened Interval | | | | | | |
| EN04-25S | Aug-04 | | X | EN-395 | 7/29/04 18.88 | 8 | Fill | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 1.4 | 8.5 | 5 | 1.7 | 4.7 | -0.3 |
| EN04-25D | Aug-04 | | | | | 17.5 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-16.5' Bentonite Seal<br>16.5-17.5' Glass Bead Filter Pack | | | | | | |
| EN04-26S | Jul-04 | X | | EN-304 | 7/30/04 17.39 | 8 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 3.4 | 5 | 6.6 | 4.1 | 5.9 | -0.7 |
| EN04-26D | Jul-04 | | | | | 14 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-13' Bentonite Seal<br>13-14' Glass Bead Filter Pack<br>13.5-14' Screened Interval | | | | | | |
| EN04-27S | Jul-04 | | X | EN-417A | 7/29/04 8.91 | 8 | Fill | 0-1' Concrete Surface Seal<br>1-6' Bentonite Seal<br>6-7' Glass Bead Filter Pack<br>6.5-7' Screened Interval | 0.9 | - | 14 | NM | NM | NM |

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Endicott, New York

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Remediation Progress Monitoring | Ventilation Perimeter Monitoring | Nearby Monitoring Well [3] | Date Recorded/ Depth to Water Table [4] | Nominal Implant Depth ( ft. bgs) | Inferred Stratum Screened | | Distance Above Water Table[5] (ft) | Vadose Zone Between Shallow and Deep Implants[6] (ft) | Saturated Screened Interval[7] (ft) | Distance Above Water Table[5] (ft) | Saturated Screened Interval[7] (ft) | Difference [8] (ft) |
| EN07-28S | Jun-07 | | X | EN-387A | 6/5/2007 22 | 7 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 3 | 11 | 9.5 | 4.9 | 7.6 | -1.9 |
| EN07-28I | Jun-07 | | | | | 10 | Sand & Gravel | 0-1' Concrete Surface Seal<br>1-9' Bentonite Seal<br>9-10' Glass Bead Filter Pack<br>9.5-10' Screened Interval | | | | | | |
| EN07-28D | Jun-07 | | | | | 19 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-18' Bentonite Seal<br>18-19' Glass Bead Filter Pack<br>18.5-19' Screened Interval | | | | | | |
| EN05-29S | 4/18/2005 | X | | EN-437 | 8/5/04 23.87 | 7.5 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-5.5' Bentonite Seal<br>5.5-7.5' Glass Bead Filter Pack<br>7-7.5' Screened Interval | 3.9 | 11 | 11.1 | 10 | 5 | -6.1 |
| EN05-29I | 4/18/2005 | | | | | 12.5 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-11' Bentonite Seal<br>11-12.5' Glass Bead Filter Pack<br>12-12.5' Screened Interval | | | | | | |
| EN04-29D | Jul-04 | | | | | 20 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-19' Bentonite Seal<br>19-20' Glass Bead Filter Pack<br>19.5-20' Screened Interval | | | | | | |
| EN04-30S | Jul-04 | X | | EN-438 | 8/5/04 26.02 | 9 | Well sorted Sand | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 6 | 11 | 8 | 5.7 | 8.3 | 0.3 |
| EN04-30D | Jul-04 | | | | | 20 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-19' Bentonite Seal<br>19-20' Glass Bead Filter Pack<br>19.5-20' Screened Interval | | | | | | |
| EN04-31S | Aug-04 | | X | EN-453 | 8/25/04 19.48 | 10 | Well sorted Sand | 0-1' Concrete Surface Seal<br>1-9' Bentonite Seal<br>9-10 Glass Bead Filter Pack<br>9.5-10' Screened Interval | 0.5 | 8 | 12 | 5.1 | 7.4 | -4.6 |
| EN04-31D | Aug-04 | | | | | 19 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-18' Bentonite Seal<br>18-19' Glass Bead Filter Pack<br>18.5-19' Screened Interval | | | | | | |
| EN04-32S | Aug-04 | | X | EN-457A | 8/23/04 21.36 | 8 | Well sorted Sand | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 3.4 | 9 | 5 | 8.4 | 0 | -5 |
| EN04-32D | Aug-04 | | | | | 18 | Sand | 0-1' Concrete Surface Seal<br>1-17' Bentonite Seal<br>17-18' Glass Bead Filter Pack<br>17.5-18' Screened Interval | | | | | | |

# TABLE 1
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| Location Designation [1] | Installation Date | Implant Type [2] | | Subsurface Conditions at Installation | | | | Completion Details | Groundwater Conditions At Installation | | | May 2008 Groundwater Conditions | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Remediation Progress Monitoring | Ventilation Perimeter Monitoring | Nearby Monitoring Well [3] | Date Recorded/ Depth to Water Table [4] | Nominal Implant Depth ( ft. bgs) | Inferred Stratum Screened | | Distance Above Water Table[5] (ft) | Vadose Zone Between Shallow and Deep Implants[6] (ft) | Saturated Screened Interval[7] (ft) | Distance Above Water Table[5] (ft) | Saturated Screened Interval[7] (ft) | Difference [8] (ft) |
| EN05-33S | Apr-05 | X | | EN-162 | 4/19/04 34.36 | 7.5 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-5.8' Bentonite Seal<br>5.8-7.5' Glass Bead Filter Pack<br>7-7.5' Screened Interval | 2.3 | 22.5 | 6.2 | 4.9 | 3.6 | -2.6 |
| EN05-33I21 | Apr-05 | | | | | 21.5 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-19' Bentonite Seal<br>19-21.5' Glass Bead Filter Pack<br>21-21.5' Screened Interval | | | | | | |
| EN05-33I29 | Apr-05 | | | | | 29 | Poorly Sorted Sand and Gravel | 0-1' Concrete Surface Seal<br>1-27.7' Bentonite Seal<br>27.7-29' Glass Bead Filter Pack<br>28.5-29' Screened Interval | | | | | | |
| EN05-33D | Apr-05 | | | | | 32 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-30' Bentonite Seal<br>30-32' Glass Bead Filter Pack<br>31.5-32' Screened Interval | | | | | | |
| EN05-34S | Apr-05 | X | | EN-304 | 4/18/2004 16.67 | 8 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 3.2 | 4 | 6.6 | 4.6 | 5.2 | -1.4 |
| EN05-34I | Apr-05 | | | | | 11 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-10' Bentonite Seal<br>10-11' Glass Bead Filter Pack<br>10.5-11' Screened Interval | | | | | | |
| EN05-34D | Apr-05 | | | | | 13.5 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-12' Bentonite Seal<br>12-13.5' Glass Bead Filter Pack<br>13-13.5' Screened Interval | | | | | | |
| EN06-35S | Jan-06 | | X | EN-460A | 8/11/04 40.2 | 8 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-7.2' Bentonite Seal<br>7.2-8.5' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 6.2 | 25.3 | 10 | 6.8 | 9.4 | -0.6 |
| EN06-35I16 | Jan-06 | | | | | 16 | Poorly Sorted Sand and Gravel | 8.5-14.7' Bentonite Seal<br>14.7-16.6' Glass Bead Filter Pack<br>15.5-16' Screened Interval | | | | | | |
| EN06-35I24 | Jan-06 | | | | | 24 | Well Sorted Sand | 16.6-22.3' Bentonite Seal<br>22.3-24.3' Glass Bead Filter Pack<br>23.5-24' Screened Interval | | | | | | |
| EN06-35D | Jan-06 | | | | | 34 | Poorly Sorted Sand and Gravel | 24.3-33.3' Bentonite Seal<br>33.3-34.3' Glass Bead Filter Pack<br>33.8-34.3' Screened Interval | | | | | | |
| EN06-36S | Jan-06 | | X | EN-459A | 8/18/04 40.01 | 8 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-6.9' Bentonite Seal<br>6.9-8.6' Sand Filter Pack<br>7.5-8.0' Screened Interval | 7 | 23.8 | 10 | 8.2 | 8.8 | -1.2 |
| EN06-36I12 | Jan-06 | | | | | 12 | Poorly Sorted Sand and Gravel | 8.6-10.5 Bentonite Seal<br>10.5-11.5' Glass Bead Filter Pack<br>11.5-12.' Screened Interval | | | | | | |
| EN06-36I22 | Jan-06 | | | | | 22 | Well Sorted Sand | 12.5-20.9' Bentonite Seal<br>20.9-22.5' Glass Bead Filter Pack<br>21.5-22.' Screened Interval | | | | | | |
| EN06-36D | Jan-06 | | | | | 33 | Poorly Sorted Sand and Gravel | 22.5-31.8' Bentonite Seal<br>31.8-34' Glass Bead Filter Pack<br>32.5-33' Screened Interval | | | | | | |

# TABLE 1
## Summary of Soil Vapor Monitoring Implants
Semiannual Report - Soil Vapor Monitoring Through October 2008

Comprehensive Operations, Maintenance, and Monitoring Program

Endicott, New York

| Location Designation [1] | Installation Date | Implant Type [2] | | Subsurface Conditions at Installation | | | | Completion Details | Groundwater Conditions At Installation | | | May 2008 Groundwater Conditions | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Remediation Progress Monitoring | Ventilation Perimeter Monitoring | Nearby Monitoring Well [3] | Date Recorded/ Depth to Water Table [4] | Nominal Implant Depth ( ft. bgs) | Inferred Stratum Screened | | Distance Above Water Table[5] (ft) | Vadose Zone Between Shallow and Deep Implants[6] (ft) | Saturated Screened Interval[7] (ft) | Distance Above Water Table[5] (ft) | Saturated Screened Interval[7] (ft) | Difference [8] (ft) |
| EN06-37S | Jan-06 | | X | EN-394 | 7/27/04<br>22.3 | 8 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-7' Bentonite Seal<br>7-8' Glass Bead Filter Pack<br>7.5-8' Screened Interval | 1.3 | 12 | 3.2 | 1.5 | 3.0 | -0.2 |
| EN06-37I | Jan-06 | | | | | 12 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-11' Bentonite Seal<br>11-12' Glass Bead Filter Pack<br>11.5-12' Screened Interval | | | | | | |
| EN06-37D | Jan-06 | | | | | 21 | Well Sorted Sand | 0-1' Concrete Surface Seal<br>1-20' Bentonite Seal<br>20-21' Glass Bead Filter Pack<br>20.5-21' Screened Interval | | | | | | |

Notes:

1. This table is intended to summarize implant depths, subsurface conditions and completion details for soil vapor monitoring implants used as part of IBM's Comprehensive Operations, Maintenance and Monitoring program in Endicott, New York.

2. Remediation Progress Monitoring implants are intended to monitor ongoing groundwater remediation activities within and on the boundary of the area where IBM is currently remediating groundwater. Ventilation Progress Perimeter Monitoring implants are intended to monitor conditions at or near the limits of the Ventilation Area.

3. The "nearby monitoring wells" field identifies the monitoring well used to characterize groundwater quality proximate to the implant location, typically within 20 feet horizontally. Entries flagged with an asterisk are well locations more remote from the implant location.

4. The "depth to water table" field is based on depth to water measurements recorded from top of well casing (TOC) as measured by SHA and GSC personnel between July 26 and August 5, 2004 and by SHA on April 18 and 19, 2005. Water levels indicated by an asterisk are nominal water levels based on monitoring wells more than approximately 20 feet from the soil vapor implant.

5. The "Distance Above Water Table" field reflects the approximate vertical distance between the deep implant and the water table at the time of implant installation and January/February 2007. During implant installation, drilling depths were generally targeted to 5' above the water table based on current available information. The actual separation will vary with fluctuations in water level conditions and may be greater or less.

6. The "Vadose Zone Between Shallow and Deep Implants" field identifies the thickness of unsaturated soils between the implants and represents to the distance between the top of the glass bead filter pack of the deeper implant and the bottom of the implant screen of the shallow implant.

7. The "Saturated Screened Interval" field lists the approximate thickness of upper aquifer that the well is screened across which is based on boring and well completion logs provided by others and the depth to water table recorded around the time of implant installation and in January/February 2007. The actual saturated screen interval will vary with fluctuations in groundwater levels.

8. The "Difference" field calculates the change in saturated screened interval from around the time of implant installation to May 2008. A negative number indicates the water table has dropped at that location. The change in saturated thickness was used to calculate an updated distance above water table for the deep implant at each location.

**FIGURES**

SHA
IMPROVING EARTH

## NOTES

1. This figure is intended to depict soil vapor monitoring locations that have been established and maintained as part of the Comprehensive Operations, Maintenance & Monitoring Program. The locations of the soil vapor monitoring implants are based on taped measurements relative to physical features in the field and are accurate only to the degree implied by the method used.

2. The base map information presented below is adapted from four AutoCAD drawings entitled "Endicott2000.dwg", "Union2000.dwg", "Unioneast.dwg", and "Endicottpln.dwg". The drawings were provided by the Broome County mapping division and were received by SHA on October 10, 2002. The building outlines and other site features are based on an AutoCAD drawing entitled "9_03_base.dwg" provided by Groundwater Sciences Corporation (GSC) of Harrisburg, Pennsylvania to SHA in September 2003. The locations of groundwater monitoring and recovery wells are based on an AutoCAD drawing by GSC submitted to SHA on 05/17/2004 entitled "2007N006.dwg". The well locations are reportedly based on field surveys performed in 2003 and 2004. For wells installed in July and August 2004, well locations are based on northing and easting coordinates provided on draft well logs provided to SHA on 09/21/2004.

3. Groundwater contours, flow directions, flow divides, groundwater monitoring and extraction wells, and areas of saturated thickness <2' or "dry" were adapted from a drawing by GSC transmitted to SHA on 11/20/2008 entitled 22007-306sha.dwg. The contours represent inferred groundwater elevations based on groundwater measurements from May 29, 2008.

4. The limits of ventilation shown in red encompass properties where IBM has offered to install a ventilation system. The ventilation areas were identified under the review of the New York State Departments of Environmental Conservation and Health based on results of sampling foundation level soil vapor, substructure soil vapor, indoor air, and outdoor air completed between November 2002 and March 2005.

## LEGEND

- Limits of Ventilation
- Mailing address, arrow indicates facing street
- EN04-1 Soil Vapor Monitoring Location – Perimeter Monitoring
- EN04-1 Soil Vapor Monitoring Location – Remediation Progress Monitoring
- EN08-1 Soil Vapor Monitoring Location – OU# 4
- EN-430 Upper Aquifer Monitoring Well
- EN-428 Upper Aquifer Interceptor Extraction Well
- 810 Groundwater Elevation Contour (Feet AMSL)
- Inferred direction of groundwater flow
- Area of unsaturated soil in the upper aquifer
- Area where saturated thickness is less than 2'
- Groundwater Divide, dashed where less constrained

| NO. | DATE | DESCRIPTION | BY |
|---|---|---|---|

SHA
IMPROVING EARTH

DRAWN BY: EMB
DESIGNED BY: EMB
CHECKED BY: DBC
REVIEWED BY: LJJ
PROJECT MGR: EMB
PIC: DBC
DATE: Jan 09

Semiannual Report – Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance & Monitoring Program
Endicott, New York

# Soil Vapor Implant Location Plan

PROJECT NUMBER: 2755.00

FIGURE NUMBER: 1

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**Figure 2**
**Historical Precipitation Records**
Semiannual Report - Soil Vapor Monitoring through October 2008
Endicott, New York

Notes:
1. Precipitation records recorded for the Greater Binghamton Airport (GBA) for the year of monitoring and monthly average precipitation records for the 53-year period of record were obtained from the National Climactic Data Center (NCDC) at the National Oceanic and Atmospheric Administration (NOAA). The climactic monitoring station is located approximately 10 miles northeast and 705 feet higher in elevation than the soil vapor monitoring area.

Figure 3

# Comparisons of TCE Soil Vapor Concentrations Non Heating Seasons

Semiannual Report - Soil Vapor Monitoring Through October 2008

Comprehensive Operations, Maintenance, & Monitoring Program

Endicott, New York

Drawn By: S. Warner
Designed By: D. Carr
Reviewed By: E. Bradstreet
Date: January, 2009

Notes:

1. These figures depict TCE concentrations in soil vapor samples at different times and are intended to aid in communicating general temporal trends in soil vapor concentrations consistent with the available data. The non heating season images display an average of the data recorded between August and October.

The images were created using uniform and consistent spatial statistical algorithms as outlined in more detail in Appendix B.6 and are intended not as absolute indicators of the limits of soil vapor concentrations at a given time but a basis of comparison between data from different times.

2. See Figure 1 for additional notes and legend.

## Legend

2,700 — Soil Vapor Implant Location. TCE concentrations in micrograms per cubic meter (µg/m³)

Limits of Ventilation

µg/m³:
- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 500
- 500 - 1,000
- 1,000 - 5,000
- 5,000 - 10,000
- 10,000 - 50,000
- 50,000 - 100,000

450 225 0 450 900 1,350 Feet

SHA IMPROVING EARTH

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# APPENDIX A

# LIMITATIONS

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# APPENDIX A
# LIMITATIONS

1. The conclusions described in this report are based in part on the data obtained from a finite number of soil vapor, ambient air, soil, and groundwater samples from widely spaced subsurface explorations. The nature and extent of variations between these explorations 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 SHA has reviewed that data available to us at the time the report was prepared and information as stated in this report, any of SHA's interpretations and conclusions that have relied on that information will be contingent on its validity. SHA 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 SHA 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, SHA has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.

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# APPENDIX B

# FIELD SAMPLING AND LABORATORY ANALYSIS

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# APPENDIX B.1

# SUMMARY OF FIELD SAMPLING

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# APPENDIX B.1

## SUMMARY OF FIELD SAMPLING
**Soil Vapor Monitoring Program, Endicott, New York**

This summary of field sampling is provided for activities completed during monitoring from June to October 2008. Summaries of prior monitoring activities are provided in previous reports.

### B.1.1 BACKGROUND

Soil vapor monitoring was conducted at 35 locations in June and August 2008 and 36 locations in October 2008. Soil vapor implant installation details are provided in Table 1. The implants consist of ¼-inch outside diameter (O.D.) by six-inch long woven stainless steel screen connected to ¼-inch O.D. lab-grade stainless steel tubing. The stainless steel tubing is finished above the ground surface with a compression fitting and gas-tight threaded cap and secured in an 8 or 9-inch diameter flush-mount protective road box.

### B.1.2 SOIL VAPOR IMPLANT SAMPLING

The soil vapor implants were sampled from June 9$^{th}$ to 12$^{th}$, 2008, August 11$^{th}$ to 14$^{th}$, 2008 and October 13$^{th}$ to 16$^{th}$, 2008. Soil vapor samples were collected generally following procedures described in the approved Monitoring Plan, dated December 1, 2004.

Soil vapor samples were collected in one-liter SUMMA® canisters by connecting the stainless steel implant tubing to a short section of Teflon tubing fitted with an in-line Swagelok® valve. Each vapor implant was purged of one probe volume (estimated at about 10 milliliters [ml] per foot of probe depth) using a disposable syringe. An in-line vacuum gauge was monitored during purging, and the withdrawal rate was adjusted to limit the vacuum to around 2 inches $H_2O$ or below.

Samples for laboratory analysis were collected using an in-line 1-hour flow controller, yielding a collection rate of approximately 0.013 liters per minute or less, a rate comparable to the rate of substructure soil vapor collection as part of the previous vapor intrusion sampling. Duplicate samples were collected concurrently using an additional Swagelok® "T" fitting and two two-hour controllers to maintain an approximately equivalent sample collection rate.

In addition, a Tedlar bag was collected via a Gillian air pump and was field screened following the same methodology used in previous sampling and described in previous reports. The sample was screened in the field for carbon dioxide ($CO_2$), oxygen ($O_2$), and methane ($CH_4$) using a CES Lantec GEM 2000 four-gas meter, and for volatile organic compounds (VOCs) using a Photovac Model 2020 photo-ionization detector (PID) equipped with a 10.6 eV lamp and a Photovac MicroFID portable flame ionization detector (FID).

### B.1.3 OU#4 SOIL VAPOR IMPLANTS

During this reporting period, OU#4 soil vapor implants were sampled on September 18th, September 30th, October 16th, and October 30th. The implants were installed by others, but it is our understanding that they are constructed similarly to implants installed by SHA. OU#4 implants were sampled following the same procedures as the other implants, including purging, collection into SUMMA® canisters, and field screening.

### B.1.3 QUALITY ASSURANCE/QUALITY CONTROL

Quality Control measures such as field duplicates blanks and analytical laboratory blanks were taken as required by the Monitoring Plan. Seven duplicates and four equipment blanks were collected during each sampling round. QA/QC measures implemented during the last three monitoring events included:

- Field screening Tedlar bag samples for $CO_2$, $O_2$, and $CH_4$;
- Collection and analysis of field duplicates for approximately 10% of the samples and calculation of the relative percent difference (RPD) between the sample and the associated duplicate (RPD less than 30% is acceptable according to the Plan);
- Analysis of equipment blanks, which were collected and submitted on 11 out of the 12 days of sampling performed over the sampling period; and
- Analysis of laboratory control samples.

The SUMMA® canisters used for sample collection were "certified clean" by the analytical laboratory to the laboratory reporting limits, and confirmation of the presence of the certification seal or label for each container was noted prior to sample collection. The flow metering valves were cleaned prior to use and the laboratory verified the regulated flow rate. The canister vacuum was noted and recorded before and after the collection of samples.

Equipment blanks consisted of laboratory-certified SUMMA® canisters filled in the field with lab-grade nitrogen, and not opened during the course of its transport. Duplicate samples were collected simultaneously (i.e., over the same time interval) and spatially immediately adjacent to each other.

The collection, transfer of custody, and shipping/transport of the samples to the analytical laboratory was documented using chain-of-custody forms. The laboratory confirmed receipt vacuum and canister identification details and noted any discrepancies.

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# APPENDIX B.2

# CLIMATOLOGIC DATA AND PLOTS

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**Figure B.2.1**
**Summary of Daily Precipitation and Barometric Pressure - GBA**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.2.2**
**Summary of Daily Barometric Pressure and Temperature - GBA**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

# QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

**(final)**

**NOAA, National Climatic Data Center**

**Month: 05/2008**

**Station Location:** **GREATER BINGHAMTON/E A LINK FIELD AP (04725)**

**BINGHAMTON , NY**

Lat. 42.208 Lon. -75.981

Elevation (Ground): 1595 ft. above sea level

| Date | Temperature (Fahrenheit) Max. | Min. | Avg. | Dep From Normal | Avg. Dew pt. | Avg Wet Bulb | Degree Days Base 65 Degrees Heating | Cooling | Sun Sunrise LST | Sunset LST | Significant Weather | Snow/Ice on Ground(In) 1200 UTC Depth | 1800 UTC Water Equiv | Precipitation (In) 2400 LST Snow Fall | 2400 LST Water Equiv | Pressure(inches of Hg) Avg. Station | Avg. Sea Level | Wind: Speed=mph Dir=tens of degrees Resultant Speed | Res Dir | Avg. Speed | max 5-second Speed | Dir | max 2-minute Speed | Dir | Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 01 | 56 | 31* | 44 | -6 | 30 | 39 | 21 | 0 | 0500 | 1902 | | 0 | M | 0.0 | 0.09 | 28.35 | 30.12 | 4.6 | 16 | 5.8 | 23 | 230 | 13 | 240 | 01 |
| 02 | 61 | 47 | 54 | 4 | 48 | 50 | 11 | 0 | 0459 | 1903 | RA BR | 0 | M | 0.0 | 0.06 | 28.25 | 29.99 | 10.3 | 13 | 10.9 | 23 | 150 | 18 | 150 | 02 |
| 03 | 62 | 48 | 55 | 4 | 49 | 50 | 10 | 0 | 0457 | 1904 | RA BR | 0 | M | 0.0 | 0.30 | 28.20 | 29.93 | 12.7 | 15 | 12.8 | 26 | 150 | 21 | 150 | 03 |
| 04 | 60 | 42 | 51 | 0 | 41 | 46 | 14 | 0 | 0456 | 1905 | RA BR HZ | 0 | M | 0.0 | 0.02 | 28.21 | M | 3.9 | 31 | 8.9 | 26 | 260 | 18 | 120 | 04 |
| 05 | 65 | 35 | 50 | -2 | 32 | 43 | 15 | 0 | 0455 | 1906 | RA BR | 0 | M | 0.0 | 0.00 | 28.34 | 30.08 | 0.8 | 32 | 2.9 | 16 | 250 | 12 | 260 | 05 |
| 06 | 67 | 45 | 56 | 4 | 35 | 47 | 9 | 0 | 0454 | 1907 | | 0 | M | 0.0 | 0.00 | 28.28 | 30.01 | 4.7 | 33 | 6.6 | 25 | 360 | 18 | 360 | 06 |
| 07 | 75 | 45 | 60 | 7 | 42 | 51 | 5 | 0 | 0452 | 1908 | | 0 | M | 0.0 | 0.06 | 28.14 | 29.86 | 5.1 | 20 | 6.7 | 33 | 240 | 25 | 230 | 07 |
| 08 | 61 | 44 | 53 | 0 | 47 | | 12 | 0 | 0451 | 1909 | RA | 0 | M | 0.0 | 0.04 | M | M | 5.5 | 31 | 7.7 | 24 | 290 | 18 | 340 | 08 |
| 09 | 52 | 42 | 47 | -6 | 41 | 44 | 18 | 0 | 0450 | 1911 | RA BR | 0 | M | 0.0 | 0.01 | 28.04 | 29.76 | 3.8 | 06 | 5.8 | 15 | 100 | 12 | 090 | 09 |
| 10 | 61 | 39 | 50 | -4 | 35 | 43 | 15 | 0 | 0449 | 1912 | RA | 0 | M | 0.0 | 0.00 | 28.07 | 29.82 | 6.8 | 33 | 7.5 | 25 | 350 | 21 | 350 | 10 |
| 11 | 64 | 36 | 50 | -4 | 35 | 45 | 15 | 0 | 0448 | 1913 | | 0 | M | 0.0 | 0.00 | 28.06 | 29.74 | 11.1 | 14 | 12.1 | 30 | 120 | 22 | 120 | 11 |
| 12 | 57 | 45 | 51 | -4 | 31 | 42 | 14 | 0 | 0447 | 1914 | | 0 | M | 0.0 | 0.00 | 28.02 | 29.78 | 8.0 | 07 | 10.3 | 25 | 040 | 18 | 030 | 12 |
| 13 | 68 | 42 | 55 | -1 | 34 | 46 | 10 | 0 | 0445 | 1915 | | 0 | M | 0.0 | 0.00 | 28.32 | 30.07 | 7.0 | 35 | 7.7 | 30 | 350 | 17 | 360 | 13 |
| 14 | 73 | 41 | 57 | 1 | 40 | 50 | 8 | 0 | 0444 | 1916 | RA | 0 | M | 0.0 | T | 28.28 | 30.00 | 6.6 | 20 | 7.0 | 26 | 210 | 20 | 220 | 14 |
| 15 | 61 | 49 | 55 | -1 | 48 | 51 | 10 | 0 | 0443 | 1917 | RA BR | 0 | M | 0.0 | 0.04 | 28.23 | 29.97 | 5.0 | 33 | 8.2 | 22 | 360 | 17 | 360 | 15 |
| 16 | 50 | 43 | 47 | -10 | 44 | 46 | 18 | 0 | 0442 | 1918 | RA BR | 0 | M | 0.0 | 0.44 | 28.07 | 29.78 | 5.0 | 01 | 6.8 | 20 | 360 | 16 | 350 | 16 |
| 17 | 64 | 37 | 51 | -6 | 45 | 47 | 14 | 0 | 0441 | 1919 | RA BR VCTS | 0 | M | T | 0.43 | 27.83 | 29.54 | 7.0 | 25 | 8.0 | 30 | 280 | 22 | 280 | 17 |
| 18 | 53 | 39 | 46 | -11 | 41 | 44 | 19 | 0 | 0441 | 1920 | RA BR | 0 | M | 0.0 | 0.21 | 27.71 | 29.43 | 4.7 | 26 | 7.6 | 29 | 300 | 20 | 300 | 18 |
| 19 | 49 | 36 | 43* | -14 | 33 | 38 | 22 | 0 | 0440 | 1921 | RA | 0 | M | T | 0.04 | 27.78 | 29.54 | 10.3 | 28 | 11.0 | 38 | 310 | 26 | 280 | 19 |
| 20 | 57 | 36 | 47 | -11 | 38 | 42 | 18 | 0 | 0439 | 1922 | | 0 | M | T | 0.15 | 27.81 | 29.53 | 4.7 | 23 | 5.8 | 18 | 310 | 15 | 290 | 20 |
| 21 | 56 | 39 | 48 | -10 | 38 | 42 | 17 | 0 | 0438 | 1923 | TSRA RA BR | 0 | M | 0.0 | 0.16 | 27.77 | 29.50 | 5.6 | 26 | 6.8 | 22 | 280 | 17 | 280 | 21 |
| 22 | 51 | 40 | 46 | -12 | 39 | 42 | 19 | 0 | 0437 | 1924 | RA BR | 0 | M | 0.0 | 0.05 | 27.90 | 29.67 | 8.6 | 29 | 9.7 | 28 | 310 | 20 | 310 | 22 |
| 23 | 59 | 45 | 52 | -7 | 40 | 46 | 13 | 0 | 0436 | 1925 | RA | 0 | M | 0.0 | 0.01 | 28.19 | 29.95 | 9.2 | 32 | 9.6 | 26 | 350 | 17 | 340 | 23 |
| 24 | 63 | 44 | 54 | -5 | 39 | 47 | 11 | 0 | 0435 | 1926 | | 0 | M | 0.0 | 0.00 | 28.28 | 30.04 | 9.2 | 33 | 9.8 | 30 | 350 | 24 | 340 | 24 |
| 25 | 72 | 42 | 57 | -2 | 38 | 49 | 8 | 0 | 0435 | 1927 | | 0 | M | 0.0 | 0.00 | 28.35 | 30.07 | 2.7 | 27 | 4.8 | 17 | 330 | 13 | 270 | 25 |
| 26 | 79* | 53 | 66 | 7 | 50 | 58 | 0 | 1 | 0434 | 1928 | | 0 | M | 0.0 | 0.00 | 28.17 | 29.86 | 9.3 | 21 | 9.6 | 31 | 230 | 21 | 220 | 26 |
| 27 | 73 | 45 | 59 | -1 | 52 | 55 | 6 | 0 | 0433 | 1928 | | 0 | M | 0.0 | 0.00 | 28.18 | 29.93 | 7.7 | 32 | 10.4 | 29 | 340 | 22 | 340 | 27 |
| 28 | 59 | 38 | 49 | -11 | 31 | 41 | 16 | 0 | 0433 | 1929 | | 0 | M | 0.0 | 0.00 | 28.48 | 30.26 | 7.7 | 35 | 8.5 | 24 | 360 | 17 | 360 | 28 |
| 29 | 71 | 38 | 55 | -5 | 30 | 45 | 10 | 0 | 0432 | 1930 | | 0 | M | 0.0 | 0.00 | 28.42 | 30.16 | 6.5 | 30 | 8.1 | 26 | 320 | 18 | 310 | 29 |
| 30 | 74 | 47 | 61 | 1 | 38 | 50 | 4 | 0 | 0432 | 1931 | RA BR HZ | 0 | M | 0.0 | 0.00 | 28.35 | 30.05 | 3.9 | 22 | 5.5 | 18 | 190 | 14 | 240 | 30 |
| 31 | 78 | 60 | 69* | 9 | 58 | 62 | 0 | 4 | 0431 | 1932 | | 0 | M | 0.0 | 0.46 | 28.02 | 29.71 | 8.2 | 24 | 10.5 | 32 | 320 | 25 | 250 | 31 |
| | 62.9 | 42.4 | 52.7 | | 40.1 | 46.7 | 12.3 | 0.2 | <-----Monthly Averages \| Totals-----> | | | | M | T | 2.57 | 28.14 | 29.87 | 2.1 | 28 | 8.2 | <Monthly Average | | | | |
| | -2.7 | -3.8 | -3.2 | <----------Departure From Normal----------> | | | | | | | | | -0.98 | | | | | | | | | | | | |

**Degree Days**

| | Monthly Total | Monthly Departure | Season to Date Total | Season to Date Departure |
|---|---|---|---|---|
| Heating: | 382 | 90 | 6632 | -515 |

Greatest 24-hr Precipitation: 1.03 Date: 10

Greatest 24-hr Snowfall: T Date: 20+

Greatest Snow Depth: 0 Date: M

| Sea Level Pressure | | Date | Time (LST) |
|---|---|---|---|
| Maximum | 30.32 | 28 | 1037 |
| Minimum | 29.32 | 18 | 1453 |

# QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

**(final)**

**NOAA, National Climatic Data Center**

**Month: 06/2008**

**Station Location:** **GREATER BINGHAMTON/E A LINK FIELD AP (04725)**

**BINGHAMTON , NY**

Lat. 42.208 Lon. -75.981

Elevation (Ground): 1595 ft. above sea level

| Date | Temperature (Fahrenheit) Max. | Min. | Avg. | Dep From Normal | Avg. Dew pt. | Avg Wet Bulb | Degree Days Base 65 Degrees Heating | Cooling | Sun Sunrise LST | Sunset LST | Significant Weather | Snow/Ice on Ground(In) 1200 UTC Depth | 1800 UTC Water Equiv | Precipitation (In) 2400 LST Snow Fall | 2400 LST Water Equiv | Pressure(inches of Hg) Avg. Station | Avg. Sea Level | Wind: Speed=mph Dir=tens of degrees Resultant Speed | Res Dir | Avg. Speed | max 5-second Speed | Dir | max 2-minute Speed | Dir | Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 01 | 66 | 52 | 59 | -1 | 50 | 54 | 6 | 0 | 0431 | 1933 | RA BR | 0 | M | 0.0 | T | 28.07 | 29.80 | 9.1 | 29 | 9.9 | 28 | 270 | 18 | 310 | 01 |
| 02 | 74 | 46* | 60 | -1 | 46 | 53 | 5 | 0 | 0430 | 1933 | | 0 | M | 0.0 | 0.00 | 28.20 | 29.94 | 7.1 | 29 | 7.5 | 25 | 300 | 17 | 300 | 02 |
| 03 | 75 | 54 | 65 | 4 | 50 | 57 | 0 | 0 | 0430 | 1934 | RA | 0 | M | 0.0 | 0.03 | 28.21 | 29.90 | 4.4 | 21 | 5.5 | 20 | 220 | 13 | 220 | 03 |
| 04 | 67 | 58 | 63 | 2 | 58 | 60 | 2 | 0 | 0429 | 1935 | RA BR | 0 | M | 0.0 | 0.02 | 28.10 | 29.81 | 5.9 | 13 | 6.5 | 13 | 130 | 10 | 130 | 04 |
| 05 | 74 | 58 | 66 | 5 | 61 | 63 | 0 | 1 | 0429 | 1936 | BR | 0 | M | 0.0 | 0.00 | 28.28 | 30.01 | 6.1 | 15 | 6.7 | 18 | 160 | 14 | 160 | 05 |
| 06 | 86 | 67 | 77 | 15 | 68 | 71 | 0 | 12 | 0429 | 1936 | BR HZ | 0 | M | 0.0 | T | 28.36 | 30.06 | 8.6 | 21 | 9.0 | 21 | 180 | 15 | 220 | 06 |
| 07 | 90* | 70 | 80* | 18 | 66 | 71 | 0 | 15 | 0428 | 1937 | BR HZ | 0 | M | 0.0 | 0.00 | 28.33 | 30.02 | M | M | 8.4 | 25 | 280 | 18 | 250 | 07 |
| 08 | 86 | 69 | 78 | 16 | 69 | 71 | 0 | 13 | 0428 | 1938 | TSRA BR VCTS | 0 | M | 0.0 | 0.73 | 28.23 | 29.92 | M | M | 6.7 | 22 | 260 | 14 | 260 | 08 |
| 09 | 89 | 67 | 78 | 16 | 66 | 70 | 0 | 13 | 0428 | 1938 | BR | 0 | M | 0.0 | 0.00 | 28.20 | 29.88 | 7.6 | 25 | 8.0 | 23 | 240 | 18 | 250 | 09 |
| 10 | 86 | 62 | 74 | 12 | 65 | 69 | 0 | 9 | 0428 | 1939 | RA HZ VCTS | 0 | M | 0.0 | 0.03 | 28.21 | 29.90 | 5.9 | 24 | 7.2 | 36 | 230 | 23 | 230 | 10 |
| 11 | 78 | 58 | 68 | 6 | 55 | 60 | 0 | 3 | 0427 | 1939 | | 0 | M | 0.0 | 0.00 | 28.39 | 30.10 | 6.0 | 31 | 6.8 | 21 | 310 | 15 | 260 | 11 |
| 12 | 78 | 57 | 68 | 5 | 50 | 57 | 0 | 3 | 0427 | 1940 | | 0 | M | 0.0 | 0.00 | 28.54 | 30.26 | 4.4 | 36 | 6.2 | 17 | 350 | 13 | 350 | 12 |
| 13 | 85 | 56 | 71 | 8 | 58 | 64 | 0 | 6 | 0427 | 1940 | HZ | 0 | M | 0.0 | 0.00 | 28.45 | 30.17 | 6.7 | 18 | 7.4 | 21 | 180 | 14 | 190 | 13 |
| 14 | 81 | 66 | 74 | 10 | 65 | 68 | 0 | 9 | 0427 | 1941 | TSRA RA BR HZ VCTS | 0 | M | 0.0 | 0.09 | 28.26 | 29.97 | 2.9 | 27 | 4.9 | 20 | 270 | 15 | 280 | 14 |
| 15 | 80 | 63 | 72 | 8 | 57 | 62 | 0 | 7 | 0427 | 1941 | BR | 0 | M | 0.0 | 0.00 | 28.19 | 29.88 | M | M | 5.9 | 13 | 310 | 12 | 340 | 15 |
| 16 | 79 | 55 | 67 | 3 | 57 | 59 | 0 | 2 | 0427 | 1942 | TSRA RA BR VCTS | 0 | M | 0.0 | 0.81 | 28.08 | 29.76 | M | M | 8.0 | 39 | 300 | 24 | 270 | 16 |
| 17 | 64 | 52 | 58 | -6 | 49 | 52 | 7 | 0 | 0427 | 1942 | RA BR | 0 | M | 0.0 | 0.06 | 28.08 | 29.79 | 6.6 | 28 | 7.3 | 23 | 350 | 18 | 340 | 17 |
| 18 | 57 | 49 | 53* | -12 | 50 | 51 | 12 | 0 | 0427 | 1942 | RA BR | 0 | M | 0.0 | 0.12 | 28.05 | 29.78 | 5.4 | 26 | 5.8 | 14 | 240 | 10 | 270 | 18 |
| 19 | 64 | 47 | 56 | -9 | 48 | 52 | 9 | 0 | 0428 | 1943 | RA BR | 0 | M | 0.0 | T | 28.18 | 29.92 | 4.1 | 27 | 4.8 | 15 | 290 | 12 | 290 | 19 |
| 20 | 68 | 52 | 60 | -6 | 54 | 56 | 5 | 0 | 0428 | 1943 | RA BR VCTS | 0 | M | 0.0 | 0.05 | 28.28 | 30.00 | 4.5 | 23 | 5.3 | 17 | 260 | 13 | 230 | 20 |
| 21 | 77 | 48 | 63 | -3 | | | 2 | 0 | 0428 | 1943 | RA BR | 0 | M | 0.0 | T | 28.32 | M | 4.0 | 23 | 5.0 | 25 | 250 | 18 | 240 | 21 |
| 22 | 77 | 58 | 68 | 2 | 56 | 60 | 0 | 3 | 0428 | 1944 | RA BR VCTS | 0 | M | 0.0 | 0.35 | 28.24 | 29.94 | 5.1 | 21 | 6.7 | 26 | 290 | 17 | 290 | 22 |
| 23 | 75 | 56 | 66 | 0 | 56 | 59 | 0 | 1 | 0428 | 1944 | RA BR | 0 | M | 0.0 | 0.19 | 28.24 | 29.95 | 2.8 | 25 | 5.0 | 31 | 220 | 23 | 230 | 23 |
| 24 | 71 | 56 | 64 | -2 | 54 | 57 | 1 | 0 | 0429 | 1944 | | 0 | M | 0.0 | T | 28.37 | 30.10 | 7.2 | 32 | 8.2 | 30 | 340 | 22 | 340 | 24 |
| 25 | 78 | 54 | 66 | 0 | 53 | 59 | 0 | 1 | 0429 | 1944 | | 0 | M | 0.0 | 0.00 | 28.43 | 30.15 | 5.5 | 24 | 6.0 | 21 | 280 | 15 | 240 | 25 |
| 26 | 78 | 63 | 71 | 5 | 62 | 64 | 0 | 6 | 0429 | 1944 | RA BR | 0 | M | 0.0 | 0.15 | 28.19 | 29.89 | 5.5 | 24 | 6.9 | 21 | 220 | 14 | 280 | 26 |
| 27 | 77 | 66 | 72 | 5 | 64 | 66 | 0 | 7 | 0430 | 1944 | RA BR | 0 | M | 0.0 | 0.35 | 28.17 | 29.87 | 4.7 | 23 | 5.1 | 24 | 240 | 17 | 230 | 27 |
| 28 | 79 | 64 | 72 | 5 | 65 | 68 | 0 | 7 | 0430 | 1944 | BR HZ VCTS | 0 | M | 0.0 | T | 28.13 | 29.81 | 7.3 | 21 | 8.2 | 25 | 210 | 18 | 230 | 28 |
| 29 | 79 | 62 | 71 | 4 | 63 | 65 | 0 | 6 | 0430 | 1944 | RA | 0 | M | 0.0 | 0.08 | 28.09 | 29.78 | 6.5 | 20 | 7.6 | 21 | 190 | 15 | 200 | 29 |
| 30 | 76 | 61 | 69 | 2 | 57 | 61 | 0 | 4 | 0431 | 1944 | | 0 | M | 0.0 | 0.00 | 28.07 | 29.78 | 3.3 | 27 | 4.4 | 17 | 290 | 14 | 280 | 30 |
| | 76.5 | 58.2 | 67.4 | | 57.7 | 61.3 | 1.6 | 4.3 | <-----Monthly Averages \| Totals-----> | | | | M | 0.0 | 3.06 | 28.23 | 29.93 | M | M | 6.7 | <Monthly Average | | | | |
| | 3.1 | 3.8 | 3.5 | <----------Departure From Normal----------> | | | | | | | | | -0.74 | | | | | | | | | | | | |

| **Degree Days** | Monthly Total | Monthly Departure | Season to Date Total | Season to Date Departure |
|---|---|---|---|---|
| Heating: | 49 | -41 | 6681 | -556 |

Greatest 24-hr Precipitation: 0.81 Date: 16

Greatest 24-hr Snowfall: 0.0 Date: M

Greatest Snow Depth: 0 Date: M

| Sea Level Pressure | | Date | Time (LST) |
|---|---|---|---|
| Maximum | 30.31 | 12 | 1141 |
| Minimum | 29.69 | 16 | 1453 |

# QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

**(final)**

**NOAA, National Climatic Data Center**

**Month: 07/2008**

**Station Location:** **GREATER BINGHAMTON/E A LINK FIELD AP (04725)**

**BINGHAMTON , NY**

Lat. 42.208 Lon. -75.981

Elevation (Ground): 1595 ft. above sea level

| Date | Temperature (Fahrenheit) Max. | Min. | Avg. | Dep From Normal | Avg. Dew pt. | Avg Wet Bulb | Degree Days Base 65 Degrees Heating | Cooling | Sun Sunrise LST | Sunset LST | Significant Weather | Snow/Ice on Ground(In) 1200 UTC Depth | 1800 UTC Water Equiv | Precipitation (In) 2400 LST Snow Fall | 2400 LST Water Equiv | Pressure(inches of Hg) Avg. Station | Avg. Sea Level | Wind: Speed=mph Dir=tens of degrees Resultant Speed | Res Dir | Avg. Speed | max 5-second Speed | Dir | max 2-minute Speed | Dir | Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 01 | 71 | 59 | 65 | -2 | 55 | 59 | 0 | 0 | 0431 | 1944 | | 0 | M | 0.0 | 0.00 | 28.21 | 29.94 | 4.3 | 33 | 4.9 | 18 | 310 | 12 | 350 | 01 |
| 02 | 77 | 53* | 65 | -3 | 52 | 58 | 0 | 0 | 0432 | 1944 | BR | 0 | M | 0.0 | 0.00 | 28.27 | 29.99 | 5.7 | 23 | 6.2 | 21 | 290 | 14 | 250 | 02 |
| 03 | 74 | 60 | 67 | -1 | 59 | 62 | 0 | 2 | 0432 | 1944 | | 0 | M | 0.0 | 0.22 | 28.23 | 29.95 | 6.3 | 23 | 8.8 | 24 | 230 | 18 | 240 | 03 |
| 04 | 74 | 54 | 64* | -4 | 55 | 59 | 1 | 0 | 0433 | 1944 | RA BR VCTS | 0 | M | 0.0 | 0.00 | 28.34 | 30.06 | 2.5 | 35 | 3.5 | 13 | 300 | 9 | 010 | 04 |
| 05 | 77 | 55 | 66 | -2 | 55 | 59 | 0 | 1 | 0434 | 1943 | BR | 0 | M | 0.0 | 0.00 | 28.33 | 30.06 | 2.7 | 03 | 3.7 | 16 | 350 | 9 | 010 | 05 |
| 06 | 81 | 56 | 69 | 1 | 59 | 63 | 0 | 4 | 0434 | 1943 | | 0 | M | 0.0 | 0.00 | 28.36 | 30.07 | 2.2 | 17 | 4.0 | 15 | 140 | 10 | 140 | 06 |
| 07 | 83 | 64 | 74 | 6 | 65 | 68 | 0 | 9 | 0435 | 1943 | BR | 0 | M | 0.0 | 0.00 | 28.35 | 30.04 | 4.1 | 19 | 4.4 | 15 | 210 | 12 | 200 | 07 |
| 08 | 85 | 68 | 77 | 8 | 65 | 69 | 0 | 12 | 0436 | 1942 | BR HZ | 0 | M | 0.0 | 0.00 | 28.24 | 29.92 | 7.4 | 22 | 7.8 | 21 | 240 | 16 | 240 | 08 |
| 09 | 79 | 65 | 72 | 3 | 66 | 68 | 0 | 7 | 0436 | 1942 | BR HZ | 0 | M | 0.0 | 0.05 | 28.10 | 29.80 | 6.8 | 24 | 8.5 | 21 | 340 | 16 | 250 | 09 |
| 10 | 76 | 56 | 66 | -3 | 52 | 58 | 0 | 1 | 0437 | 1942 | RA BR HZ | 0 | M | 0.0 | 0.00 | 28.28 | 30.01 | 6.5 | 31 | 7.2 | 23 | 320 | 16 | 280 | 10 |
| 11 | 76 | 54 | 65 | -4 | 57 | 61 | 0 | 0 | 0438 | 1941 | | 0 | M | 0.0 | T | 28.37 | 30.09 | 1.5 | 21 | 3.3 | 17 | 240 | 12 | 250 | 11 |
| 12 | 86 | 62 | 74 | 5 | 62 | 67 | 0 | 9 | 0438 | 1941 | RA | 0 | M | 0.0 | 0.00 | 28.35 | 30.04 | 5.5 | 21 | 6.2 | 20 | 210 | 15 | 210 | 12 |
| 13 | 82 | 65 | 74 | 5 | 65 | 67 | 0 | 9 | 0439 | 1940 | BR HZ | 0 | M | 0.0 | 0.63 | 28.12 | 29.81 | 7.9 | 21 | 9.0 | 26 | 210 | 20 | 210 | 13 |
| 14 | 77 | 60 | 69 | 0 | 56 | 61 | 0 | 4 | 0440 | 1940 | RA BR HZ | 0 | M | 0.0 | 0.00 | 28.15 | 29.88 | 5.2 | 27 | 6.0 | 21 | 250 | 14 | 250 | 14 |
| 15 | 78 | 58 | 68 | -1 | 53 | 60 | 0 | 3 | 0441 | 1939 | | 0 | M | 0.0 | 0.00 | 28.38 | 30.11 | 2.0 | 27 | 3.7 | 16 | 270 | 12 | 260 | 15 |
| 16 | 85 | 59 | 72 | 3 | 58 | 63 | 0 | 7 | 0442 | 1938 | TS RA HZ | 0 | M | 0.0 | 0.19 | 28.45 | 30.17 | 3.3 | 25 | 5.8 | 48 | 350 | 39 | 360 | 16 |
| 17 | 80 | 61 | 71 | 2 | 65 | 67 | 0 | 6 | 0442 | 1938 | TS RA BR VCTS | 0 | M | 0.0 | 0.13 | 28.44 | 30.14 | 2.4 | 21 | 4.0 | 18 | 290 | 12 | 280 | 17 |
| 18 | 87 | 66 | 77 | 8 | 66 | 69 | 0 | 12 | 0443 | 1937 | BR HZ | 0 | M | 0.0 | 0.00 | 28.35 | 30.04 | 5.3 | 23 | 6.3 | 21 | 260 | 16 | 250 | 18 |
| 19 | 87* | 67 | 77* | 8 | 65 | 68 | 0 | 12 | 0444 | 1936 | TSRA RA BR HZ | 0 | M | 0.0 | 0.25 | 28.30 | 30.00 | 5.7 | 26 | 6.8 | 33 | 300 | 21 | 280 | 19 |
| 20 | 85 | 66 | 76 | 7 | | | 0 | 11 | 0445 | 1936 | RA BR HZ VCTS | 0 | M | 0.0 | 1.59 | 28.22 | M | M | M | 7.2 | 17 | 230 | 13 | 220 | 20 |
| 21 | 80 | 65 | 73 | 4 | 65 | 67 | 0 | 8 | 0446 | 1935 | BR | 0 | M | 0.0 | 0.20 | 28.16 | 29.87 | 4.1 | 28 | 4.6 | 28 | 320 | 21 | 310 | 21 |
| 22 | 77 | 60 | 69 | 0 | 65 | 66 | 0 | 4 | 0447 | 1934 | TS RA BR | 0 | M | 0.0 | 0.09 | 28.22 | 29.93 | 2.1 | 18 | 3.4 | 17 | 280 | 14 | 280 | 22 |
| 23 | 67 | 62 | 65 | -4 | 64 | 64 | 0 | 0 | 0448 | 1933 | TSRA RA BR | 0 | M | 0.0 | 0.99 | 28.23 | 29.93 | 6.1 | 16 | 6.7 | 22 | 230 | 16 | 220 | 23 |
| 24 | 71 | 58 | 65 | -4 | 59 | 61 | 0 | 0 | 0449 | 1932 | RA BR | 0 | M | 0.0 | T | 28.22 | 29.96 | 5.8 | 24 | 7.0 | 26 | 270 | 21 | 260 | 24 |
| 25 | 78 | 57 | 68 | -1 | 54 | 60 | 0 | 3 | 0450 | 1931 | | 0 | M | 0.0 | 0.00 | 28.38 | 30.11 | 5.8 | 23 | 6.5 | 17 | 210 | 13 | 230 | 25 |
| 26 | 80 | 63 | 72 | 3 | 60 | 64 | 0 | 7 | 0451 | 1930 | TS TSRA RA HZ VCTS | 0 | M | 0.0 | 0.11 | 28.25 | 29.93 | 6.5 | 21 | 7.4 | 32 | 250 | 20 | 220 | 26 |
| 27 | 77 | 64 | 71 | 2 | | | 0 | 6 | 0452 | 1930 | BR | 0 | M | 0.0 | 0.01 | 28.13 | M | M | M | 6.5 | 17 | 290 | 17 | 290 | 27 |
| 28 | 81 | 57 | 69 | 0 | | | 0 | 4 | 0453 | 1929 | | 0 | M | 0.0 | 0.00 | M | M | M | M | 5.6 | 21 | 260 | 15 | 270 | 28 |
| 29 | 79 | 61 | 70 | 1 | 59 | 63 | 0 | 5 | 0454 | 1928 | BR | 0 | M | 0.0 | 0.00 | 28.24 | 29.94 | 3.2 | 32 | 5.8 | 31 | 350 | 13 | 350 | 29 |
| 30 | 80 | 59 | 70 | 1 | 61 | 65 | 0 | 5 | 0455 | 1926 | HZ | 0 | M | 0.0 | 0.00 | 28.14 | 29.81 | 4.6 | 20 | 5.2 | 18 | 230 | 12 | 180 | 30 |
| 31 | 80 | 64 | 72 | 3 | 62 | 66 | 0 | 7 | 0456 | 1925 | BR HZ | 0 | M | 0.0 | 0.00 | 27.99 | 29.68 | 4.8 | 28 | 6.4 | 20 | 300 | 13 | 280 | 31 |
| | 79.0 | 60.6 | 69.8 | | 60.0 | 63.6 | 0.0 | 5.1 | <-----Monthly Averages \| Totals-----> | | | | M | 0.0 | 4.46 | 28.26 | 29.97 | 3.3 | 24 | 5.9 | <Monthly Average | | | | |
| | 0.9 | 1.4 | 1.1 | <----------Departure From Normal----------> | | | | | | | | | 0.97 | | | | | | | | | | | | |

| **Degree Days** | Monthly Total | Monthly Departure | Season to Date Total | Season to Date Departure |
|---|---|---|---|---|
| Heating: | 1 | -21 | 1 | -21 |

Greatest 24-hr Precipitation: 1.79 Date: 20-21

Greatest 24-hr Snowfall: 0.0 Date: M

Greatest Snow Depth: 0 Date: M

| Sea Level Pressure | | Date | Time (LST) |
|---|---|---|---|
| Maximum | 30.20 | 16 | 1053 |
| Minimum | 29.65 | 31 | 1847 |

# QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

**(final)**

**NOAA, National Climatic Data Center**

**Month: 08/2008**

**Station Location:** **GREATER BINGHAMTON/E A LINK FIELD AP (04725)**

**BINGHAMTON , NY**

Lat. 42.208 Lon. -75.981

Elevation (Ground): 1595 ft. above sea level

| Date | Temperature (Fahrenheit) Max. | Min. | Avg. | Dep From Normal | Avg. Dew pt. | Avg Wet Bulb | Degree Days Base 65 Degrees Heating | Cooling | Sun Sunrise LST | Sunset LST | Significant Weather | Snow/Ice on Ground(In) 1200 UTC Depth | 1800 UTC Water Equiv | Precipitation (In) 2400 LST Snow Fall | 2400 LST Water Equiv | Pressure(inches of Hg) Avg. Station | Avg. Sea Level | Wind: Speed=mph Dir=tens of degrees Resultant Speed | Res Dir | Avg. Speed | max 5-second Speed | Dir | max 2-minute Speed | Dir | Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 01 | 79 | 63 | 71 | 2 | 61 | 64 | 0 | 6 | 0457 | 1924 | | 0 | M | 0.0 | 0.00 | 28.06 | 29.76 | 4.2 | 30 | 5.0 | 17 | 330 | 13 | 270 | 01 |
| 02 | 76 | 60 | 68 | -1 | 59 | 62 | 0 | 3 | 0458 | 1923 | | 0 | M | 0.0 | 0.14 | 28.06 | 29.77 | 3.0 | 33 | 5.5 | 30 | 010 | 22 | 010 | 02 |
| 03 | 72 | 60 | 66 | -2 | 59 | 61 | 0 | 1 | 0459 | 1922 | RA BR VCTS | 0 | M | 0.0 | 0.01 | 28.18 | 29.90 | 7.6 | 31 | 8.0 | 25 | 310 | 17 | 340 | 03 |
| 04 | 76 | 60 | 68 | 0 | 58 | 62 | 0 | 3 | 0460 | 1921 | RA BR | 0 | M | 0.0 | 0.00 | 28.28 | 29.99 | 5.8 | 32 | 6.8 | 21 | 360 | 17 | 350 | 04 |
| 05 | 81 | 58 | 70 | 2 | 61 | 64 | 0 | 5 | 0501 | 1920 | | 0 | M | 0.0 | T | 28.27 | 29.96 | 3.6 | 21 | 4.5 | 23 | 120 | 12 | 220 | 05 |
| 06 | 78 | 64 | 71 | 3 | 62 | 65 | 0 | 6 | 0502 | 1918 | RA BR HZ | 0 | M | 0.0 | 0.39 | 28.15 | 29.84 | 6.2 | 29 | 8.3 | 26 | 310 | 18 | 330 | 06 |
| 07 | 73 | 57 | 65 | -3 | 58 | 61 | 0 | 0 | 0503 | 1917 | TSRA RA BR | 0 | M | 0.0 | 0.36 | 28.09 | 29.79 | 3.5 | 27 | 5.5 | 20 | 250 | 14 | 260 | 07 |
| 08 | 69 | 56 | 63 | -5 | 57 | 58 | 2 | 0 | 0504 | 1916 | RA BR | 0 | M | 0.0 | 0.25 | 28.04 | 29.76 | 6.3 | 29 | 6.8 | 24 | 310 | 17 | 300 | 08 |
| 09 | 72 | 55 | 64 | -4 | 54 | 58 | 1 | 0 | 0505 | 1915 | RA BR | 0 | M | 0.0 | T | 28.15 | 29.88 | 3.4 | 26 | 5.6 | 16 | 280 | 12 | 280 | 09 |
| 10 | 72 | 55 | 64 | -4 | 55 | 58 | 1 | 0 | 0506 | 1913 | | 0 | M | T | 1.17 | 28.14 | 29.85 | 2.1 | 13 | 5.9 | 25 | 140 | 18 | 140 | 10 |
| 11 | 68 | 54 | 61 | -7 | | | 4 | 0 | 0507 | 1912 | TS TSRA RA BR VCTS | 0 | M | 0.0 | 0.03 | 28.13 | M | 5.1 | 36 | 6.5 | 33 | 340 | 17 | 340 | 11 |
| 12 | 72 | 57 | 65 | -2 | 56 | 59 | 0 | 0 | 0508 | 1911 | RA BR VCTS | 0 | M | 0.0 | 0.01 | 28.12 | 29.84 | 6.4 | 32 | 6.7 | 23 | 350 | 17 | 350 | 12 |
| 13 | 73 | 50 | 62 | -5 | 55 | 59 | 3 | 0 | 0509 | 1909 | BR | 0 | M | 0.0 | 0.00 | 28.13 | 29.84 | 1.8 | 23 | 4.9 | 16 | 230 | 10 | 250 | 13 |
| 14 | 75 | 57 | 66 | -1 | 54 | 59 | 0 | 1 | 0510 | 1908 | | 0 | M | 0.0 | 0.00 | 28.14 | 29.85 | 4.5 | 02 | 5.8 | 16 | 010 | 12 | 360 | 14 |
| 15 | 75 | 58 | 67 | 0 | 55 | | 0 | 2 | 0511 | 1906 | RA | 0 | M | 0.0 | 0.01 | 28.29 | M | 4.6 | 36 | 5.2 | 18 | 340 | 16 | 340 | 15 |
| 16 | 74 | 53 | 64 | -3 | 54 | 58 | 1 | 0 | 0512 | 1905 | | 0 | M | 0.0 | 0.00 | 28.30 | 30.01 | 5.3 | 30 | 6.0 | 23 | 300 | 16 | 290 | 16 |
| 17 | 77 | 55 | 66 | -1 | 56 | 60 | 0 | 1 | 0513 | 1903 | | 0 | M | 0.0 | 0.00 | 28.27 | 29.98 | 5.4 | 25 | 6.2 | 18 | 280 | 15 | 280 | 17 |
| 18 | 81 | 62 | 72* | 5 | 59 | 64 | 0 | 7 | 0514 | 1902 | | 0 | M | 0.0 | T | 28.24 | 29.94 | 7.8 | 24 | 8.2 | 25 | 260 | 20 | 260 | 18 |
| 19 | 69 | 51 | 60 | -6 | 52 | 56 | 5 | 0 | 0515 | 1859 | RA BR | 0 | M | 0.0 | 0.28 | 28.30 | 30.05 | 8.9 | 33 | 10.5 | 29 | 350 | 21 | 340 | 19 |
| 20 | 69 | 48 | 59* | -7 | 48 | 53 | 6 | 0 | 0516 | 1857 | | 0 | M | 0.0 | 0.00 | 28.50 | 30.25 | 4.8 | 34 | 5.8 | 18 | 320 | 13 | 030 | 20 |
| 21 | 78 | 49 | 64 | -2 | 52 | 57 | 1 | 0 | 0517 | 1856 | BR | 0 | M | 0.0 | 0.00 | 28.55 | 30.29 | 0.9 | 13 | 1.7 | 12 | 150 | 8 | 220 | 21 |
| 22 | 82 | 56 | 69 | 3 | 57 | 62 | 0 | 4 | 0518 | 1854 | | 0 | M | 0.0 | 0.00 | 28.59 | 30.32 | 3.9 | 15 | 4.9 | 16 | 040 | 10 | 140 | 22 |
| 23 | 76 | 59 | 68 | 3 | 58 | 61 | 0 | 3 | 0519 | 1853 | | 0 | M | 0.0 | 0.00 | 28.53 | 30.25 | 4.7 | 18 | 5.5 | 16 | 210 | 12 | 200 | 23 |
| 24 | 82* | 57 | 70 | 5 | 59 | 64 | 0 | 5 | 0520 | 1851 | TSRA BR | 0 | M | 0.0 | 0.00 | 28.32 | 30.01 | 5.1 | 20 | 6.1 | 16 | 330 | 13 | 340 | 24 |
| 25 | 72 | 53 | 63 | -2 | 55 | 58 | 2 | 0 | 0522 | 1850 | | 0 | M | 0.0 | 0.08 | 28.25 | 29.98 | 9.4 | 34 | 9.9 | 25 | 340 | 21 | 350 | 25 |
| 26 | 71 | 51 | 61 | -4 | 45 | 52 | 4 | 0 | 0523 | 1848 | | 0 | M | 0.0 | 0.00 | 28.38 | 30.12 | 6.5 | 35 | 7.3 | 26 | 080 | 15 | 360 | 26 |
| 27 | 77 | 48* | 63 | -2 | 48 | 54 | 2 | 0 | 0524 | 1846 | RA | 0 | M | 0.0 | 0.00 | 28.40 | 30.12 | 2.5 | 12 | 4.3 | 16 | 160 | 9 | 120 | 27 |
| 28 | 68 | 53 | 61 | -4 | 53 | 57 | 4 | 0 | 0525 | 1845 | RA BR | 0 | M | 0.0 | T | 28.35 | 30.06 | 2.7 | 14 | 3.5 | 10 | 130 | 8 | 140 | 28 |
| 29 | 64 | 57 | 61 | -3 | 59 | 59 | 4 | 0 | 0526 | 1843 | BR HZ | 0 | M | 0.0 | 0.94 | 28.30 | 30.02 | 4.8 | 18 | 5.2 | 21 | 250 | 12 | 200 | 29 |
| 30 | 76 | 60 | 68 | 4 | | | 0 | 3 | 0527 | 1842 | | 0 | M | 0.0 | T | 28.33 | M | 4.0 | 29 | 6.4 | 18 | 290 | 14 | 320 | 30 |
| 31 | 76 | 56 | 66 | 2 | 51 | 57 | 0 | 1 | 0528 | 1840 | | 0 | M | 0.0 | 0.00 | 28.48 | 30.22 | 6.0 | 34 | 6.9 | 21 | 340 | 16 | 010 | 31 |
| | 74.3 | 55.9 | 65.1 | | 55.5 | 59.4 | 1.3 | 1.6 | <-----Monthly Averages \| Totals-----> | | | | M | T | 3.67 | 28.27 | 29.99 | 2.5 | 30 | 6.1 | <Monthly Average | | | | |
| | -1.5 | -1.5 | -1.5 | <----------Departure From Normal----------> | | | | | | | | | 0.32 | | | | | | | | | | | | |

**Degree Days**

| | Monthly Total | Monthly Departure | Season to Date Total | Season to Date Departure |
|---|---|---|---|---|
| Heating: | 40 | -3 | 41 | -24 |

Greatest 24-hr Precipitation: 1.17 Date: 10

Greatest 24-hr Snowfall: T Date: 10

Greatest Snow Depth: 0 Date: M

| Sea Level Pressure | | Date | Time (LST) |
|---|---|---|---|
| Maximum | 30.36 | 22 | 1112 |
| Minimum | 29.70 | 01 | 0205 |

# QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

**(final)**

**NOAA, National Climatic Data Center**

**Month: 09/2008**

**Station Location:** **GREATER BINGHAMTON/E A LINK FIELD AP (04725)**

**BINGHAMTON , NY**

Lat. 42.208 Lon. -75.981

Elevation (Ground): 1595 ft. above sea level

| Date | Temperature (Fahrenheit) Max. | Min. | Avg. | Dep From Normal | Avg. Dew pt. | Avg Wet Bulb | Degree Days Base 65 Degrees Heating | Cooling | Sun Sunrise LST | Sunset LST | Significant Weather | Snow/Ice on Ground(In) 1200 UTC Depth | 1800 UTC Water Equiv | Precipitation (In) 2400 LST Snow Fall | 2400 LST Water Equiv | Pressure(inches of Hg) Avg. Station | Avg. Sea Level | Wind: Speed=mph Dir=tens of degrees Resultant Speed | Res Dir | Avg. Speed | max 5-second Speed | Dir | max 2-minute Speed | Dir | Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 01 | 77 | 51 | 64 | 1 | | | 1 | 0 | 0529 | 1838 | | 0 | M | 0.0 | 0.00 | 28.51 | 30.24 | 5.4 | 35 | 6.0 | 17 | 360 | 14 | 360 | 01 |
| 02 | 81 | 56 | 69 | 6 | 53 | 58 | 0 | 4 | 0530 | 1836 | | 0 | M | 0.0 | 0.00 | 28.41 | 30.12 | 3.9 | 36 | 4.8 | 17 | 360 | 12 | 350 | 02 |
| 03 | 81 | 59 | 70 | 7 | 57 | 62 | 0 | 5 | 0531 | 1835 | | 0 | M | 0.0 | 0.00 | 28.27 | 29.97 | 2.6 | 31 | 3.5 | 15 | 310 | 9 | 330 | 03 |
| 04 | 84 | 62 | 73 | 11 | 59 | 63 | 0 | 8 | 0532 | 1833 | | 0 | M | 0.0 | 0.00 | 28.28 | 29.99 | 1.8 | 22 | 5.0 | 17 | 210 | 10 | 260 | 04 |
| 05 | 85* | 66 | 76 | 14 | 60 | 64 | 0 | 11 | 0533 | 1831 | BR | 0 | M | 0.0 | 0.00 | M | M | M | M | M | M | M | M | M | 05 |
| 06 | 70 | 60 | 65 | 3 | | | 0 | 0 | 0534 | 1830 | | 0 | M | 0.0 | 0.46 | M | M | M | M | M | M | M | M | M | 06 |
| 07 | 72 | 56 | 64 | 2 | | | 1 | 0 | 0535 | 1828 | | 0 | M | 0.0 | 0.02 | M | M | M | M | M | M | M | M | M | 07 |
| 08 | 74 | 53 | 64 | 3 | | | 1 | 0 | 0536 | 1826 | | 0 | M | 0.0 | 0.00 | M | M | M | M | M | M | M | M | M | 08 |
| 09 | 66 | 51 | 59 | -2 | | | 6 | 0 | 0537 | 1825 | RA BR | 0 | M | 0.0 | 0.08 | M | M | M | M | M | M | M | M | M | 09 |
| 10 | 63 | 47 | 55 | -6 | | | 10 | 0 | 0538 | 1823 | | 0 | M | 0.0 | 0.00 | 28.43 | M | M | M | 7.8 | 28 | 220 | 18 | 210 | 10 |
| 11 | 68 | 44 | 56 | -4 | 48 | 53 | 9 | 0 | 0539 | 1821 | | 0 | M | 0.0 | 0.00 | 28.59 | 30.32 | 5.0 | 17 | 7.2 | 17 | 190 | 13 | 210 | 11 |
| 12 | 63 | 61 | 62 | 2 | 60 | 61 | 3 | 0 | 0540 | 1819 | RA BR | 0 | M | 0.0 | 0.30 | 28.37 | M | 6.8 | 20 | 4.6 | 14 | 220 | 12 | 220 | 12 |
| 13 | 72 | 64 | 68 | 8 | | | 0 | 3 | 0541 | 1818 | RA BR | 0 | M | 0.0 | 0.28 | 28.23 | M | 3.3 | 22 | 3.8 | 21 | 030 | 10 | 230 | 13 |
| 14 | 84 | 68 | 76* | 17 | 69 | 71 | 0 | 11 | 0542 | 1816 | RA BR | 0 | M | 0.0 | 0.09 | 28.04 | 29.69 | 10.6 | 20 | 11.3 | 38 | 220 | 25 | 220 | 14 |
| 15 | 78 | 53 | 66 | 7 | 55 | 58 | 0 | 1 | 0544 | 1814 | RA BR | 0 | M | 0.0 | 0.18 | 28.09 | 29.86 | 10.8 | 29 | 12.6 | 44 | 260 | 31 | 270 | 15 |
| 16 | 62 | 48 | 55 | -4 | 48 | 51 | 10 | 0 | 0545 | 1812 | | 0 | M | 0.0 | 0.00 | 28.43 | 30.18 | 2.7 | 33 | 3.9 | 13 | 320 | 9 | 300 | 16 |
| 17 | 69 | 42 | 56 | -2 | 44 | 50 | 9 | 0 | 0546 | 1811 | BR | 0 | M | 0.0 | 0.00 | 28.43 | M | 1.2 | 23 | 2.3 | 12 | 220 | 9 | 220 | 17 |
| 18 | 63 | 44 | 54 | -4 | 41 | 46 | 11 | 0 | 0547 | 1809 | | 0 | M | 0.0 | 0.00 | 28.52 | 30.30 | 8.2 | 01 | 8.5 | 25 | 010 | 18 | 010 | 18 |
| 19 | 64 | 38* | 51* | -7 | 47 | 51 | 14 | 0 | 0548 | 1807 | | 0 | M | 0.0 | 0.00 | 28.66 | 30.43 | 5.3 | 15 | 6.5 | 17 | 170 | 15 | 150 | 19 |
| 20 | 67 | 44 | 56 | -1 | 54 | 57 | 9 | 0 | 0549 | 1805 | BR | 0 | M | 0.0 | 0.00 | 28.54 | 30.28 | 5.1 | 20 | 5.7 | 18 | 320 | 12 | 220 | 20 |
| 21 | 72 | 51 | 62 | 5 | 47 | 51 | 3 | 0 | 0550 | 1803 | BR | 0 | M | 0.0 | 0.00 | 28.53 | 30.28 | 4.3 | 32 | 7.0 | 25 | 340 | 18 | 350 | 21 |
| 22 | 68 | 49 | 59 | 2 | 44 | 50 | 6 | 0 | 0551 | 1802 | | 0 | M | 0.0 | 0.00 | 28.66 | 30.43 | 5.5 | 01 | 5.9 | 16 | 010 | 13 | 010 | 22 |
| 23 | 71 | 44 | 58 | 1 | 48 | 53 | 7 | 0 | 0552 | 1760 | | 0 | M | 0.0 | 0.00 | 28.72 | 30.49 | 2.9 | 02 | 3.6 | 26 | 320 | 10 | 350 | 23 |
| 24 | 73 | 45 | 59 | 2 | 44 | 51 | 6 | 0 | 0553 | 1758 | BR | 0 | M | 0.0 | 0.00 | 28.70 | 30.45 | 2.3 | 11 | 2.9 | 13 | 150 | 8 | 140 | 24 |
| 25 | 69 | 53 | 61 | 5 | 52 | 53 | 4 | 0 | 0554 | 1756 | RA BR | 0 | M | 0.0 | 0.00 | 28.69 | M | 4.8 | 11 | 5.8 | 23 | 340 | 16 | 040 | 25 |
| 26 | 59 | 48 | 54 | -1 | | | 11 | 0 | 0555 | 1755 | RA BR | 0 | M | 0.0 | 0.33 | 28.53 | 30.26 | 7.5 | 06 | 7.6 | 21 | 030 | 14 | 040 | 26 |
| 27 | 68 | 58 | 63 | 8 | 61 | 62 | 2 | 0 | 0556 | 1753 | RA BR | 0 | M | 0.0 | 0.39 | 28.35 | M | 4.7 | 12 | 5.2 | 20 | 130 | 14 | 150 | 27 |
| 28 | 67 | 58 | 63 | 8 | 50 | 52 | 2 | 0 | 0557 | 1751 | FG+ | 0 | M | 0.0 | 0.30 | 28.25 | 29.97 | 5.8 | 36 | 6.4 | 22 | 350 | 16 | 350 | 28 |
| 29 | 58 | 47 | 53 | -1 | 52 | 54 | 12 | 0 | 0558 | 1749 | RA FG+ BR | 0 | M | 0.0 | 0.00 | 28.30 | 30.04 | 6.0 | 35 | 7.0 | 17 | 340 | 14 | 350 | 29 |
| 30 | 64 | 48 | 56 | 2 | | | 9 | 0 | 0560 | 1748 | | M | M | M | 0.07 | 28.15 | M | 5.4 | 18 | 6.6 | 20 | 150 | 15 | 160 | 30 |
| | 64.2 | 52.0 | 58.1 | | M | M | 4.9 | 1.4 | <-----Monthly Averages \| Totals-----> | | | | M | M | 1.09s | 28.32 | 30.06 | M | M | M | <Monthly Average | | | | |
| | -3.6 | 2.1 | -0.7 | | <----------Departure From Normal----------> | | | | | | | | -2.50 | | | | | | | | | | | | |

**Degree Days**

| | Monthly Total | Monthly Departure | Season to Date Total | Season to Date Departure |
|---|---|---|---|---|
| Heating: | 146 | -56 | 187 | -80 |

Greatest 24-hr Precipitation: 0.53s Date: 27-28

Greatest 24-hr Snowfall: M Date: M

Greatest Snow Depth: M Date: M

| Sea Level Pressure | | Date | Time (LST) |
|---|---|---|---|
| Maximum | 30.40 | 25 | 2250 |
| Minimum | 29.72 | 30 | 2359 |

# QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

**(may be updated)**

**NOAA, National Climatic Data Center**

**Month: 10/2008**

**Station Location:** **GREATER BINGHAMTON/E A LINK FIELD AP (04725)**

**BINGHAMTON , NY**

Lat. 42.208 Lon. -75.981

Elevation (Ground): 1595 ft. above sea level

| Date | Temperature (Fahrenheit) Max. | Min. | Avg. | Dep From Normal | Avg. Dew pt. | Avg Wet Bulb | Degree Days Base 65 Degrees Heating | Cooling | Sun Sunrise LST | Sunset LST | Significant Weather | Snow/Ice on Ground(In) 1200 UTC Depth | 1800 UTC Water Equiv | Precipitation (In) 2400 LST Snow Fall | 2400 LST Water Equiv | Pressure(inches of Hg) Avg. Station | Avg. Sea Level | Wind: Speed=mph Dir=tens of degrees Resultant Speed | Res Dir | Avg. Speed | max 5-second Speed | Dir | max 2-minute Speed | Dir | Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 01 | 62 | 47 | 55 | 1 | 49 | 50 | 10 | 0 | 0601 | 1746 | | M | M | M | 0.04 | 27.96 | 29.66 | 4.4 | 25 | 5.6 | 18 | 240 | 15 | 250 | 01 |
| 02 | 56 | 43 | 50 | -3 | 40 | 44 | 15 | 0 | 0602 | 1744 | RA BR | M | M | M | 0.01 | 27.94 | 29.68 | 9.2 | 27 | 10.3 | 30 | 270 | 22 | 260 | 02 |
| 03 | 55 | 39 | 47 | -6 | 37 | 42 | 18 | 0 | 0603 | 1743 | RA | M | M | M | 0.07 | 28.15 | 29.93 | 6.5 | 26 | 7.9 | 28 | 260 | 21 | 250 | 03 |
| 04 | 58 | 34 | 46 | -6 | 36 | 41 | 19 | 0 | 0604 | 1741 | RA | M | M | M | 0.00 | 28.43 | 30.22 | 2.1 | 27 | 4.8 | 15 | 260 | 12 | 260 | 04 |
| 05 | 58 | 35 | 47 | -5 | 38 | 43 | 18 | 0 | 0605 | 1739 | | M | M | M | 0.00 | 28.53 | 30.30 | 2.5 | 35 | 4.0 | 17 | 350 | 14 | 340 | 05 |
| 06 | 55 | 38 | 47 | -5 | 34 | 41 | 18 | 0 | 0606 | 1737 | BR | M | M | M | 0.00 | 28.59 | 30.37 | 6.9 | 35 | 7.9 | 25 | 350 | 21 | 350 | 06 |
| 07 | 60 | 34 | 47 | -4 | 32 | 40 | 18 | 0 | 0607 | 1736 | | M | M | M | 0.00 | 28.61 | 30.37 | 2.3 | 33 | 3.9 | 16 | 010 | 10 | 350 | 07 |
| 08 | 64 | 36 | 50 | -1 | 43 | 47 | 15 | 0 | 0608 | 1734 | | M | M | M | 0.06 | 28.34 | 30.07 | 7.1 | 18 | 7.6 | 22 | 180 | 17 | 180 | 08 |
| 09 | 70 | 53 | 62 | 11 | 49 | 54 | 3 | 0 | 0609 | 1732 | RA BR | M | M | M | T | 28.21 | 29.96 | 7.7 | 26 | 8.6 | 29 | 220 | 17 | 270 | 09 |
| 10 | 66 | 47 | 57 | 7 | 36 | 47 | 8 | 0 | 0611 | 1731 | RA BR | M | M | M | 0.00 | 28.48 | 30.25 | 4.1 | 31 | 5.4 | 35 | 270 | 13 | 350 | 10 |
| 11 | 70 | 41 | 56 | 6 | 40 | 48 | 9 | 0 | 0612 | 1729 | | M | M | M | 0.00 | 28.69 | 30.45 | 2.1 | 35 | 2.5 | 28s | 330 | 12 | 360 | 11 |
| 12 | 72 | 43 | 58 | 9 | 44 | 51 | 7 | 0 | 0613 | 1728 | | M | M | M | 0.00 | 28.74 | 30.50 | 2.2 | 21 | 3.1 | 28s | 210 | 8 | 220 | 12 |
| 13 | 72 | 54 | 63 | 14 | 48 | 54 | 2 | 0 | 0614 | 1726 | | M | M | M | 0.00 | 28.63 | 30.36 | 2.7 | 26 | 3.6 | 32s | 330 | 9 | 240 | 13 |
| 14 | 75* | 50 | 63* | 14 | 51 | 56 | 2 | 0 | 0615 | 1724 | | M | M | M | T | 28.45 | 30.16 | 4.5 | 27 | 7.6 | 28 | 310 | 17 | 340 | 14 |
| 15 | 66 | 44 | 55 | 7 | 42 | 49 | 10 | 0 | 0616 | 1723 | | M | M | M | 0.00 | 28.38 | 30.11 | 2.3 | 24 | 4.2 | 31s | 020 | 12 | 270 | 15 |
| 16 | 65 | 47 | 56 | 8 | 49 | 52 | 9 | 0 | 0617 | 1721 | RA BR | M | M | M | 0.42 | 28.25 | 29.98 | 6.2 | 29 | 9.9 | 29 | 330 | 20 | 330 | 16 |
| 17 | 51 | 36 | 44 | -4 | 33 | 39 | 21 | 0 | 0619 | 1720 | | M | M | M | 0.00 | 28.41 | 30.17 | 9.9 | 36 | 10.0 | 21 | 350 | 16 | 360 | 17 |
| 18 | 50 | 32 | 41 | -6 | 27 | 35 | 24 | 0 | 0620 | 1718 | | M | M | M | 0.00 | 28.48 | 30.27 | 7.4 | 02 | 8.0 | 22 | 360 | 16 | 360 | 18 |
| 19 | 53 | 31 | 42 | -5 | 24 | 34 | 23 | 0 | 0621 | 1716 | | M | M | M | 0.00 | 28.60 | 30.38 | 3.3 | 04 | 4.6 | 24 | 060 | 14 | 060 | 19 |
| 20 | 57 | 28 | 43 | -4 | 25 | 37 | 22 | 0 | 0622 | 1715 | RA | M | M | M | 0.00 | 28.45 | 30.20 | 2.5 | 23 | 3.5 | 32s | 320 | 10 | 250 | 20 |
| 21 | 51 | 34 | 43 | -3 | 32 | 38 | 22 | 0 | 0623 | 1713 | SN BR UP | M | M | M | 0.06 | 28.20 | 29.96 | 9.9 | 28 | 11.7 | 35 | 280 | 25 | 280 | 21 |
| 22 | 41 | 32 | 37 | -9 | 30 | 33 | 28 | 0 | 0624 | 1712 | | M | M | M | 0.01 | 28.53 | 30.38 | 11.5 | 35 | 11.8 | 26 | 350 | 21 | 330 | 22 |
| 23 | 52 | 32 | 42 | -4 | 28 | 35 | 23 | 0 | 0626 | 1710 | | M | M | M | 0.00 | 28.81 | 30.61 | 2.0 | 07 | 3.5 | 40s | 120 | 8 | 010 | 23 |
| 24 | 50 | 31 | 41 | -4 | 30 | 37 | 24 | 0 | 0627 | 1709 | RA BR | M | M | M | 0.00 | 28.64 | 30.40 | 8.2 | 16 | 8.4 | 25 | 180 | 17 | 170 | 24 |
| 25 | 57 | 44 | 51 | 6 | 48 | 48 | 14 | 0 | 0628 | 1708 | RA | M | M | M | 1.50 | 28.23 | 29.94 | 7.9 | 16 | 11.6 | 31 | 150 | 23 | 140 | 25 |
| 26 | 55 | 38 | 47 | 2 | 38 | 43 | 18 | 0 | 0629 | 1706 | RA BR | M | M | M | T | 28.09 | 29.84 | 8.1 | 22 | 9.0 | 29 | 230 | 17 | 290 | 26 |
| 27 | 49 | 38 | 44 | 0 | 33 | 40 | 21 | 0 | 0631 | 1705 | SN BR UP | M | M | M | 0.10 | 28.17 | 29.93 | 3.5 | 29 | 7.2 | 22 | 250 | 16 | 270 | 27 |
| 28 | 38 | 31 | 35 | -9 | | | 30 | 0 | 0632 | 1703 | SN BR | M | M | M | 0.68 | 27.89 | M | 16.9 | 33 | 18.4 | 45 | 300 | 30 | 300 | 28 |
| 29 | 33 | 29 | 31* | -13 | 25 | 29 | 34 | 0 | 0633 | 1702 | SN BR | M | M | M | 0.02 | 27.97 | 29.80 | 12.9 | 29 | 13.1 | 40 | 290 | 25 | 300 | 29 |
| 30 | 43 | 28* | 36 | -7 | 23 | 30 | 29 | 0 | 0634 | 1701 | | M | M | M | T | 28.52 | 30.37 | 6.1 | 31 | 6.9 | 23 | 310 | 17 | 310 | 30 |
| 31 | 62 | 35 | 49 | 6 | 29 | 40 | 16 | 0 | 0635 | 1659 | | M | M | M | 0.00 | 28.58 | 30.35 | 8.9 | 24 | 9.2 | 20 | 250 | 16 | 250 | 31 |
| | 57.0 | 38.2 | 47.6 | | 36.4 | 42.6 | 17.1 | 0.0 | <-----Monthly Averages \| Totals-----> | | | | M | M | 2.97 | 28.38 | 30.14 | 3.2 | 29 | 7.5 | <Monthly Average | | | | |
| | 0.3 | -1.4 | -0.5 | <----------Departure From Normal----------> | | | | | | | | | -0.05 | | | | | | | | | | | | |

**Degree Days**

| | Monthly Total | Monthly Departure | Season to Date Total | Season to Date Departure |
|---|---|---|---|---|
| Heating: | 530 | 16 | 717 | -64 |

Greatest 24-hr Precipitation: 1.50 Date: 25

Greatest 24-hr Snowfall: M Date: M

Greatest Snow Depth: M Date: M

| Sea Level Pressure | | Date | Time (LST) |
|---|---|---|---|
| Maximum | 30.69 | 23 | 1019 |
| Minimum | 29.50 | 28 | 1550 |

# APPENDIX B.3

# TIME SERIES PLOTS – FIGURES B.1 THROUGH B.37

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**Figure B.1**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.2**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.3**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.4**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
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**Figure B.5**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
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**Figure B.6**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.7**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.8**
**TCE in Soil Vapor and Groundwater**
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Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.9**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.10**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.11**
**TCE in Soil Vapor and Groundwater**
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Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.12**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.13**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.14**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.15**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
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**Figure B.16**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
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**Figure B.17**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
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**Figure B.18**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.19**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
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**Figure B.20**
**TCE in Soil Vapor and Groundwater**
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**Figure B.21**
**TCE in Soil Vapor and Groundwater**
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**Figure B.22**
**TCE in Soil Vapor and Groundwater**
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**Figure B.23**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
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**Figure B.24**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
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**Figure B.25**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
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**Figure B.26**
**TCE in Soil Vapor and Groundwater**
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**Figure B.27**
**TCE in Soil Vapor and Groundwater**
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Comprehensive Operations, Maintenance, & Monitoring Program
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**Figure B.28**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.29**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
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**Date**

**Figure B.30**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.31**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.32**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
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**Figure B.33**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
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**Figure B.34**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
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**Figure B.35**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.36**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

**Figure B.37**
**TCE in Soil Vapor and Groundwater**
Semiannual Report - Soil Vapor Monitoring through October 2008
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

# APPENDIX B.4

# LETTER REPORT – TRANSMITTAL OF BIWEEKLY SAMPLING RESULTS - OU#4 SOIL VAPOR IMPLANTS, ENDICOTT, NEW YORK

SHA
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IMPROVING EARTH

SANBORN, HEAD & ASSOCIATES, INC.
95 High Street ■ Portland, ME 04101
P (207) 761-9300 ■ F (207) 761-9339
www.sanbornhead.com

December 3, 2008
File No. 2755.02

Mr. Michael Kominek
IBM Corporate Environmental Affairs
8976 Wellington road
Manassas, VA 20109

Re: Transmittal of Bi-Weekly Sampling Results
OU#4 Soil Vapor Implants
Endicott, New York

Dear Mr. Kominek:

This letter is intended to provide a summary of data and observations derived from bi-weekly soil vapor sampling of the two soil vapor implants located in the OU#4 area. The OU#4 soil vapor implants were installed and sampled once in mid-August 2008 by TerraTherm of Fitchburg, Massachusetts. We understand that the materials and methods were consistent with the other soil vapor monitoring installations under the soil vapor monitoring OM&M Program and the protocols provided to TerraTerm by SHA. Subsequently, IBM asked SHA to assume responsibility for sampling the implants.

The OU#4 implants have been sampled by SHA since September 18, 2008 and will continue to be sampled every other week through February 20, 2009. Thermal desorption pilot testing began in August 18, 2008 and was terminated on November 25, 2008. The locations of the implants in relation to the OU#4 area are shown on Figure 1. We understand IBM may chose to transmit the data included in this letter to appropriate agencies.

Sampling of the implants has been performed by SHA personnel on the dates noted in the table below, following protocols established for the Endicott Soil Vapor Monitoring program. For a detailed description of the sampling procedure, refer to SHA's soil vapor monitoring plan[1]. Samples were submitted to Air Toxics, Ltd. of Folsom, California and analyzed for the compound list used for routine soil vapor monitoring which includes tetrachloroethene (PCE) and its breakdown products.

**SUMMARY OF FINDINGS**

The soil vapor results to date are summarized in Table 1. The key findings include:

[1] Sanborn, Head & Associates, Inc., September 29, 2004, Soil Vapor Monitoring Plan.

- The presence of chlorinated ethenes, primarily PCE was detected in samples from both implants;

- PCE has been detected at location EN08-39S at levels four orders of magnitude above those detected in sampling of location EN08-38S;

- Analytical results over five rounds of sampling have been generally consistent. Rounded to two significant digits, the data are quite consistent except for the first sampling conducted by others which indicated concentrations about double what was detected in five subsequent samplings. This may reflect differences in sampling or laboratory techniques.

**CLOSING**

The attached soil vapor data results indicate consistent levels of chlorinated ethenes at the OU#4 site. It is our understanding that thermal desorption pilot testing has been discontinued at the site as of mid-November 2008. SHA will continue to monitor soil vapor at the site until March 2009.

The next sampling round is scheduled for the week of November 24, 2008. We anticipate that that this data report will be updated approximately every two months and transmitted to you. We trust that this frequency of reporting is acceptable to you. If this is not the case, please contact us.

Very truly yours,
SANBORN, HEAD & ASSOCIATES, INC.

Erica Bradstreet
Senior Project Geologist

Daniel B. Carr, P.E., P.G.
Principal and Vice President

EMB/DBC:emb

Encl.
Figure 1 Location Plan (1 page)
Table 1 Summary of Soil Vapor Implant Analytical Results (1 page)

S:\PORDATA\2700s\2755.00\Correspondence\200811_OU#4 Data Memo\20081117_Transmittal Letter.docx

1. This figure is intended to depict soil vapor monitoring locations that have been installed in the OU#4 area. The locations of the soil vapor monitoring implants are based on taped measurements relative to physical features in the field and are accurate only to the degree implied by the method used.

2. The base map information presented below is adapted from four AutoCAD drawings entitled "Endicott2000.dwg", "Union2000.dwg", "Unioneast.dwg", and "Endicottpln.dwg". The drawings were provided by the Broome County mapping division and were received by SHA on October 10, 2002. The building outlines and other site features are based on an AutoCAD drawing entitled "9_03_base.dwg" provided by Groundwater Sciences Corporation (GSC) of Harrisburg, Pennsylvania to SHA in September 2003.

N
W E
S

0 50'

SHA
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Drawn By: E. Bradstreet
Designed By: E. Bradstreet
Reviewed By: D. Carr
Date: December 2008

Figure 1
**Soil Vapor Implant Location Plan**
**OU#4 – Former Ideal Cleaners**
Endicott, New York

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FILE: E:\PORTLAND\2755\dwg\20081117_OU#4 Location_Plan.dwg
PLOT DATE: 11-18-08

# Table 1

**Summary of OU#4 Soil Vapor Implant Analytical Results**

Comprehensive Operations, Maintenance, and Monitoring Program

Endicott, New York

| Location | Date | Type | Chlorinated Ethenes (µg/m$^3$) | | |

# APPENDIX B.5

# PROPOSED MONITORING PROGRAM FOR CALENDAR YEAR 2009

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# Table B.5.1
## Proposed Monitoring Program for Calendar Year 2009
Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

| Implant | August | October | December | February | April | June |
|---|---|---|---|---|---|---|
| EN04-1S | 1 | | | 1 | | |
| EN04-1D | 1 | | | 1 | | |
| EN04-2S | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-2D | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-3S | 1 | | | 1 | | |
| EN04-3D | 1 | | | 1 | | |
| EN04-4S | 1 | | | 1 | | |
| EN04-4D | 1 | | | 1 | | |
| EN04-5S | 1 | | | 1 | | |
| EN04-5D | 1 | | | 1 | | |
| EN04-6S | 1 | | | 1 | | |
| EN04-6D | 1 | | | 1 | | |
| EN04-7S | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-7D | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-9S | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-9D | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-10S | 1 | | | 1 | | |
| EN04-10D | 1 | | | 1 | | |
| EN04-11S | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-11D | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-12S | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-12D | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-13S | 1 | | | 1 | | |
| EN04-13D | 1 | | | 1 | | |
| EN04-14S | 1 | | | 1 | | |
| EN04-14D | 1 | | | 1 | | |
| EN04-15S | 1 | | | 1 | | |
| EN04-15D | 1 | | | 1 | | |
| EN04-16S | 1 | | | 1 | | |
| EN04-16D | 1 | | | 1 | | |
| EN04-17S | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-17D | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-18S | 1 | | | 1 | | |
| EN04-18D | 1 | | | 1 | | |
| EN04-19S | 1 | | | 1 | | |
| EN04-19D | 1 | | | 1 | | |
| EN04-20S | 1 | | | 1 | | |
| EN04-20I | | | | | | |
| EN04-20D | 1 | | | 1 | | |
| EN04-21S | 1 | | | 1 | | |
| EN04-21D | 1 | | | 1 | | |
| EN04-22S | 1 | | | 1 | | |
| EN04-22D | 1 | | | 1 | | |
| EN04-23S | 1 | | | 1 | | |
| EN04-23I | | | | | | |
| EN04-23D | 1 | | | 1 | | |
| EN04-25S | 1 | | | 1 | | |
| EN04-25D | 1 | | | 1 | | |
| EN04-26S | 1 | | | 1 | | |
| EN04-26D | 1 | | | 1 | | |
| EN04-27S | 1 | | | 1 | | |

# Table B.5.1
## Proposed Monitoring Program for Calendar Year 2009
Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

| Implant | August | October | December | February | April | June |
|---|---|---|---|---|---|---|
| EN07-28S | 1 | 1 | 1 | 1 | 1 | 1 |
| EN07-28I | | | | | | |
| EN07-28D | 1 | 1 | 1 | 1 | 1 | 1 |
| EN05-29S | 1 | 1 | 1 | 1 | 1 | 1 |
| EN05-29I | | | | | | |
| EN04-29D | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-30S | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-30D | 1 | 1 | 1 | 1 | 1 | 1 |
| EN04-31S | 1 | | | 1 | | |
| EN04-31D | 1 | | | 1 | | |
| EN04-32S | 1 | | | 1 | | |
| EN04-32D | 1 | | | 1 | | |
| EN05-33S | 1 | 1 | 1 | 1 | 1 | 1 |
| EN05-33I21 | | | | | | |
| EN05-33I29 | | | | | | |
| EN05-33D | 1 | 1 | 1 | 1 | 1 | 1 |
| EN05-34S | 1 | 1 | 1 | 1 | 1 | 1 |
| EN05-34I | | | | | | |
| EN05-34D | 1 | 1 | 1 | 1 | 1 | 1 |
| EN06-35S | 1 | | | 1 | | |
| EN06-35I16 | | | | | | |
| EN06-35I24 | | | | | | |
| EN06-35D | 1 | | | 1 | | |
| EN06-36S | 1 | | | 1 | | |
| EN06-36I21 | | | | | | |
| EN06-36I29 | | | | | | |
| EN06-36D | 1 | | | 1 | | |
| EN06-37S | 1 | 1 | 1 | 1 | 1 | 1 |
| EN06-37I | | | | | | |
| EN06-37D | 1 | 1 | 1 | 1 | 1 | 1 |
| **Totals** | **69** | **24** | **24** | **69** | **24** | **24** |

| OU#4 Implants | | | | | | |
|---|---|---|---|---|---|---|
| EN08-38S | 1 | 1 | 1 | 1 | 1 | 1 |
| EN08-39S | 1 | 1 | 1 | 1 | 1 | 1 |

Notes:
1. This table is intended to summarize the soil vapor implant locations proposed sampling frequency for 2009. It reflects our proposal to eliminate sampling of intermediate depth implants and reduce the frequency of sampling of select implant locations.

Figure B.5.1

# Heating Seasons Averages and Febuary Averages for 2004 through 2008

Semiannual Report - Soil Vapor Monitoring Through October 2008

Comprehensive Operations, Maintenance, & Monitoring Program

Endicott, New York

Drawn By: S. Warner
Designed By: D. Carr
Reviewed By: E. Bradstreet
Date: January, 2009

Notes:

1. These figures depict TCE concentrations in soil vapor samples at different times and are intended to aid in communicating general temporal trends in soil vapor concentrations consistent with the available data. Images A & C are averages of data collected between December and April from 2004 to 2008. Images B & D are averages of all data collected in February from 2005 to 2008.

The images were created using uniform and consistent spatial statistical algorithms as outlined in more detail in Appendix B.6 and are intended not as absolute indicators of the limits of soil vapor concentrations at a given time but a basis of comparison between data from different times.

2. See Figure 1 for additional notes and legend.

**Legend**

2,700 — Soil Vapor Implant Location. TCE concentrations in micrograms per cubic meter (µg/m³)

Limits of Ventilation

µg/m³
- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 500
- 500 - 1,000
- 1,000 - 5,000
- 5,000 - 10,000
- 10,000 - 50,000
- 50,000 - 100,000

450 225 0 450 900 1,350 Feet

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Figure B.5.2

# Non Heating Seasons Averages and August Averages for 2004 through 2008

Semiannual Report - Soil Vapor Monitoring Through October 2008

Comprehensive Operations, Maintenance, & Monitoring Program

Endicott, New York

Drawn By: S. Warner
Designed By: D. Carr
Reviewed By: E. Bradstreet
Date: January, 2009

Notes:

1. These figures depict TCE concentrations in soil vapor samples at different times and are intended to aid in communicating general temporal trends in soil vapor concentrations consistent with the available data. Images A & C are averages of data collected between August and October from 2004 to 2008. Images B & D are averages of all data collected in August from 2004 to 2008.

The images were created using uniform and consistent spatial statistical algorithms as outlined in more detail in Appendix B.6 and are intended not as absolute indicators of the limits of soil vapor concentrations at a given time but a basis of comparison between data from different times.

2. See Figure 1 for additional notes and legend.

## Legend

2,700 — Soil Vapor Implant Location. TCE concentrations in micrograms per cubic meter (µg/m³)

Limits of Ventilation

µg/m³:
- 0 - 5
- 5 - 10
- 10 - 50
- 50 - 100
- 100 - 500
- 500 - 1,000
- 1,000 - 5,000
- 5,000 - 10,000
- 10,000 - 50,000
- 50,000 - 100,000

475 237.5 0 475 950 1,425 Feet

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# APPENDIX B.6

# SUMMARY OF PLAN VIEW GRAPHICS

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# APPENDIX B.6

## Summary of Plan View Graphics
## Semiannual Report, Soil Vapor Monitoring Through October 2008
### Soil Vapor Monitoring Program, Endicott, New York

This Appendix and the report contain plan view graphics intended to aid in portraying soil vapor concentration trends consistent with the available data. As noted on the figures, the images were created using uniform and consistent spatial statistical algorithms and are not intended as indicators of the absolute limits of soil vapor concentrations but as basis of comparison among data sets from different times.

The soil vapor data used in the development of the figures were queried from a Microsoft Access ® database of the analytical result through October 2008. The posted values represent the computed arithmetic average of results was recorded over the noted time periods. The time period referred to as "Non-Heating Season" includes data recorded between August 1st and October 31st when seasonal high soil vapor conditions have been observed at foundation depth. Graphics depicting soil vapor concentrations during the "Heating Season" reflects data recorded between December 1st and April 30th.

The colored shading shown on the figures was generated using ArcGIS Geostatistical Analyst, employing an inverse distance weighted interpolation scheme (IDW). Please refer to the attached reference for additional information regarding the IDW interpolation used to develop the spatial transition of shading between actual observations. For each data set, the IDW algorithm was conditioned by specifying a circular distance of 1,000 feet and a distance weighting power function of 10.

The Symbology, or color coding also remains consistent between each image with soil vapor concentrations depicted in shades of green to purple with increasing concentration. Each level of color shading reflects a half order of magnitude interval in micrograms per cubic meter $\mu g/m^{3.}$ The major color divisions between grey, and shades of green, blue, and purple highlight concentration milestones of <5 $\mu g/m^3$, 100 $\mu g/m^3$, and 10,000 $\mu g/m^3$. A mask was used to display shading within the ventilation limits or within the limits of soil vapor implant locations.
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Geostatistical Analyst

# How Inverse Distance Weighted (IDW) interpolation works

related topics

IDW interpolation explicitly implements the assumption that things that are close to one another are more alike than those that are farther apart. To predict a value for any unmeasured location, IDW will use the measured values surrounding the prediction location. Those measured values closest to the prediction location will have more influence on the predicted value than those farther away. Thus, IDW assumes that each measured point has a local influence that diminishes with distance. It weights the points closer to the prediction location greater than those farther away, hence the name inverse distance weighted.

See *Using ArcGIS Geostatistical Analyst* for formula and additional information.

Learn more about the interpolation techniques available in ArcGIS Geostatistical Analyst

## The Power function

The optimal power (p) value is determined by minimizing the root mean square prediction error (RMSPE). The RMSPE is the statistic that is calculated from cross-validation. In cross-validation, each measured point is removed and compared to the predicted value for that location. The RMSPE is a summary statistic quantifying the error of the prediction surface. Geostatistical Analyst tries several different powers for IDW to identify the power that produces the minimum RMSPE. The diagram below shows how Geostatistical Analyst calculates the optimal power. The RMSPE is plotted for several different powers for the same dataset. A curve is fit to the points (a quadratic Local Polynomial equation), and from the curve the power that provides the smallest RMSPE is determined as the optimal power.

Weights are proportional to the inverse distance raised to the power value *p*. As a result, as the distance increases, the weights decrease rapidly. How fast the weights decrease is dependent on the value for *p*. If $p = 0$, there is no decrease with distance, and because each weight $\lambda_i$ will be the same, the prediction will be the mean of all the measured values. As *p* increases, the weights for distant points decrease rapidly. If the *p* value is very high, only the immediate few surrounding points will influence the prediction.

Geostatistical Analyst uses power functions greater than 1. A $p = 2$ is known as the inverse distance squared weighted interpolation.

## The search neighborhood

Because things that are close to one another are more alike than those farther away, as the locations get farther away, the measured values will have little relationship with the value of the prediction location. To speed calculations you can discount to zero the more distant points with little influence. As a result, it is common practice to limit the number of measured values that are used when predicting the unknown value for a location by specifying a search neighborhood. The specified shape of the neighborhood restricts how far and where to look for the measured values to be used in the prediction. Other neighborhood parameters restrict the locations that will be used within that shape. In the following image, five measured points (neighbors) will be used when predicting a value for the location without a measurement, the yellow point.

The shape of the neighborhood is influenced by the input data and the surface you are trying to create. If there are no directional influences on the weighting of your data, you'll want to consider points equally in all directions. To do so, you'll probably want the shape of your neighborhood to be a circle. However, if there is a directional influence on your data, such as a prevailing wind, you may want to adjust for it by changing the shape of your neighborhood to an ellipse with the major axis parallel with the wind. The adjustment for this directional influence is justified because you know that locations upwind from a prediction location are going to be more similar at remote distances than locations that are perpendicular to the wind.

Once a neighborhood shape is specified, you can restrict which locations within the shape should be used. You can define the maximum and minimum number of locations to use, and you can divide the neighborhood into sectors. If you divide the neighborhood into sectors, the maximum and minimum constraints will be applied to each sector. There are several different sectors that can be used and are displayed below.

The points highlighted in the data view of the Searching Neighborhood dialog box identify the locations and the weights that will be used for predicting a location at the center of the ellipse. The neighborhood is contained within the displayed ellipse. In the following example, two points (red) in the sector to the west and one point in the southern sector will be weighted more than 10 percent. In the northern sector, one point (yellow) will be weighted between 3 percent and 5 percent.

## When to use IDW

The surface calculated using IDW depends on the selection of a power value (p) and the neighborhood search strategy. IDW is an exact interpolator, where the maximum and minimum values (see diagram above) in the interpolated surface can only occur at sample points. The output surface is sensitive to clustering and the presence of outliers. IDW assumes that the surface is being driven by the local variation, which can be captured through the neighborhood.

# APPENDIX C

# COMPACT DISC OF DATA
# AND DATA USABILITY ASSESSMENT

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# APPENDIX C.1

## TABLE C.1 – SUMMARY OF ANALYTICAL LABORATORY DATA OCTOBER 2007 THROUGH OCTOBER 2008

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**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | Trichloroethene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | Vinyl Chloride | 1,1,1-Trichloroethane | 1,1-Dichloroethene | 1,1-Dichloroethane | Chloroethane | Methylene Chloride | Freon 113 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-1** | EN04-1S | 8 | 10-Oct-07 | EN041S101007 | Summa Canister | 20.3 | 0.7 | 0.0 | 2.42 | N | N | | | µg/m3 | < 8.2 U | **46** | < 4.8 U | < 4.8 U | < 3.1 U | **14** | < 4.8 U | < 4.9 U | < 3.2 U | < 4.2 U | < 9.3 U |
| Monitoring Well **EN-094** | EN04-1S | 8 | 4-Dec-07 | EN041S120407 | Summa Canister | 20.5 | 0.0 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 U | **16** | < 3.2 U | < 3.2 U | < 2.1 U | < 4.5 U | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-1S | 8 | 12-Feb-08 | EN041S021208 | Summa Canister | 20.5 | 0.0 | 0.0 | 2.24 | N | N | | | µg/m3 | < 7.6 U | **6.2** | < 4.4 U | < 4.4 U | < 2.9 U | < 6.1 U | < 4.4 U | < 4.5 U | < 3.0 U | < 3.9 U | < 8.6 U |
| | EN04-1S | 8 | 7-Apr-08 | EN041S040708 | Summa Canister | 20.1 | 0.0 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 U | **5.2** | < 3.4 U | < 3.4 U | < 2.2 U | < 4.7 U | < 3.4 U | < 3.5 U | < 2.2 U | < 3.0 U | < 6.6 U |
| | EN04-1S | 8 | 9-Jun-08 | EN041S060908 | Summa Canister | 19.9 | 0.3 | 0.0 | 1.91 | N | N | | | µg/m3 | < 6.5 U | **14** | < 3.8 U | < 3.8 U | < 2.4 U | < 5.2 U | < 3.8 U | < 3.9 U | < 2.5 U | < 3.3 U | < 7.3 U |
| | EN04-1S | 8 | 13-Aug-08 | EN041S081308 | Summa Canister | 20.0 | 0.6 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | **30** | < 3.5 U | < 3.5 U | < 2.2 U | **5.4** | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| | EN04-1S | 8 | 13-Oct-08 | EN041S101308 | Summa Canister | 20.0 | 0.6 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **22** | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-1D | 23 | 10-Oct-07 | EN041D101007 | Summa Canister | 20.3 | 0.7 | 0.0 | 2.69 | N | N | | | µg/m3 | < 9.1 U | **250** | < 5.3 U | < 5.3 U | < 3.4 U | **54** | < 5.3 U | < 5.4 U | < 3.5 U | < 4.7 U | < 10 U |
| | EN04-1D | 23 | 4-Dec-07 | EN041D120407 | Summa Canister | 20.5 | 0.0 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | **280** | < 3.2 U | < 3.2 U | < 2.0 U | **48** | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-1D Dup | 23 | 4-Dec-07 | DU3361120407 | Summa Canister | 20.5 | 0.0 | 0.0 | 1.58 | N | N | | | µg/m3 | < 5.4 U | **280** | < 3.1 U | < 3.1 U | < 2.0 U | **46** | < 3.1 U | < 3.2 U | < 2.1 U | < 2.7 U | < 6 U |
| | EN04-1D | 23 | 12-Feb-08 | EN041D021208 | Summa Canister | 20.3 | 0.0 | 0.0 | 2.38 | N | N | | | µg/m3 | < 8.1 U | **210** | < 4.7 U | < 4.7 U | < 3.0 U | **32** | < 4.7 U | < 4.8 U | < 3.1 U | < 4.1 U | < 9.1 U |
| | EN04-1D | 23 | 7-Apr-08 | EN041D040708 | Summa Canister | 20.2 | 0.0 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 U | **140** | < 3.4 U | < 3.4 U | < 2.2 U | **18** | < 3.4 U | < 3.5 U | < 2.2 U | < 3.0 U | < 6.6 U |
| | EN04-1D | 23 | 9-Jun-08 | EN041D060908 | Summa Canister | 20.2 | 0.2 | 0.0 | 1.91 | N | N | | | µg/m3 | < 6.5 U | **150** | < 3.8 U | < 3.8 U | < 2.4 U | **20** | < 3.8 U | < 3.9 U | < 2.5 U | < 3.3 U | < 7.3 U |
| | EN04-1D | 23 | 13-Aug-08 | EN041D081308 | Summa Canister | 20.1 | 0.3 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 U | **180** | < 3.5 U | < 3.5 U | < 2.3 U | **28** | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN04-1D | 23 | 13-Oct-08 | EN041D101308 | Summa Canister | 19.7 | 0.7 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | **210** | < 3.5 U | < 3.5 U | < 2.2 U | **35** | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| Designation **EN04-2** | EN04-2S | 8 | 9-Oct-07 | EN042S100907 | Summa Canister | 20.8 | 0.2 | 0.0 | 2.64 | N | N | | | µg/m3 | < 9.0 U | **7.4** | < 5.2 U | < 5.2 U | < 3.4 U | < 7.2 U | < 5.2 U | < 5.3 U | < 3.5 U | < 4.6 U | < 10 U |
| Monitoring Well **EN-450** | EN04-2S | 8 | 4-Dec-07 | EN042S120407 | Summa Canister | 21.0 | 0.2 | 0.0 | 2.24 | N | N | | | µg/m3 | < 7.6 U | < 6.0 U | < 4.4 U | < 4.4 U | < 2.9 U | < 6.1 U | < 4.4 U | < 4.5 U | < 3.0 U | < 3.9 U | < 8.6 U |
| | EN04-2S | 8 | 12-Feb-08 | EN042S021208 | Summa Canister | 20.2 | 0.1 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | < 4.3 U | < 3.2 U | < 3.2 U | < 2.0 U | < 4.4 U | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-2S | 8 | 7-Apr-08 | EN042S040708 | Summa Canister | 20.4 | 0.0 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | < 4.3 U | < 3.2 U | < 3.2 U | < 2.0 U | < 4.4 U | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-2S | 8 | 9-Jun-08 | EN042S060908 | Summa Canister | 20.0 | 0.2 | 0.0 | 1.91 | N | N | | | µg/m3 | < 6.5 U | < 5.1 U | < 3.8 U | < 3.8 U | < 2.4 U | < 5.2 U | < 3.8 U | < 3.9 U | < 2.5 U | < 3.3 U | < 7.3 U |
| | EN04-2S | 8 | 12-Aug-08 | EN042S081208 | Summa Canister | 20.5 | 0.3 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | **6.2** | < 3.5 U | < 3.5 U | < 2.2 U | < 4.8 U | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| | EN04-2S | 8 | 16-Oct-08 | EN042S101608 | Summa Canister | 20.0 | 0.0 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | < 4.7 U | < 3.5 U | < 3.5 U | < 2.2 U | < 4.8 U | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| | EN04-2D | 20 | 9-Oct-07 | EN042D100907 | Summa Canister | 20.7 | 0.1 | 0.0 | 2.58 | N | N | | | µg/m3 | **39** | **220** | < 5.1 U | < 5.1 U | < 3.3 U | **13** | < 5.1 U | < 5.2 U | < 3.4 U | < 4.5 U | < 9.9 U |
| | EN04-2D Dup | 20 | 9-Oct-07 | DU3300100907 | Summa Canister | 20.7 | 0.1 | 0.0 | 2.76 | N | N | | | µg/m3 | **42** | **240** | < 5.5 U | < 5.5 U | < 3.5 U | **12** | < 5.5 U | < 5.6 U | < 3.6 U | < 4.8 U | < 10 U |
| | EN04-2D | 20 | 4-Dec-07 | EN042D120407 | Summa Canister | 20.7 | 0.4 | 0.1 | 2.09 | N | N | | | µg/m3 | **40** | **210** | < 4.1 U | < 4.1 U | < 2.7 U | **8.9** | **5.3** | < 4.2 U | < 2.8 U | **25** | < 8.0 U |
| | EN04-2D | 20 | 12-Feb-08 | EN042D021208 | Summa Canister | 20.0 | 0.2 | 0.0 | 1.55 | N | N | | | µg/m3 | **21** | **130** | **5.4** | < 3.1 U | < 2.0 U | **8.2** | < 3.1 U | < 3.1 U | < 2.0 U | < 2.7 U | < 5.9 U |
| | EN04-2D | 20 | 7-Apr-08 | EN042D040708 | Summa Canister | 20.3 | 0.1 | 0.0 | 1.61 | N | N | | | µg/m3 | **21** | **120** | < 3.2 U | < 3.2 U | < 2.0 U | **5.4** | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-2D | 20 | 9-Jun-08 | EN042D060908 | Summa Canister | 20.1 | 0.0 | 0.0 | 1.83 | N | N | | | µg/m3 | **20** | **99** | < 3.6 U | < 3.6 U | < 2.3 U | **7.4** | < 3.6 U | < 3.7 U | < 2.4 U | < 3.2 U | < 7 U |
| | EN04-2D | 20 | 12-Aug-08 | EN042D081208 | Summa Canister | 20.5 | 0.3 | 0.0 | 1.79 | N | N | | | µg/m3 | **20** | **120** | < 3.5 U | < 3.5 U | < 2.3 U | **12** | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN04-2D Dup | 20 | 12-Aug-08 | DU3339081208 | Summa Canister | 20.5 | 0.3 | 0.0 | 1.79 | N | N | | | µg/m3 | **21** | **120** | < 3.5 U | < 3.5 U | < 2.3 U | **12** | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN04-2D | 20 | 16-Oct-08 | EN042D101608 | Summa Canister | 20.9 | 0.4 | 0.0 | 1.75 | N | N | | | µg/m3 | **26** | **160** | < 3.5 U | < 3.5 U | < 2.2 U | **12** | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | | Trichloroethene | | cis-1,2-Dichloroethene | | trans-1,2-Dichloroethene | | Vinyl Chloride | | 1,1,1-Trichloroethane | | 1,1-Dichloroethene | | 1,1-Dichloroethane | | Chloroethane | | Methylene Chloride | | Freon 113 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-3** | EN04-3S | 8 | 9-Oct-07 | EN043S100907 | Summa Canister | 20.3 | 0.1 | 0.0 | 2.58 | N | N | | | µg/m3 | < 8.8 | U | < 6.9 | U | < 5.1 | U | < 5.1 | U | < 3.3 | U | < 7.0 | U | < 5.1 | U | < 5.2 | U | < 3.4 | U | < 4.5 | U | < 9.9 | U |
| Monitoring Well **EN-203** | EN04-3S | 8 | 4-Dec-07 | EN043S120407 | Summa Canister | 20.4 | 0.0 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 | U | < 4.4 | U | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 4.5 | U | < 3.2 | U | < 3.3 | U | < 2.2 | U | < 2.8 | U | < 6.3 | U |
| | EN04-3S | 8 | 13-Feb-08 | EN043S021308 | Summa Canister | 20.4 | 0.0 | 0.0 | 1.46 | N | N | | | µg/m3 | < 5.0 | U | < 3.9 | U | < 2.9 | U | < 2.9 | U | < 1.9 | U | < 4.0 | U | < 2.9 | U | < 3.0 | U | < 1.9 | U | < 2.5 | U | < 5.6 | U |
| | EN04-3S | 8 | 7-Apr-08 | EN043S040708 | Summa Canister | 20.5 | 0.0 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 | U | < 4.4 | U | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 4.5 | U | < 3.2 | U | < 3.3 | U | < 2.2 | U | < 2.8 | U | < 6.3 | U |
| | EN04-3S | 8 | 9-Jun-08 | EN043S060908 | Summa Canister | 20.6 | 0.1 | 0.0 | 1.52 | N | N | | | µg/m3 | < 5.2 | U | < 4.1 | U | < 3 | U | < 3 | U | < 1.9 | U | < 4.1 | U | < 3 | U | < 3.1 | U | < 2 | U | < 2.6 | U | < 5.8 | U |
| | EN04-3S | 8 | 11-Aug-08 | EN043S081108 | Summa Canister | 20.5 | 0.4 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 | U | < 4.5 | U | < 3.3 | U | < 3.3 | U | < 2.1 | U | < 4.6 | U | < 3.3 | U | < 3.4 | U | < 2.2 | U | < 2.9 | U | < 6.4 | U |
| | EN04-3S | 8 | 15-Oct-08 | EN043S101508 | Summa Canister | 20.1 | 0.2 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 | U | < 4.5 | U | < 3.3 | U | < 3.3 | U | < 2.1 | U | < 4.6 | U | < 3.3 | U | < 3.4 | U | < 2.2 | U | < 2.9 | U | < 6.4 | U |
| | EN04-3D | 19 | 9-Oct-07 | EN043D100907 | Summa Canister | 20.2 | 0.1 | 0.0 | 3.37 | N | N | | | µg/m3 | < 11 | U | **36** | | < 6.7 | U | < 6.7 | U | < 4.3 | U | < 9.2 | U | < 6.7 | U | < 6.8 | U | < 4.4 | U | < 5.8 | U | < 13 | U |
| | EN04-3D | 19 | 4-Dec-07 | EN043D120407 | Summa Canister | 20.5 | 0.0 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 | U | **43** | | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 4.5 | U | < 3.2 | U | < 3.3 | U | < 2.2 | U | < 2.8 | U | < 6.3 | U |
| | EN04-3D | 19 | 13-Feb-08 | EN043D021308 | Summa Canister | 20.5 | 0.0 | 0.0 | 1.39 | N | N | | | µg/m3 | < 4.7 | U | **15** | | < 2.8 | U | < 2.8 | U | < 1.8 | U | < 3.8 | U | < 2.8 | U | < 2.8 | U | < 1.8 | U | < 2.4 | U | < 5.3 | U |
| | EN04-3D | 19 | 7-Apr-08 | EN043D040708 | Summa Canister | 20.5 | 0.0 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 | U | **13** | | < 3.2 | U | < 3.2 | U | < 2.0 | U | < 4.4 | U | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 2.8 | U | < 6.2 | U |
| | EN04-3D | 19 | 9-Jun-08 | EN043D060908 | Summa Canister | 20.4 | 0.1 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 | U | **13** | | < 3.5 | U | < 3.5 | U | < 2.3 | U | < 4.9 | U | < 3.5 | U | < 3.6 | U | < 2.4 | U | < 3.1 | U | < 6.8 | U |
| | EN04-3D | 19 | 11-Aug-08 | EN043D081108 | Summa Canister | 20.3 | 0.3 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 | U | **24** | | < 3.3 | U | < 3.3 | U | < 2.1 | U | < 4.6 | U | < 3.3 | U | < 3.4 | U | < 2.2 | U | < 2.9 | U | < 6.4 | U |
| | EN04-3D | 19 | 15-Oct-08 | EN043D101508 | Summa Canister | 19.8 | 0.6 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 | U | **22** | | < 3.5 | U | < 3.5 | U | < 2.3 | U | < 4.9 | U | < 3.5 | U | < 3.6 | U | < 2.4 | U | < 3.1 | U | < 6.8 | U |
| Designation **EN04-4** | EN04-4S | 8 | 9-Oct-07 | EN044S100907 | Summa Canister | 19.3 | 1.4 | 0.0 | 2.58 | N | N | | | µg/m3 | < 8.8 | U | < 6.9 | U | < 5.1 | U | < 5.1 | U | < 3.3 | U | < 7.0 | U | < 5.1 | U | < 5.2 | U | < 3.4 | U | < 4.5 | U | < 9.9 | U |
| Monitoring Well **EN-022** | EN04-4S | 8 | 5-Dec-07 | EN044S120507 | Summa Canister | 20.3 | 0.0 | 0.0 | 1.52 | N | N | | | µg/m3 | < 5.2 | U | < 4.1 | U | < 3.0 | U | < 3.0 | U | < 1.9 | U | < 4.1 | U | < 3.0 | U | < 3.1 | U | < 2.0 | U | < 2.6 | U | < 5.8 | U |
| | EN04-4S | 8 | 12-Feb-08 | EN044S021208 | Summa Canister | 19.1 | 0.7 | 0.0 | 2.2 | N | N | | | µg/m3 | **7.5** | UJ | **5.9** | UJ | **4.4** | UJ | **4.4** | UJ | **2.8** | UJ | **6.0** | UJ | **4.4** | UJ | **4.4** | UJ | **2.9** | UJ | **3.8** | UJ | **8.4** | UJ |
| | EN04-4S | 8 | 7-Apr-08 | EN044S040708 | Summa Canister | 20.2 | 0.4 | 0.0 | 1.87 | N | N | | | µg/m3 | < 6.3 | U | < 5 | U | < 3.7 | U | < 3.7 | U | < 2.4 | U | < 5.1 | U | < 3.7 | U | < 3.8 | U | < 2.5 | U | < 3.2 | U | < 7.2 | U |
| | EN04-4S | 8 | 10-Jun-08 | EN044S061008 | Summa Canister | 20.0 | 0.9 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 | U | **11** | | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 4.5 | U | < 3.2 | U | < 3.3 | U | < 2.2 | U | < 2.8 | U | < 6.3 | U |
| | EN04-4S Dup | 8 | 10-Jun-08 | DU97108061008 | Summa Canister | 20.0 | 0.9 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 | U | < 4.7 | U | < 3.5 | U | < 3.5 | U | < 2.2 | U | < 4.8 | U | < 3.5 | U | < 3.5 | U | < 2.3 | U | < 3 | U | < 6.7 | U |
| | EN04-4S | 8 | 11-Aug-08 | EN044S081108 | Summa Canister | 18.8 | 1.7 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 | U | < 4.8 | U | < 3.5 | U | < 3.5 | U | < 2.3 | U | < 4.9 | U | < 3.5 | U | < 3.6 | U | < 2.4 | U | < 3.1 | U | < 6.8 | U |
| | EN04-4S Dup | 8 | 11-Aug-08 | DU35557081108 | Summa Canister | 18.8 | 1.7 | 0.0 | 1.83 | N | N | | | µg/m3 | < 6.2 | U | < 4.9 | U | < 3.6 | U | < 3.6 | U | < 2.3 | U | < 5 | U | < 3.6 | U | < 3.7 | U | < 2.4 | U | < 3.2 | U | < 7 | U |
| | EN04-4S | 8 | 15-Oct-08 | EN044S101508 | Summa Canister | 18.7 | 1.7 | 0.0 | 1.52 | N | N | | | µg/m3 | < 5.2 | U | < 4.1 | U | < 3 | U | < 3 | U | < 1.9 | U | < 4.1 | U | < 3 | U | < 3.1 | U | < 2 | U | **3** | | < 5.8 | U |
| | EN04-4D | 17 | 9-Oct-07 | EN044D100907 | Summa Canister | 19.2 | 1.6 | 0.0 | 2.69 | N | N | | | µg/m3 | < 9.1 | U | < 7.2 | U | < 5.3 | U | < 5.3 | U | < 3.4 | U | < 7.3 | U | < 5.3 | U | < 5.4 | U | < 3.5 | U | < 4.7 | U | < 10 | U |
| | EN04-4D Dup | 17 | 9-Oct-07 | DU34607100907 | Summa Canister | 19.2 | 1.6 | 0.0 | 2.47 | N | N | | | µg/m3 | < 8.4 | U | < 6.6 | U | < 4.9 | U | < 4.9 | U | < 3.2 | U | < 6.7 | U | < 4.9 | U | < 5.0 | U | < 3.2 | U | < 4.3 | U | < 9.5 | U |
| | EN04-4D | 17 | 5-Dec-07 | EN044D120507 | Summa Canister | 20.4 | 0.0 | 0.0 | 1.52 | N | N | | | µg/m3 | < 5.2 | U | < 4.1 | U | < 3.0 | U | < 3.0 | U | < 1.9 | U | < 4.1 | U | < 3.0 | U | < 3.1 | U | < 2.0 | U | < 2.6 | U | < 5.8 | U |
| | EN04-4D | 17 | 12-Feb-08 | EN044D021208 | Summa Canister | 18.7 | 1.2 | 0.0 | 2.47 | N | N | | | µg/m3 | < 8.4 | U | < 6.6 | U | < 4.9 | U | < 4.9 | U | < 3.2 | U | < 6.7 | U | < 4.9 | U | < 5.0 | U | < 3.2 | U | < 4.3 | U | < 9.5 | U |
| | EN04-4D | 17 | 7-Apr-08 | EN044D040708 | Summa Canister | 20.1 | 0.4 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 | U | < 4.5 | U | < 3.3 | U | < 3.3 | U | < 2.1 | U | < 4.6 | U | < 3.3 | U | < 3.4 | U | < 2.2 | U | < 2.9 | U | < 6.4 | U |
| | EN04-4D Dup | 17 | 7-Apr-08 | DU3368040708 | Summa Canister | 20.1 | 0.4 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 | U | < 4.5 | U | < 3.3 | U | < 3.3 | U | < 2.1 | U | < 4.6 | U | < 3.3 | U | < 3.4 | U | < 2.2 | U | < 2.9 | U | < 6.4 | U |
| | EN04-4D | 17 | 10-Jun-08 | EN044D061008 | Summa Canister | 20.0 | 0.8 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 | U | < 4.8 | U | < 3.5 | U | < 3.5 | U | < 2.3 | U | < 4.9 | U | < 3.5 | U | < 3.6 | U | < 2.4 | U | < 3.1 | U | < 6.8 | U |
| | EN04-4D | 17 | 11-Aug-08 | EN044D081108 | Summa Canister | 18.9 | 1.5 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 | U | < 4.5 | U | < 3.3 | U | < 3.3 | U | < 2.1 | U | < 4.6 | U | < 3.3 | U | < 3.4 | U | < 2.2 | U | < 2.9 | U | < 6.4 | U |
| | EN04-4D | 17 | 15-Oct-08 | EN044D101508 | Summa Canister | 19.5 | 1.2 | 0.0 | 1.52 | N | N | | | µg/m3 | < 5.2 | U | < 4.1 | U | < 3 | U | < 3 | U | < 1.9 | U | < 4.1 | U | < 3 | U | < 3.1 | U | < 2 | U | < 2.6 | U | < 5.8 | U |
| | EN04-4D Dup | 17 | 15-Oct-08 | DU3302101508 | Summa Canister | 19.5 | 1.2 | 0.0 | 1.52 | N | N | | | µg/m3 | < 5.2 | U | < 4.1 | U | < 3 | U | < 3 | U | < 1.9 | U | < 4.1 | U | < 3 | U | < 3.1 | U | < 2 | U | < 2.6 | U | < 5.8 | U |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | | | Trichloroethene | | | cis-1,2-Dichloroethene | | | trans-1,2-Dichloroethene | | | Vinyl Chloride | | | 1,1,1-Trichloroethane | | | 1,1-Dichloroethene | | | 1,1-Dichloroethane | | | Chloroethane | | | Methylene Chloride | | | Freon 113 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-5** | EN04-5S | 8 | 9-Oct-07 | EN045S100907 | Summa Canister | 19.6 | 1.4 | 0.0 | 2.82 | N | N | | | µg/m3 | < | 9.6 | U | | **320** | | < | 5.6 | U | < | 5.6 | U | < | 3.6 | U | | **17** | | < | 5.6 | U | < | 5.7 | U | < | 3.7 | U | < | 4.9 | U | < | 11 | U |
| Monitoring Well **EN-459** | EN04-5S | 8 | 4-Dec-07 | EN045S120407 | Summa Canister | 20.1 | 0.3 | 0.0 | 1.94 | N | N | | | µg/m3 | < | 6.6 | U | | **180** | | < | 3.8 | U | < | 3.8 | U | < | 2.5 | U | | **15** | | < | 3.8 | U | < | 3.9 | U | < | 2.6 | U | < | 3.4 | U | < | 7.4 | U |
| | EN04-5S | 8 | 12-Feb-08 | EN045S021208 | Summa Canister | 19.1 | 1.0 | 0.0 | 2.29 | N | N | | | µg/m3 | < | 7.8 | U | | **91** | | < | 4.5 | U | < | 4.5 | U | < | 2.9 | U | | **10** | | < | 4.5 | U | < | 4.6 | U | < | 3.0 | U | < | 4.0 | U | < | 8.8 | U |
| | EN04-5S | 8 | 7-Apr-08 | EN045S040708 | Summa Canister | 20.0 | 0.5 | 0.0 | 1.58 | N | N | | | µg/m3 | < | 5.4 | U | | **89** | | < | 3.1 | U | < | 3.1 | U | < | 2.0 | U | | **6.7** | | < | 3.1 | U | < | 3.2 | U | < | 2.1 | U | < | 2.7 | U | < | 6.0 | U |
| | EN04-5S | 8 | 9-Jun-08 | EN045S060908 | Summa Canister | 19.4 | 1.1 | 0.0 | 1.71 | N | N | | | µg/m3 | < | 5.8 | U | | **230** | | < | 3.4 | U | < | 3.4 | U | < | 2.2 | U | | **12** | | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3 | U | < | 6.6 | U |
| | EN04-5S | 8 | 13-Aug-08 | EN045S081308 | Summa Canister | 20.6 | 0.0 | 0.0 | 1.75 | N | N | | | µg/m3 | < | 5.9 | U | | **330** | | < | 3.5 | U | < | 3.5 | U | < | 2.2 | U | | **16** | | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 3 | U | < | 6.7 | U |
| | EN04-5S | 8 | 14-Oct-08 | EN045S101408 | Summa Canister | 19.3 | 1.9 | 0.0 | 3.22 | N | N | | | µg/m3 | | 11 | UJ | | **240** | J | | 6.4 | UJ | | 6.4 | UJ | | 4.1 | UJ | | **14** | J | | 6.4 | UJ | | 6.5 | UJ | | 4.2 | UJ | | 5.6 | UJ | | 12 | UJ |
| | EN04-5D | 34 | 9-Oct-07 | EN045D100907 | Summa Canister | 19.3 | 2.1 | 0.0 | 4.05 | N | N | | | µg/m3 | < | 14 | U | | **3,000** | | | **9.7** | | < | 8.0 | U | < | 5.2 | U | | **140** | | < | 8.0 | U | < | 8.2 | U | < | 5.3 | U | < | 7.0 | U | < | 16 | U |
| | EN04-5D | 34 | 4-Dec-07 | EN045D120407 | Summa Canister | 20.0 | 0.5 | 0.0 | 1.34 | N | N | | | µg/m3 | < | 4.5 | U | | **270** | | | **21** | | | **20** | | < | 1.7 | U | | **13** | | < | 2.6 | U | < | 2.7 | U | < | 1.8 | U | | **8.0** | | < | 5.1 | U |
| | EN04-5D | 34 | 12-Feb-08 | EN045D021208 | Summa Canister | 19.5 | 1.0 | 0.0 | 4.48 | N | N | | | µg/m3 | < | 15 | U | | **3,300** | | < | 8.9 | U | < | 8.9 | U | < | 5.7 | U | | **160** | | < | 8.9 | U | < | 9.1 | U | < | 5.9 | U | < | 7.8 | U | < | 17 | U |
| | EN04-5D | 34 | 7-Apr-08 | EN045D040708 | Summa Canister | 19.8 | 1.2 | 0.0 | 3.36 | N | N | | | µg/m3 | < | 11 | U | | **2,900** | | | **7.7** | | < | 6.7 | U | < | 4.3 | U | | **120** | | | **8.0** | | < | 6.8 | U | < | 4.4 | U | < | 5.8 | U | < | 13 | U |
| | EN04-5D Dup | 34 | 7-Apr-08 | DU3374040708 | Summa Canister | 19.8 | 1.2 | 0.0 | 3.28 | N | N | | | µg/m3 | < | 11 | U | | **2,800** | | | **7.1** | | < | 6.5 | U | < | 4.2 | U | | **120** | | | **8.9** | | < | 6.6 | U | < | 4.3 | U | < | 5.7 | U | < | 12 | U |
| | EN04-5D | 34 | 9-Jun-08 | EN045D060908 | Summa Canister | 19.9 | 0.9 | 0.0 | 2.93 | N | N | | | µg/m3 | < | 9.9 | U | | **2,700** | | | **8** | | < | 5.8 | U | < | 3.7 | U | | **110** | | < | 5.8 | U | < | 5.9 | U | < | 3.9 | U | < | 5.1 | U | < | 11 | U |
| | EN04-5D | 34 | 13-Aug-08 | EN045D081308 | Summa Canister | 19.7 | 0.8 | 0.0 | 3.58 | N | N | | | µg/m3 | < | 12 | U | | **2,700** | | < | 7.1 | U | < | 7.1 | U | < | 4.6 | U | | **120** | | < | 7.1 | U | < | 7.2 | U | < | 4.7 | U | < | 6.2 | U | < | 14 | U |
| | EN04-5D | 34 | 14-Oct-08 | EN045D101408 | Summa Canister | 19.3 | 1.4 | 0.0 | 3.22 | N | N | | | µg/m3 | < | 11 | U | | **3,000** | | | **11** | | < | 6.4 | U | < | 4.1 | U | | **130** | | < | 6.4 | U | < | 6.5 | U | < | 4.2 | U | < | 5.6 | U | < | 12 | U |
| Designation **EN04-6** | EN04-6S | 8 | 9-Oct-07 | EN046S100907 | Summa Canister | 20.4 | 0.9 | 0.0 | 2.58 | N | N | | | µg/m3 | < | 8.8 | U | < | 6.9 | U | < | 5.1 | U | < | 5.1 | U | < | 3.3 | U | < | 7.0 | U | < | 5.1 | U | < | 5.2 | U | < | 3.4 | U | < | 4.5 | U | < | 9.9 | U |
| Monitoring Well **EN-310** | EN04-6S | 8 | 4-Dec-07 | EN046S120407 | Summa Canister | 21.1 | 0.6 | 0.0 | 2.12 | N | N | | | µg/m3 | < | 7.2 | U | < | 5.7 | U | < | 4.2 | U | < | 4.2 | U | < | 2.7 | U | < | 5.8 | U | < | 4.2 | U | < | 4.3 | U | < | 2.8 | U | | **18** | | < | 8.1 | U |
| | EN04-6S Dup | 8 | 4-Dec-07 | DU3368120407 | Summa Canister | 21.1 | 0.6 | 0.0 | 2.28 | N | N | | | µg/m3 | < | 7.7 | U | < | 6.1 | U | < | 4.5 | U | < | 4.5 | U | < | 2.9 | U | < | 6.2 | U | < | 4.5 | U | < | 4.6 | U | < | 3.0 | U | | **11** | | < | 8.7 | U |
| | EN04-6S | 8 | 12-Feb-08 | EN046S021208 | Summa Canister | 20.7 | 0.2 | 0.0 | 2.24 | N | N | | | µg/m3 | < | 7.6 | U | < | 6.0 | U | < | 4.4 | U | < | 4.4 | U | < | 2.9 | U | < | 6.1 | U | < | 4.4 | U | < | 4.5 | U | < | 3.0 | U | < | 3.9 | U | < | 8.6 | U |
| | EN04-6S Dup | 8 | 12-Feb-08 | DU3351021208 | Summa Canister | 20.7 | 0.2 | 0.0 | 2.24 | N | N | | | µg/m3 | < | 7.6 | U | < | 6.0 | U | < | 4.4 | U | < | 4.4 | U | < | 2.9 | U | < | 6.1 | U | < | 4.4 | U | < | 4.5 | U | < | 3.0 | U | < | 3.9 | U | < | 8.6 | U |
| | EN04-6S | 8 | 7-Apr-08 | EN046S040708 | Summa Canister | 20.0 | 0.3 | 0.0 | 1.64 | N | N | | | µg/m3 | < | 5.6 | U | < | 4.4 | U | < | 3.2 | U | < | 3.2 | U | < | 2.1 | U | < | 4.5 | U | < | 3.2 | U | < | 3.3 | U | < | 2.2 | U | < | 2.8 | U | < | 6.3 | U |
| | EN04-6S | 8 | 9-Jun-08 | EN046S060908 | Summa Canister | 19.6 | 0.8 | 0.0 | 1.83 | N | N | | | µg/m3 | < | 6.2 | U | < | 4.9 | U | < | 3.6 | U | < | 3.6 | U | < | 2.3 | U | < | 5 | U | < | 3.6 | U | < | 3.7 | U | < | 2.4 | U | < | 3.2 | U | < | 7 | U |
| | EN04-6S | 8 | 13-Aug-08 | EN046S081308 | Summa Canister | 19.3 | 1.4 | 0.0 | 1.71 | N | N | | | µg/m3 | < | 5.8 | U | < | 4.6 | U | < | 3.4 | U | < | 3.4 | U | < | 2.2 | U | < | 4.7 | U | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3 | U | < | 6.6 | U |
| | EN04-6S | 8 | 14-Oct-08 | EN046S101408 | Summa Canister | 19.6 | 0.9 | 0.0 | 1.68 | N | N | | | µg/m3 | < | 5.7 | U | < | 4.5 | U | < | 3.3 | U | < | 3.3 | U | < | 2.1 | U | < | 4.6 | U | < | 3.3 | U | < | 3.4 | U | < | 2.2 | U | < | 2.9 | U | < | 6.4 | U |
| | EN04-6D | 27 | 9-Oct-07 | EN046D100907 | Summa Canister | 18.4 | 2.6 | 0.0 | 2.47 | N | N | | | µg/m3 | < | 8.4 | U | < | 6.6 | U | < | 4.9 | U | < | 4.9 | U | < | 3.2 | U | < | 6.7 | U | < | 4.9 | U | < | 5.0 | U | < | 3.2 | U | < | 4.3 | U | < | 9.5 | U |
| | EN04-6D Dup | 27 | 9-Oct-07 | DU1044100907 | Summa Canister | 18.4 | 2.6 | 0.0 | 2.58 | N | N | | | µg/m3 | < | 8.8 | U | < | 6.9 | U | < | 5.1 | U | < | 5.1 | U | < | 3.3 | U | < | 7.0 | U | < | 5.1 | U | < | 5.2 | U | < | 3.4 | U | < | 4.5 | U | < | 9.9 | U |
| | EN04-6D | 27 | 4-Dec-07 | EN046D120407 | Summa Canister | 20.6 | 0.9 | 0.1 | 2.28 | N | N | | | µg/m3 | < | 7.7 | U | < | 6.1 | U | < | 4.5 | U | < | 4.5 | U | < | 2.9 | U | < | 6.2 | U | < | 4.5 | U | < | 4.6 | U | < | 3 | U | | **17** | | < | 8.7 | U |
| | EN04-6D | 27 | 12-Feb-08 | EN046D021208 | Summa Canister | 21.6 | 0.0 | 0.0 | 2.29 | N | N | | | µg/m3 | < | 7.8 | U | < | 6.2 | U | < | 4.5 | U | < | 4.5 | U | < | 2.9 | U | < | 6.2 | U | < | 4.5 | U | < | 4.6 | U | < | 3 | U | < | 4.0 | U | < | 8.8 | U |
| | EN04-6D | 27 | 7-Apr-08 | EN046D040708 | Summa Canister | 19.6 | 0.5 | 0.0 | 1.64 | N | N | | | µg/m3 | < | 5.6 | U | < | 4.4 | U | < | 3.2 | U | < | 3.2 | U | < | 2.1 | U | < | 4.5 | U | < | 3.2 | U | < | 3.3 | U | < | 2.2 | U | < | 2.8 | U | < | 6.3 | U |
| | EN04-6D | 27 | 9-Jun-08 | EN046D060908 | Summa Canister | 17.7 | 2.0 | 0.0 | 1.87 | N | N | | | µg/m3 | < | 6.3 | U | < | 5 | U | < | 3.7 | U | < | 3.7 | U | < | 2.4 | U | < | 5.1 | U | < | 3.7 | U | < | 3.8 | U | < | 2.5 | U | < | 3.2 | U | < | 7.2 | U |
| | EN04-6D | 27 | 13-Aug-08 | EN046D081308 | Summa Canister | 18.4 | 2.5 | 0.0 | 1.68 | N | N | | | µg/m3 | < | 5.7 | U | < | 4.5 | U | < | 3.3 | U | < | 3.3 | U | < | 2.1 | U | < | 4.6 | U | < | 3.3 | U | < | 3.4 | U | < | 2.2 | U | < | 2.9 | U | < | 6.4 | U |
| | EN04-6D | 27 | 14-Oct-08 | EN046D101408 | Summa Canister | 19.0 | 1.6 | 0.0 | 1.75 | N | N | | | µg/m3 | < | 5.9 | U | < | 4.7 | U | < | 3.5 | U | < | 3.5 | U | < | 2.2 | U | < | 4.8 | U | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 3 | U | < | 6.7 | U |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | Trichloroethene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | Vinyl Chloride | 1,1,1-Trichloroethane | 1,1-Dichloroethene | 1,1-Dichloroethane | Chloroethane | Methylene Chloride | Freon 113 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-7** | EN04-7S | 8 | 9-Oct-07 | EN047S100907 | Summa Canister | 19.9 | 0.6 | 0.0 | 2.58 | N | N | | | µg/m3 | **94** | **63** | < 5.1 U | < 5.1 U | < 3.3 U | **7.7** | < 5.1 U | < 5.2 U | < 3.4 U | < 4.5 U | < 9.9 U |
| Monitoring Well **EN-311** | EN04-7S Dup | 8 | 9-Oct-07 | DU2065100907 | Summa Canister | 19.9 | 0.6 | 0.0 | 2.64 | N | N | | | µg/m3 | **92** | **61** | < 5.2 U | < 5.2 U | < 3.4 U | **8.0** | < 5.2 U | < 5.3 U | < 3.5 U | < 4.6 U | < 10 U |
| | EN04-7S | 8 | 4-Dec-07 | EN047S120407 | Summa Canister | 19.9 | 0.9 | 0.0 | 2.5 | N | N | | | µg/m3 | **24** | **19** | < 5.0 U | < 5.0 U | < 3.2 U | < 6.8 U | < 5.0 U | < 5.0 U | < 3.3 U | **12** | < 9.6 U |
| | EN04-7S | 8 | 12-Feb-08 | EN047S021208 | Summa Canister | 19.6 | 1.1 | 0.0 | 2.33 | N | N | | | µg/m3 | **11** | **9.3** | < 4.6 U | < 4.6 U | < 3.0 U | < 6.4 U | < 4.6 U | < 4.7 U | < 3.1 U | < 4.0 U | < 8.9 U |
| | EN04-7S Dup | 8 | 12-Feb-08 | DU34139021208 | Summa Canister | 19.6 | 1.1 | 0.0 | 2.33 | N | N | | | µg/m3 | **9.8** | **8.0** | < 4.6 U | < 4.6 U | < 3.0 U | < 6.4 U | < 4.6 U | < 4.7 U | < 3.1 U | < 4.0 U | < 8.9 U |
| | EN04-7S | 8 | 7-Apr-08 | EN047S040708 | Summa Canister | 20.6 | 0.3 | 0.0 | 1.64 | N | N | | | µg/m3 | **11** | **9.2** | < 3.2 U | < 3.2 U | < 2.1 U | < 4.5 U | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-7S | 8 | 9-Jun-08 | EN047S060908 | Summa Canister | 19.8 | 0.9 | 0.0 | 1.83 | N | N | | | µg/m3 | **48** | **29** | < 3.6 U | < 3.6 U | < 2.3 U | < 5 U | < 3.6 U | < 3.7 U | < 2.4 U | < 3.2 U | < 7 U |
| | EN04-7S | 8 | 13-Aug-08 | EN047S081308 | Summa Canister | 19.0 | 1.4 | 0.0 | 1.71 | N | N | | | µg/m3 | **100** | **56** | < 3.4 U | < 3.4 U | < 2.2 U | **7** | < 3.4 U | < 3.5 U | < 2.2 U | < 3 U | < 6.6 U |
| | EN04-7S | 8 | 14-Oct-08 | EN047S101408 | Summa Canister | 19.2 | 1.1 | 0.0 | 1.71 | N | N | | | µg/m3 | **56** | **36** | < 3.4 U | < 3.4 U | < 2.2 U | **5** | < 3.4 U | < 3.5 U | < 2.2 U | < 3 U | < 6.6 U |
| | EN04-7S Dup | 8 | 14-Oct-08 | DU3320101408 | Summa Canister | 19.2 | 1.1 | 0.0 | 1.75 | N | N | | | µg/m3 | **57** | **37** | < 3.5 U | < 3.5 U | < 2.2 U | **5.1** | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| | EN04-7D | 34 | 9-Oct-07 | EN047D100907 | Summa Canister | 19.7 | 1.1 | 0.0 | 5.28 | N | N | | | µg/m3 | < 18 U | **5,100** | **49** | < 10 U | < 6.7 U | **360** | **36** | **11** | < 7.0 U | < 9.2 U | < 20 U |
| | EN04-7D | 34 | 4-Dec-07 | EN047D120407 | Summa Canister | 19.7 | 1.5 | 0.0 | 4.54 | N | N | | | µg/m3 | < 15 U | **4,800** | **56** | < 9.0 U | < 5.8 U | **240** | **120** | **9.1** J | < 6.0 U | **28** | < 17 U |
| | EN04-7D | 34 | 12-Feb-08 | EN047D021208 | Summa Canister | 19.2 | 1.5 | 0.0 | 9.16 | N | N | | | µg/m3 | **31** U | **6,000** | **53** | < 18 U | < 12 U | **420** | **20** | < 18 U | < 12 U | < 16 U | < 35 U |
| | EN04-7D | 34 | 7-Apr-08 | EN047D040708 | Summa Canister | 20.3 | 1.2 | 0.0 | 7 | N | N | | | µg/m3 | **24** U | **6,000** | **53** | < 14 U | < 8.9 U | **360** | **44** | < 14 U | < 9.2 U | < 12 U | < 27 U |
| | EN04-7D | 34 | 9-Jun-08 | EN047D060908 | Summa Canister | 20.0 | 0.9 | 0.0 | 6.72 | N | N | | | µg/m3 | < 23 U | **5,000** | **46** | < 13 U | < 8.6 U | **330** | **21** | < 14 U | < 8.9 U | < 12 U | < 26 U |
| | EN04-7D | 34 | 13-Aug-08 | EN047D081308 | Summa Canister | 19.4 | 0.8 | 0.0 | 5.23 | N | N | | | µg/m3 | < 18 U | **4,700** | **45** | < 10 U | < 6.7 U | **310** | **13** | < 10 U | < 6.9 U | < 9.1 U | < 20 U |
| | EN04-7D Dup | 34 | 13-Aug-08 | DU3335081308 | Summa Canister | 19.4 | 0.8 | 0.0 | 5.23 | N | N | | | µg/m3 | < 18 U | **4,100** | **39** | < 10 U | < 6.7 U | **280** | **12** | < 10 U | < 6.9 U | < 9.1 U | < 20 U |
| | EN04-7D | 34 | 14-Oct-08 | EN047D101408 | Summa Canister | 19.5 | 1.3 | 0.0 | 5.05 | N | N | | | µg/m3 | < 17 U | **5,300** | **59** | < 10 U | < 6.4 U | **340** | **20** | **10** | < 6.7 U | < 8.8 U | < 19 U |
| Designation **EN04-9** | EN04-9S | 8 | 10-Oct-07 | EN049S101007 | Summa Canister | 17.0 | 2.6 | 0.0 | 10.6 | N | N | | | µg/m3 | **300** | **10,000** | **29** | < 21 U | < 14 U | **1,100** | **60** | **43** | < 14 U | < 18 U | < 41 U |
| Monitoring Well **EN-279** | EN04-9S | 8 | 5-Dec-07 | EN049S120507 | Summa Canister | 19.2 | 1.9 | 0.0 | 3.1 | N | N | | | µg/m3 | < 110 | **2,000** | **89** | < 6.1 U | < 4.0 U | **180** | **70** | **25** | < 4.1 U | < 5.4 U | < 12 U |
| | EN04-9S | 8 | 12-Feb-08 | EN049S021208 | Summa Canister | 20.0 | 0.2 | 0.0 | 2.29 | N | N | | | µg/m3 | < 61 | **1,400** | **6.6** | < 4.5 U | < 2.9 U | **72** | < 4.5 U | **6.0** | < 3.0 U | < 4.0 U | < 8.8 U |
| | EN04-9S | 8 | 8-Apr-08 | EN049S040808 | Summa Canister | 20.1 | 0.0 | 0.0 | 1.61 | N | N | | | µg/m3 | < 22 | **930** | **5.2** | < 3.2 U | < 2.0 U | **44** | **3.5** | **5.3** | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-9S | 8 | 10-Jun-08 | EN049S061008 | Summa Canister | 19.0 | 0.9 | 0.0 | 7.16 | N | N | | | µg/m3 | **120** | **4,400** | **26** | < 14 U | < 9.2 U | **320** | < 14 U | **26** | < 9.4 U | < 12 U | < 27 U |
| | EN04-9S Dup | 8 | 10-Jun-08 | DU2204061008 | Summa Canister | 19.0 | 0.9 | 0.0 | 7.32 | N | N | | | µg/m3 | **120** | **4,600** | **23** | < 14 U | < 9.4 U | **330** | < 14 U | **26** | < 9.6 U | < 13 U | < 28 U |
| | EN04-9S | 8 | 12-Aug-08 | EN049S081208 | Summa Canister | 16.8 | 1.8 | 0.0 | 17.5 | N | N | | | µg/m3 | **300** | **9,000** | < 35 U | < 35 U | < 22 U | **530** | < 35 U | < 35 U | < 23 U | < 30 U | < 67 U |
| | EN04-9S Dup | 8 | 12-Aug-08 | DU36383081208 | Summa Canister | 16.8 | 1.8 | 0.0 | 15 | N | N | | | µg/m3 | **340** | **10,000** | < 30 U | < 30 U | < 19 U | **640** | < 30 U | **30** | < 20 U | < 26 U | < 57 U |
| | EN04-9S | 8 | 15-Oct-08 | EN049S101508 | Summa Canister | 18.1 | 1.8 | 0.0 | 13.1 | N | N | | | µg/m3 | **220** | **8,400** | < 26 U | < 26 U | < 17 U | **540** | < 26 U | < 26 U | < 17 U | < 23 U | < 50 U |
| | EN04-9D | 20 | 10-Oct-07 | EN049D101007 | Summa Canister | 15.5 | 2.6 | 0.0 | 20.6 | N | N | | | µg/m3 | **1,500** | **21,000** | **3,000** | < 41 U | < 26 U | **3,800** | **1,400** | **880** | < 27 U | < 36 U | **160** |
| | EN04-9D | 20 | 5-Dec-07 | EN049D120507 | Summa Canister | 20.5 | 0.5 | 0.0 | 3.1 | N | N | | | µg/m3 | **68** | **2,500** | **8.0** | < 6.1 U | < 4.0 U | **150** | **37** | **7.4** | < 4.1 U | < 5.4 U | < 12 U |
| | EN04-9D Dup | 20 | 5-Dec-07 | DU3324120507 | Summa Canister | 20.5 | 0.5 | 0.0 | 3.1 | N | N | | | µg/m3 | < 70 | **2,600** | **7.6** | < 6.1 U | < 4.0 U | **160** | **38** | **7.4** | < 4.1 U | < 5.4 U | < 12 U |
| | EN04-9D | 20 | 12-Feb-08 | EN049D021208 | Summa Canister | 19.5 | 0.5 | 0.0 | 12.4 | N | N | | | µg/m3 | **730** | **9,700** | **1,200** | < 24 U | < 16 U | **880** | **190** | **270** | < 16 U | < 22 U | < 48 U |
| | EN04-9D | 20 | 8-Apr-08 | EN049D040808 | Summa Canister | 19.0 | 0.3 | 0.0 | 7 | N | N | | | µg/m3 | **450** | **5,900** | **580** | < 14 U | < 8.9 U | **480** | **140** | **120** | < 9.2 U | < 12 U | < 27 U |
| | EN04-9D | 20 | 10-Jun-08 | EN049D061008 | Summa Canister | 18.2 | 2.3 | 0.0 | 2.49 | N | N | | | µg/m3 | **75** | **1,900** | **39** | < 4.9 U | < 3.2 U | **100** | **13** | **10** | < 3.3 U | < 4.3 U | < 9.5 U |
| | EN04-9D | 20 | 12-Aug-08 | EN049D081208 | Summa Canister | 16.0 | 1.4 | 0.0 | 14 | N | N | | | µg/m3 | **770** | **9,700** | **790** | < 28 U | < 18 U | **1,400** | **550** | **260** | < 18 U | < 24 U | **180** |
| | EN04-9D | 20 | 15-Oct-08 | EN049D101508 | Summa Canister | 16.9 | 2.0 | 0.0 | 21.5 | N | N | | | µg/m3 | **800** | **12,000** | **1,000** | < 43 U | < 27 U | **1,700** | **440** | **410** | < 28 U | < 37 U | < 82 U |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
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Comprehensive Operations, Maintenance, & Monitoring Program
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| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | Trichloroethene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | Vinyl Chloride | 1,1,1-Trichloroethane | 1,1-Dichloroethene | 1,1-Dichloroethane | Chloroethane | Methylene Chloride | Freon 113 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-10** | EN04-10S | 8 | 10-Oct-07 | EN0410S101007 | Summa Canister | 12.3 | 5.6 | 0.0 | 67.2 | N | N | | | µg/m3 | **580** | **58,000** | **12,000** | < 130 U | < 86 U | **16,000** | **4,100** | **6,800** | < 89 U | **250** | < 260 U |
| Monitoring Well **EN-77** | EN04-10S | 8 | 5-Dec-07 | EN0410S120507 | Summa Canister | 18.6 | 1.8 | 0.0 | 30.5 | N | N | | | µg/m3 | **240** | **28,000** | **6,900** | < 60 U | **120** | **7,700** | **4,300** | **3,600** | < 40 U | < 53 U | **150** |
| | EN04-10S Dup | 8 | 5-Dec-07 | DU3351120507 | Summa Canister | 18.6 | 1.8 | 0.0 | 32.8 | N | N | | | µg/m3 | **230** | **26,000** | **6,800** | < 65 U | **120** | **7,300** | **4,200** | **3,500** | < 43 U | < 57 U | **160** |
| | EN04-10S | 8 | 12-Feb-08 | EN0410S021208 | Summa Canister | 17.1 | 2.1 | 0.0 | 14.9 | N | N | | | µg/m3 | **120** | **15,000** | **3,800** | < 30 U | < 19 U | **6,100** | **1,600** | **2,200** | < 20 U | < 26 U | **88** |
| | EN04-10S | 8 | 8-Apr-08 | EN0410S040808 | Summa Canister | 16.3 | 3.2 | 0.0 | 8.55 | N | N | | | µg/m3 | **66** | **7,500** | **1,600** | < 17 U | **32** | **3,000** | **950** | **1,000** | < 11 U | < 15 U | **49** |
| | EN04-10S | 8 | 10-Jun-08 | EN0410S061008 | Summa Canister | 15.6 | 4.0 | 0.0 | 42.8 | N | N | | | µg/m3 | **310** | **31,000** | **7,400** | < 85 U | **130** | **10,000** | **2,900** | **3,700** | < 56 U | < 74 U | < 160 U |
| | EN04-10S | 8 | 12-Aug-08 | EN0410S081208 | Summa Canister | 13.5 | 5.1 | 0.0 | 59.6 | N | N | | | µg/m3 | **460** | **41,000** | **8,700** | < 120 U | < 76 U | **9,800** | **1,700** | **4,200** | < 79 U | < 100 U | < 230 U |
| | EN04-10S | 8 | 15-Oct-08 | EN0410S101508 | Summa Canister | 11.6 | 5.4 | 0.0 | 68.4 | N | N | | | µg/m3 | **450** | **49,000** | **9,100** | < 140 U | < 87 U | **12,000** | **1,500** | **4,200** | < 90 U | < 120 U | < 260 U |
| | EN04-10D | 20 | 10-Oct-07 | EN0410D101007 | Summa Canister | 11.9 | 5.5 | 0.0 | 73.7 | N | N | | | µg/m3 | **800** | **59,000** | **22,000** | < 150 U | < 94 U | **21,000** | **7,000** | **9,200** | < 97 U | **310** | < 280 U |
| | EN04-10D | 20 | 5-Dec-07 | EN0410D120507 | Summa Canister | 16.5 | 3.3 | 0.0 | 63.2 | N | N | | | µg/m3 | **730** | **51,000** | **19,000** | < 120 U | **270** | **14,000** | **8,100** | **7,000** | < 83 U | < 110 U | < 240 U |
| | EN04-10D | 20 | 12-Feb-08 | EN0410D021208 | Summa Canister | 19.1 | 1.2 | 0.0 | 45.8 | N | N | | | µg/m3 | **520** | **38,000** | **14,000** | < 91 U | < 58 U | **13,000** | **3,100** | **5,400** | < 60 U | < 80 U | < 180 U |
| | EN04-10D | 20 | 8-Apr-08 | EN0410D040808 | Summa Canister | 16.2 | 3.2 | 0.0 | 42 | N | N | | | µg/m3 | **390** | **29,000** | **9,200** | < 83 U | **150** | **8,400** | **2,600** | **3,700** | < 55 U | < 73 U | < 160 U |
| | EN04-10D | 20 | 10-Jun-08 | EN0410D061008 | Summa Canister | 16.4 | 3.0 | 0.0 | 45.8 | N | N | | | µg/m3 | **480** | **33,000** | **13,000** | < 91 U | **150** | **12,000** | **3,200** | **4,800** | < 60 U | **83** | < 180 U |
| | EN04-10D | 20 | 12-Aug-08 | EN0410D081208 | Summa Canister | 14.4 | 4.2 | 0.0 | 71.6 | N | N | | | µg/m3 | **650** | **41,000** | **14,000** | < 140 U | < 92 U | **13,000** | **2,800** | **5,400** | < 94 U | < 120 U | < 270 U |
| | EN04-10D | 20 | 15-Oct-08 | EN0410D101508 | Summa Canister | 12.0 | 5.4 | 0.0 | 84 | N | N | | | µg/m3 | **710** | **57,000** | **15,000** | < 170 U | < 110 U | **17,000** | **2,500** | **5,900** | < 110 U | < 140 U | < 320 U |
| Designation **EN04-11** | EN04-11S | 8 | 9-Oct-07 | EN0411S100907 | Summa Canister | 19.9 | 0.7 | 0.0 | 2.69 | N | N | | | µg/m3 | < 9.1 U | **250** | < 5.3 U | < 5.3 U | < 3.4 U | **9.2** | < 5.3 U | < 5.4 U | < 3.5 U | < 4.7 U | < 10 U |
| Monitoring Well **EN-215** | EN04-11S | 8 | 5-Dec-07 | EN0411S120507 | Summa Canister | 20.0 | 0.6 | 0.0 | 1.58 | N | N | | | µg/m3 | < 5.4 U | **110** | < 3.1 U | < 3.1 U | < 2.0 U | < 4.3 U | < 3.1 U | < 3.2 U | < 2.1 U | < 2.7 U | < 6.0 U |
| | EN04-11S Dup | 8 | 5-Dec-07 | DU12355120507 | Summa Canister | 20.0 | 0.6 | 0.0 | 1.58 | N | N | | | µg/m3 | < 5.4 U | **120** | < 3.1 U | < 3.1 U | < 2.0 U | < 4.3 U | < 3.1 U | < 3.2 U | < 2.1 U | < 2.7 U | < 6.0 U |
| | EN04-11S | 8 | 12-Feb-08 | EN0411S021208 | Summa Canister | 19.1 | 0.2 | 0.0 | 2.33 | N | N | | | µg/m3 | < 7.9 U | **36** | < 4.6 U | < 4.6 U | < 3.0 U | < 6.4 U | < 4.6 U | < 4.7 U | < 3.1 U | < 4.0 U | < 8.9 U |
| | EN04-11S | 8 | 7-Apr-08 | EN0411S040708 | Summa Canister | 20.4 | 0.1 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **33** | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-11S | 8 | 10-Jun-08 | EN0411S061008 | Summa Canister | 20.2 | 0.6 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | **92** | < 3.5 U | < 3.5 U | < 2.2 U | **5.7** | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| | EN04-11S | 8 | 11-Aug-08 | EN0411S081108 | Summa Canister | 19.7 | 1.0 | 0.0 | 1.71 | N | N | | | µg/m3 | **9.7** | **180** | < 3.4 U | < 3.4 U | < 2.2 U | **8.7** | < 3.4 U | < 3.5 U | < 2.2 U | < 3 U | < 6.6 U |
| | EN04-11S | 8 | 15-Oct-08 | EN0411S101508 | Summa Canister | 19.8 | 0.4 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | **58** | < 3.2 U | < 3.2 U | < 2 U | < 4.4 U | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-11D | 21 | 9-Oct-07 | EN0411D100907 | Summa Canister | 20.4 | 0.4 | 0.0 | 2.69 | N | N | | | µg/m3 | **59** | **2,400** | **9.1** | < 5.3 U | < 3.4 U | **57** | < 5.3 U | < 5.4 U | < 3.5 U | < 4.7 U | < 10 U |
| | EN04-11D | 21 | 5-Dec-07 | EN0411D120507 | Summa Canister | 19.9 | 1.0 | 0.0 | 2.82 | N | N | | | µg/m3 | **60** | **2,700** | **8.8** | < 5.6 U | < 3.6 U | **69** | < 5.6 U | < 5.7 U | < 3.7 U | < 4.9 U | < 11 U |
| | EN04-11D | 21 | 12-Feb-08 | EN0411D021208 | Summa Canister | 19.1 | 0.5 | 0.0 | 2.33 | N | N | | | µg/m3 | **44** | **2,000** | < 4.6 U | < 4.6 U | < 3.0 U | **59** | < 4.6 U | < 4.7 U | < 3.1 U | < 4.0 U | < 8.9 U |
| | EN04-11D | 21 | 7-Apr-08 | EN0411D040708 | Summa Canister | 20.2 | 0.2 | 0.0 | 1.64 | N | N | | | µg/m3 | **41** | **1,600** | **4.0** | < 3.2 U | < 2.1 U | **42** | **3.5** | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-11D | 21 | 10-Jun-08 | EN0411D061008 | Summa Canister | 20.8 | 0.1 | 0.0 | 1.61 | N | N | | | µg/m3 | **33** | **1,200** | **3.4** | < 3.2 U | < 2 U | **27** | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-11D | 21 | 11-Aug-08 | EN0411D081108 | Summa Canister | 20.2 | 0.4 | 0.0 | 3.22 | N | N | | | µg/m3 | **54** | **1,900** | **6.3** | < 6.4 U | < 4.1 U | **51** | < 6.4 U | < 6.5 U | < 4.2 U | < 5.6 U | < 12 U |
| | EN04-11D | 21 | 15-Oct-08 | EN0411D101508 | Summa Canister | 19.5 | 0.6 | 0.0 | 2.1 | N | N | | | µg/m3 | **42** | **1,600** | **5.6** | < 4.2 U | < 2.7 U | **40** | < 4.2 U | < 4.2 U | < 2.8 U | < 3.6 U | < 8 U |

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Comprehensive Operations, Maintenance, & Monitoring Program
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| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | Trichloroethene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | Vinyl Chloride | 1,1,1-Trichloroethane | 1,1-Dichloroethene | 1,1-Dichloroethane | Chloroethane | Methylene Chloride | Freon 113 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-12** | EN04-12S | 8 | 10-Oct-07 | EN0412S101007 | Summa Canister | 20.8 | 0.1 | 0.0 | 2.64 | N | N | | | µg/m3 | < 9.0 U | **1,900** | < 5.2 U | < 5.2 U | < 3.4 U | **46** | < 5.2 U | < 5.3 U | < 3.5 U | < 4.6 U | < 10 U |
| Monitoring Well **EN-214A** | EN04-12S | 8 | 6-Dec-07 | EN0412S120607 | Summa Canister | 20.1 | 2.6 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 U | **1,400** | < 3.2 U | < 3.2 U | < 2.1 U | **40** | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-12S | 8 | 12-Feb-08 | EN0412S021208 | Summa Canister | 18.8 | 1.5 | 0.0 | 1.52 | N | N | | | µg/m3 | < 5.2 U | **470** | < 3.0 U | < 3.0 U | < 1.9 U | **20** | < 3.0 U | < 3.1 U | < 2.0 U | < 2.6 U | < 5.8 U |
| | EN04-12S | 8 | 8-Apr-08 | EN0412S040808 | Summa Canister | 19.5 | 0.9 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | **380** | < 3.5 U | < 3.5 U | < 2.2 U | **16** | < 3.5 U | < 3.5 U | < 2.3 U | < 3.0 U | < 6.7 U |
| | EN04-12S | 8 | 10-Jun-08 | EN0412S061008 | Summa Canister | 19.2 | 1.6 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 U | **830** | < 3.4 U | < 3.4 U | < 2.2 U | **30** | < 3.4 U | < 3.5 U | < 2.2 U | < 3 U | < 6.6 U |
| | EN04-12S | 8 | 12-Aug-08 | EN0412S081208 | Summa Canister | 18.4 | 2.8 | 0.0 | 1.64 | N | N | | | µg/m3 | **28** | **1,600** | < 3.2 U | < 3.2 U | < 2.1 U | **40** | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-12S | 8 | 14-Oct-08 | EN0412S101408 | Summa Canister | 18.5 | 2.3 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 U | **1,100** | < 3.5 U | < 3.5 U | < 2.3 U | **23** | < 3.5 U | < 3.6 U | < 2.4 U | **5** | < 6.8 U |
| | EN04-12D | 19 | 10-Oct-07 | EN0412D101007 | Summa Canister | 18.5 | 2.8 | 0.0 | 2.64 | N | N | | | µg/m3 | < 9.0 U | **1,900** | < 5.2 U | < 5.2 U | < 3.4 U | **48** | < 5.2 U | < 5.3 U | < 3.5 U | < 4.6 U | < 10 U |
| | EN04-12D | 19 | 6-Dec-07 | EN0412D120607 | Summa Canister | 19.8 | 2.2 | 0.0 | 3.16 | N | N | | | µg/m3 | < 11 U | **2,000** | < 6.3 U | < 6.3 U | < 4.0 U | **61** | < 6.3 U | < 6.4 U | < 4.2 U | < 5.5 U | < 12 U |
| | EN04-12D | 19 | 12-Feb-08 | EN0412D021208 | Summa Canister | 19.0 | 1.9 | 0.0 | 1.55 | N | N | | | µg/m3 | < 5.2 U | **1,200** | **3.3** | < 3.1 U | < 2.0 U | **61** | < 3.1 U | < 3.1 U | < 2.0 U | < 2.7 U | < 5.9 U |
| | EN04-12D | 19 | 8-Apr-08 | EN0412D040808 | Summa Canister | 19.4 | 1.4 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | **780** | **3.5** | < 3.5 U | < 2.2 U | **38** | < 3.5 U | < 3.5 U | < 2.3 U | < 3.0 U | < 6.7 U |
| | EN04-12D | 19 | 10-Jun-08 | EN0412D061008 | Summa Canister | 19.3 | 1.6 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 U | **860** | < 3.5 U | < 3.5 U | < 2.3 U | **26** | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN04-12D | 19 | 12-Aug-08 | EN0412D081208 | Summa Canister | 18.2 | 2.9 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 U | **1,400** | < 3.4 U | < 3.4 U | < 2.2 U | **33** | < 3.4 U | < 3.5 U | < 2.2 U | < 3 U | < 6.6 U |
| | EN04-12D | 19 | 14-Oct-08 | EN0412D101408 | Summa Canister | 18.3 | 2.6 | 0.0 | 2.28 | N | N | | | µg/m3 | < 7.7 U | **1,500** | < 4.5 U | < 4.5 U | < 2.9 U | **40** | < 4.5 U | < 4.6 U | < 3 U | < 4 U | < 8.7 U |
| Designation **EN04-13** | EN04-13S | 8 | 10-Oct-07 | EN0413S101007 | Summa Canister | 18.6 | 3.4 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **1,600** | < 3.3 U | < 3.3 U | < 2.1 U | **230** | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| Monitoring Well **EN-449** | EN04-13S | 8 | 6-Dec-07 | EN0413S120607 | Summa Canister | 18.0 | 2.8 | 0.0 | 1.49 | N | N | | | µg/m3 | < 5.0 U | **660** | < 3.0 U | < 3.0 U | < 1.9 U | **140** | < 3.0 U | < 3.0 U | < 2.0 U | < 2.6 U | < 5.7 U |
| | EN04-13S | 8 | 13-Feb-08 | EN0413S021308 | Summa Canister | 18.9 | 7.2 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | **570** | < 3.2 U | < 3.2 U | < 2.0 U | **180** | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-13S | 8 | 8-Apr-08 | EN0413S040808 | Summa Canister | 19.4 | 1.8 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **560** | < 3.3 U | < 3.3 U | < 2.1 U | **160** | **8.2** | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-13S | 8 | 10-Jun-08 | EN0413S061008 | Summa Canister | 18.8 | 2.2 | 0.0 | 1.83 | N | N | | | µg/m3 | < 6.2 U | **1,400** | < 3.6 U | < 3.6 U | < 2.3 U | **240** | < 3.6 U | < 3.7 U | < 2.4 U | < 3.2 U | < 7 U |
| | EN04-13S | 8 | 13-Aug-08 | EN0413S081308 | Summa Canister | 20.5 | 0.5 | 0.0 | 3.42 | N | N | | | µg/m3 | < 12 U | **2,000** | < 6.8 U | < 6.8 U | < 4.4 U | **250** | < 6.8 U | < 6.9 U | < 4.5 U | < 5.9 U | < 13 U |
| | EN04-13S | 8 | 14-Oct-08 | EN0413S101408 | Summa Canister | 17.7 | 2.7 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **1,500** | < 3.3 U | < 3.3 U | < 2.1 U | **180** | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-13D | 30 | 10-Oct-07 | EN0413D101007 | Summa Canister | 19.9 | 1.7 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | **320** | **23** | < 3.2 U | < 2.0 U | **31** | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-13D | 30 | 6-Dec-07 | EN0413D120607 | Summa Canister | 21.2 | 0.6 | 0.0 | 1.49 | N | N | | | µg/m3 | **5.0** UJ | **490** J | **3.0** UJ | **3.0** UJ | **1.9** UJ | **67** J | **3.0** UJ | **3.0** UJ | **2.0** UJ | **2.6** UJ | **5.7** UJ |
| | EN04-13D | 30 | 13-Feb-08 | EN0413D021308 | Summa Canister | 18.2 | 2.1 | 0.0 | 3.28 | N | N | | | µg/m3 | < 11 U | **2,200** | < 6.5 U | < 6.5 U | < 4.2 U | **370** | < 6.5 U | < 6.6 U | < 4.3 U | < 5.7 U | < 12 U |
| | EN04-13D | 30 | 8-Apr-08 | EN0413D040808 | Summa Canister | 19.0 | 1.3 | 0.0 | 1.68 | N | N | | | µg/m3 | **12** | **560** | < 3.3 U | < 3.3 U | < 2.1 U | **79** | **5.2** | < 3.4 U | < 2.2 U | **5.9** | < 6.4 U |
| | EN04-13D | 30 | 10-Jun-08 | EN0413D061008 | Summa Canister | 19.3 | 1.6 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 U | **380** | < 3.4 U | < 3.4 U | < 2.2 U | **51** | < 3.4 U | < 3.5 U | < 2.2 U | < 3 U | < 6.6 U |
| | EN04-13D | 30 | 13-Aug-08 | EN0413D081308 | Summa Canister | 20.6 | 0.3 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | **750** | < 3.5 U | < 3.5 U | < 2.2 U | **100** | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| | EN04-13D | 30 | 14-Oct-08 | EN0413D101408 | Summa Canister | 17.7 | 2.6 | 0.0 | 4.02 | N | N | | | µg/m3 | < 14 U | **3,000** | < 8 U | < 8 U | < 5.1 U | **450** | < 8 U | < 8.1 U | < 5.3 U | < 7 U | < 15 U |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
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| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | Trichloroethene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | Vinyl Chloride | 1,1,1-Trichloroethane | 1,1-Dichloroethene | 1,1-Dichloroethane | Chloroethane | Methylene Chloride | Freon 113 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-14** | EN04-14S | 8 | 10-Oct-07 | EN0414S101007 | Summa Canister | 20.5 | 0.3 | 0.0 | 3.03 | N | N | | | µg/m3 | < 10 U | **26** | < 6.0 U | < 6.0 U | < 3.9 U | **12** | < 6.0 U | < 6.1 U | < 4.0 U | < 5.3 U | < 12 U |
| Monitoring Well **EN-462** | EN04-14S | 8 | 5-Dec-07 | EN0414S120507 | Summa Canister | 20.5 | 0.0 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **23** | < 3.3 U | < 3.3 U | < 2.1 U | **15** | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-14S | 8 | 12-Feb-08 | EN0414S021208 | Summa Canister | 18.9 | 1.1 | 0.0 | 2.47 | N | N | | | µg/m3 | < 8.4 U | **10** | < 4.9 U | < 4.9 U | < 3.2 U | **10** | < 4.9 U | < 5.0 U | < 3.2 U | < 4.3 U | < 9.5 U |
| | EN04-14S | 8 | 7-Apr-08 | EN0414S040808 | Summa Canister | 20.3 | 0.0 | 0.0 | 1.49 | N | N | | | µg/m3 | < 5.0 U | **8.7** | < 3.0 U | < 3.0 U | < 1.9 U | **5.7** | < 3.0 U | < 3.0 U | < 2 U | < 2.6 U | < 5.7 U |
| | EN04-14S | 8 | 9-Jun-08 | EN0414S060908 | Summa Canister | 18.6 | 1.0 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | **15** | < 3.5 U | < 3.5 U | < 2.2 U | **6.2** | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| | EN04-14S | 8 | 12-Aug-08 | EN0414S081208 | Summa Canister | 19.2 | 2.2 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **24** | < 3.3 U | < 3.3 U | < 2.1 U | **7.7** | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-14S | 8 | 14-Oct-08 | EN0414S101408 | Summa Canister | 19.1 | 1.5 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **24** | < 3.3 U | < 3.3 U | < 2.1 U | **9.5** | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-14D | 34 | 10-Oct-07 | EN0414D101007 | Summa Canister | 20.2 | 0.6 | 0.0 | 3.39 | N | N | | | µg/m3 | < 11 U | **3,000** | < 6.7 U | < 6.7 U | < 4.3 U | **150** | < 6.7 U | < 6.9 U | < 4.5 U | < 5.9 U | < 13 U |
| | EN04-14D | 34 | 5-Dec-07 | EN0414D120507 | Summa Canister | 20.4 | 0.0 | 0.0 | 6.56 | N | N | | | µg/m3 | < 22 U | **4,900** | < 13 U | < 13 U | < 8.4 U | **230** | < 13 U | < 13 U | < 8.6 U | < 11 U | < 25 U |
| | EN04-14D | 34 | 12-Feb-08 | EN0414D021208 | Summa Canister | 19.0 | 0.7 | 0.0 | 5.16 | N | N | | | µg/m3 | < 18 U | **4,300** | < 10 U | < 10 U | < 6.6 U | **230** | < 10 U | < 10 U | < 6.8 U | < 9.0 U | < 20 U |
| | EN04-14D | 34 | 7-Apr-08 | EN0414D040808 | Summa Canister | 20.3 | 0.0 | 0.0 | 3.1 | N | N | | | µg/m3 | < 10 U | **3,000** | < 6.1 U | < 6.1 U | < 4.0 U | **140** | **6.9** | < 6.3 U | < 4.1 U | < 5.4 U | < 12 U |
| | EN04-14D | 34 | 9-Jun-08 | EN0414D060908 | Summa Canister | 19.4 | 0.2 | 0.0 | 3.74 | N | N | | | µg/m3 | < 13 U | **2,600** | < 7.4 U | < 7.4 U | < 4.8 U | **110** | < 7.4 U | < 7.6 U | < 4.9 U | < 6.5 U | < 14 U |
| | EN04-14D | 34 | 12-Aug-08 | EN0414D081208 | Summa Canister | 20.1 | 0.4 | 0.0 | 2.33 | N | N | | | µg/m3 | < 7.9 U | **2,300** | < 4.6 U | < 4.6 U | < 3 U | **110** | < 4.6 U | < 4.7 U | < 3.1 U | < 4 U | < 8.9 U |
| | EN04-14D | 34 | 14-Oct-08 | EN0414D101408 | Summa Canister | 19.4 | 0.6 | 0.0 | 4.2 | N | N | | | µg/m3 | < 14 U | **3,000** | < 8.3 U | < 8.3 U | < 5.4 U | **130** | < 8.3 U | < 8.5 U | < 5.5 U | < 7.3 U | < 16 U |
| Designation **EN04-15** | EN04-15S | 8 | 11-Oct-07 | EN0415S101107 | Summa Canister | 19.4 | 1.7 | 0.0 | 1.68 | N | N | | | µg/m3 | **38** | < 4.5 U | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| Monitoring Well **EN-162** | EN04-15S | 8 | 5-Dec-07 | EN0415S120507 | Summa Canister | 21.5 | 0.6 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | < 4.5 U | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-15S | 8 | 13-Feb-08 | EN0415S021308 | Summa Canister | 20.5 | 0.4 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | < 4.3 U | < 3.2 U | < 3.2 U | < 2.0 U | < 4.4 U | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-15S Dup | 8 | 13-Feb-08 | DU31800021308 | Summa Canister | 20.5 | 0.4 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | < 4.3 U | < 3.2 U | < 3.2 U | < 2.0 U | < 4.4 U | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-15S | 8 | 8-Apr-08 | EN0415S040808 | Summa Canister | 20.4 | 0.1 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 U | < 4.6 U | < 3.4 U | < 3.4 U | < 2.2 U | < 4.7 U | < 3.4 U | < 3.5 U | < 2.2 U | < 3.0 U | < 6.6 U |
| | EN04-15S | 8 | 9-Jun-08 | EN0415S060908 | Summa Canister | 20.3 | 0.4 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 U | < 4.8 U | < 3.5 U | < 3.5 U | < 2.3 U | < 4.9 U | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN04-15S | 8 | 14-Aug-08 | EN0415S081408 | Summa Canister | 21.0 | 0.6 | 0.0 | 1.75 | N | N | | | µg/m3 | **6.8** | < 4.7 U | < 3.5 U | < 3.5 U | < 2.2 U | < 4.8 U | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| | EN04-15S | 8 | 15-Oct-08 | EN0415S101508 | Summa Canister | 18.6 | 1.4 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | < 4.7 U | < 3.5 U | < 3.5 U | < 2.2 U | < 4.8 U | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| | EN04-15D | 30 | 11-Oct-07 | EN0415D101107 | Summa Canister | 19.2 | 1.8 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | < 4.7 U | < 3.5 U | < 3.5 U | < 2.2 U | < 4.8 U | < 3.5 U | < 3.5 U | < 2.3 U | < 3.0 U | < 6.7 U |
| | EN04-15D | 30 | 5-Dec-07 | EN0415D120507 | Summa Canister | 21.6 | 0.4 | 0.0 | 1.58 | N | N | | | µg/m3 | < 5.4 U | < 4.2 U | < 3.1 U | < 3.1 U | < 2.0 U | < 4.3 U | < 3.1 U | < 3.2 U | < 2.1 U | < 2.7 U | < 6.0 U |
| | EN04-15D | 30 | 13-Feb-08 | EN0415D021308 | Summa Canister | 20.3 | 0.4 | 0.0 | 1.83 | N | N | | | µg/m3 | < 6.2 U | < 4.9 U | < 3.6 U | < 3.6 U | < 2.3 U | < 5.0 U | < 3.6 U | < 3.7 U | < 2.4 U | < 3.2 U | < 7.0 U |
| | EN04-15D | 30 | 8-Apr-08 | EN0415D040808 | Summa Canister | 20.4 | 0.1 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 U | < 4.6 U | < 3.4 U | < 3.4 U | < 2.2 U | < 4.7 U | < 3.4 U | < 3.5 U | < 2.2 U | < 3.0 U | < 6.6 U |
| | EN04-15D | 30 | 9-Jun-08 | EN0415D060908 | Summa Canister | 19.8 | 0.7 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 U | < 4.8 U | < 3.5 U | < 3.5 U | < 2.3 U | < 4.9 U | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN04-15D | 30 | 14-Aug-08 | EN0415D081408 | Summa Canister | 20.8 | 0.1 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 U | < 4.6 U | < 3.4 U | < 3.4 U | < 2.2 U | < 4.7 U | < 3.4 U | < 3.5 U | < 2.2 U | < 3 U | < 6.6 U |
| | EN04-15D | 30 | 15-Oct-08 | EN0415D101508 | Summa Canister | 18.9 | 1.3 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 U | < 4.8 U | < 3.5 U | < 3.5 U | < 2.3 U | < 4.9 U | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | Trichloroethene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | Vinyl Chloride | 1,1,1-Trichloroethane | 1,1-Dichloroethene | 1,1-Dichloroethane | Chloroethane | Methylene Chloride | Freon 113 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-16** | EN04-16S | 8 | 10-Oct-07 | EN0416S101007 | Summa Canister | 19.7 | 1.2 | 0.0 | 1.75 | N | N | | | µg/m3 | **17** | **8.7** | < 3.5 U | < 3.5 U | < 2.2 U | < 4.8 U | < 3.5 U | < 3.5 U | < 2.3 U | < 3.0 U | < 6.7 U |
| Monitoring Well **EN-206A** | EN04-16S | 8 | 6-Dec-07 | EN0416S120607 | Summa Canister | 21.1 | 0.5 | 0.0 | 1.64 | N | N | | | µg/m3 | **6.3** | < 4.4 U | < 3.2 U | < 3.2 U | < 2.1 U | < 4.5 U | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-16S | 8 | 13-Feb-08 | EN0416S021308 | Summa Canister | 20.4 | 0.3 | 0.0 | 1.55 | N | N | | | µg/m3 | < 5.2 U | < 4.2 U | < 3.1 U | < 3.1 U | < 2.0 U | < 4.2 U | < 3.1 U | < 3.1 U | < 2.0 U | < 2.7 U | < 5.9 U |
| | EN04-16S | 8 | 8-Apr-08 | EN0416S040808 | Summa Canister | 20.2 | 0.2 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | < 4.5 U | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-16S | 8 | 10-Jun-08 | EN0416S061008 | Summa Canister | 19.4 | 0.9 | 0.0 | 1.83 | N | N | | | µg/m3 | **7.8** | **7.4** | < 3.6 U | < 3.6 U | < 2.3 U | < 5 U | < 3.6 U | < 3.7 U | < 2.4 U | < 3.2 U | < 7 U |
| | EN04-16S | 8 | 12-Aug-08 | EN0416S081208 | Summa Canister | 19.4 | 1.8 | 0.0 | 1.83 | N | N | | | µg/m3 | **16** | **8.7** | < 3.6 U | < 3.6 U | < 2.3 U | < 5 U | < 3.6 U | < 3.7 U | < 2.4 U | < 3.2 U | < 7 U |
| | EN04-16S | 8 | 14-Oct-08 | EN0416S101408 | Summa Canister | 19.4 | 1.1 | 0.0 | 1.79 | N | N | | | µg/m3 | **8.6** | **9** | < 3.5 U | < 3.5 U | < 2.3 U | < 4.9 U | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN04-16D | 34 | 10-Oct-07 | EN0416D101007 | Summa Canister | 19.7 | 1.0 | 0.0 | 7.9 | N | N | | | µg/m3 | **250** | **5,800** | **27** | < 16 U | < 10 U | **270** | < 16 U | < 16 U | < 10 U | < 14 U | < 30 U |
| | EN04-16D | 34 | 6-Dec-07 | EN0416D120607 | Summa Canister | 20.4 | 1.6 | 0.0 | 13.1 | N | N | | | µg/m3 | **320** | **7,200** | **33** | < 26 U | < 17 U | **360** | < 26 U | < 26 U | < 17 U | < 23 U | < 50 U |
| | EN04-16D | 34 | 13-Feb-08 | EN0416D021308 | Summa Canister | 19.9 | 1.1 | 0.0 | 8.86 | N | N | | | µg/m3 | **220** | **5,000** | **20** | < 18 U | < 11 U | **200** | < 18 U | < 18 U | < 12 U | < 15 U | < 34 U |
| | EN04-16D | 34 | 8-Apr-08 | EN0416D040808 | Summa Canister | 20.0 | 0.8 | 0.0 | 8.55 | N | N | | | µg/m3 | **220** | **4,700** | < 17 U | < 17 U | < 11 U | **210** | **25** | < 17 U | < 11 U | < 15 U | < 33 U |
| | EN04-16D | 34 | 10-Jun-08 | EN0416D061008 | Summa Canister | 19.8 | 0.5 | 0.0 | 7.16 | N | N | | | µg/m3 | **240** | **5,300** | **22** | < 14 U | < 9.2 U | **230** | < 14 U | < 14 U | < 9.4 U | < 12 U | < 27 U |
| | EN04-16D | 34 | 12-Aug-08 | EN0416D081208 | Summa Canister | 19.5 | 0.5 | 0.0 | 6.56 | N | N | | | µg/m3 | **250** | **4,700** | **19** | < 13 U | < 8.4 U | **210** | < 13 U | < 13 U | < 8.6 U | < 11 U | < 25 U |
| | EN04-16D | 34 | 14-Oct-08 | EN0416D101408 | Summa Canister | 19.3 | 1.3 | 0.0 | 7.16 | N | N | | | µg/m3 | **280** | **5,800** | **33** | < 14 U | < 9.2 U | **260** | < 14 U | < 14 U | < 9.4 U | < 12 U | < 27 U |
| Designation **EN04-17** | EN04-17S | 8 | 10-Oct-07 | EN0417S101007 | Summa Canister | 20.5 | 0.3 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | **630** | < 3.5 U | < 3.5 U | < 2.2 U | **11** | < 3.5 U | < 3.5 U | < 2.3 U | < 3.0 U | < 6.7 U |
| Monitoring Well **EN-401** | EN04-17S | 8 | 5-Dec-07 | EN0417S120507 | Summa Canister | 20.1 | 0.3 | 0.0 | 1.52 | N | N | | | µg/m3 | < 5.2 U | **150** | < 3.0 U | < 3.0 U | < 1.9 U | < 4.1 U | < 3.0 U | < 3.1 U | < 2.0 U | < 2.6 U | < 5.8 U |
| | EN04-17S | 8 | 12-Feb-08 | EN0417S021208 | Summa Canister | 20.5 | 0.0 | 0.0 | 2.29 | N | N | | | µg/m3 | < 7.8 U | **78** | < 4.5 U | < 4.5 U | < 2.9 U | < 6.2 U | < 4.5 U | < 4.6 U | < 3.0 U | < 4.0 U | < 8.8 U |
| | EN04-17S | 8 | 8-Apr-08 | EN0417S040808 | Summa Canister | 20.4 | 0.0 | 0.0 | 1.58 | N | N | | | µg/m3 | < 5.4 U | **59** | < 3.1 U | < 3.1 U | < 2.0 U | < 4.3 U | < 3.1 U | < 3.2 U | < 2.1 U | < 2.7 U | < 6.0 U |
| | EN04-17S | 8 | 10-Jun-08 | EN0417S061008 | Summa Canister | 20.5 | 0.2 | 0.0 | 1.91 | N | N | | | µg/m3 | < 6.5 U | **270** | < 3.8 U | < 3.8 U | < 2.4 U | < 5.2 U | < 3.8 U | < 3.9 U | < 2.5 U | < 3.3 U | < 7.3 U |
| | EN04-17S | 8 | 12-Aug-08 | EN0417S081208 | Summa Canister | 19.9 | 0.7 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 U | **420** | < 3.2 U | < 3.2 U | < 2.1 U | **7.4** | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-17S | 8 | 14-Oct-08 | EN0417S101408 | Summa Canister | 19.8 | 0.6 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | **350** | < 3.5 U | < 3.5 U | < 2.2 U | **7.5** | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| | EN04-17D | 28 | 10-Oct-07 | EN0417D101007 | Summa Canister | 20.1 | 0.6 | 0.0 | 14 | N | N | | | µg/m3 | < 47 U | **13,000** | **150** | < 28 U | < 18 U | **580** | < 28 U | < 28 U | < 18 U | < 24 U | < 54 U |
| | EN04-17D | 28 | 5-Dec-07 | EN0417D120507 | Summa Canister | 20.0 | 0.7 | 0.0 | 23.4 | N | N | | | µg/m3 | < 79 U | **19,000** | **200** | < 46 U | < 30 U | **690** | < 46 U | < 47 U | < 31 U | < 41 U | < 90 U |
| | EN04-17D | 28 | 12-Feb-08 | EN0417D021208 | Summa Canister | 18.9 | 0.6 | 0.0 | 16.1 | N | N | | | µg/m3 | < 55 U | **14,000** | **140** | < 32 U | < 20 U | **490** | < 32 U | < 32 U | < 21 U | < 28 U | < 62 U |
| | EN04-17D | 28 | 8-Apr-08 | EN0417D040808 | Summa Canister | 20.3 | 0.0 | 0.0 | 20.1 | N | N | | | µg/m3 | < 68 U | **13,000** | **140** | < 40 U | < 26 U | **440** | **56** | < 41 U | < 26 U | < 35 U | < 77 U |
| | EN04-17D | 28 | 10-Jun-08 | EN0417D061008 | Summa Canister | 20.8 | 0.1 | 0.0 | 8.95 | N | N | | | µg/m3 | < 30 U | **7,000** | **75** | < 18 U | < 11 U | **250** | < 18 U | < 18 U | < 12 U | < 16 U | < 34 U |
| | EN04-17D | 28 | 12-Aug-08 | EN0417D081208 | Summa Canister | 20.3 | 0.2 | 0.0 | 11.4 | N | N | | | µg/m3 | < 39 U | **9,900** | **120** | < 22 U | < 14 U | **420** | < 23 U | < 23 U | < 15 U | < 20 U | < 44 U |
| | EN04-17D | 28 | 14-Oct-08 | EN0417D101408 | Summa Canister | 19.6 | 0.4 | 0.0 | 1.79 | N | N | | | µg/m3 | **14** | **1,800** | **18** | < 3.5 U | < 2.3 U | **52** | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN04-17D Dup | 28 | 14-Oct-08 | DU3338101408 | Summa Canister | 19.6 | 0.4 | 0.0 | 1.79 | | | | | µg/m3 | < 6.1 U | **1,700** | **18** | < 3.5 U | < 2.3 U | **52** | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | | | Trichloroethene | | | cis-1,2-Dichloroethene | | | trans-1,2-Dichloroethene | | | Vinyl Chloride | | | 1,1,1-Trichloroethane | | | 1,1-Dichloroethene | | | 1,1-Dichloroethane | | | Chloroethane | | | Methylene Chloride | | | Freon 113 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-18** | EN04-18S | 8 | 10-Oct-07 | EN0418S101007 | Summa Canister | 19.9 | 0.9 | 0.0 | 1.75 | N | N | | | µg/m3 | < | 5.9 | U | < | 4.7 | U | < | 3.5 | U | < | 3.5 | U | < | 2.2 | U | < | 4.8 | U | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 3.0 | U | < | 6.7 | U |
| Monitoring Well **EN-217A** | EN04-18S | 8 | 6-Dec-07 | EN0418S120607 | Summa Canister | 20.8 | 1.0 | 0.0 | 1.58 | N | N | | | µg/m3 | < | 5.4 | U | < | 4.2 | U | < | 3.1 | U | < | 3.1 | U | < | 2.0 | U | < | 4.3 | U | < | 3.1 | U | < | 3.2 | U | < | 2.1 | U | < | 2.7 | U | < | 6.0 | U |
| | EN04-18S | 8 | 13-Feb-08 | EN0418S021308 | Summa Canister | 20.5 | 0.2 | 0.0 | 1.55 | N | N | | | µg/m3 | < | 5.2 | U | < | 4.2 | U | < | 3.1 | U | < | 3.1 | U | < | 2.0 | U | < | 4.2 | U | < | 3.1 | U | < | 3.1 | U | < | 2.0 | U | < | 2.7 | U | < | 5.9 | U |
| | EN04-18S | 8 | 8-Apr-08 | EN0418S040808 | Summa Canister | 19.6 | 0.2 | 0.0 | 1.58 | N | N | | | µg/m3 | < | 5.4 | U | < | 4.2 | U | < | 3.1 | U | < | 3.1 | U | < | 2.0 | U | < | 4.3 | U | < | 3.1 | U | < | 3.2 | U | < | 2.1 | U | < | 2.7 | U | < | 6.0 | U |
| | EN04-18S | 8 | 10-Jun-08 | EN0418S061008 | Summa Canister | 19.0 | 0.5 | 0.0 | 1.75 | N | N | | | µg/m3 | < | 5.9 | U | | **4.7** | | < | 3.5 | U | < | 3.5 | U | < | 2.2 | U | < | 4.8 | U | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 3 | U | < | 6.7 | U |
| | EN04-18S | 8 | 12-Aug-08 | EN0418S081208 | Summa Canister | 18.5 | 1.5 | 0.0 | 1.64 | N | N | | | µg/m3 | < | 5.6 | U | < | 4.4 | U | < | 3.2 | U | < | 3.2 | U | < | 2.1 | U | < | 4.5 | U | < | 3.2 | U | < | 3.3 | U | < | 2.2 | U | < | 2.8 | U | < | 6.3 | U |
| | EN04-18S | 8 | 14-Oct-08 | EN0418S101408 | Summa Canister | 20.1 | 0.0 | 0.0 | 1.75 | N | N | | | µg/m3 | < | 5.9 | U | < | 4.7 | U | < | 3.5 | U | < | 3.5 | U | < | 2.2 | U | < | 4.8 | U | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 3 | U | < | 6.7 | U |
| | EN04-18D | 31 | 10-Oct-07 | EN0418D101007 | Summa Canister | 20.1 | 0.8 | 0.0 | 1.71 | N | N | | | µg/m3 | | **9.9** | | | **1,300** | | | **20** | | < | 3.4 | U | < | 2.2 | U | | **120** | | < | 3.4 | U | | **4.2** | | < | 2.2 | U | < | 3.0 | U | < | 6.6 | U |
| | EN04-18D | 31 | 6-Dec-07 | EN0418D120607 | Summa Canister | 20.5 | 1.1 | 0.0 | 2.58 | N | N | | | µg/m3 | | **17** | | | **2,500** | | | **31** | | < | 5.1 | U | < | 3.3 | U | | **210** | | < | 5.1 | U | | **7.1** | | < | 3.4 | U | < | 4.5 | U | < | 9.9 | U |
| | EN04-18D | 31 | 13-Feb-08 | EN0418D021308 | Summa Canister | 20.1 | 0.7 | 0.0 | 1.58 | N | N | | | µg/m3 | | **7.9** | | | **1,100** | | | **14** | | < | 3.1 | U | < | 2.0 | U | | **75** | | < | 3.1 | U | | **4.8** | | < | 2.1 | U | | **6.4** | | < | 6.0 | U |
| | EN04-18D | 31 | 8-Apr-08 | EN0418D040808 | Summa Canister | 19.7 | 0.6 | 0.0 | 1.64 | N | N | | | µg/m3 | | **8.9** | | | **1,100** | | | **12** | | < | 3.2 | U | < | 2.1 | U | | **85** | | | **5.9** | | < | 3.3 | U | < | 2.2 | U | < | 2.8 | U | < | 6.3 | U |
| | EN04-18D | 31 | 10-Jun-08 | EN0418D061008 | Summa Canister | 19.2 | 0.4 | 0.0 | 1.79 | N | N | | | µg/m3 | | **8.5** | | | **990** | | | **14** | | < | 3.5 | U | < | 2.3 | U | | **86** | | < | 3.5 | U | < | 3.6 | U | < | 2.4 | U | < | 3.1 | U | < | 6.8 | U |
| | EN04-18D | 31 | 12-Aug-08 | EN0418D081208 | Summa Canister | 19.1 | 0.5 | 0.0 | 1.61 | N | N | | | µg/m3 | | **10** | | | **1,100** | | | **13** | | < | 3.2 | U | < | 2 | U | | **86** | | < | 3.2 | U | < | 3.2 | U | < | 2.1 | U | < | 2.8 | U | < | 6.2 | U |
| | EN04-18D | 31 | 14-Oct-08 | EN0418D101408 | Summa Canister | 20.0 | 0.2 | 0.0 | 1.71 | N | N | | | µg/m3 | | **10** | | | **1,300** | | | **15** | | < | 3.4 | U | < | 2.2 | U | | **93** | | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3 | U | < | 6.6 | U |
| Designation **EN04-19** | EN04-19S | 8 | 10-Oct-07 | EN0419S101007 | Summa Canister | 20.4 | 0.8 | 0.0 | 1.75 | N | N | | | µg/m3 | < | 5.9 | U | < | 4.7 | U | < | 3.5 | U | < | 3.5 | U | < | 2.2 | U | < | 4.8 | U | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 3.0 | U | < | 6.7 | U |
| Monitoring Well **EN-426** | EN04-19S | 8 | 5-Dec-07 | EN0419S120507 | Summa Canister | 19.5 | 1.0 | 0.0 | 1.64 | N | N | | | µg/m3 | < | 5.6 | U | < | 4.4 | U | < | 3.2 | U | < | 3.2 | U | < | 2.1 | U | < | 4.5 | U | < | 3.2 | U | < | 3.3 | U | < | 2.2 | U | < | 2.8 | U | < | 6.3 | U |
| | EN04-19S | 8 | 13-Feb-08 | EN0419S021308 | Summa Canister | 20.2 | 0.2 | 0.0 | 1.55 | N | N | | | µg/m3 | < | 5.2 | U | < | 4.2 | U | < | 3.1 | U | < | 3.1 | U | < | 2.0 | U | < | 4.2 | U | < | 3.1 | U | < | 3.1 | U | < | 2.0 | U | < | 2.7 | U | < | 5.9 | U |
| | EN04-19S | 8 | 8-Apr-08 | EN0419S040808 | Summa Canister | 20.3 | 0.1 | 0.0 | 1.83 | N | N | | | µg/m3 | < | 6.2 | U | < | 4.9 | U | < | 3.6 | U | < | 3.6 | U | < | 2.3 | U | < | 5 | U | < | 3.6 | U | < | 3.7 | U | < | 2.4 | U | < | 3.2 | U | < | 7.0 | U |
| | EN04-19S Dup | 8 | 8-Apr-08 | DU35623040808 | Summa Canister | 20.6 | 0.1 | 0.0 | 1.79 | N | N | | | µg/m3 | < | 6.1 | U | < | 4.8 | U | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 4.9 | U | < | 3.5 | U | < | 3.6 | U | < | 2.4 | U | < | 3.1 | U | < | 6.8 | U |
| | EN04-19S | 8 | 11-Jun-08 | EN0419S061108 | Summa Canister | 20.0 | 0.7 | 0.0 | 1.71 | N | N | | | µg/m3 | < | 5.8 | U | < | 4.6 | U | < | 3.4 | U | < | 3.4 | U | < | 2.2 | U | < | 4.7 | U | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3 | U | < | 6.6 | U |
| | EN04-19S Dup | 8 | 11-Jun-08 | DU34110061108 | Summa Canister | 20.0 | 0.7 | 0.0 | 1.71 | N | N | | | µg/m3 | < | 5.8 | U | < | 4.6 | U | < | 3.4 | U | < | 3.4 | U | < | 2.2 | U | < | 4.7 | U | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3 | U | < | 6.6 | U |
| | EN04-19S | 8 | 12-Aug-08 | EN0419S081208 | Summa Canister | 19.1 | 1.1 | 0.0 | 1.61 | N | N | | | µg/m3 | < | 5.5 | U | < | 4.3 | U | < | 3.2 | U | < | 3.2 | U | < | 2 | U | < | 4.4 | U | < | 3.2 | U | < | 3.2 | U | < | 2.1 | U | < | 2.8 | U | < | 6.2 | U |
| | EN04-19S | 8 | 14-Oct-08 | EN0419S101408 | Summa Canister | 19.8 | 0.6 | 0.0 | 1.75 | N | N | | | µg/m3 | < | 5.9 | U | < | 4.7 | U | < | 3.5 | U | < | 3.5 | U | < | 2.2 | U | < | 4.8 | U | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 3 | U | < | 6.7 | U |
| | EN04-19D | 29.5 | 10-Oct-07 | EN0419D101007 | Summa Canister | 19.9 | 1.0 | 0.0 | 1.71 | N | N | | | µg/m3 | < | 5.8 | U | | **1,300** | | | **14** | | < | 3.4 | U | < | 2.2 | U | | **70** | | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3.0 | U | < | 6.6 | U |
| | EN04-19D | 29.5 | 5-Dec-07 | EN0419D120507 | Summa Canister | 19.1 | 1.3 | 0.0 | 1.71 | N | N | | | µg/m3 | < | 5.8 | U | | **1,800** | | | **18** | | < | 3.4 | U | < | 2.2 | U | | **59** | | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3.0 | U | < | 6.6 | U |
| | EN04-19D | 29.5 | 13-Feb-08 | EN0419D021308 | Summa Canister | 20.1 | 0.3 | 0.0 | 1.75 | N | N | | | µg/m3 | < | 5.9 | U | | **1,200** | | | **15** | | < | 3.5 | U | < | 2.2 | U | | **42** | | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 3.0 | U | < | 6.7 | U |
| | EN04-19D | 29.5 | 8-Apr-08 | EN0419D040808 | Summa Canister | 19.9 | 0.8 | 0.0 | 1.49 | N | N | | | µg/m3 | < | 5.0 | U | | **1,100** | | | **9.3** | | < | 3.0 | U | < | 1.9 | U | | **29** | | | **3.0** | | < | 3.0 | U | < | 2 | U | < | 2.6 | U | < | 5.7 | U |
| | EN04-19D | 29.5 | 11-Jun-08 | EN0419D061108 | Summa Canister | 20.0 | 0.7 | 0.0 | 1.71 | N | N | | | µg/m3 | < | 5.8 | U | | **1,100** | | | **10** | | < | 3.4 | U | < | 2.2 | U | | **54** | | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3 | U | < | 6.6 | U |
| | EN04-19D | 29.5 | 12-Aug-08 | EN0419D081208 | Summa Canister | 19.5 | 0.6 | 0.0 | 1.75 | N | N | | | µg/m3 | < | 5.9 | U | | **1,100** | | | **10** | | < | 3.5 | U | < | 2.2 | U | | **58** | | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 3 | U | < | 6.7 | U |
| | EN04-19D | 29.5 | 14-Oct-08 | EN0419D101408 | Summa Canister | 19.8 | 0.7 | 0.0 | 1.71 | N | N | | | µg/m3 | < | 5.8 | U | | **1,400** | | | **13** | | < | 3.4 | U | < | 2.2 | U | | **67** | | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3 | U | < | 6.6 | U |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | | | Trichloroethene | | | cis-1,2-Dichloroethene | | | trans-1,2-Dichloroethene | | | Vinyl Chloride | | | 1,1,1-Trichloroethane | | | 1,1-Dichloroethene | | | 1,1-Dichloroethane | | | Chloroethane | | | Methylene Chloride | | | Freon 113 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-20** | EN04-20S | 8 | 10-Oct-07 | EN0420S101007 | Summa Canister | 19.3 | 1.9 | 0.0 | 1.75 | N | N | | | µg/m3 | < | 5.9 | U | < | 4.7 | U | < | 3.5 | U | < | 3.5 | U | < | 2.2 | U | < | 4.8 | U | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 3.0 | U | < | 6.7 | U |
| Monitoring Well **EN-207** | EN04-20S | 8 | 5-Dec-07 | EN0420S120507 | Summa Canister | 20.3 | 0.3 | 0.0 | 1.55 | N | N | | | µg/m3 | < | 5.2 | U | < | 4.2 | U | < | 3.1 | U | < | 3.1 | U | < | 2.0 | U | < | 4.2 | U | < | 3.1 | U | < | 3.1 | U | < | 2.0 | U | < | 2.7 | U | < | 5.9 | U |
| | EN04-20S | 8 | 13-Feb-08 | EN0420S021308 | Summa Canister | 20.2 | 0.3 | 0.0 | 1.64 | N | N | | | µg/m3 | < | 5.6 | U | < | 4.4 | U | < | 3.2 | U | < | 3.2 | U | < | 2.1 | U | < | 4.5 | U | < | 3.2 | U | < | 3.3 | U | < | 2.2 | U | < | 2.8 | U | < | 6.3 | U |
| | EN04-20S | 8 | 8-Apr-08 | EN0420S040808 | Summa Canister | 19.6 | 1.0 | 0.0 | 1.71 | N | N | | | µg/m3 | < | 5.8 | U | < | 4.6 | U | < | 3.4 | U | < | 3.4 | U | < | 2.2 | U | < | 4.7 | U | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3.0 | U | < | 6.6 | U |
| | EN04-20S | 8 | 10-Jun-08 | EN0420S061008 | Summa Canister | 19.9 | 1.1 | 0.0 | 1.58 | N | N | | | µg/m3 | | **20** | | < | 4.2 | U | < | 3.1 | U | < | 3.1 | U | < | 2 | U | < | 4.3 | U | < | 3.1 | U | < | 3.2 | U | < | 2.1 | U | < | 2.7 | U | < | 6 | U |
| | EN04-20S | 8 | 12-Aug-08 | EN0420S081208 | Summa Canister | 18.9 | 2.4 | 0.0 | 1.71 | N | N | | | µg/m3 | < | 5.8 | U | < | 4.6 | U | < | 3.4 | U | < | 3.4 | U | < | 2.2 | U | < | 4.7 | U | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3 | U | < | 6.6 | U |
| | EN04-20S | 8 | 14-Oct-08 | EN0420S101408 | Summa Canister | 19.4 | 1.3 | 0.0 | 1.64 | N | N | | | µg/m3 | < | 5.6 | U | < | 4.4 | U | < | 3.2 | U | < | 3.2 | U | < | 2.1 | U | < | 4.5 | U | < | 3.2 | U | < | 3.3 | U | < | 2.2 | U | < | 2.8 | U | < | 6.3 | U |
| | EN04-20I | 24 | 12-Aug-08 | EN0420I081208 | Summa Canister | 19.6 | 0.9 | 0.0 | 1.75 | | | | | µg/m3 | < | 5.9 | U | | **17** | | < | 3.5 | U | < | 3.5 | U | < | 2.2 | U | < | 4.8 | U | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 3 | U | < | 6.7 | U |
| | EN04-20I Dup | 24 | 12-Aug-08 | DU3372081208 | Summa Canister | 19.6 | 0.9 | 0.0 | 1.75 | | | | | µg/m3 | < | 5.9 | U | | **20** | | < | 3.5 | U | < | 3.5 | U | < | 2.2 | U | < | 4.8 | U | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 3 | U | < | 6.7 | U |
| | EN04-20D | 36 | 10-Oct-07 | EN0420D101007 | Summa Canister | 20.3 | 0.7 | 0.0 | 1.71 | N | N | | | µg/m3 | < | 5.8 | U | | **280** | | < | 3.4 | U | < | 3.4 | U | < | 2.2 | U | | **15** | | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3.0 | U | < | 6.6 | U |
| | EN04-20D | 36 | 5-Dec-07 | EN0420D120507 | Summa Canister | 19.9 | 0.9 | 0.0 | 1.52 | N | N | | | µg/m3 | < | 5.2 | U | | **380** | | < | 3.0 | U | < | 3 | U | < | 1.9 | U | | **16** | | < | 3.0 | U | < | 3.1 | U | < | 2.0 | U | < | 2.6 | U | < | 5.8 | U |
| | EN04-20D | 36 | 13-Feb-08 | EN0420D021308 | Summa Canister | 19.8 | 0.8 | 0.0 | 1.68 | N | N | | | µg/m3 | < | 5.7 | U | | **320** | | < | 3.3 | U | < | 3.3 | U | < | 2.1 | U | | **14** | | < | 3.3 | U | < | 3.4 | U | < | 2.2 | U | < | 2.9 | U | < | 6.4 | U |
| | EN04-20D | 36 | 8-Apr-08 | EN0420D040808 | Summa Canister | 20.0 | 0.4 | 0.0 | 1.68 | N | N | | | µg/m3 | < | 5.7 | U | | **250** | | < | 3.3 | U | < | 3.3 | U | < | 2.1 | U | | **9.3** | | < | 3.3 | U | < | 3.4 | U | < | 2.2 | U | < | 2.9 | U | < | 6.4 | U |
| | EN04-20D | 36 | 10-Jun-08 | EN0420D061008 | Summa Canister | 20.8 | 0.3 | 0.0 | 1.58 | N | N | | | µg/m3 | < | 5.4 | U | | **210** | | < | 3.1 | U | < | 3.1 | U | < | 2 | U | | **11** | | < | 3.1 | U | < | 3.2 | U | < | 2.1 | U | | **3** | | < | 6 | U |
| | EN04-20D | 36 | 12-Aug-08 | EN0420D081208 | Summa Canister | 19.9 | 0.5 | 0.0 | 1.68 | N | N | | | µg/m3 | < | 5.7 | U | | **200** | | < | 3.3 | U | < | 3.3 | U | < | 2.1 | U | | **9.2** | | < | 3.3 | U | < | 3.4 | U | < | 2.2 | U | < | 2.9 | U | < | 6.4 | U |
| | EN04-20D | 36 | 14-Oct-08 | EN0420D101408 | Summa Canister | 19.9 | 0.4 | 0.0 | 1.61 | N | N | | | µg/m3 | < | 5.5 | U | | **310** | | < | 3.2 | U | < | 3.2 | U | < | 2 | U | | **13** | | < | 3.2 | U | < | 3.2 | U | < | 2.1 | U | < | 2.8 | U | < | 6.2 | U |
| Designation **EN04-21** | EN04-21S | 7.5 | 10-Oct-07 | EN0421S101007 | Summa Canister | 21.0 | 0.0 | 0.0 | 1.75 | N | N | | | µg/m3 | < | 5.9 | U | < | 4.7 | U | < | 3.5 | U | < | 3.5 | U | < | 2.2 | U | < | 4.8 | U | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 3.0 | U | < | 6.7 | U |
| Monitoring Well **EN-426** | EN04-21S | 7.5 | 5-Dec-07 | EN0421S120507 | Summa Canister | 20.3 | 0.0 | 0.0 | 1.71 | N | N | | | µg/m3 | < | 5.8 | U | | **5.4** | | < | 3.4 | U | < | 3.4 | U | < | 2.2 | U | < | 4.7 | U | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3.0 | U | < | 6.6 | U |
| | EN04-21S | 7.5 | 13-Feb-08 | EN0421S021308 | Summa Canister | 19.1 | 0.9 | 0.0 | 1.64 | N | N | | | µg/m3 | < | 5.6 | U | < | 4.4 | U | < | 3.2 | U | < | 3.2 | U | < | 2.1 | U | < | 4.5 | U | < | 3.2 | U | < | 3.3 | U | < | 2.2 | U | < | 2.8 | U | < | 6.3 | U |
| | EN04-21S | 7.5 | 8-Apr-08 | EN0421S040808 | Summa Canister | 20.3 | 0.0 | 0.0 | 1.68 | N | N | | | µg/m3 | < | 5.7 | U | < | 4.5 | U | < | 3.3 | U | < | 3.3 | U | < | 2.1 | U | < | 4.6 | U | < | 3.3 | U | < | 3.4 | U | < | 2.2 | U | < | 2.9 | U | < | 6.4 | U |
| | EN04-21S | 7.5 | 11-Jun-08 | EN0421S061108 | Summa Canister | 17.1 | 2.9 | 0.0 | 1.71 | | | | | µg/m3 | < | 5.8 | U | < | 4.6 | U | < | 3.4 | U | < | 3.4 | U | < | 2.2 | U | < | 4.7 | U | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3 | U | < | 6.6 | U |
| | EN04-21S | 7.5 | 12-Aug-08 | EN0421S081208 | Summa Canister | 17.5 | 3.3 | 0.0 | 1.79 | | | | | µg/m3 | < | 6.1 | U | < | 4.8 | U | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 4.9 | U | < | 3.5 | U | < | 3.6 | U | < | 2.4 | U | < | 3.1 | U | < | 6.8 | U |
| | EN04-21S Dup | 7.5 | 12-Aug-08 | DU3325081208 | Summa Canister | 17.5 | 3.3 | 0.0 | 1.79 | | | | | µg/m3 | < | 6.1 | U | < | 4.8 | U | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 4.9 | U | < | 3.5 | U | < | 3.6 | U | < | 2.4 | U | < | 3.1 | U | < | 6.8 | U |
| | EN04-21S | 7.5 | 14-Oct-08 | EN0421S101408 | Summa Canister | 19.0 | 1.5 | 0.0 | 1.68 | | | | | µg/m3 | < | 5.7 | U | < | 4.5 | U | < | 3.3 | U | < | 3.3 | U | < | 2.1 | U | < | 4.6 | U | < | 3.3 | U | < | 3.4 | U | < | 2.2 | U | < | 2.9 | U | < | 6.4 | U |
| | EN04-21D | 23 | 10-Oct-07 | EN0421D101007 | Summa Canister | 19.6 | 1.3 | 0.0 | 1.79 | N | N | | | µg/m3 | < | 6.1 | U | | **510** | | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | | **19** | | | **94** | | | **99** | | < | 2.4 | U | | **7.5** | | < | 6.8 | U |
| | EN04-21D | 23 | 5-Dec-07 | EN0421D120507 | Summa Canister | 20.0 | 0.3 | 0.0 | 1.64 | N | N | | | µg/m3 | < | 5.6 | U | | **880** | | | **4.2** | | < | 3.2 | U | < | 2.1 | U | | **39** | | < | 3.2 | U | < | 3.3 | U | < | 2.2 | U | < | 2.8 | U | < | 6.3 | U |
| | EN04-21D | 23 | 13-Feb-08 | EN0421D021308 | Summa Canister | 18.5 | 1.5 | 0.0 | 1.39 | N | N | | | µg/m3 | | **4.7** | UJ | | **710** | J | | **3.2** | J | | **2.8** | UJ | | **1.8** | UJ | | **35** | J | | **2.8** | UJ | | **2.8** | UJ | | **1.8** | UJ | | **2.4** | UJ | | **5.3** | UJ |
| | EN04-21D | 23 | 8-Apr-08 | EN0421D040808 | Summa Canister | 19.9 | 0.7 | 0.0 | 1.75 | N | N | | | µg/m3 | < | 5.9 | U | | **480** | | < | 3.5 | U | < | 3.5 | U | < | 2.2 | U | | **17** | | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | < | 3.0 | U | < | 6.7 | U |
| | EN04-21D | 23 | 11-Jun-08 | EN0421D061108 | Summa Canister | 18.6 | 1.6 | 0.0 | 1.75 | N | N | | | µg/m3 | < | 5.9 | U | | **93** | | < | 3.5 | U | < | 3.5 | U | < | 2.2 | U | < | 4.8 | U | < | 3.5 | U | < | 3.5 | U | < | 2.3 | U | | **11** | | < | 6.7 | U |
| | EN04-21D | 23 | 12-Aug-08 | EN0421D081208 | Summa Canister | 17.5 | 3.3 | 0.0 | 1.68 | N | N | | | µg/m3 | < | 5.7 | U | | **210** | | < | 3.3 | U | < | 3.3 | U | < | 2.1 | U | | **5.9** | | < | 3.3 | U | < | 3.4 | U | < | 2.2 | U | < | 2.9 | U | < | 6.4 | U |
| | EN04-21D | 23 | 14-Oct-08 | EN0421D101408 | Summa Canister | 19.2 | 1.2 | 0.0 | 1.58 | N | N | | | µg/m3 | < | 5.4 | U | | **400** | | < | 3.1 | U | < | 3.1 | U | < | 2 | U | | **17** | | < | 3.1 | U | < | 3.2 | U | < | 2.1 | U | < | 2.7 | U | < | 6 | U |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | Trichloroethene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | Vinyl Chloride | 1,1,1-Trichloroethane | 1,1-Dichloroethene | 1,1-Dichloroethane | Chloroethane | Methylene Chloride | Freon 113 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-22** | EN04-22S | 8 | 11-Oct-07 | EN0422S101107 | Summa Canister | 14.7 | 5.1 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **37** | **28** | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| Monitoring Well **EN-80, EN-393** | EN04-22S | 8 | 6-Dec-07 | EN0422S120607 | Summa Canister | 19.4 | 2.8 | 0.0 | 1.52 | N | N | | | µg/m3 | < 5.2 U | **230** | **200** | **10** | < 1.9 U | **17** | **4.5** | < 3.1 U | < 2.0 U | < 2.6 U | < 5.8 U |
| | EN04-22S | 8 | 13-Feb-08 | EN0422S021308 | Summa Canister | 15.7 | 3.5 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | **110** | **130** | **5.2** | < 2.0 U | **14** | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-22S | 8 | 9-Apr-08 | EN0422S040908 | Summa Canister | 16.8 | 1.5 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 U | **110** | **86** | **5.6** | < 2.2 U | **12** | < 3.4 U | < 3.5 U | < 2.2 U | < 3.0 U | < 6.6 U |
| | EN04-22S | 8 | 10-Jun-08 | EN0422S061008 | Summa Canister | 16.9 | 3.0 | 0.0 | 1.75 | | | | | µg/m3 | < 5.9 U | **420** | **380** | **20** | < 2.2 U | **44** | < 3.5 U | **4** | < 2.3 U | < 3 U | **8.4** |
| | EN04-22S | 8 | 13-Aug-08 | EN0422S081308 | Summa Canister | 15.8 | 4.3 | 0.0 | 1.79 | | | | | µg/m3 | **8** | **900** | **460** | **25** | < 2.3 U | **60** | < 3.5 U | **5.2** | < 2.4 U | < 3.1 U | **12** |
| | EN04-22S | 8 | 15-Oct-08 | EN0422S101508 | Summa Canister | 15.2 | 4.0 | 0.0 | 1.71 | | | | | µg/m3 | **19** | **580** | **260** | **16** | < 2.2 U | **44** | < 3.4 U | < 3.5 U | < 2.2 U | < 3 U | **8.2** |
| | EN04-22D | 16 | 11-Oct-07 | EN0422D101107 | Summa Canister | 13.9 | 5.9 | 0.0 | 3.28 | N | N | | | µg/m3 | < 11 U | **1,300** | **2,000** | **63** | < 4.2 U | **100** | < 6.5 U | **13** | < 4.3 U | < 5.7 U | **16** |
| | EN04-22D | 16 | 6-Dec-07 | EN0422D120607 | Summa Canister | 20.6 | 0.6 | 0.0 | 2.92 | N | N | | | µg/m3 | < 9.9 U | **930** | **1,300** | **44** | < 3.7 U | **53** | **15** | **7.2** | < 3.8 U | < 5.1 U | **11** |
| | EN04-22D | 16 | 13-Feb-08 | EN0422D021308 | Summa Canister | 16.3 | 3.3 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | **560** | **760** | **28** | < 2.0 U | **42** | < 3.2 U | **5.6** | < 2.1 U | < 2.8 U | **9.1** |
| | EN04-22D | 16 | 9-Apr-08 | EN0422D040908 | Summa Canister | 16.7 | 2.4 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **410** | **530** | **26** | **29** | **37** | < 3.3 U | **5.1** | < 2.2 U | < 2.9 U | **9** |
| | EN04-22D | 16 | 10-Jun-08 | EN0422D061008 | Summa Canister | 16.6 | 3.4 | 0.0 | 1.68 | | | | | µg/m3 | < 5.7 U | **660** | **950** | **50** | < 2.1 U | **61** | **3.4** | **7.6** | **2.3** | < 2.9 U | **12** |
| | EN04-22D | 16 | 13-Aug-08 | EN0422D081308 | Summa Canister | 15.1 | 4.9 | 0.0 | 1.61 | | | | | µg/m3 | **7.1** | **990** | **1,200** | **63** | < 2 U | **81** | < 3.2 U | **9.8** | < 2.1 U | < 2.8 U | **14** |
| | EN04-22D | 16 | 15-Oct-08 | EN0422D101508 | Summa Canister | 14.4 | 5.1 | 0.0 | 3.42 | | | | | µg/m3 | < 12 U | **1,200** | **1,400** | **72** | < 4.4 U | **98** | < 6.8 U | **12** | < 4.5 U | < 5.9 U | **14** |
| Designation **EN04-23** | EN04-23S | 8 | 11-Oct-07 | EN0423S101107 | Summa Canister | 19.3 | 1.8 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | < 4.5 U | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| Monitoring Well **EN-174** | EN04-23S | 8 | 6-Dec-07 | EN0423S120607 | Summa Canister | 18.7 | 2.2 | 0.0 | 1.49 | N | N | | | µg/m3 | < 5.0 U | < 4.0 U | < 3.0 U | < 3.0 U | < 1.9 U | < 4.1 U | < 3.0 U | < 3.0 U | < 2.0 U | < 2.6 U | < 5.7 U |
| | EN04-23S | 8 | 13-Feb-08 | EN0423S021308 | Summa Canister | 19.1 | 1.5 | 0.0 | 1.55 | N | N | | | µg/m3 | < 5.2 U | < 4.2 U | < 3.1 U | < 3.1 U | < 2.0 U | < 4.2 U | < 3.1 U | < 3.1 U | < 2.0 U | < 2.7 U | < 5.9 U |
| | EN04-23S | 8 | 9-Apr-08 | EN0423S040908 | Summa Canister | 19.0 | 1.3 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 U | < 4.6 U | < 3.4 U | < 3.4 U | < 2.2 U | < 4.7 U | < 3.4 U | < 3.5 U | < 2.2 U | < 3.0 U | < 6.6 U |
| | EN04-23S | 8 | 11-Jun-08 | EN0423S061108 | Summa Canister | 18.8 | 2.5 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | < 4.5 U | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | **11** | < 6.4 U |
| | EN04-23S | 8 | 13-Aug-08 | EN0423S081308 | Summa Canister | 20.9 | 0.1 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | < 4.7 U | < 3.5 U | < 3.5 U | < 2.2 U | < 4.8 U | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| | EN04-23S | 8 | 16-Oct-08 | EN0423S101608 | Summa Canister | 17.6 | 3.7 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | < 4.5 U | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-23I | 15 | 13-Aug-08 | EN0423I081308 | Summa Canister | 20.8 | 0.1 | 0.0 | 1.64 | | | | | µg/m3 | < 5.6 U | < 4.4 U | < 3.2 U | < 3.2 U | < 2.1 U | < 4.5 U | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-23D | 23 | 11-Oct-07 | EN0423D101107 | Summa Canister | 16.6 | 4.3 | 0.0 | 1.61 | N | N | | | µg/m3 | **23** | **550** | **210** | **8.2** | < 2.0 U | < 4.4 U | < 3.2 U | **26** | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-23D | 23 | 6-Dec-07 | EN0423D120607 | Summa Canister | 20.0 | 1.7 | 0.0 | 1.55 | N | N | | | µg/m3 | **26** | **740** | **250** | **9.2** | < 2.0 U | **4.4** | < 3.1 U | **29** | < 2.0 U | < 2.7 U | < 5.9 U |
| | EN04-23D | 23 | 13-Feb-08 | EN0423D021308 | Summa Canister | 19.4 | 0.8 | 0.0 | 1.64 | N | N | | | µg/m3 | **20** | **540** | **200** | **7.1** | < 2.1 U | < 4.5 U | < 3.2 U | **23** | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-23D | 23 | 9-Apr-08 | EN0423D040908 | Summa Canister | 18.6 | 1.8 | 0.0 | 1.71 | N | N | | | µg/m3 | **16** | **450** | **160** | **8.2** | < 2.2 U | < 4.7 U | < 3.4 U | **21** | < 2.2 U | < 3.0 U | < 6.6 U |
| | EN04-23D | 23 | 11-Jun-08 | EN0423D061108 | Summa Canister | 20.0 | 1.6 | 0.0 | 1.64 | N | N | | | µg/m3 | **17** | **490** | **160** | **6.8** | < 2.1 U | < 4.5 U | < 3.2 U | **21** | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-23D | 23 | 13-Aug-08 | EN0423D081308 | Summa Canister | 20.9 | 0.0 | 0.0 | 1.75 | N | N | | | µg/m3 | **20** | **490** | **160** | **7.1** | < 2.2 U | < 4.8 U | < 3.5 U | **22** | < 2.3 U | < 3 U | < 6.7 U |
| | EN04-23D | 23 | 16-Oct-08 | EN0423D101608 | Summa Canister | 19.1 | 1.7 | 0.0 | 1.58 | N | N | | | µg/m3 | **21** | **560** | **160** | **8** | < 2 U | < 4.3 U | < 3.1 U | **22** | < 2.1 U | < 2.7 U | < 6 U |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | Trichloroethene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | Vinyl Chloride | 1,1,1-Trichloroethane | 1,1-Dichloroethene | 1,1-Dichloroethane | Chloroethane | Methylene Chloride | Freon 113 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-25** | EN04-25S | 8 | 11-Oct-07 | EN0425S101107 | Summa Canister | 15.3 | 4.0 | 0.0 | 1.64 | N | N | | | µg/m3 | **9.2** | **5.5** | < 3.2 U | < 3.2 U | < 2.1 U | **5.2** | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| Monitoring Well **EN-395** | EN04-25S | 8 | 5-Dec-07 | EN0425S120507 | Summa Canister | 17.9 | 1.9 | 0.0 | 1.46 | N | N | | | µg/m3 | < 5.0 U | < 3.9 U | < 2.9 U | < 2.9 U | < 1.9 U | < 4.0 U | < 2.9 U | < 3.0 U | < 1.9 U | < 2.5 U | < 5.6 U |
| | EN04-25S | 8 | 14-Feb-08 | Could not sample due to ice in implant | | | | | | | | | | | | | | | | | | | | | |
| | EN04-25S | 8 | 9-Apr-08 | EN0425S040908 | Summa Canister | 18.7 | 1.4 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | < 4.5 U | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-25S | 8 | 11-Jun-08 | EN0425S061108 | Summa Canister | 17.7 | 2.3 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 U | < 4.6 U | < 3.4 U | < 3.4 U | < 2.2 U | < 4.7 U | < 3.4 U | < 3.5 U | < 2.2 U | < 3 U | < 6.6 U |
| | EN04-25S Dup | 8 | 11-Jun-08 | DU3301061108 | Summa Canister | 17.7 | 2.3 | 0.0 | 1.83 | N | N | | | µg/m3 | < 6.2 U | < 4.9 U | < 3.6 U | < 3.6 U | < 2.3 U | < 5 U | < 3.6 U | < 3.7 U | < 2.4 U | < 3.2 U | < 7 U |
| | EN04-25S | 8 | 13-Aug-08 | EN0425S081308 | Summa Canister | 14.6 | 4.0 | 0.0 | 1.79 | N | N | | | µg/m3 | **10** | **8.7** | < 3.5 U | < 3.5 U | < 2.3 U | < 4.9 U | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN04-25S | 8 | 15-Oct-08 | EN0425S101508 | Summa Canister | 16.0 | 3.5 | 0.0 | 1.68 | N | N | | | µg/m3 | **5.8** | **5.4** | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-25D | 17.5 | 11-Oct-07 | EN0425D101107 | Summa Canister | 17.8 | 2.4 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 U | < 4.4 U | < 3.2 U | < 3.2 U | < 2.1 U | < 4.5 U | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-25D | 17.5 | 5-Dec-07 | EN0425D120507 | Summa Canister | 16.5 | 3.5 | 0.0 | 1.49 | N | N | | | µg/m3 | < 5.0 U | < 4.0 U | < 3.0 U | < 3.0 U | < 1.9 U | < 4.1 U | < 3.0 U | < 3.0 U | < 2.0 U | < 2.6 U | < 5.7 U |
| | EN04-25D | 17.5 | 14-Feb-08 | EN0425D021408 | Summa Canister | 20.3 | 0.4 | 0.0 | 1.55 | N | N | | | µg/m3 | **9.3** | < 4.2 U | < 3.1 U | < 3.1 U | < 2.0 U | < 4.2 U | < 3.1 U | < 3.1 U | < 2.0 U | < 2.7 U | < 5.9 U |
| | EN04-25D | 17.5 | 9-Apr-08 | EN0425D040908 | Summa Canister | 19.1 | 0.7 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 U | < 4.4 U | < 3.2 U | < 3.2 U | < 2.1 U | < 4.5 U | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-25D | 17.5 | 11-Jun-08 | EN0425D061108 | Summa Canister | 19.1 | 1.9 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **11** | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-25D | 17.5 | 13-Aug-08 | EN0425D081308 | Summa Canister | 17.2 | 2.3 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 U | < 4.8 U | < 3.5 U | < 3.5 U | < 2.3 U | < 4.9 U | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN04-25D | 17.5 | 15-Oct-08 | EN0425D101508 | Summa Canister | 18.1 | 1.8 | 0.6 | 1.68 | N | N | | | µg/m3 | < 5.7 U | < 4.5 U | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| Designation **EN04-26** | EN04-26S | 8 | 11-Oct-07 | EN0426S101107 | Summa Canister | 19.9 | 1.5 | 0.0 | 2.43 | N | N | | | µg/m3 | **22** | **1,800** | < 4.8 U | < 4.8 U | < 3.1 U | **130** | < 4.8 U | < 4.9 U | < 3.2 U | < 4.2 U | < 9.3 U |
| Monitoring Well **EN-304** | EN04-26S | 8 | 6-Dec-07 | EN0426S120607 | Summa Canister | 20.0 | 1.1 | 0.0 | 1.49 | N | N | | | µg/m3 | **7.2** | **800** | < 3.0 U | < 3.0 U | < 1.9 U | **71** | < 3.0 U | < 3.0 U | < 2.0 U | **4.0** | **6.6** |
| | EN04-26S | 8 | 14-Feb-08 | EN0426S021408 | Summa Canister | 20.5 | 0.5 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 U | **340** | < 3.2 U | < 3.2 U | < 2.1 U | **32** | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-26S Dup | 8 | 14-Feb-08 | DU3361021408 | Summa Canister | 20.5 | 0.5 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 U | **340** | < 3.2 U | < 3.2 U | < 2.1 U | **33** | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-26S | 8 | 9-Apr-08 | EN0426S040908 | Summa Canister | 20.5 | 0.0 | 0.0 | 1.68 | N | N | | | µg/m3 | **21** | **370** | < 3.3 U | < 3.3 U | < 2.1 U | **32** | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-26S | 8 | 11-Jun-08 | EN0426S061108 | Summa Canister | 20.0 | 1.0 | 0.0 | 1.71 | N | N | | | µg/m3 | **10** | **1,100** | < 3.4 U | < 3.4 U | < 2.2 U | **71** | < 3.4 U | < 3.5 U | < 2.2 U | < 3 U | < 6.6 U |
| | EN04-26S | 8 | 14-Aug-08 | EN0426S081408 | Summa Canister | 19.4 | 1.5 | 0.0 | 1.58 | N | N | | | µg/m3 | **18** | **1,700** J | < 3.1 U | < 3.1 U | < 2 U | **130** | < 3.1 U | < 3.2 U | < 2.1 U | < 2.7 U | < 6 U |
| | EN04-26S | 8 | 16-Oct-08 | EN0426S101608 | Summa Canister | 20.1 | 1.2 | 0.0 | 1.52 | N | N | | | µg/m3 | **14** | **1,400** | < 3 U | < 3 U | < 1.9 U | **100** | < 3 U | < 3.1 U | < 2 U | < 2.6 U | **33** |
| | EN04-26D | 14 | 11-Oct-07 | EN0426D101107 | Summa Canister | 19.9 | 1.5 | 0.0 | 4.38 | N | N | | | µg/m3 | **24** | **3,400** | < 8.7 U | < 8.7 U | < 5.6 U | **180** | < 8.7 U | < 8.9 U | < 5.8 U | < 7.6 U | < 17 U |
| | EN04-26D | 14 | 6-Dec-07 | EN0426D120607 | Summa Canister | 19.8 | 1.2 | 0.0 | 4.13 | N | N | | | µg/m3 | **18** | **2,800** | < 8.2 U | < 8.2 U | < 5.3 U | **150** | < 8.2 U | < 8.4 U | < 5.4 U | < 7.2 U | < 16 U |
| | EN04-26D Dup | 14 | 6-Dec-07 | DU93102120607 | Summa Canister | 19.8 | 1.2 | 0.0 | 4.13 | N | N | | | µg/m3 | **17** | **2,700** | < 8.2 U | < 8.2 U | < 5.3 U | **150** | < 8.2 U | < 8.4 U | < 5.4 U | < 7.2 U | < 16 U |
| | EN04-26D | 14 | 14-Feb-08 | EN0426D021408 | Summa Canister | 20.6 | 0.6 | 0.0 | 1.64 | N | N | | | µg/m3 | **7.2** | **1,200** | < 3.2 U | < 3.2 U | < 2.1 U | **59** | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-26D | 14 | 9-Apr-08 | EN0426D040908 | Summa Canister | 20.2 | 0.5 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | **860** | < 3.5 U | < 3.5 U | < 2.2 U | **43** | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | **7.1** |
| | EN04-26D | 14 | 11-Jun-08 | EN0426D061108 | Summa Canister | 20.0 | 0.8 | 0.0 | 2.74 | N | N | | | µg/m3 | **9.6** | **1,500** | < 5.4 U | < 5.4 U | < 3.5 U | **76** | < 5.4 U | < 5.5 U | < 3.6 U | < 4.8 U | < 10 U |
| | EN04-26D Dup | 14 | 11-Jun-08 | DU36523061108 | Summa Canister | 20.0 | 0.8 | 0.0 | 2.69 | N | N | | | µg/m3 | < 9.1 U | **1,500** | < 5.3 U | < 5.3 U | < 3.4 U | **79** | < 5.3 U | < 5.4 U | < 3.5 U | < 4.7 U | < 10 U |
| | EN04-26D | 14 | 14-Aug-08 | EN0426D081408 | Summa Canister | 19.4 | 1.3 | 0.0 | 3.22 | N | N | | | µg/m3 | **16** | **2,600** | < 6.4 U | < 6.4 U | < 4.1 U | **150** | < 6.4 U | < 6.5 U | < 4.2 U | < 5.6 U | < 12 U |
| | EN04-26D | 14 | 16-Oct-08 | EN0426D101608 | Summa Canister | 20.0 | 1.4 | 0.0 | 3.92 | N | N | | | µg/m3 | **21** | **2,700** | < 7.8 U | < 7.8 U | < 5 U | **150** | < 7.8 U | < 7.9 U | < 5.2 U | < 6.8 U | **52** |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
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| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | Trichloroethene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | Vinyl Chloride | 1,1,1-Trichloroethane | 1,1-Dichloroethene | 1,1-Dichloroethane | Chloroethane | Methylene Chloride | Freon 113 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-27** | EN04-27S | 8 | 10-Oct-07 | EN0427S101007 | Summa Canister | 20.0 | 0.9 | 0.0 | 1.61 | N | N | | | µg/m3 | **170** | **1,000** | < 3.2 U | < 3.2 U | < 2.0 U | **160** | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| Monitoring Well **EN-417A** | EN04-27S | 8 | 6-Dec-07 | EN0427S120607 | Summa Canister | 19.9 | 2.2 | 0.0 | 1.68 | N | N | | | µg/m3 | **79** | **540** | < 3.3 U | < 3.3 U | < 2.1 U | **90** | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-27S | 8 | 14-Feb-08 | EN0427S021408 | Summa Canister | 20.0 | 1.1 | 0.0 | 1.58 | N | N | | | µg/m3 | **29** | **200** | < 3.1 U | < 3.1 U | < 2.0 U | **32** | < 3.1 U | < 3.2 U | < 2.1 U | < 2.7 U | < 6.0 U |
| | EN04-27S | 8 | 9-Apr-08 | EN0427S040908 | Summa Canister | 19.4 | 1.0 | 0.0 | 1.75 | N | N | | | µg/m3 | **30** | **200** | < 3.5 U | < 3.5 U | < 2.2 U | **30** | < 3.5 U | < 3.5 U | < 2.3 U | < 3.0 U | < 6.7 U |
| | EN04-27S Dup | 8 | 9-Apr-08 | DU3331040908 | Summa Canister | 19.4 | 1.0 | 0.0 | 1.64 | N | N | | | µg/m3 | **24** | **170** | < 3.2 U | < 3.2 U | < 2.1 U | **25** | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-27S | 8 | 11-Jun-08 | EN0427S061108 | Summa Canister | 18.1 | 2.3 | 0.0 | 1.64 | N | N | | | µg/m3 | **94** | **570** | < 3.2 U | < 3.2 U | < 2.1 U | **73** | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-27S | 8 | 14-Aug-08 | EN0427S081408 | Summa Canister | 16.0 | 5.0 | 0.0 | 1.71 | N | N | | | µg/m3 | **170** | **960** | < 3.4 U | < 3.4 U | < 2.2 U | **140** | < 3.4 U | < 3.5 U | < 2.2 U | < 3 U | < 6.6 U |
| | EN04-27S | 8 | 15-Oct-08 | EN0427S101508 | Summa Canister | 17.1 | 3.2 | 0.0 | 1.83 | N | N | | | µg/m3 | **110** | **710** | < 3.6 U | < 3.6 U | < 2.3 U | **120** | < 3.6 U | < 3.7 U | < 2.4 U | < 3.2 U | < 7 U |
| | EN04-27S Dup | 8 | 15-Oct-08 | DU3365101508 | Summa Canister | 17.1 | 3.2 | 0.0 | 1.83 | N | N | | | µg/m3 | **110** | **740** | < 3.6 U | < 3.6 U | < 2.3 U | **120** | < 3.6 U | < 3.7 U | < 2.4 U | < 3.2 U | < 7 U |
| Designation **EN07-28** | EN07-28S | 7 | 11-Oct-07 | EN0728S101107 | Summa Canister | 20.5 | 0.5 | 0.0 | 1.64 | N | N | | | µg/m3 | **680** | **29** | < 3.2 U | < 3.2 U | < 2.1 U | < 4.5 U | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| Monitoring Well **EN-387A** | EN07-28S Dup | 7 | 11-Oct-07 | DU3334101107 | Summa Canister | 20.5 | 0.5 | 0.0 | 1.64 | N | N | | | µg/m3 | **680** | **28** | < 3.2 U | < 3.2 U | < 2.1 U | < 4.5 U | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN07-28S | 7 | 6-Dec-07 | EN0728S120607 | Summa Canister | 21.4 | 0.2 | 0.0 | 1.55 | N | N | | | µg/m3 | < 230 | **12** | < 3.1 U | < 3.1 U | < 2.0 U | < 4.2 U | < 3.1 U | < 3.1 U | < 2.0 U | < 2.7 U | < 5.9 U |
| | EN07-28S | 7 | 13-Feb-08 | EN0728S021308 | Summa Canister | 20.2 | 0.2 | 0.0 | 1.55 | N | N | | | µg/m3 | < 74 | < 4.2 U | < 3.1 U | < 3.1 U | < 2.0 U | < 4.2 U | < 3.1 U | < 3.1 U | < 2.0 U | < 2.7 U | < 5.9 U |
| | EN07-28S | 7 | 9-Apr-08 | EN0728S040908 | Summa Canister | 20.2 | 0.0 | 0.0 | 1.71 | N | N | | | µg/m3 | < 85 | < 4.6 U | < 3.4 U | < 3.4 U | < 2.2 U | < 4.7 U | < 3.4 U | < 3.5 U | < 2.2 U | < 3.0 U | < 6.6 U |
| | EN07-28S | 7 | 11-Jun-08 | EN0728S061108 | Summa Canister | 21.0 | 0.3 | 0.0 | 1.75 | N | N | | | µg/m3 | **290** | **13** | < 3.5 U | < 3.5 U | < 2.2 U | < 4.8 U | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| | EN07-28S | 7 | 13-Aug-08 | EN0728S081308 | Summa Canister | 20.7 | 0.0 | 0.0 | 1.71 | N | N | | | µg/m3 | **580** | **25** | < 3.4 U | < 3.4 U | < 2.2 U | < 4.7 U | < 3.4 U | < 3.5 U | < 2.2 U | < 3 U | < 6.6 U |
| | EN07-28S | 7 | 16-Oct-08 | EN0728S101608 | Summa Canister | 21.4 | 0.4 | 0.0 | 1.61 | N | N | | | µg/m3 | **380** | **18** | < 3.2 U | < 3.2 U | < 2 U | < 4.4 U | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN07-28I | 10 | 13-Aug-08 | EN0728I081308 | Summa Canister | 20.7 | 0.1 | 0.0 | 1.79 | | | | | µg/m3 | **1,500** | **110** | **41** | < 3.5 U | < 2.3 U | < 4.9 U | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN07-28I Dup | 10 | 13-Aug-08 | DU3353081308 | Summa Canister | 20.7 | 0.1 | 0.0 | 1.75 | | | | | µg/m3 | **1,400** | **110** | **39** | < 3.5 U | < 2.2 U | < 4.8 U | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| | EN07-28D | 19 | 11-Oct-07 | EN0728D101107 | Summa Canister | 18.2 | 2.6 | 0.0 | 3.16 | N | N | | | µg/m3 | **2,800** | **250** | **330** | **47** | **16** | < 8.6 U | < 6.3 U | < 6.4 U | < 4.2 U | < 5.5 U | < 12 U |
| | EN07-28D | 19 | 6-Dec-07 | EN0728D120607 | Summa Canister | 11.0 | 9.5 | 0.0 | 3.97 | N | N | | | µg/m3 | < 3,400 | **300** | **220** | **25** | < 5.1 U | < 11 U | < 7.9 U | < 8.0 U | < 5.2 U | < 6.9 U | < 15 U |
| | EN07-28D | 19 | 13-Feb-08 | EN0728D021308 | Summa Canister | 15.3 | 4.7 | 0.0 | 2.48 | N | N | | | µg/m3 | < 1,500 | **150** | **110** | **6.6** | < 3.2 U | < 6.8 U | < 4.9 U | < 5.0 U | < 3.3 U | < 4.3 U | < 9.5 U |
| | EN07-28D | 19 | 9-Apr-08 | EN0728D040908 | Summa Canister | 18.0 | 2.2 | 0.0 | 1.64 | N | N | | | µg/m3 | < 1,900 | **150** | **92** | **6.0** | < 2.1 U | < 4.5 U | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN07-28D | 19 | 11-Jun-08 | EN0728D061108 | Summa Canister | 16.5 | 3.3 | 0.0 | 1.71 | N | N | | | µg/m3 | **2,000** | **180** | **120** | **4.6** | < 2.2 U | < 4.7 U | < 3.4 U | < 3.5 U | < 2.2 U | < 3 U | < 6.6 U |
| | EN07-28D | 19 | 13-Aug-08 | EN0728D081308 | Summa Canister | 20.6 | 0.1 | 0.0 | 1.71 | N | N | | | µg/m3 | **2,100** | **200** | **800** | **53** | < 2.2 U | < 4.7 U | < 3.4 U | < 3.5 U | < 2.2 U | < 3 U | < 6.6 U |
| | EN07-28D | 19 | 16-Oct-08 | EN0728D101608 | Summa Canister | 7.5 | 11.5 | 0.0 | 1.68 | N | N | | | µg/m3 | **2,200** | **220** | **170** | **30** | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN07-28D Dup | 19 | 16-Oct-08 | DU34628101608 | Summa Canister | 7.5 | 11.5 | 0.0 | 2.24 | N | N | | | µg/m3 | **2,300** | **220** | **180** | **31** | < 2.9 U | < 6.1 U | < 4.4 U | < 4.5 U | **3.2** | < 3.9 U | < 8.6 U |

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Comprehensive Operations, Maintenance, & Monitoring Program
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| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | Trichloroethene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | Vinyl Chloride | 1,1,1-Trichloroethane | 1,1-Dichloroethene | 1,1-Dichloroethane | Chloroethane | Methylene Chloride | Freon 113 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-29** **EN05-29** | EN05-29S | 8 | 9-Oct-07 | EN0529S100907 | Summa Canister | 19.5 | 1.4 | 0.0 | 2.69 | N | N | | | µg/m3 | < 9.1 U | **1,000** | < 5.3 U | < 5.3 U | < 3.4 U | **94** | < 5.3 U | < 5.4 U | < 3.5 U | < 4.7 U | < 10 U |
| Monitoring Well **EN-437** | EN05-29S | 8 | 5-Dec-07 | EN0529S120507 | Summa Canister | 20.2 | 1.0 | 0.0 | 1.55 | N | N | | | µg/m3 | < 5.2 U | **380** | < 3.1 U | < 3.1 U | < 2.0 U | **30** | **6.9** | < 3.1 U | < 2.0 U | < 2.7 U | < 5.9 U |
| | EN05-29S | 8 | 12-Feb-08 | EN0529S021208 | Summa Canister | 19.2 | 1.1 | 0.0 | 2.33 | N | N | | | µg/m3 | < 7.9 U | **190** | < 4.6 U | < 4.6 U | < 3.0 U | **19** | < 4.6 U | < 4.7 U | < 3.1 U | < 4.0 U | < 8.9 U |
| | EN05-29S | 8 | 8-Apr-08 | EN0529S040808 | Summa Canister | 20.1 | 0.3 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | **180** | < 3.5 U | < 3.5 U | < 2.2 U | **12** | < 3.5 U | < 3.5 U | < 2.3 U | < 3.0 U | < 6.7 U |
| | EN05-29S | 8 | 10-Jun-08 | EN0529S061008 | Summa Canister | 19.6 | 0.9 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 U | **460** | < 3.5 U | < 3.5 U | < 2.3 U | **40** | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN05-29S | 8 | 11-Aug-08 | EN0529S081108 | Summa Canister | 18.7 | 1.8 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 U | **900** | < 3.2 U | < 3.2 U | < 2.1 U | **62** | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN05-29S | 8 | 15-Oct-08 | EN0529S101508 | Summa Canister | 18.7 | 1.5 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | **700** | < 3.2 U | < 3.2 U | < 2 U | **53** | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN05-29I | 12.5 | 11-Aug-08 | EN0529I081108 | Summa Canister | 18.4 | 1.9 | 0.0 | 1.64 | | | | | µg/m3 | < 5.6 U | **940** | < 3.2 U | < 3.2 U | < 2.1 U | **77** | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-29D | 20 | 9-Oct-07 | EN0429D100907 | Summa Canister | 19.4 | 1.6 | 0.0 | 10.8 | N | N | | | µg/m3 | < 37 U | **7,600** | **28** | < 21 U | < 14 U | **620** | < 21 U | < 22 U | < 14 U | < 19 U | < 41 U |
| | EN04-29D | 20 | 5-Dec-07 | EN0429D120507 | Summa Canister | 20.8 | 0.0 | 0.0 | 6.44 | N | N | | | µg/m3 | < 22 U | **6,800** | **24** | < 13 U | < 8.2 U | **440** | **110** | < 13 U | < 8.5 U | < 11 U | < 25 U |
| | EN04-29D | 20 | 12-Feb-08 | EN0429D021208 | Summa Canister | 19.7 | 0.5 | 0.0 | 6.21 | N | N | | | µg/m3 | < 21 U | **4,100** | < 12 U | < 12 U | < 7.9 U | **350** | < 12 U | < 12 U | < 8.2 U | < 11 U | < 24 U |
| | EN04-29D | 20 | 8-Apr-08 | EN0429D040808 | Summa Canister | 20.0 | 0.6 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 U | **1,400** | **4.8** | < 3.4 U | < 2.2 U | **110** | **6.6** | < 3.5 U | < 2.2 U | < 3.0 U | < 6.6 U |
| | EN04-29D | 20 | 10-Jun-08 | EN0429D061008 | Summa Canister | 19.5 | 1.0 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 U | **880** | < 3.5 U | < 3.5 U | < 2.2 U | **81** | < 3.5 U | < 3.5 U | < 2.3 U | < 3 U | < 6.7 U |
| | EN04-29D Dup | 20 | 10-Jun-08 | DU3374061008 | Summa Canister | 19.5 | 1.0 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 U | **930** | < 3.5 U | < 3.5 U | < 2.3 U | **87** | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN04-29D | 20 | 11-Aug-08 | EN0429D081108 | Summa Canister | 18.8 | 1.6 | 0.0 | 3.28 | N | N | | | µg/m3 | < 11 U | **1,800** | < 6.5 U | < 6.5 U | < 4.2 U | **130** | < 6.5 U | < 6.6 U | < 4.3 U | < 5.7 U | < 12 U |
| | EN04-29D | 20 | 15-Oct-08 | EN0429D101508 | Summa Canister | 17.9 | 1.7 | 0.0 | 4.02 | N | N | | | µg/m3 | < 14 U | **2,200** | < 8 U | < 8 U | < 5.1 U | **160** | < 8 U | < 8.1 U | < 5.3 U | < 7 U | < 15 U |
| | EN04-29D Dup | 20 | 15-Oct-08 | DU3361101508 | Summa Canister | 17.9 | 1.7 | 0.0 | 4.02 | N | N | | | µg/m3 | < 14 U | **2,200** | < 8 U | < 8 U | < 5.1 U | **170** | < 8 U | < 8.1 U | < 5.3 U | < 7 U | < 15 U |
| Designation **EN04-30** | EN04-30S | 9 | 10-Oct-07 | EN0430S101007 | Summa Canister | 20.5 | 0.5 | 0.0 | 2.73 | N | N | | | µg/m3 | **9.4** | **2,500** | **6.8** | < 5.4 U | < 3.5 U | **19** | < 5.4 U | < 5.5 U | < 3.6 U | < 4.7 U | < 10 U |
| Monitoring Well **EN-438** | EN04-30S | 9 | 5-Dec-07 | EN0430S120507 | Summa Canister | 20.8 | 0.0 | 0.0 | 1.49 | N | N | | | µg/m3 | < 5.0 U | **1,100** | < 3.0 U | < 3.0 U | < 1.9 U | **7.4** | < 3.0 U | < 3.0 U | < 2.0 U | < 2.6 U | < 5.7 U |
| | EN04-30S | 9 | 12-Feb-08 | EN0430S021208 | Summa Canister | 20.0 | 0.0 | 0.0 | 2.16 | N | N | | | µg/m3 | < 7.3 U | **300** | < 4.3 U | < 4.3 U | < 2.8 U | < 5.9 U | < 4.3 U | < 4.4 U | < 2.8 U | < 3.8 U | < 8.3 U |
| | EN04-30S | 9 | 7-Apr-08 | EN0430S040708 | Summa Canister | 20.7 | 0.0 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 U | **280** | **4.5** | < 3.4 U | < 2.2 U | < 4.7 U | < 3.4 U | < 3.5 U | < 2.2 U | < 3.0 U | < 6.6 U |
| | EN04-30S | 9 | 9-Jun-08 | EN0430S060908 | Summa Canister | 19.5 | 0.0 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 U | **960** | **3.9** | < 3.5 U | < 2.3 U | **6.8** | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN04-30S | 9 | 12-Aug-08 | EN0430S081208 | Summa Canister | 20.1 | 0.5 | 0.0 | 5 | N | N | | | µg/m3 | < 17 U | **3,000** | < 9.9 U | < 9.9 U | < 6.4 U | **21** | < 9.9 U | < 10 U | < 6.6 U | < 8.7 U | < 19 U |
| | EN04-30S | 9 | 15-Oct-08 | EN0430S101508 | Summa Canister | 20.0 | 0.3 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **1,800** | **5.1** | < 3.3 U | < 2.1 U | **15** | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-30D | 20 | 10-Oct-07 | EN0430D101007 | Summa Canister | 20.3 | 0.8 | 0.0 | 2.15 | N | N | | | µg/m3 | **57** | **1,700** | **44** | < 4.3 U | < 2.7 U | **140** | **7.5** | **17** | < 2.8 U | < 3.7 U | **9.1** |
| | EN04-30D | 20 | 5-Dec-07 | EN0430D120507 | Summa Canister | 20.7 | 0.0 | 0.0 | 1.55 | N | N | | | µg/m3 | **41** | **1,300** | **26** | < 3.1 U | < 2.0 U | **56** | **16** | **6.4** | < 2.0 U | < 2.7 U | < 5.9 U |
| | EN04-30D | 20 | 12-Feb-08 | EN0430D021208 | Summa Canister | 20.1 | 0.0 | 0.0 | 2.33 | N | N | | | µg/m3 | **31** | **860** | **15** | < 4.6 U | < 3.0 U | **40** | < 4.6 U | < 4.7 U | < 3.1 U | < 4.0 U | < 8.9 U |
| | EN04-30D | 20 | 7-Apr-08 | EN0430D040708 | Summa Canister | 20.5 | 0.0 | 0.0 | 1.61 | N | N | | | µg/m3 | **19** | **450** | **13** | < 3.2 U | < 2.0 U | **38** | **3.8** | **3.4** | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-30D | 20 | 9-Jun-08 | EN0430D060908 | Summa Canister | 19.9 | 0.0 | 0.0 | 1.34 | N | N | | | µg/m3 | **20** J | **420** J | **14** J | 2.6 UJ | 1.7 UJ | **36** J | 2.6 UJ | **3.9** J | 1.8 UJ | 2.3 UJ | 5.1 UJ |
| | EN04-30D Dup | 20 | 9-Jun-08 | DU35635060908 | Summa Canister | 19.9 | 0.0 | 0.0 | 1.91 | N | N | | | µg/m3 | **30** J | **650** J | **21** J | < 3.8 U | < 2.4 U | **62** J | < 3.8 U | **6.2** J | < 2.5 U | < 3.3 U | < 7.3 U |
| | EN04-30D | 20 | 12-Aug-08 | EN0430D081208 | Summa Canister | 20.0 | 0.5 | 0.0 | 1.68 | N | N | | | µg/m3 | **48** | **970** | **30** | < 3.3 U | < 2.1 U | **100** | **3.4** | **10** | < 2.2 U | < 2.9 U | **7** |
| | EN04-30D | 20 | 15-Oct-08 | EN0430D101508 | Summa Canister | 20.3 | 0.1 | 0.0 | 1.68 | N | N | | | µg/m3 | **52** | **1,500** | **26** | < 3.3 U | < 2.1 U | **120** | < 3.3 U | **9.4** | < 2.2 U | < 2.9 U | **7.8** |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | Trichloroethene | cis-1,2-Dichloroethene | trans-1,2-Dichloroethene | Vinyl Chloride | 1,1,1-Trichloroethane | 1,1-Dichloroethene | 1,1-Dichloroethane | Chloroethane | Methylene Chloride | Freon 113 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN04-31** | EN04-31S | 10 | 9-Oct-07 | EN0431S100907 | Summa Canister | 21.1 | 0.0 | 0.0 | 2.47 | N | N | | | µg/m3 | < 8.4 U | < 6.6 U | < 4.9 U | < 4.9 U | < 3.2 U | < 6.7 U | < 4.9 U | < 5.0 U | < 3.2 U | < 4.3 U | < 9.5 U |
| Monitoring Well **EN-453** | EN04-31S | 20 | 5-Dec-07 | EN0431S120507 | Summa Canister | 21.1 | 0.0 | 0.0 | 1.49 | N | N | | | µg/m3 | < 5 U | < 4.0 U | < 3.0 U | < 3.0 U | < 1.9 U | < 4.1 U | < 3.0 U | < 3.0 U | < 2.0 U | < 2.6 U | < 5.7 U |
| | EN04-31S | 20 | 12-Feb-08 | EN0431S021208 | Summa Canister | 20.0 | 0.0 | 0.0 | 1.55 | N | N | | | µg/m3 | < 5.2 U | < 4.2 U | < 3.1 U | < 3.1 U | < 2.0 U | < 4.2 U | < 3.1 U | < 3.1 U | < 2.0 U | < 2.7 U | < 5.9 U |
| | EN04-31S | 20 | 7-Apr-08 | EN0431S040708 | Summa Canister | 20.6 | 0.0 | 0.0 | 1.68 | N | N | | | µg/m3 | **17** | < 4.5 U | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | **7.4** | < 6.4 U |
| | EN04-31S | 20 | 10-Jun-08 | EN0431S061008 | Summa Canister | 20.9 | 0.1 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 U | < 4.8 U | < 3.5 U | < 3.5 U | < 2.3 U | < 4.9 U | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN04-31S | 20 | 11-Aug-08 | EN0431S081108 | Summa Canister | 20.7 | 0.1 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 U | < 4.4 U | < 3.2 U | < 3.2 U | < 2.1 U | < 4.5 U | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| | EN04-31S | 20 | 15-Oct-08 | EN0431S101508 | Summa Canister | 20.1 | 0.3 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | < 4.5 U | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-31D | 19 | 9-Oct-07 | EN0431D100907 | Summa Canister | 21.0 | 0.0 | 0.0 | 2.47 | N | N | | | µg/m3 | < 8.4 U | **560** | **5.3** | < 4.9 U | < 3.2 U | **25** | < 4.9 U | < 5.0 U | < 3.2 U | < 4.3 U | < 9.5 U |
| | EN04-31D | 19 | 5-Dec-07 | EN0431D120507 | Summa Canister | 20.8 | 0.2 | 0.0 | 1.58 | N | N | | | µg/m3 | < 5.4 U | **750** | **6.8** | < 3.1 U | < 2.0 U | **38** | **9.4** | < 3.2 U | < 2.1 U | < 2.7 U | < 6.0 U |
| | EN04-31D | 19 | 12-Feb-08 | EN0431D021208 | Summa Canister | 20.1 | 0.0 | 0.0 | 1.58 | N | N | | | µg/m3 | < 5.4 U | **420** | **3.1** J | < 3.1 U | < 2.0 U | **42** | < 3.1 U | < 3.2 U | < 2.1 U | < 2.7 U | < 6.0 U |
| | EN04-31D | 19 | 7-Apr-08 | EN0431D040708 | Summa Canister | 20.5 | 0.0 | 0.0 | 1.34 | N | N | | | µg/m3 | < 4.5 UJ | **270** J | < 2.6 UJ | < 2.6 UJ | < 1.7 UJ | < 3.6 UJ | < 2.6 UJ | < 2.7 UJ | < 1.8 UJ | **2.7** J | < 5.1 UJ |
| | EN04-31D | 19 | 10-Jun-08 | EN0431D061008 | Summa Canister | 21.3 | 0.1 | 0.0 | 1.83 | N | N | | | µg/m3 | < 6.2 U | **280** | < 3.6 U | < 3.6 U | < 2.3 U | **13** | < 3.6 U | < 3.7 U | < 2.4 U | < 3.2 U | < 7 U |
| | EN04-31D | 19 | 11-Aug-08 | EN0431D081108 | Summa Canister | 20.6 | 0.0 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | **94** | < 3.2 U | < 3.2 U | < 2 U | < 4.4 U | < 3.2 U | < 3.2 U | < 2.1 U | **8.6** | < 6.2 U |
| | EN04-31D | 19 | 15-Oct-08 | EN0431D101508 | Summa Canister | 20.3 | 0.1 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 U | **92** | < 3.2 U | < 3.2 U | < 2.1 U | **6.8** | < 3.2 U | < 3.3 U | < 2.2 U | < 2.8 U | < 6.3 U |
| Designation **EN04-32** | EN04-32S | 8 | 9-Oct-07 | EN0432S100907 | Summa Canister | 19.9 | 0.9 | 0.0 | 2.47 | N | N | | | µg/m3 | < 8.4 U | **700** | < 4.9 U | < 4.9 U | < 3.2 U | **9.9** | < 4.9 U | < 5.0 U | < 3.2 U | < 4.3 U | < 9.5 U |
| Monitoring Well **EN-457** | EN04-32S Dup | 8 | 9-Oct-07 | DU2034100907 | Summa Canister | 19.9 | 0.9 | 0.0 | 2.58 | N | N | | | µg/m3 | < 8.8 U | **680** | < 5.1 U | < 5.1 U | < 3.3 U | **8.8** | < 5.1 U | < 5.2 U | < 3.4 U | < 4.5 U | < 9.9 U |
| | EN04-32S | 8 | 5-Dec-07 | EN0432S120507 | Summa Canister | 20.1 | 0.1 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | **210** | < 3.2 U | < 3.2 U | < 2.0 U | < 4.4 U | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-32S | 8 | 12-Feb-08 | EN0432S021208 | Summa Canister | 18.9 | 0.4 | 0.0 | 2.38 | N | N | | | µg/m3 | < 8.1 U | **120** | < 4.7 U | < 4.7 U | < 3.0 U | < 6.5 U | < 4.7 U | < 4.8 U | < 3.1 U | < 4.1 U | < 9.1 U |
| | EN04-32S Dup | 8 | 12-Feb-08 | DU1040021208 | Summa Canister | 18.9 | 0.4 | 0.0 | 2.38 | N | N | | | µg/m3 | < 8.1 U | **120** | < 4.7 U | < 4.7 U | < 3.0 U | < 6.5 U | < 4.7 U | < 4.8 U | < 3.1 U | < 4.1 U | < 9.1 U |
| | EN04-32S | 8 | 7-Apr-08 | EN0432S040708 | Summa Canister | 20.4 | 0.0 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **100** | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-32S | 8 | 10-Jun-08 | EN0432S061008 | Summa Canister | 20.4 | 0.5 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | **280** | < 3.2 U | < 3.2 U | < 2 U | < 4.4 U | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-32S | 8 | 11-Aug-08 | EN0432S081108 | Summa Canister | 19.8 | 1.0 | 0.0 | 1.83 | N | N | | | µg/m3 | < 6.2 U | **470** | < 3.6 U | < 3.6 U | < 2.3 U | **5.9** | < 3.6 U | < 3.7 U | < 2.4 U | < 3.2 U | < 7 U |
| | EN04-32S | 8 | 15-Oct-08 | EN0432S101508 | Summa Canister | 19.4 | 0.7 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **270** | < 3.3 U | < 3.3 U | < 2.1 U | < 4.6 U | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-32D | 18 | 9-Oct-07 | EN0432D100907 | Summa Canister | 20.0 | 0.9 | 0.0 | 2.76 | N | N | | | µg/m3 | < 9.4 U | **2,300** | < 5.5 U | < 5.5 U | < 3.5 U | **35** | < 5.5 U | < 5.6 U | < 3.6 U | < 4.8 U | < 10 U |
| | EN04-32D | 18 | 5-Dec-07 | EN0432D120507 | Summa Canister | 20.1 | 0.1 | 0.0 | 3.1 | N | N | | | µg/m3 | < 10 U | **2,000** | < 6.1 U | < 6.1 U | < 4.0 U | **24** | < 6.1 U | < 6.3 U | < 4.1 U | < 5.4 U | < 12 U |
| | EN04-32D Dup | 18 | 5-Dec-07 | DU3337120507 | Summa Canister | 20.1 | 0.1 | 0.0 | 3.1 | N | N | | | µg/m3 | < 10 U | **2,400** | < 6.1 U | < 6.1 U | < 4.0 U | **31** | < 6.1 U | < 6.3 U | < 4.1 U | < 5.4 U | < 12 U |
| | EN04-32D | 18 | 12-Feb-08 | Could not sample due to ice in implant | | | | | | | | | | | | | | | | | | | | | |
| | EN04-32D | 18 | 7-Apr-08 | EN0432D040708 | Summa Canister | 20.2 | 0.2 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 U | **840** | < 3.3 U | < 3.3 U | < 2.1 U | **8.9** | < 3.3 U | < 3.4 U | < 2.2 U | < 2.9 U | < 6.4 U |
| | EN04-32D | 18 | 10-Jun-08 | EN0432D061008 | Summa Canister | 20.5 | 0.3 | 0.0 | 1.79 | N | N | | | µg/m3 | < 6.1 U | **900** | < 3.5 U | < 3.5 U | < 2.3 U | **9.8** | < 3.5 U | < 3.6 U | < 2.4 U | < 3.1 U | < 6.8 U |
| | EN04-32D | 18 | 11-Aug-08 | EN0432D081108 | Summa Canister | 19.5 | 0.8 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 U | **1,100** | < 3.2 U | < 3.2 U | < 2 U | **13** | < 3.2 U | < 3.2 U | < 2.1 U | < 2.8 U | < 6.2 U |
| | EN04-32D | 18 | 15-Oct-08 | EN0432D101508 | Summa Canister | 19.3 | 0.7 | 0.0 | 1.58 | N | N | | | µg/m3 | **12** | **1,100** | < 3.1 U | < 3.1 U | < 2 U | **13** | < 3.1 U | < 3.2 U | < 2.1 U | < 2.7 U | < 6 U |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | | Trichloroethene | | cis-1,2-Dichloroethene | | trans-1,2-Dichloroethene | | Vinyl Chloride | | 1,1,1-Trichloroethane | | 1,1-Dichloroethene | | 1,1-Dichloroethane | | Chloroethane | | Methylene Chloride | | Freon 113 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN05-33** | EN05-33S | 7.5 | 11-Oct-07 | EN0533S101107 | Summa Canister | 20.0 | 1.1 | 0.0 | 1.68 | N | N | | | µg/m3 | **22** | J | **190** | J | < 3.3 | U | < 3.3 | U | < 2.1 | U | **14** | J | < 3.3 | U | < 3.4 | U | < 2.2 | U | 2.9 | UJ | < 6.4 | U |
| Monitoring Well **EN-162** | EN05-33S Dup | 7.5 | 11-Oct-07 | DU3303101107 | Summa Canister | 20.0 | 1.1 | 0.0 | 1.68 | N | N | | | µg/m3 | 5.7 | UJ | **24** | J | < 3.3 | U | < 3.3 | U | < 2.1 | U | 4.6 | UJ | < 3.3 | U | < 3.4 | U | < 2.2 | U | **30** | J | < 6.4 | U |
| | EN05-33S | 7.5 | 5-Dec-07 | EN0533S120507 | Summa Canister | 21.8 | 0.0 | 0.0 | 1.52 | N | N | | | µg/m3 | < 5.2 | UJ | **47** | J | **3.0** | UJ | **3.0** | UJ | **1.9** | UJ | **4.1** | UJ | **3.0** | UJ | **3.1** | UJ | **2.0** | UJ | **2.6** | UJ | **5.8** | UJ |
| | EN05-33S | 7.5 | 13-Feb-08 | EN0533S021308 | Summa Canister | 20.4 | 0.3 | 0.0 | 1.58 | N | N | | | µg/m3 | < 5.4 | U | **28** | | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 4.3 | U | < 3.1 | U | < 3.2 | U | < 2.1 | U | < 2.7 | U | < 6.0 | U |
| | EN05-33S | 7.5 | 8-Apr-08 | EN0533S040808 | Summa Canister | 20.1 | 0.2 | 0.0 | 1.55 | N | N | | | µg/m3 | < 5.2 | U | **29** | | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 4.2 | U | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 2.7 | U | < 5.9 | U |
| | EN05-33S | 7.5 | 10-Jun-08 | EN0533S061008 | Summa Canister | 20.0 | 0.4 | 0.0 | 1.83 | N | N | | | µg/m3 | **10** | | **100** | | < 3.6 | U | < 3.6 | U | < 2.3 | U | **6.7** | | < 3.6 | U | < 3.7 | U | < 2.4 | U | < 3.2 | U | < 7 | U |
| | EN05-33S | 7.5 | 13-Aug-08 | EN0533S081308 | Summa Canister | 20.7 | 0.0 | 0.0 | 1.71 | N | N | | | µg/m3 | **24** | | **190** | | < 3.4 | U | < 3.4 | U | < 2.2 | U | **11** | | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3 | U | < 6.6 | U |
| | EN05-33S | 7.5 | 14-Oct-08 | EN0533S101408 | Summa Canister | 19.2 | 0.8 | 0.0 | 1.71 | N | N | | | µg/m3 | **13** | | **110** | | < 3.4 | U | < 3.4 | U | < 2.2 | U | **8.2** | | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3 | U | < 6.6 | U |
| | EN05-33I21 | 21.5 | 13-Aug-08 | EN0533I29081308 | Summa Canister | 20.9 | 0.0 | 0.0 | 6.72 | | | | | µg/m3 | **290** | | **5,700** | | **22** | | < 13 | U | < 8.6 | U | **260** | | < 13 | U | < 14 | U | < 8.9 | U | < 12 | U | < 26 | U |
| | EN05-33I29 | 29 | 13-Aug-08 | EN0533I21081308 | Summa Canister | 20.8 | 0.0 | 0.0 | 3.58 | | | | | µg/m3 | **130** | | **3,200** | | < 7.1 | U | < 7.1 | U | < 4.6 | U | **130** | | < 7.1 | U | < 7.2 | U | < 4.7 | U | < 6.2 | U | < 14 | U |
| | EN05-33D | 32 | 11-Oct-07 | EN0533D101107 | Summa Canister | 20.1 | 0.8 | 0.0 | 8.55 | N | N | | | µg/m3 | **400** | | **8,500** | | **38** | | < 17 | U | < 11 | U | **400** | | < 17 | U | < 17 | U | < 11 | U | < 15 | U | < 33 | U |
| | EN05-33D | 32 | 5-Dec-07 | EN0533D120507 | Summa Canister | 21.6 | 0.0 | 0.0 | 13.4 | N | N | | | µg/m3 | < 420 | | **9,300** | | **46** | | < 26 | U | < 17 | U | **360** | | **96** | | < 27 | U | < 18 | U | < 23 | U | < 51 | U |
| | EN05-33D | 32 | 13-Feb-08 | EN0533D021308 | Summa Canister | 20.1 | 0.8 | 0.0 | 12.9 | N | N | | | µg/m3 | < 370 | | **9,100** | | **36** | | < 26 | U | < 16 | U | **470** | | < 26 | U | < 26 | U | < 17 | U | < 22 | U | < 49 | U |
| | EN05-33D | 32 | 8-Apr-08 | EN0533D040808 | Summa Canister | 19.8 | 0.6 | 0.0 | 8.2 | N | N | | | µg/m3 | < 340 | | **7,400** | | **34** | | < 16 | U | < 10 | U | **340** | | **30** | | < 16 | U | < 11 | U | < 14 | U | < 31 | U |
| | EN05-33D | 32 | 10-Jun-08 | EN0533D061008 | Summa Canister | 20.1 | 0.4 | 0.0 | 7 | N | N | | | µg/m3 | **310** | | **6,800** | | **32** | | < 14 | U | < 8.9 | U | **320** | | < 14 | U | < 14 | U | < 9.2 | U | < 12 | U | < 27 | U |
| | EN05-33D | 32 | 13-Aug-08 | EN0533D081308 | Summa Canister | 20.8 | 0.0 | 0.0 | 7.84 | N | N | | | µg/m3 | **310** | | **6,200** | | **29** | | < 16 | U | < 10 | U | **310** | | < 16 | U | < 16 | U | < 10 | U | < 14 | U | < 30 | U |
| | EN05-33D | 32 | 14-Oct-08 | EN0533D101408 | Summa Canister | 19.0 | 0.7 | 0.0 | 9.37 | N | N | | | µg/m3 | **330** | | **7,200** | | **36** | | < 18 | U | < 12 | U | **360** | | < 18 | U | < 19 | U | < 12 | U | < 16 | U | < 36 | U |
| Designation **EN05-34** | EN05-34S | 8 | 10-Oct-07 | EN0534S101007 | Summa Canister | 17.1 | 3.5 | 0.0 | 1.58 | N | N | | | µg/m3 | **38** | | **26** | | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 4.3 | U | < 3.1 | U | < 3.2 | U | < 2.1 | U | < 2.7 | U | < 6.0 | U |
| Monitoring Well **EN-304** | EN05-34S | 8 | 6-Dec-07 | EN0534S120607 | Summa Canister | 20.7 | 0.4 | 0.0 | 1.58 | N | N | | | µg/m3 | < 5.4 | U | **9.1** | | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 4.3 | U | < 3.1 | U | < 3.2 | U | < 2.1 | U | < 2.7 | U | < 6.0 | U |
| | EN05-34S | 8 | 14-Feb-08 | EN0534S021408 | Summa Canister | 21.0 | 0.0 | 0.0 | 1.55 | N | N | | | µg/m3 | < 5.2 | U | < 4.2 | U | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 4.2 | U | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 2.7 | U | < 5.9 | U |
| | EN05-34S | 8 | 9-Apr-08 | EN0534S040908 | Summa Canister | 20.0 | 0.1 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 | U | **4.8** | | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 4.5 | U | < 3.2 | U | < 3.3 | U | < 2.2 | U | < 2.8 | U | < 6.3 | U |
| | EN05-34S | 8 | 11-Jun-08 | EN0534S061108 | Summa Canister | 20.1 | 0.6 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 | U | **13** | | < 3.4 | U | < 3.4 | U | < 2.2 | U | < 4.7 | U | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3 | U | < 6.6 | U |
| | EN05-34S | 8 | 14-Aug-08 | EN0534S081408 | Summa Canister | 19.6 | 1.2 | 0.0 | 1.71 | N | N | | | µg/m3 | **6.2** | | **30** | | < 3.4 | U | < 3.4 | U | < 2.2 | U | < 4.7 | U | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3 | U | < 6.6 | U |
| | EN05-34S | 8 | 15-Oct-08 | EN0534S101508 | Summa Canister | 19.3 | 0.8 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 | U | **17** | | < 3.3 | U | < 3.3 | U | < 2.1 | U | < 4.6 | U | < 3.3 | U | < 3.4 | U | < 2.2 | U | < 2.9 | U | < 6.4 | U |
| | EN05-34I | 11 | 14-Aug-08 | EN05341081408 | Summa Canister | 19.6 | 0.9 | 0.0 | 1.64 | | | | | µg/m3 | **33** | | **320** | | < 3.2 | U | < 3.2 | U | < 2.1 | U | **25** | | < 3.2 | U | < 3.3 | U | < 2.2 | U | < 2.8 | U | < 6.3 | U |
| | EN05-34D | 13.5 | 10-Oct-07 | EN0534D101007 | Summa Canister | 20.2 | 1.1 | 0.0 | 1.75 | N | N | | | µg/m3 | **38** | | **500** | | < 3.5 | U | < 3.5 | U | < 2.2 | U | **46** | | < 3.5 | U | < 3.5 | U | < 2.3 | U | < 3.0 | U | < 6.7 | U |
| | EN05-34D | 13.5 | 6-Dec-07 | EN0534D120607 | Summa Canister | 20.7 | 1.0 | 0.0 | 1.49 | N | N | | | µg/m3 | < 9.4 | | **130** | | < 3.0 | U | < 3.0 | U | < 1.9 | U | **11** | | < 3.0 | U | < 3.0 | U | < 2.0 | U | < 2.6 | U | < 5.7 | U |
| | EN05-34D | 13.5 | 14-Feb-08 | EN0534D021408 | Summa Canister | 20.9 | 0.4 | 0.0 | 1.55 | N | N | | | µg/m3 | < 14 | | **180** | | < 3.1 | U | < 3.1 | U | < 2.0 | U | **14** | | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 2.7 | U | < 5.9 | U |
| | EN05-34D | 13.5 | 9-Apr-08 | EN0534D040908 | Summa Canister | 19.8 | 0.3 | 0.0 | 1.55 | N | N | | | µg/m3 | < 11 | | **120** | | < 3.1 | U | < 3.1 | U | < 2.0 | U | **7.5** | | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 2.7 | U | < 5.9 | U |
| | EN05-34D | 13.5 | 11-Jun-08 | EN0534D061108 | Summa Canister | 20.3 | 0.3 | 0.0 | 1.68 | N | N | | | µg/m3 | **6.7** | | **80** | | < 3.3 | U | < 3.3 | U | < 2.1 | U | **5** | | < 3.3 | U | < 3.4 | U | < 2.2 | U | **12** | | < 6.4 | U |
| | EN05-34D | 13.5 | 14-Aug-08 | EN0534D081408 | Summa Canister | 19.5 | 0.9 | 0.0 | 1.68 | N | N | | | µg/m3 | **31** | | **400** | | < 3.3 | U | < 3.3 | U | < 2.1 | U | **32** | | < 3.3 | U | < 3.4 | U | < 2.2 | U | < 2.9 | U | < 6.4 | U |
| | EN05-34D | 13.5 | 15-Oct-08 | EN0534D101508 | Summa Canister | 19.0 | 1.1 | 0.0 | 1.71 | N | N | | | µg/m3 | **35** | | **460** | | < 3.4 | U | < 3.4 | U | < 2.2 | U | **45** | | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3 | U | **34** | |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | | Trichloroethene | | cis-1,2-Dichloroethene | | trans-1,2-Dichloroethene | | Vinyl Chloride | | 1,1,1-Trichloroethane | | 1,1-Dichloroethene | | 1,1-Dichloroethane | | Chloroethane | | Methylene Chloride | | Freon 113 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN06-35** | EN06-35S | 8 | 9-Oct-07 | EN0635S100907 | Summa Canister | 20.4 | 0.9 | 0.0 | 2.53 | N | N | | | µg/m3 | < 8.6 | U | < 6.8 | U | < 5.0 | U | < 5.0 | U | < 3.2 | U | < 6.9 | U | < 5.0 | U | < 5.1 | U | < 3.3 | U | < 4.4 | U | < 9.7 | U |
| Monitoring Well **EN-460A** | EN06-35S | 8 | 4-Dec-07 | EN0635S120407 | Summa Canister | 20.7 | 0.8 | 0.0 | 2.4 | N | N | | | µg/m3 | < 8.1 | U | < 6.4 | U | < 4.8 | U | < 4.8 | U | < 3.1 | U | < 6.5 | U | < 4.8 | U | < 4.8 | U | < 3.2 | U | < 4.2 | U | < 9.2 | U |
| | EN06-35S | 8 | 12-Feb-08 | EN0635S021208 | Summa Canister | 21.5 | 0.0 | 0.0 | 2.16 | N | N | | | µg/m3 | **7.3** | UJ | **5.8** | UJ | **4.3** | UJ | **4.3** | UJ | **2.8** | UJ | **5.9** | UJ | **4.3** | UJ | **4.4** | UJ | **2.8** | UJ | **3.8** | UJ | **8.3** | UJ |
| | EN06-35S | 8 | 7-Apr-08 | EN0635S040708 | Summa Canister | 20.4 | 0.4 | 0.0 | 1.71 | N | N | | | µg/m3 | **5.8** | U | < 4.6 | U | < 3.4 | U | < 3.4 | U | < 2.2 | U | < 4.7 | U | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3.0 | U | < 6.6 | U |
| | EN06-35S Dup | 8 | 7-Apr-08 | DU2120040708 | Summa Canister | 20.4 | 0.4 | 0.0 | 1.75 | N | N | | | µg/m3 | **5.9** | U | < 4.7 | U | < 3.5 | U | < 3.5 | U | < 2.2 | U | < 4.8 | U | < 3.5 | U | < 3.5 | U | < 2.3 | U | < 3.0 | U | < 6.7 | U |
| | EN06-35S | 8 | 9-Jun-08 | EN0635S060908 | Summa Canister | 20.3 | 0.3 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 | U | < 4.7 | U | < 3.5 | U | < 3.5 | U | < 2.2 | U | < 4.8 | U | < 3.5 | U | < 3.5 | U | < 2.3 | U | < 3 | U | < 6.7 | U |
| | EN06-35S | 8 | 13-Aug-08 | EN0635S081308 | Summa Canister | 19.8 | 1.4 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 | U | < 4.5 | U | < 3.3 | U | < 3.3 | U | < 2.1 | U | < 4.6 | U | < 3.3 | U | < 3.4 | U | < 2.2 | U | < 2.9 | U | < 6.4 | U |
| | EN06-35S | 8 | 14-Oct-08 | EN0635S101408 | Summa Canister | 20.0 | 1.1 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 | U | < 4.6 | U | < 3.4 | U | < 3.4 | U | < 2.2 | U | < 4.7 | U | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3 | U | < 6.6 | U |
| | EN06-35I16 | 16 | 13-Aug-08 | EN0635I16081308 | Summa Canister | 19.7 | 1.4 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 | U | < 4.7 | U | < 3.5 | U | < 3.5 | U | < 2.2 | U | < 4.8 | U | < 3.5 | U | < 3.5 | U | < 2.3 | U | < 3 | U | < 6.7 | U |
| | EN06-36I24 | 24 | 13-Aug-08 | EN0635I24081308 | Summa Canister | 20.9 | 0.0 | 0.0 | | N | N | | | µg/m3 | < 6.2 | U | **34** | | < 3.6 | U | < 3.6 | U | < 2.3 | U | **7** | | < 3.6 | U | < 3.6 | U | < 2.4 | U | < 3.2 | U | < 7 | U |
| | EN06-35D | 34 | 9-Oct-07 | EN0635D100907 | Summa Canister | 20.3 | 1.3 | 0.0 | 2.53 | N | N | | | µg/m3 | < 8.6 | U | **120** | | < 5.0 | U | < 5.0 | U | < 3.2 | U | **20** | | < 5.0 | U | < 5.1 | U | < 3.3 | U | < 4.4 | U | < 9.7 | U |
| | EN06-35D | 34 | 4-Dec-07 | EN0635D120407 | Summa Canister | 20.1 | 1.7 | 0.0 | 2.45 | N | N | | | µg/m3 | < 8.3 | U | **140** | | < 4.8 | U | < 4.8 | U | < 3.1 | U | **33** | | **6.0** | | < 5.0 | U | < 3.2 | U | < 4.2 | U | < 9.4 | U |
| | EN06-35D | 34 | 12-Feb-08 | EN0635D021208 | Summa Canister | 20.2 | 1.2 | 0.0 | 2.33 | N | N | | | µg/m3 | < 7.9 | U | **170** | | < 4.6 | U | < 4.6 | U | < 3.0 | U | **58** | | < 4.6 | U | < 4.7 | U | < 3.1 | U | < 4.0 | U | < 8.9 | U |
| | EN06-35D Dup | 34 | 12-Feb-08 | DU3368021208 | Summa Canister | 20.2 | 1.2 | 0.0 | 2.33 | N | N | | | µg/m3 | < 7.9 | U | **180** | | < 4.6 | U | < 4.6 | U | < 3.0 | U | **60** | | < 4.6 | U | < 4.7 | U | < 3.1 | U | < 4.0 | U | < 8.9 | U |
| | EN06-35D | 34 | 7-Apr-08 | EN0635D040708 | Summa Canister | 19.7 | 0.9 | 0.0 | 1.68 | N | N | | | µg/m3 | < 5.7 | U | **150** | | < 3.3 | U | < 3.3 | U | < 2.1 | U | **28** | | **4.2** | | < 3.4 | U | < 2.2 | U | < 2.9 | U | < 6.4 | U |
| | EN06-35D | 34 | 9-Jun-08 | EN0635D060908 | Summa Canister | 19.9 | 0.7 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 | U | **140** | | < 3.5 | U | < 3.5 | U | < 2.2 | U | **22** | | < 3.5 | U | < 3.5 | U | < 2.3 | U | < 3 | U | < 6.7 | U |
| | EN06-35D | 34 | 13-Aug-08 | EN0635D081308 | Summa Canister | 19.2 | 1.1 | 0.0 | 1.68 | N | N | | | µg/m3 | **5.6** | J | **130** | | < 3.3 | U | < 3.3 | U | < 2.1 | U | **20** | | < 3.3 | U | < 3.4 | U | < 2.2 | U | < 2.9 | U | < 6.4 | U |
| | EN06-35D | 34 | 14-Oct-08 | EN0635D101408 | Summa Canister | 19.4 | 1.8 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 | U | **140** | | < 3.2 | U | < 3.2 | U | < 2 | U | **22** | | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 2.8 | U | < 6.2 | U |
| Designation **EN06-36** | EN06-36S | 8 | 9-Oct-07 | EN0636S100907 | Summa Canister | 19.8 | 1.2 | 0.0 | 2.76 | N | N | | | µg/m3 | < 9.4 | U | < 7.4 | U | < 5.5 | U | < 5.5 | U | < 3.5 | U | **15** | | < 5.5 | U | < 5.6 | U | < 3.6 | U | < 4.8 | U | < 10 | U |
| Monitoring Well **EN-459A** | EN06-36S | 8 | 4-Dec-07 | EN0636S120407 | Summa Canister | 18.9 | 1.0 | 0.0 | 2.44 | N | N | | | µg/m3 | < 8.3 | U | < 6.6 | U | < 4.8 | U | < 4.8 | U | < 3.1 | U | < 6.6 | U | < 4.8 | U | < 4.9 | U | < 3.2 | U | **12** | | < 9.4 | U |
| | EN06-36S | 8 | 12-Feb-08 | EN0636S021208 | Summa Canister | 19.6 | 0.6 | 0.0 | 2.16 | N | N | | | µg/m3 | < 7.3 | U | < 5.8 | U | < 4.3 | U | < 4.3 | U | < 2.8 | U | < 5.9 | U | < 4.3 | U | < 4.4 | U | < 2.8 | U | < 3.8 | U | < 8.3 | U |
| | EN06-36S | 8 | 7-Apr-08 | EN0636S040708 | Summa Canister | 20.2 | 0.4 | 0.0 | 1.55 | N | N | | | µg/m3 | < 5.2 | U | < 4.2 | U | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 4.2 | U | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 2.7 | U | < 5.9 | U |
| | EN06-36S | 8 | 9-Jun-08 | EN0636S060908 | Summa Canister | 20.0 | 0.6 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 | U | < 4.6 | U | < 3.4 | U | < 3.4 | U | < 2.2 | U | **8** | | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3 | U | < 6.6 | U |
| | EN06-36S | 8 | 13-Aug-08 | EN0636S081308 | Summa Canister | 19.6 | 1.4 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 | U | < 4.7 | U | < 3.5 | U | < 3.5 | U | < 2.2 | U | **15** | | < 3.5 | U | < 3.5 | U | < 2.3 | U | < 3 | U | < 6.7 | U |
| | EN06-36S | 8 | 14-Oct-08 | EN0636S101408 | Summa Canister | 19.7 | 1.2 | 0.0 | 2.23 | N | N | | | µg/m3 | 7.6 | UJ | 6 | UJ | 4.4 | UJ | 4.4 | UJ | 2.8 | UJ | **12** | J | 4.4 | UJ | 4.5 | UJ | 2.9 | UJ | 3.9 | UJ | 8.5 | UJ |
| | EN06-36I12 | 12 | 13-Aug-08 | EN0636I12081308 | Summa Canister | 20.6 | 0.0 | 0.0 | 1.83 | | | | | µg/m3 | < 6.2 | U | < 4.9 | U | < 3.6 | U | < 3.6 | U | < 2.3 | U | **31** | | < 3.6 | U | < 3.7 | U | < 2.4 | U | < 3.2 | U | < 7 | U |
| | EN06-36I12 Dup | 12 | 13-Aug-08 | DU3321081308 | Summa Canister | 20.6 | 0.0 | 0.0 | 1.79 | | | | | µg/m3 | < 6.1 | U | < 4.8 | U | < 3.5 | U | < 3.5 | U | < 2.3 | U | **30** | | < 3.5 | U | < 3.6 | U | < 2.4 | U | < 3.1 | U | < 6.8 | U |
| | EN06-36I22 | 22 | 13-Aug-08 | EN0636I22081308 | Summa Canister | 20.0 | 0.7 | 0.0 | 1.91 | N | N | | | µg/m3 | < 6.5 | U | **72** | | < 3.8 | U | < 3.8 | U | < 2.4 | U | **200** | | < 3.8 | U | < 3.9 | U | **3.2** | | < 3.3 | U | < 7.3 | U |
| | EN06-36D | 33 | 9-Oct-07 | EN0636D100907 | Summa Canister | 19.9 | 1.1 | 0.0 | 2.02 | N | N | | | µg/m3 | < 6.8 | U | < 5.4 | U | < 4.0 | U | < 4.0 | U | < 2.6 | U | < 5.5 | U | < 4.0 | U | < 4.1 | U | < 2.7 | U | < 3.5 | U | < 7.7 | U |
| | EN06-36D | 33 | 4-Dec-07 | EN0636D120407 | Summa Canister | 19.3 | 1.1 | 0.0 | 2.1 | N | N | | | µg/m3 | **7.1** | U | **410** | | **7.5** | | < 4.2 | U | < 2.7 | U | **410** | | < 4.2 | U | < 4.2 | U | < 2.8 | U | < 3.6 | U | < 8.0 | U |
| | EN06-36D | 33 | 12-Feb-08 | EN0636D021208 | Summa Canister | 19.0 | 1.2 | 0.0 | 2.42 | N | N | | | µg/m3 | < 8.2 | U | **380** | | **6.9** | | < 4.8 | U | < 3.1 | U | **430** | | < 4.8 | U | < 4.9 | U | < 3.2 | U | < 4.2 | U | < 9.3 | U |
| | EN06-36D Dup | 33 | 12-Feb-08 | DU9337021208 | Summa Canister | 19.0 | 1.2 | 0.0 | 2.42 | N | N | | | µg/m3 | **8.2** | U | **380** | | **6.8** | | < 4.8 | U | < 3.1 | U | **430** | | < 4.8 | U | < 4.9 | U | < 3.2 | U | < 4.2 | U | < 9.3 | U |
| | EN06-36D | 33 | 7-Apr-08 | EN0636D040708 | Summa Canister | 19.2 | 1.0 | 0.0 | 1.71 | N | N | | | µg/m3 | **5.8** | U | **340** | | **6.4** | | < 3.4 | U | < 2.2 | U | **360** | | **19** | | < 3.5 | U | < 2.2 | U | < 3.0 | U | < 6.6 | U |
| | EN06-36D Dup | 33 | 7-Apr-08 | DU33636040708 | Summa Canister | 19.2 | 1.0 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 | U | **310** | | **6.3** | | < 3.2 | U | < 2.1 | U | **320** | | **20** | | < 3.3 | U | < 2.2 | U | < 2.8 | U | < 6.3 | U |
| | EN06-36D | 33 | 9-Jun-08 | EN0636D060908 | Summa Canister | 20.1 | 0.8 | 0.0 | 1.83 | N | N | | | µg/m3 | < 6.2 | U | **240** | | **5.3** | | < 3.6 | U | < 2.3 | U | **250** | | **4** | | < 3.7 | U | < 2.4 | U | < 3.2 | U | < 7 | U |
| | EN06-36D | 33 | 13-Aug-08 | EN0636D081308 | Summa Canister | 20.0 | 1.0 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 | U | **260** | | **4.8** | | < 3.4 | U | < 2.2 | U | **260** | | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3 | U | < 6.6 | U |
| | EN06-36D | 33 | 14-Oct-08 | EN0636D101408 | Summa Canister | 19.8 | 1.3 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 | U | **310** | | **6** | | < 3.2 | U | < 2 | U | **330** | | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 2.8 | U | < 6.2 | U |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | | Trichloroethene | | cis-1,2-Dichloroethene | | trans-1,2-Dichloroethene | | Vinyl Chloride | | 1,1,1-Trichloroethane | | 1,1-Dichloroethene | | 1,1-Dichloroethane | | Chloroethane | | Methylene Chloride | | Freon 113 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation **EN06-37** | EN06-37S | 8 | 11-Oct-07 | EN0637S101107 | Summa Canister | 19.3 | 1.8 | 0.0 | 1.75 | N | N | | | µg/m3 | < 5.9 | U | < 4.7 | U | < 3.5 | U | < 3.5 | U | < 2.2 | U | < 4.8 | U | < 3.5 | U | < 3.5 | U | < 2.3 | U | < 3.0 | U | < 6.7 | U |
| Monitoring Well **EN-394** | EN06-37S | 8 | 6-Dec-07 | EN0637S120607 | Summa Canister | 21.2 | 0.8 | 0.0 | 1.58 | N | N | | | µg/m3 | **5.4** | U | < 4.2 | U | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 4.3 | U | < 3.1 | U | < 3.2 | U | < 2.1 | U | < 2.7 | U | < 6.0 | U |
| | EN06-37S | 8 | 13-Feb-08 | EN0637S021308 | Summa Canister | 20.1 | 0.4 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 | U | < 4.4 | U | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 4.5 | U | < 3.2 | U | < 3.3 | U | < 2.2 | U | < 2.8 | U | < 6.3 | U |
| | EN06-37S | 8 | 9-Apr-08 | EN0637S040908 | Summa Canister | 20.0 | 0.3 | 0.0 | 1.71 | N | N | | | µg/m3 | < 5.8 | U | < 4.6 | U | < 3.4 | U | < 3.4 | U | < 2.2 | U | < 4.7 | U | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3 | U | < 6.6 | U |
| | EN06-37S | 8 | 11-Jun-08 | EN0637S061108 | Summa Canister | 19.9 | 1.4 | 0.0 | 1.61 | N | N | | | µg/m3 | < 5.5 | U | < 4.3 | U | < 3.2 | U | < 3.2 | U | < 2 | U | < 4.4 | U | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 2.8 | U | < 6.2 | U |
| | EN06-37S | 8 | 13-Aug-08 | EN0637S081308 | Summa Canister | 20.9 | 0.1 | 0.0 | 1.64 | N | N | | | µg/m3 | < 5.6 | U | < 4.4 | U | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 4.5 | U | < 3.2 | U | < 3.3 | U | < 2.2 | U | < 2.8 | U | < 6.3 | U |
| | EN06-37S | 8 | 16-Oct-08 | EN0637S101608 | Summa Canister | 20.1 | 1.2 | 0.0 | 1.87 | N | N | | | µg/m3 | < 6.3 | U | < 5 | U | < 3.7 | U | < 3.7 | U | < 2.4 | U | < 5.1 | U | < 3.7 | U | < 3.8 | U | < 2.5 | U | < 3.2 | U | < 7.2 | U |
| | EN06-37I | 12 | 13-Aug-08 | EN0637I081308 | Summa Canister | 20.9 | 0.1 | 0.0 | 1.71 | | | | | µg/m3 | < 5.8 | U | < 4.6 | U | < 3.4 | U | < 3.4 | U | < 2.2 | U | < 4.7 | U | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3 | U | < 6.6 | U |
| | EN06-37I Dup | 12 | 13-Aug-08 | DU1362081308 | Summa Canister | 20.9 | 0.1 | 0.0 | 1.64 | | | | | µg/m3 | < 5.6 | U | < 4.4 | U | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 4.5 | U | < 3.2 | U | < 3.3 | U | < 2.2 | U | < 2.8 | U | < 6.3 | U |
| | EN06-37D | 21 | 11-Oct-07 | EN0637D101107 | Summa Canister | 18.0 | 2.7 | 0.0 | 1.68 | N | N | | | µg/m3 | **29** | | **68** | | **160** | | < 3.3 | U | < 2.1 | U | < 4.6 | U | < 3.3 | U | < 3.4 | U | < 2.2 | U | < 2.9 | U | < 6.4 | U |
| | EN06-37D | 21 | 6-Dec-07 | EN0637D120607 | Summa Canister | 18.6 | 2.6 | 0.0 | 1.58 | N | N | | | µg/m3 | < 30 | | **67** | | **130** | | < 3.1 | U | < 2.0 | U | < 4.3 | U | < 3.1 | U | < 3.2 | U | < 2.1 | U | < 2.7 | U | < 6.0 | U |
| | EN06-37D | 21 | 13-Feb-08 | EN0637D021308 | Summa Canister | 19.0 | 1.9 | 0.0 | 1.61 | N | N | | | µg/m3 | < 17 | | **35** | | **54** | | < 3.2 | U | < 2.0 | U | < 4.4 | U | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 2.8 | U | < 6.2 | U |
| | EN06-37D | 21 | 9-Apr-08 | EN0637D040908 | Summa Canister | 18.9 | 1.2 | 0.0 | 1.71 | N | N | | | µg/m3 | < 18 | | **42** | | **53** | | < 3.4 | U | < 2.2 | U | < 4.7 | U | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3.0 | U | < 6.6 | U |
| | EN06-37D Dup | 21 | 9-Apr-08 | DU3344040908 | Summa Canister | 18.9 | 1.2 | 0.0 | 1.71 | N | N | | | µg/m3 | **18** | | **42** | | **55** | | < 3.4 | U | < 2.2 | U | < 4.7 | U | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3.0 | U | < 6.6 | U |
| | EN06-37D | 21 | 11-Jun-08 | EN0637D061108 | Summa Canister | 19.2 | 1.3 | 0.0 | 1.71 | N | N | | | µg/m3 | **19** | | **44** | | **55** | | < 3.4 | U | < 2.2 | U | < 4.7 | U | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3 | U | < 6.6 | U |
| | EN06-37D | 21 | 13-Aug-08 | EN0637D081308 | Summa Canister | 20.9 | 0.1 | 0.0 | 1.68 | N | N | | | µg/m3 | **22** | | **44** | | **54** | | < 3.3 | U | < 2.1 | U | < 4.6 | U | < 3.3 | U | < 3.4 | U | < 2.2 | U | < 2.9 | U | < 6.4 | U |
| | EN06-37D | 21 | 16-Oct-08 | EN0637D101608 | Summa Canister | 18.6 | 2.3 | 0.0 | 1.64 | N | N | | | µg/m3 | **16** | | **37** | | **35** | | < 3.2 | U | < 2.1 | U | < 4.5 | U | < 3.2 | U | < 3.3 | U | < 2.2 | U | < 2.8 | U | < 6.3 | U |
| | EN06-37D Dup | 21 | 16-Oct-08 | DU36377101608 | Summa Canister | 18.6 | 2.3 | 0.0 | 1.64 | N | N | | | µg/m3 | **17** | | **38** | | **35** | | < 3.2 | U | < 2.1 | U | < 4.5 | U | < 3.2 | U | < 3.3 | U | < 2.2 | U | < 2.8 | U | < 6.3 | U |
| **Equipment Blanks** | Equipment Blank | | 9-Oct-07 | EB9432100907 | Summa Canister | | | | 2.58 | | | | | µg/m3 | < 8.8 | U | < 6.9 | U | < 5.1 | U | < 5.1 | U | < 3.3 | U | < 7.0 | U | < 5.1 | U | < 5.2 | U | < 3.4 | U | < 4.5 | U | < 9.9 | U |
| | Equipment Blank | | 10-Oct-07 | EB9371101007 | Summa Canister | | | | 1.71 | | | | | µg/m3 | < 5.8 | U | < 4.6 | U | < 3.4 | U | < 3.4 | U | < 2.2 | U | < 4.7 | U | < 3.4 | U | < 3.5 | U | < 2.2 | U | < 3.0 | U | < 6.6 | U |
| | Equipment Blank | | 11-Oct-07 | EB9398101107 | Summa Canister | | | | 1.41 | | | | | µg/m3 | < 4.8 | U | < 3.8 | U | < 2.8 | U | < 2.8 | U | < 1.8 | U | < 3.8 | U | < 2.8 | U | < 2.8 | U | < 1.9 | U | < 2.4 | U | < 5.4 | U |
| | Equipment Blank | | 4-Dec-07 | EB3336120407 | Summa Canister | | | | 1.61 | | | | | µg/m3 | < 5.5 | U | < 4.3 | U | < 3.2 | U | < 3.2 | U | < 2.0 | U | < 4.4 | U | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 2.8 | U | < 6.2 | U |
| | Equipment Blank | | 5-Dec-07 | EB3334120507 | Summa Canister | | | | 1.61 | | | | | µg/m3 | < 5.5 | U | < 4.3 | U | < 3.2 | U | < 3.2 | U | < 2.0 | U | < 4.4 | U | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 2.8 | U | < 6.2 | U |
| | Equipment Blank | | 6-Dec-07 | EB3366120607 | Summa Canister | | | | 1.58 | | | | | µg/m3 | < 5.4 | U | < 4.2 | U | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 4.3 | U | < 3.1 | U | < 3.2 | U | < 2.1 | U | < 2.7 | U | < 6.0 | U |
| | Equipment Blank | | 12-Feb-08 | EB3343021208 | Summa Canister | | | | 1.49 | | | | | µg/m3 | < 5.0 | U | < 4.0 | U | < 3.0 | U | < 3.0 | U | < 1.9 | U | < 4.1 | U | < 3.0 | U | < 3.0 | U | < 2.0 | U | < 2.6 | U | < 5.7 | U |
| | Equipment Blank | | 13-Feb-08 | EB34622021308 | Summa Canister | | | | 1.68 | | | | | µg/m3 | < 5.7 | U | < 4.5 | U | < 3.3 | U | < 3.3 | U | < 2.1 | U | < 4.6 | U | < 3.3 | U | < 3.4 | U | < 2.2 | U | < 2.9 | U | < 6.4 | U |
| | Equipment Blank | | 14-Feb-08 | EBSC10021408 | Summa Canister | | | | 1.58 | | | | | µg/m3 | < 5.4 | U | < 4.2 | U | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 4.3 | U | < 3.1 | U | < 3.2 | U | < 2.1 | U | < 2.7 | U | < 6.0 | U |
| | Equipment Blank | | 7-Apr-08 | EB1424040708 | Summa Canister | | | | 1.58 | | | | | µg/m3 | < 5.4 | U | < 4.2 | U | < 3.1 | U | < 3.1 | U | < 2.0 | U | < 4.3 | U | < 3.1 | U | < 3.2 | U | < 2.1 | U | < 2.7 | U | < 6.0 | U |
| | Equipment Blank | | 8-Apr-08 | EB3320040808 | Summa Canister | | | | 1.64 | | | | | µg/m3 | < 5.6 | U | < 4.4 | U | < 3.2 | U | < 3.2 | U | < 2.1 | U | < 4.5 | U | < 3.2 | U | < 3.3 | U | < 2.2 | U | < 2.8 | U | < 6.3 | U |
| | Equipment Blank | | 9-Apr-08 | EB3346040908 | Summa Canister | | | | 1.75 | | | | | µg/m3 | < 5.9 | U | < 4.7 | U | < 3.5 | U | < 3.5 | U | < 2.2 | U | < 4.8 | U | < 3.5 | U | < 3.5 | U | < 2.3 | U | < 3 | U | < 6.7 | U |
| | Equipment Blank | | 9-Jun-08 | EB3343060908 | Summa Canister | | | | 1.87 | | | | | µg/m3 | < 6.3 | U | < 5 | U | < 3.7 | U | < 3.7 | U | < 2.4 | U | < 5.1 | U | < 3.7 | U | < 3.8 | U | < 2.5 | U | < 3.2 | U | < 7.2 | U |
| | Equipment Blank | | 10-Jun-08 | EB34665061008 | Summa Canister | | | | 1.87 | | | | | µg/m3 | < 6.3 | U | < 5 | U | < 3.7 | U | < 3.7 | U | < 2.4 | U | < 5.1 | U | < 3.7 | U | < 3.8 | U | < 2.5 | U | < 3.2 | U | < 7.2 | U |
| | Equipment Blank | | 11-Jun-08 | EB3323061108 | Summa Canister | | | | 1.83 | | | | | µg/m3 | < 6.2 | U | < 4.9 | U | < 3.6 | U | < 3.6 | U | < 2.3 | U | < 5 | U | < 3.6 | U | < 3.7 | U | < 2.4 | U | < 3.2 | U | < 7 | U |
| | Equipment Blank | | 11-Aug-08 | EB3362081108 | Summa Canister | | | | 1.52 | | | | | µg/m3 | < 5.2 | U | < 4.1 | U | < 3 | U | < 3 | U | < 1.9 | U | < 4.1 | U | < 3 | U | < 3.1 | U | < 2 | U | < 2.6 | U | < 5.8 | U |

**Table C.1**
**Summary of Analytical Laboratory Data - Soil Vapor**
Semiannual Report - Soil Vapor Monitoring
Comprehensive Operations, Maintenance, & Monitoring Program
Endicott, New York

| SV Mon Point Designation | Sampling Point Designation | Sampling Depth | Sampling Date | Field Sample ID | Sample Type | $O_2$ (%) | $CO_2$ (%) | $CH_4$ (%) | Dilution Factor | $SF_6$ Applied? | He Applied? | Result % Volume | Flagged | Units of VOC Results | Tetrachloroethene | | | Trichloroethene | | | cis-1,2-Dichloroethene | | | trans-1,2-Dichloroethene | | | Vinyl Chloride | | | 1,1,1-Trichloroethane | | | 1,1-Dichloroethene | | | 1,1-Dichloroethane | | | Chloroethane | | | Methylene Chloride | | | Freon 113 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Equipment Blanks cont. | Equipment Blank | | 12-Aug-08 | EB3300081208 | Summa Canister | | | | 1.61 | | | | | µg/m3 | < | 5.5 | U | < | 4.3 | U | < | 3.2 | U | < | 3.2 | U | < | 2 | U | < | 4.4 | U | < | 3.2 | U | < | 3.2 | U | < | 2.1 | U | < | 2.8 | U | < | 6.2 | U |
| | Equipment Blank | | 13-Aug-08 | EB3345081308 | Summa Canister | | | | 1.68 | | | | | µg/m3 | < | 5.7 | U | < | 4.5 | U | < | 3.3 | U | < | 3.3 | U | < | 2.1 | U | < | 4.6 | U | < | 3.3 | U | < | 3.4 | U | < | 2.2 | U | < | 2.9 | U | < | 6.4 | U |
| | Equipment Blank | | 14-Aug-08 | EB36435081408 | Summa Canister | | | | 1.44 | | | | | µg/m3 | < | 4.9 | U | < | 3.9 | U | < | 2.8 | U | < | 2.8 | U | < | 1.8 | U | < | 3.9 | U | < | 2.8 | U | < | 2.9 | U | < | 1.9 | U | < | 2.5 | U | < | 5.5 | U |
| | Equipment Blank | | 14-Oct-08 | EB3332101408 | Summa Canister | | | | 1.96 | | | | | µg/m3 | < | 6.6 | U | < | 5.3 | U | < | 3.9 | U | < | 3.9 | U | < | 2.5 | U | < | 5.3 | U | < | 3.9 | U | < | 4 | U | < | 2.6 | U | < | 3.4 | U | < | 7.5 | U |
| | Equipment Blank | | 15-Oct-08 | EB1440101508 | Summa Canister | | | | 1.71 | | | | | µg/m3 | < | 5.8 | U | < | 4.6 | U | < | 3.4 | U | < | 3.4 | U | < | 2.2 | U | < | 4.7 | U | < | 3.4 | U | < | 3.5 | U | < | 2.2 | U | < | 3 | U | < | 6.6 | U |
| | Equipment Blank | | 16-Oct-08 | EB36429101608 | Summa Canister | | | | 1.58 | | | | | µg/m3 | < | 5.4 | U | < | 4.2 | U | < | 3.1 | U | < | 3.1 | U | < | 2 | U | < | 4.3 | U | < | 3.1 | U | < | 3.2 | U | < | 2.1 | U | < | 2.7 | U | < | 6 | U |

Notes:
1. This table is a summary of the findings of the program of long-term soil vapor monitoring conducted as part of the Comprehensive Operations, Management, and Monitoring Program associated with IBM's activities in Endicott, New York. The work is being conducted as a required component of Administrative Order on Consent executed by IBM and the State of New York on August 4, 2004. The long-term soil vapor monitoring program is being conducted in accordance with SHA's "Soil Vapor Monitoring Plan", of September 2004. Refer to the report text for additional details.

2. The vapor samples were collected on the dates noted using evacuated canister sampling techniques (Summa® Canisters). The Summa® canister samples were analyzed by Air Toxics LTD., of Folsom, California for the project-specific list of VOCs using EPA Compendium Method TO-15 standard (full-scan) methods at dilution factors noted. The data are reported by the laboratory with the following flags: B= analyte detected in the associated laboratory method blank, J=denotes an estimated value indicating that the compound was detected, but below the limit of quantitation. U = compound was not detected at the specified limit of quantitation. Vapor sampling during the time period noted in this table was performed by SHA.

3. This table is an abbreviated summary of the soil vapor monitoring. Data reported was collected in routine monitoring events during the October 2007 to October 2008 calendar year.

4. As noted on the table by a "Y" entry in the "$SF_6$ Applied?" and "He Applied?" columns, tracer gas was used during the sample collection process to screen for possible leakage of ambient air into the sample collection apparatus. The ultra pure (98%) tracer gas was applied to the ground surface around the soil vapor implant surface completion either during collection of the Summa Canister sample or after the collection of a sample canister into a Tedlar bag. The canister/Tedlar bag samples were analyzed for $SF_6$ using proprietary ATL GC Application #8 at Air Toxics, LTD, of Folsom, California during the initial rounds of sampling. Helium tracer gas was analyzed in the field using a helium leak detector. The results of this testing are reported in the table expressed as a percentage of the sample volume. Samples exhibiting greater than one percent $SF_6$ are flagged as possible low bias that could result from leakage into the sampling apparatus during collection, introduction of the tracer gas through the soil fabric driven by density and pressure gradients, or through other means. The results and flagging may indicate potential low bias for the results of VOC analysis.

5. The block of information at the head of each set of implant data is a summary of the water level and water quality data and inference available at the time of establishing the soil vapor monitoring network and/or initiating the soil vapor monitoring program. The findings of certain historical and concurrent groundwater quality monitoring follow the soil vapor data.

6. **Red** highlighted qualifiers are those added during the Data Usability Review:
   U / U = Result is non-detect / The method blank or Trip Blank associated with the sample had detections of this compound which indicate that the sample is a potential false positive.
   EB = The Equipment Blank had detections for this compound at a level suggesting the result in the sample may be a false positive or biased high.
   J = Result is considered an estimated value.

7. Qualifiers added by SHA:
   NS = No analysis performed for indicated compound.
   ND = Not Detected

# APPENDIX C.2

# DATA USABILITY ASSESSMENT

SHA
IMPROVING EARTH

*New Environmental Horizons, Inc.*

# DATA USABILITY ASSESSMENT

**Client:** Sanborn, Head & Associates, Inc., Concord, New Hampshire

**Site:** Endicott, New York

**Laboratory:** Air Toxics Limited (ATL), Folsom, California

**Work Order Number:** 0806222A

**Number of Samples:** 20 soil vapor samples for eleven project-specific Volatile Organic Compounds (VOCs) by method TO-15 Full Scan

**Data Reviewer:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc. NC.R

**Date:** July 14, 2008

A Data Usability Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Soil Vapor Monitoring Project Work Plan, Endicott, New York*, prepared by Sanborn, Head & Associates, Inc.; US EPA Region II SOP HW-18, *Validating Canisters of Volatile Organics in Ambient Air*, Rev 0, August 1994; 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)*, January 1999, EPA/625/R-96/010b, and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*; Publication EPA A540/R-99/008, October 1999; 2) to determine if the data met the 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 Air Data Review Checklist, attached, was completed during this assessment to document the review. Samples EN047D060908, EN045D060908, and EN0414D060908 were analyzed at dilutions to ensure that all of the results were reported within the linear range of the instrument calibration. As a consequence of the dilutions made for analysis, several non-detected results in these three samples are reported at levels exceeding the Expected Field Sample Laboratory Reporting Limits (RL) given in Table 2 of the Work Plan.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order with the following exceptions:

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*Phone: (908) 874-5686 ◊ (781) 643-4294*
*Email: n.rothman@patmedia.net ◊ s.chapnick@comcast.net*

| Sample Name | Lab ID | Analyte Name | Qualifier | Bias | Comments |
|---|---|---|---|---|---|
| EN0430D060908 | 0806222A-10A | Vinyl Chloride | UJ | I | Field final and Receipt vacuums disagree |
| EN0430D060908 | 0806222A-10A | Chloroethane | UJ | I | Field final and Receipt vacuums disagree |
| EN0430D060908 | 0806222A-10A | 1,1-Dichloroethene | UJ | I | Field final and Receipt vacuums disagree |
| EN0430D060908 | 0806222A-10A | Freon 113 | UJ | I | Field final and Receipt vacuums disagree |
| EN0430D060908 | 0806222A-10A | Methylene Chloride | UJ | I | Field final and Receipt vacuums disagree |
| EN0430D060908 | 0806222A-10A | 1,1-Dichloroethane | J | I | Field final and Receipt vacuums disagree + FD imprecision |
| EN0430D060908 | 0806222A-10A | cis-1,2-Dichloroethene | J | I | Field final and Receipt vacuums disagree + FD imprecision |
| EN0430D060908 | 0806222A-10A | 1,1,1-Trichloroethane | J | I | Field final and Receipt vacuums disagree + FD imprecision |
| EN0430D060908 | 0806222A-10A | Trichloroethene | J | I | Field final and Receipt vacuums disagree + FD imprecision |
| EN0430D060908 | 0806222A-10A | Tetrachloroethene | J | I | Field final and Receipt vacuums disagree + FD imprecision |
| EN0430D060908 | 0806222A-10A | trans-1,2-Dichloroethene | UJ | I | Field final and Receipt vacuums disagree |
| DU35635060908 | 0806222A-11A | 1,1-Dichloroethane | J | I | FD imprecision |
| DU35635060908 | 0806222A-11A | cis-1,2-Dichloroethene | J | I | FD imprecision |
| DU35635060908 | 0806222A-11A | 1,1,1-Trichloroethane | J | I | FD imprecision |
| DU35635060908 | 0806222A-11A | Trichloroethene | J | I | FD imprecision |
| DU35635060908 | 0806222A-11A | Tetrachloroethene | J | I | FD imprecision |

*Qualifiers: R = result rejected and unusable for project objectives; J = result is an estimated value; U = result is non-detect at the level reported; UJ = non-detect is an estimated value; EB = result detected in an associated equipment blank; JEB = result detected in an associated equipment blank and is an estimated value.*

*Bias: L = Low; H = High; I = Indeterminate*

The qualified (U, UJ, and J) and unqualified results presented in the validated database are considered usable for project objectives.

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/9/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0806222A
No. Samples 19 + 1FD

| | Canister Receipt | HT | GC/MS Tunes + Calibrations | Internal Stds + Surrogates | LCS | Lab Dup (LCS and LD) | Field Duplicates | RL & Quant. |
|---|---|---|---|---|---|---|---|---|
| All Results OK | | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ 3 samples DF>2 |
| **Except:** | | | | | | | | |
| EN0430D060908 | J/UJ All | | | | | | J All 5 Detects | |
| DU35635060908 | | | | | | | | |

Comments: All Canister vacuums were acceptable (field initial, field final, lab receipt) except EN0430D060908 which had field final vacuum of 7.0 "Hg + receipt vacuum of 0 "Hg => canister vacuum may have leaked in transit or vacuum measurements may be wrong.
* Action: All results for EN0430D060908 estimated (J + UJ) due to vacuums disagreeing by > ±5 "Hg.

All Samples were analyzed within 11 days of collection => HT met - No Action

Date 7/14/08

Data Reviewer [illegible]

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/9/08

Work Order #: 0806222A
No. Samples 19 + 1FD

Method of Analysis: TO-15 Full Scan
Associated Blanks: MBs: 7061907 + 7062006 } All 11 Targets were ND
EB: EB3343060908 (reported in 0806222B)

| Blank ID | Contaminant / Level (µg/m$^3$) | | Action Level DF= | | Sample and reported result (µg/m$^3$) | Corrected Database Result |
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| | | | | | No Blank Action Required. | |
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Date 7/14/08

Data Reviewer NCM

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/9/08

Work Order #: 0806222A
No. Samples 19 + 1FD

Method of Analysis: TO-15 Full Scan

Additional Notes:

ICAL = Inst. 7 on 4/17/08 - 6-lev for 0.5 → 200 ppbv for 11 Target Compds + %RSD ≤ 30% for targets ⇒ No Action reqd. Valid ICAL
CCALs: 7061902 + 7062002 - %Rec for all Targets OK ⇒ No Action
BFB Tunes: 7 (ICAL) + 2 CCAL - All Abundances OK ⇒ No Action Reqd.

All 3 Surrogate %Rec + IS Area/RTs were in criteria for all Smpls + QC ⇒ No Action
LCS/LCSD: 7061904/7061905 + 7062003/7062004 - %Rec + RPD all OK ⇒ No Action Reqd.

LDs - 2 done 1) EN045D060908 Smpl/LD shown at the bottom of page 4 + 2) 2N043S060908 Smpl/LD shown at the top of page 4A - LD precision was acceptable for all results ⇒ No Action reqd.

FD pair = EN043OD060908 + DU35633S060908 - shown at the top of page 4. FD precision was unacceptable for all 5 detected VOCs in the smpls - 3 results were > 5xRL with RPDs 40-539% + 2 results were < 5xRL but since RPDs = 40-469% + since the canister for EN043OD060908 was known to have possible quality issues due to canister vacuums, all 5 detected results were qualified as estimated (J) with indeterminate bias based on professional judgment.

There were no J data reported by the lab + narrative did not raise any issues.

All RLs were ≤ expected RLs (Table 2 of Soil Vapor Monitoring Plan) except: EN047D060908 (DF=6.72), EN045D060908 (DF=2.93) + EN041 4D060908 (DF=3.74) due to dilutions made at the instrument level to ensure that all results were reported within the instrument calibration range.

Date 7/14/08

Data Reviewer [signature]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/9/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0806222A
No. Samples 19 + 1FD

Field Duplicate Evaluation_ Sample IDs: Sample = EN0430D060908 FD = DU35635060908

| Analyte Name | CAS No. | DF= 1.34* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 1.7 | 1.7 | UJ | RL | | 2.4 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 1.8 | 1.8 | UJ | RL | | 2.5 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 2.6 | 2.6 | UJ | RL | | 3.8 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 5.1 | 5.1 | UJ | RL | | 7.3 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 2.3 | 2.3 | UJ | RL | | 3.3 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 2.7 | 3.9 | J | >RL but < 5xRL | | 6.2 | | >RL but < 5xRL | 45.5 | J Both ** |
| cis-1,2-Dichloroethene | 156-59-2 | 2.6 | 14 | J | > 5 x RL | | 21 | | > 5 x RL | 40.0 | J Both |
| 1,1,1-Trichloroethane | 71-55-6 | 3.6 | 36 | J | > 5 x RL | | 62 | | > 5 x RL | 53.1 | J Both |
| Trichloroethene | 79-01-6 | 3.6 | 420 | J | > 5 x RL | | 650 | | > 5 x RL | 43.0 | J Both |
| Tetrachloroethene | 127-18-4 | 4.5 | 20 | J | >RL but < 5xRL | | 30 | | >RL but < 5xRL | 40.0 | J Both ** |
| trans-1,2-Dichloroethene | 156-60-5 | 2.6 | 2.6 | UJ | RL | | 3.8 | U | RL | NA | None |

*This is the sample DF and RLs, the FD DF was 1.91 and RLs are RLs shown x (1.91/1.34)

** Decision was made to qualify all detected data even though some results were < 5 x RL since RPDs were comparable and there was evidence of canister issues.

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN045D060908

| Analyte Name | CAS No. | DF= 2.93* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 3.7 | 3.7 | U | RL | | 2.3 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 3.9 | 3.9 | U | RL | | 2.4 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 5.8 | 5.8 | U | RL | | 3.6 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 11 | 11 | U | RL | | 7 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 5.1 | 5.1 | U | RL | | 3.2 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 5.9 | 5.9 | U | RL | | 3.7 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 5.8 | 8 | | >RL but < 5xRL | | 7.9 | | >RL but < 5xRL | 1.3 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 8 | 110 | | > 5 x RL | | 110 | | > 5 x RL | 0.0 | None |
| Trichloroethene | 79-01-6 | 7.9 | 2700 | | > 5 x RL | | 2600 | E | > 5 x RL | 3.8 | None |
| Tetrachloroethene | 127-18-4 | 9.9 | 9.9 | U | RL | | 6.2 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 5.8 | 5.8 | U | RL | | 3.6 | U | RL | NA | None |

*The LD DF was 1.83

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.

Date 7/14/08

Data Reviewer [signature]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/9/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0806222A
No. Samples 19 + 1FD

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN043S060908

| Analyte Name | CAS No. | DF= 1.52 RL ($\mu g/m^3$) | Sample $\mu g/m^3$ | Q | Sample Result Level | | LD $\mu g/m^3$ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 1.9 | 1.9 | U | RL | | 1.9 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2 | 2 | U | RL | | 2 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3 | 3 | U | RL | | 3 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 5.8 | 5.8 | U | RL | | 5.8 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 2.6 | 2.6 | U | RL | | 2.6 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.1 | 3.1 | U | RL | | 3.1 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3 | 3 | U | RL | | 3 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.1 | 4.1 | U | RL | | 4.1 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.1 | 4.1 | U | RL | | 4.1 | U | RL | NA | None |
| Tetrachloroethene | 127-18-4 | 5.2 | 5.2 | U | RL | | 5.2 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3 | 3 | U | RL | | 3 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 7/14/08

Data Reviewer [signature]



New Environmental Horizons, Inc.

## *Compound List and DQOs*

| Analyte Name | CAS No. | Low Point of ICAL (ppbv) | Criteria LCL-UCL | LCS and CCV ICAL %RSD Criteria |
|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 0.5 | 70-130 | ≤ 30% |
| Chloroethane | 75-00-3 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethene | 75-35-4 | 0.5 | 70-130 | ≤ 30% |
| Freon 113 | 76-13-1 | 0.5 | 70-130 | ≤ 30% |
| Methylene Chloride | 75-09-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethane | 75-34-3 | 0.5 | 70-130 | ≤ 30% |
| cis-1,2-Dichloroethene | 156-59-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1,1-Trichloroethane | 71-55-6 | 0.5 | 70-130 | ≤ 30% |
| Trichloroethene | 79-01-6 | 0.5 | 70-130 | ≤ 30% |
| Tetrachloroethene | 127-18-4 | 0.5 | 70-130 | ≤ 30% |
| trans-1,2-Dichloroethene | 156-60-5 | 0.5 | 60-140 | ≤ 40% |

**Actions:**

*Canister Pressure (P):* Initial Field P < 25" Hg, J/UJ all results; Lab Receipt P > 15" Hg, J/UJ results; Lab Receipt P > ± 5" Hg of Final Field P, J/UJ results

*Hold Time (HT):* 14 days ≤ HT ≤ 28 days, J/UJ results; HT > 28 days, J detects/ R non-detects (or professional judgment)

*Blank Actions:* Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)
Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported
Equipment Blank (EB): Result<Blank Action, EB result at level reported

*BFB Tune:* SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 24-hours after tune; professional judgment on J/UJ or R of results

*LCS and CCV:* Laboratory Control Sample (LCS) and Continuing Calibration Verfication (CCV) evaluated: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <LCL; J/UJ all associated data; %Rec >UCL, J detects - no action for non-detects

*Initial Calibration (ICAL):* %RSD > criteria, J/UJ associated results

*Internal Standard (IS):* RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;
Area < 20% Area in CCV, J detects, R non-detects (or professional judgment); 20%< Area < 60% of CCV Area, J/UJ associated results; Area > 140% of CCV Area, J detects, no action for non-detects

*Surrogates:* %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

*Laboratory Duplicates:* LCS/LCSD RPD or Sample/LD RPD > 25% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*Field Duplicates:* RPD > 30% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*RLs + Quant:* Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data

Date 7/14/08

Data Reviewer [illegible]

# DATA USABILITY ASSESSMENT

**Client:** Sanborn, Head & Associates, Inc., Concord, New Hampshire

**Site:** Endicott, New York

**Laboratory:** Air Toxics Limited (ATL), Folsom, California

**Work Order Number:** 0806222B

**Number of Samples:** 19 soil vapor samples and 1 equipment blank for eleven project-specific Volatile Organic Compounds (VOCs) by method TO-15 Full Scan

**Data Reviewer:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc. NC.R

**Date:** July 14, 2008

A Data Usability Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Soil Vapor Monitoring Project Work Plan, Endicott, New York*, prepared by Sanborn, Head & Associates, Inc.; US EPA Region II SOP HW-18, *Validating Canisters of Volatile Organics in Ambient Air*, Rev 0, August 1994; 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)*, January 1999, EPA/625/R-96/010b, and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*; Publication EPA A540/R-99/008, October 1999; 2) to determine if the data met the 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 Air Data Review Checklist, attached, was completed during this assessment to document the review. Samples EN0417D061008, EN0533D061008, and EN0416D061008 were analyzed at dilutions to ensure that all of the results were reported within the linear range of the instrument calibration. As a consequence of the dilutions made for analysis, several non-detected results in these three samples are reported at levels exceeding the Expected Field Sample Laboratory Reporting Limits (RL) given in Table 2 of the Work Plan.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order. The results reported by the laboratory were unchanged as a consequence of this data review and the results presented in the validated database are considered usable for project objectives.

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Phone: (908) 874-5686 ◊ (781) 643-4294
Email: n.rothman@patmedia.net ◊ s.chapnick@comcast.net

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/9 - 6/10/08
Method of Analysis: TO-15 Full Scan

Work Order #: 08062228
No. Samples 18 + 1FD + 1EB

| | Canister Receipt | HT | GC/MS Tunes + Calibrations | Internal Stds + Surrogates | LCS | Lab Dup (LCS and LD) | Field Duplicates | RL & Quant. |
|---|---|---|---|---|---|---|---|---|
| All Results OK | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Except:** | | | | | | | | 3 samples RL > expected |
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Comments: All Canister Vacuums (field initial, field final + lab receipt) were OK + there were no COC issues noted.

All samples were analyzed within 12 days of collection => HT met - No Action

IAL = Inst. Tune 6/19/08 - 6-level for 11 Targets from 0.5 -> 200 ppbV with %RSD < 30% => Valid IAL which supported 0.5 ppbV RL - No Action required.

Date 7/14/08

Data Reviewer [illegible]



New Environmental Horizons, Inc.

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/9 - 6/10/08

Work Order #: 08062222B
No. Samples 18 + 1FD + 1EB

Method of Analysis: TO-15 Full Scan
Associated Blanks: MBs: t062005, t062105 + t062205
EBs: EB3343060908 & EB3466506100S (reported in W.O. 08060222C)

All 11 Targets were ND

| Blank ID | Contaminant / Level (µg/m$^3$) | | Action Level DF= | | Sample and reported result (µg/m$^3$) | Corrected Database Result |
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Date 7/14/08

Data Reviewer NJC. RM



New Environmental Horizons, Inc.

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/9 - 6/10/08

Method of Analysis: TO-15 Full Scan

Work Order #: 08062222B
No. Samples 18 + 1FD + 1EB

Additional Notes:

CCALs: t062002, t062102 + t062202 - %Rec all OK => No Action
BFB Tunes: 4 (1 IVAL + 3 CCAL): All Abundances OK ~~all~~ Nom 7/14/08 - No Action Required.

All 3 Surrogate %Rec + 3 IS Areas/RTs were in criteria for all smpls + QC => No Action

LCS/LCSD: t062003/t062004 ; t062103/t062104 ; and t062203/t062204 - %Rec OK + RPDs also all OK => acceptable accuracy + precision for method demonstrated.

LD: EN0411D061008 smpl/LD shown at the bottom of page 4 - LD precision was acceptable for all 4 detected VOCs => No Action

FD pair: EN0445061008 + DU9710806 1008 shown at the top of page 4 - FD precision was acceptable even though all results were ND except for Trichloroethene at a level just >RL in EN0445061008 - Unable to quantitatively evaluate FD precision for these results but they are consistent with each other - No Action Required.

There were no J data reported + narrative did not raise any issues.

All RLs were ≤ expected RLs except: EN0417D061008 (DF: 8.95), EN0533D061008 (DF: 7) + EN0416D061008 (DF: 7.16) all due to dilutions made at instrument level to ensure all detects were reported within the calibration range.

The database was unchanged as a consequence of this review.

Date 7/14/08

Data Reviewer MC.RR

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/9/08 - 6/10/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0806222B
No. Samples 18 + 1FD + 1EB

Field Duplicate Evaluation_ Sample IDs: Sample = EN044S061008 FD = DU97108061008

| Analyte Name | CAS No. | DF= 1.64* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.1 | 2.1 | U | RL | | 2.2 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.2 | 2.2 | U | RL | | 2.3 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.2 | 3.2 | U | RL | | 3.5 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.3 | 6.3 | U | RL | | 6.7 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 2.8 | 2.8 | U | RL | | 3 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.3 | 3.3 | U | RL | | 3.5 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.2 | 3.2 | U | RL | | 3.5 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.5 | 4.5 | U | RL | | 4.8 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.4 | 11 | | >RL but < 5xRL | | 4.7 | U | RL | NA | None |
| Tetrachloroethene | 127-18-4 | 5.6 | 5.6 | U | RL | | 5.9 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.2 | 3.2 | U | RL | | 3.5 | U | RL | NA | None |

*This is the sample DF and RLs, the FD DF was 1.75 and RLs are RLs shown x (1.75/1.64)

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0411D061008

| Analyte Name | CAS No. | DF= 1.61 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2 | 2 | U | RL | | 2 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.1 | 2.1 | U | RL | | 2.1 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.2 | 6.2 | U | RL | | 6.2 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 2.8 | 2.8 | U | RL | | 2.8 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.2 | 3.4 | | >RL but < 5xRL | | 3.3 | | >RL but < 5xRL | 3.0 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.4 | 27 | | > 5 x RL | | 26 | | > 5 x RL | 3.8 | None |
| Trichloroethene | 79-01-6 | 4.3 | 1200 | | > 5 x RL | | 1200 | | > 5 x RL | 0.0 | None |
| Tetrachloroethene | 127-18-4 | 5.5 | 33 | | > 5 x RL | | 31 | | > 5 x RL | 6.3 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 7/14/08

Data Reviewer MJC.KM

## *Compound List and DQOs*

| Analyte Name | CAS No. | Low Point of ICAL (ppbv) | Criteria LCL-UCL | LCS and CCV ICAL %RSD Criteria |
|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 0.5 | 70-130 | ≤ 30% |
| Chloroethane | 75-00-3 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethene | 75-35-4 | 0.5 | 70-130 | ≤ 30% |
| Freon 113 | 76-13-1 | 0.5 | 70-130 | ≤ 30% |
| Methylene Chloride | 75-09-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethane | 75-34-3 | 0.5 | 70-130 | ≤ 30% |
| cis-1,2-Dichloroethene | 156-59-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1,1-Trichloroethane | 71-55-6 | 0.5 | 70-130 | ≤ 30% |
| Trichloroethene | 79-01-6 | 0.5 | 70-130 | ≤ 30% |
| Tetrachloroethene | 127-18-4 | 0.5 | 70-130 | ≤ 30% |
| trans-1,2-Dichloroethene | 156-60-5 | 0.5 | 60-140 | ≤ 40% |

**Actions:**

*Canister Pressure (P):* Initial Field P < 25" Hg, J/UJ all results; Lab Receipt P > 15" Hg, J/UJ results; Lab Receipt P > ± 5" Hg of Final Field P, J/UJ results

*Hold Time (HT):* 14 days ≤ HT ≤ 28 days, J/UJ results; HT > 28 days, J detects/ R non-detects (or professional judgment)

*Blank Actions:* Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)
Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported
Equipment Blank (EB): Result<Blank Action, EB result at level reported

*BFB Tune:* SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 24-hours after tune; professional judgment on J/UJ or R of results

*LCS and CCV:* Laboratory Control Sample (LCS) and Continuing Calibration Verfication (CCV) evaluated: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <LCL; J/UJ all associated data; %Rec >UCL, J detects - no action for non-detects

*Initial Calibration (ICAL):* %RSD > criteria, J/UJ associated results

*Internal Standard (IS):* RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;
Area < 20% Area in CCV, J detects, R non-detects (or professional judgment); 20%< Area < 60% of CCV Area, J/UJ associated results; Area > 140% of CCV Area, J detects, no action for non-detects

*Surrogates:* %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

*Laboratory Duplicates:* LCS/LCSD RPD or Sample/LD RPD > 25% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*Field Duplicates:* RPD > 30% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*RLs + Quant:* Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data

Date 7/14/08

Data Reviewer [illegible]

## DATA USABILITY ASSESSMENT

**Client:** Sanborn, Head & Associates, Inc., Concord, New Hampshire

**Site:** Endicott, New York

**Laboratory:** Air Toxics Limited (ATL), Folsom, California

**Work Order Number:** 0806222C

**Number of Samples:** 19 soil vapor samples and 1 equipment blank for eleven project-specific Volatile Organic Compounds (VOCs) by method TO-15 Full Scan

**Data Reviewer:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc. N C.R

**Date:** July 15, 2008

A Data Usability Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Soil Vapor Monitoring Project Work Plan, Endicott, New York*, prepared by Sanborn, Head & Associates, Inc.; US EPA Region II SOP HW-18, *Validating Canisters of Volatile Organics in Ambient Air*, Rev 0, August 1994; 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)*, January 1999, EPA/625/R-96/010b, and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*; Publication EPA A540/R-99/008, October 1999; 2) to determine if the data met the 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 Air Data Review Checklist, attached, was completed during this assessment to document the review. Samples EN049S061008, DU2204061008, EN049D061008, EN0410S061008, and EN0410D061008 were analyzed at dilutions to ensure that all of the results were reported within the linear range of the instrument calibration. As a consequence of the dilutions made for analysis, several non-detected results in these five samples are reported at levels exceeding the Expected Field Sample Laboratory Reporting Limits (RL) given in Table 2 of the Work Plan.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order. The results reported by the laboratory were unchanged as a consequence of this data review and the results presented in the validated database are considered usable for project objectives.

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*Email: n.rothman@patmedia.net ◊ s.chapnick@comcast.net*

Lab: Air Toxics Ltd.
Date Sampled: 6/10 - 6/11/08
Method of Analysis: TO-15 Full Scan

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Work Order #: 0806222C
No. Samples 16 + 3FD + 1EB

| | Canister Receipt | HT | GC/MS Tunes + Calibrations | Internal Stds + Surrogates | LCS | Lab Dup (LCS and LD) | Field Duplicates | RL & Quant. |
|---|---|---|---|---|---|---|---|---|
| All Results OK | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 5 samples |
| **Except:** | | | | | | | | RL > expected |
| | | | | | | | | |
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Comments: All Canister vacuums (field initial, field final + lab receipt) met criteria + there were no COC issues noted

All samples were analyzed within 12 days of collection => HT met - No Action

ICAL - Instrument b on 6/3/08 - 6-level ICAL for 0.5 -> 200 ppbv for 11 Targets. 90 RSD < 30% for Targets => Valid ICAL - No Action.

Date 7/15/08

Data Reviewer [illegible]

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/10 - 6/11/08

Work Order #: 0806222C
No. Samples: 16 + 3FD + 1EB

Method of Analysis: TO-15 Full Scan
Associated Blanks: MBs: b062105 + b062205
EBs: EB346650610 08 + EB332306110 8 (reported in W.O. # 0806222D)

All 11 Targets were ND

| Blank ID | Contaminant / Level (µg/m³) | | Action Level DF= | | Sample and reported result (µg/m³) | Corrected Database Result |
|---|---|---|---|---|---|---|
| | | | | | | |

No Blank Action Required.

NM 7/15/08

Date 7/15/08

Data Reviewer MJC.BR

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/10 - 6/11/08

Method of Analysis: TO-15 Full Scan

Work Order #: 0806222C
No. Samples 16 + 3FD + 1EB

Additional Notes:

CCALs: b062102 + b062202 - %Rec all OK => No Action
BFB Tuns: 5 (3 IVOC) + 2 CCAL - All Abundances OK => No Action

All 3 Surrogate %Rec + 3 IS Areas / RTs were recovered within criteria => No Action
LCS/LCSD: b062103 / b062104 + b062203 / b062204 - %Rec + RPD all OK => acceptable accuracy + precision for method demonstrated => No Action.

LDS - 2 Sngl/LD pairs: 1) EN0429D061008 shown at the bottom of page 4 + 2) EN0431D061008 shown at the bottom of page 4A - LD precision was acceptable for all detected VOCs => No Action

3 FD pairs: 1) EN0495061008 + DU2204061008 shown at the top of page 4 - All detected VOCs met precision criteria => No Action; 2) EN0429D061008 + DU3374061008 shown at the top of page 4A - all detected VOCs met criteria + 3) EN0419S061108 + DU3411006 1108 shown at the top of page 4B - All VOCs were ND in both sngl => results are consistent with one another but unable to quantitatively evaluate precision for these data - No Action.

There were no "J" data reported + narrative did not raise any additional issues

All RLs were ≤ expected RLs (i.e., DF < 2) except: EN0495061008 (DF: 7.16), DU2204061008 (DF: 7.32), EN0499D061008 (DF: 249), EN0410S061008 (DF: 42.8) + EN0410D061008 (DF: 45.8) due to dilutions made at the instrument.

The database was unchanged as a consequence of this review.

Date 7/15/08

Data Reviewer [illegible]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/10/08 - 6/11/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0806222C
No. Samples 16 + 3FD + 1EB

Field Duplicate Evaluation_ Sample IDs: Sample = EN049S061008 FD = DU2204061008

| Analyte Name | CAS No. | DF= 7.16* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 9.2 | 9.2 | U | RL | | 9.4 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 9.4 | 9.4 | U | RL | | 9.6 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 14 | 14 | U | RL | | 14 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 27 | 27 | U | RL | | 28 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 12 | 12 | U | RL | | 13 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 14 | 26 | | >RL but < 5xRL | | 26 | | >RL but < 5xRL | 0.0 | None |
| cis-1,2-Dichloroethene | 156-59-2 | 14 | 26 | | >RL but < 5xRL | | 23 | | >RL but < 5xRL | 12.2 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 20 | 320 | | > 5 x RL | | 330 | | > 5 x RL | 3.1 | None |
| Trichloroethene | 79-01-6 | 19 | 4400 | | > 5 x RL | | 4600 | | > 5 x RL | 4.4 | None |
| Tetrachloroethene | 127-18-4 | 24 | 120 | | > 5 x RL | | 120 | | > 5 x RL | 0.0 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 14 | 14 | U | RL | | 14 | U | RL | NA | None |

*This is the sample DF and RLs, the FD DF was 7.32 and RLs are RLs shown x (7.32/7.16)

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0429D061008

| Analyte Name | CAS No. | DF= 1.75 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.2 | 2.2 | U | RL | | 2.2 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.3 | 2.3 | U | RL | | 2.3 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.7 | 6.7 | U | RL | | 6.7 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3 | 3 | U | RL | | 3 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.8 | 81 | | > 5 x RL | | 79 | | > 5 x RL | 2.5 | None |
| Trichloroethene | 79-01-6 | 4.7 | 880 | | > 5 x RL | | 860 | | > 5 x RL | 2.3 | None |
| Tetrachloroethene | 127-18-4 | 5.9 | 5.9 | U | RL | | 5.9 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 7/15/08

Data Reviewer [signature]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/10/08 - 6/11/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0806222C
No. Samples 16 + 3FD + 1EB

Field Duplicate Evaluation_ Sample IDs: Sample = EN0429D061008 FD = DU3374061008

| Analyte Name | CAS No. | DF= 1.75* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.2 | 2.2 | U | RL | | 2.3 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.3 | 2.3 | U | RL | | 2.4 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.7 | 6.7 | U | RL | | 6.8 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3 | 3 | U | RL | | 3.1 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.5 | 3.5 | U | RL | | 3.6 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.8 | 81 | | > 5 x RL | | 87 | | > 5 x RL | 7.1 | None |
| Trichloroethene | 79-01-6 | 4.7 | 880 | | > 5 x RL | | 930 | | > 5 x RL | 5.5 | None |
| Tetrachloroethene | 127-18-4 | 5.9 | 5.9 | U | RL | | 6.1 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |

*This is the sample DF and RLs, the FD DF was 1.79 and RLs are RLs shown x (1.79/1.75)

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0431D061008

| Analyte Name | CAS No. | DF= 1.83 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.3 | 2.3 | U | RL | | 2.3 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.4 | 2.4 | U | RL | | 2.4 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.6 | 3.6 | U | RL | | 3.6 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 7 | 7 | U | RL | | 7 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.7 | 3.7 | U | RL | | 3.7 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.6 | 3.6 | U | RL | | 3.6 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 5 | 13 | | >RL but < 5xRL | | 13 | | >RL but < 5xRL | 0.0 | None |
| Trichloroethene | 79-01-6 | 4.9 | 280 | | > 5 x RL | | 280 | | > 5 x RL | 0.0 | None |
| Tetrachloroethene | 127-18-4 | 6.2 | 6.2 | U | RL | | 6.2 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.6 | 3.6 | U | RL | | 3.6 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 7/15/08

Data Reviewer MJC.RM



New Environmental Horizons, Inc.

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/10/08 - 6/11/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0806222C
No. Samples 16 + 3FD + 1EB

Field Duplicate Evaluation_ Sample IDs: Sample = EN0419S061108 FD = DU34110061108

| Analyte Name | CAS No. | DF= 1.71* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.2 | 2.2 | U | RL | | 2.2 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.2 | 2.2 | U | RL | | 2.2 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.4 | 3.4 | U | RL | | 3.4 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.6 | 6.6 | U | RL | | 6.6 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3 | 3 | U | RL | | 3 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.4 | 3.4 | U | RL | | 3.4 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.7 | 4.7 | U | RL | | 4.7 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.6 | 4.6 | U | RL | | 4.6 | U | RL | NA | None |
| Tetrachloroethene | 127-18-4 | 5.8 | 5.8 | U | RL | | 5.8 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.4 | 3.4 | U | RL | | 3.4 | U | RL | NA | None |

*This is the sample and FD DF and RLs

Date 7/15/08

Data Reviewer [illegible]



New Environmental Horizons, Inc.

## *Compound List and DQOs*

| Analyte Name | CAS No. | Low Point of ICAL (ppbv) | Criteria LCL-UCL | LCS and CCV ICAL %RSD Criteria |
|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 0.5 | 70-130 | ≤ 30% |
| Chloroethane | 75-00-3 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethene | 75-35-4 | 0.5 | 70-130 | ≤ 30% |
| Freon 113 | 76-13-1 | 0.5 | 70-130 | ≤ 30% |
| Methylene Chloride | 75-09-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethane | 75-34-3 | 0.5 | 70-130 | ≤ 30% |
| cis-1,2-Dichloroethene | 156-59-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1,1-Trichloroethane | 71-55-6 | 0.5 | 70-130 | ≤ 30% |
| Trichloroethene | 79-01-6 | 0.5 | 70-130 | ≤ 30% |
| Tetrachloroethene | 127-18-4 | 0.5 | 70-130 | ≤ 30% |
| trans-1,2-Dichloroethene | 156-60-5 | 0.5 | 60-140 | ≤ 40% |

**Actions:**

*Canister Pressure (P):* Initial Field P < 25" Hg, J/UJ all results; Lab Receipt P > 15" Hg, J/UJ results; Lab Receipt P > ± 5" Hg of Final Field P, J/UJ results

*Hold Time (HT):* 14 days ≤ HT ≤ 28 days, J/UJ results; HT > 28 days, J detects/ R non-detects (or professional judgment)

*Blank Actions:* Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)
Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported
Equipment Blank (EB): Result<Blank Action, EB result at level reported

*BFB Tune:* SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 24-hours after tune; professional judgment on J/UJ or R of results

*LCS and CCV:* Laboratory Control Sample (LCS) and Continuing Calibration Verfication (CCV) evaluated: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <LCL; J/UJ all associated data; %Rec >UCL, J detects - no action for non-detects

*Initial Calibration (ICAL):* %RSD > criteria, J/UJ associated results

*Internal Standard (IS):* RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;
Area < 20% Area in CCV, J detects, R non-detects (or professional judgment); 20%< Area < 60% of CCV Area, J/UJ associated results; Area > 140% of CCV Area, J detects, no action for non-detects

*Surrogates:* %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

*Laboratory Duplicates:* LCS/LCSD RPD or Sample/LD RPD > 25% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*Field Duplicates:* RPD > 30% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*RLs + Quant:* Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data

Date 7/15/08

Data Reviewer [illegible]

*New Environmental Horizons, Inc.*

# DATA USABILITY ASSESSMENT

**Client:** Sanborn, Head & Associates, Inc., Concord, New Hampshire

**Site:** Endicott, New York

**Laboratory:** Air Toxics Limited (ATL), Folsom, California

**Work Order Number:** 0806222D

**Number of Samples:** 18 soil vapor samples and 1 equipment blank for eleven project-specific Volatile Organic Compounds (VOCs) by method TO-15 Full Scan

**Data Reviewer:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc. N.C.R.

**Date:** July 15, 2008

A Data Usability Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Soil Vapor Monitoring Project Work Plan, Endicott, New York*, prepared by Sanborn, Head & Associates, Inc.; US EPA Region II SOP HW-18, *Validating Canisters of Volatile Organics in Ambient Air*, Rev 0, August 1994; 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)*, January 1999, EPA/625/R-96/010b, and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*; Publication EPA A540/R-99/008, October 1999; 2) to determine if the data met the 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 Air Data Review Checklist, attached, was completed during this assessment to document the review. Samples EN0426D061108 and DU36523061108 were analyzed at dilutions to ensure that all of the results were reported within the linear range of the instrument calibration. As a consequence of the dilutions made for analysis, several non-detected results in these two samples are reported at levels exceeding the Expected Field Sample Laboratory Reporting Limits (RL) given in Table 2 of the Work Plan.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order. The results reported by the laboratory were unchanged as a consequence of this data review and the results presented in the validated database are considered usable for project objectives.

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Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/11/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0806222D
No. Samples 16 + 2FD + 1EB

| | Canister Receipt | HT | GC/MS Tunes + Calibrations | Internal Stds + Surrogates | LCS | Lab Dup (LCS and LD) | Field Duplicates | RL & Quant. |
|---|---|---|---|---|---|---|---|---|
| All Results OK | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Except:** | | | | | | | | 2 samples |
| | | | | | | | | RL > expected |
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Comments: All Canister vacuums (field initial, field final + lab receipt) were acceptable + there were no COC issues noted - No Action

Samples were all analyzed within 12 days of collection => HT met. No Action

ICAL: Instrument tuned on 6/19/08 - 6-level for 0.5 -> 200 ppbV for 11 Target Compounds + 90% RSD < 30% across ICAL => valid calibration - No Action.

Date 7/15/08

Data Reviewer NJC.RM

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/11/08

Work Order #: 0806222D
No. Samples 16 + 2FD + 1EB

Method of Analysis: TO-15 Full Scan
Associated Blanks: MBs: t062205 + t062305 > All 11 Target Compounds w/ ND
EB: EB3323 061108

| Blank ID | Contaminant / Level (µg/m³) | | Action Level DF= | | Sample and reported result (µg/m³) | Corrected Database Result |
|---|---|---|---|---|---|---|
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Date 7/15/08

Data Reviewer NJC. RR

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/11/08

Work Order #: 0806222D
No. Samples: 16 + 2FD + 1EB

Method of Analysis: TO-15 Full Scan

Additional Notes:

CCAL: t062202 + t062302 - %Rec all OK => No Action
BFB Tune: 3 (1 IVAL + 2 CCAL) - Abundances all OK => No Action

All 3 Surrogates %Rec + 3 IS Areas / RTs were in criteria for all smpls + QC => No Action
LCS/LCSD: t062203/t062204 + t062303/t062304 %Rec + RPDs all OK => acceptable accuracy + precision for method of analysis demonstrated by lab - No Action

2 LDs: 1) EN0426D061108 smpl/LD shown at the bottom of page 4 + 2) DU365230611 08 smpl/LD shown at the bottom of page 4A - LD precision was acceptable for all detected VOCs => No Action.

2 FD pairs: 1) EN0425S061108 + DU3301061108 - shown at the top of page 4 - All VOCs were ND for both smpls => although results are consistent with each other, unable to quantitatively assess precision! 2) EN0426D061108 + DU365230611 08 shown at the top of page 4A - FD precision was acceptable for all detected VOCs => No Action Required.

There was no J data reported + narrative did not raise any issues.

All RLs were ≤ expected RLs from Table 2 of Work Plan (i.e., DF < 2) except: EN0426D061108 (DF = 2.74) + DU365230611 08 (DF = 2.69) due to dilutions made at the instrument to ensure all detects were within the instrument calibration range.

The database was unchanged as a consequence of this review.

Date 7/15/08

Data Reviewer [signature]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/11/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0806222D
No. Samples 16 + 2FD + 1EB

Field Duplicate Evaluation_ Sample IDs: Sample = EN0425S061108 FD = DU3301061108

| Analyte Name | CAS No. | DF= 1.71* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.2 | 2.2 | U | RL | | 2.3 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.2 | 2.2 | U | RL | | 2.4 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.4 | 3.4 | U | RL | | 3.6 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.6 | 6.6 | U | RL | | 7 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3 | 3 | U | RL | | 3.2 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.5 | 3.5 | U | RL | | 3.7 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.4 | 3.4 | U | RL | | 3.6 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.7 | 4.7 | U | RL | | 5 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.6 | 4.6 | U | RL | | 4.9 | U | RL | NA | None |
| Tetrachloroethene | 127-18-4 | 5.8 | 5.8 | U | RL | | 6.2 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.4 | 3.4 | U | RL | | 3.6 | U | RL | NA | None |

*This is the sample DF and RLs, the FD DF was 1.83 and RLs are RLs shown x (1.83/1.71)

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0426D061108

| Analyte Name | CAS No. | DF= 2.74 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 3.6 | 3.6 | U | RL | | 3.6 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 5.4 | 5.4 | U | RL | | 5.4 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 10 | 10 | U | RL | | 10 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 4.8 | 4.8 | U | RL | | 4.8 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 5.5 | 5.5 | U | RL | | 5.5 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 5.4 | 5.4 | U | RL | | 5.4 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 7.5 | 76 | | > 5 x RL | | 75 | | > 5 x RL | 1.3 | None |
| Trichloroethene | 79-01-6 | 7.4 | 1500 | | > 5 x RL | | 1500 | | > 5 x RL | 0.0 | None |
| Tetrachloroethene | 127-18-4 | 9.3 | 9.6 | | >RL but < 5xRL | | 9.7 | | >RL but < 5xRL | 1.0 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 5.4 | 5.4 | U | RL | | 5.4 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 7/15/08

Data Reviewer [illegible]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 6/11/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0806222D
No. Samples 16 + 2FD + 1EB

Field Duplicate Evaluation_ Sample IDs: Sample = EN0426D061108 FD = DU36523061108

| Analyte Name | CAS No. | DF= 2.74* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 3.5 | 3.5 | U | RL | | 3.4 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 3.6 | 3.6 | U | RL | | 3.5 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 5.4 | 5.4 | U | RL | | 5.3 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 10 | 10 | U | RL | | 10 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 4.8 | 4.8 | U | RL | | 4.7 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 5.5 | 5.5 | U | RL | | 5.4 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 5.4 | 5.4 | U | RL | | 5.3 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 7.5 | 76 | | > 5 x RL | | 79 | | > 5 x RL | 3.9 | None |
| Trichloroethene | 79-01-6 | 7.4 | 1500 | | > 5 x RL | | 1500 | | > 5 x RL | 0.0 | None |
| Tetrachloroethene | 127-18-4 | 9.3 | 9.6 | | >RL but < 5xRL | | 9.1 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 5.4 | 5.4 | U | RL | | 5.3 | U | RL | NA | None |

*This is the sample DF and RLs, the FD DF was 2.69 and RLs are RLs shown x (2.69/2.74)

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: DU36523061108

| Analyte Name | CAS No. | DF= 2.69 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 3.4 | 3.4 | U | RL | | 3.4 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 5.3 | 5.3 | U | RL | | 5.3 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 10 | 10 | U | RL | | 10 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 4.7 | 4.7 | U | RL | | 4.7 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 5.4 | 5.4 | U | RL | | 5.4 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 5.3 | 5.3 | U | RL | | 5.3 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 7.3 | 79 | | > 5 x RL | | 78 | | > 5 x RL | 1.3 | None |
| Trichloroethene | 79-01-6 | 7.2 | 1500 | | > 5 x RL | | 1500 | | > 5 x RL | 0.0 | None |
| Tetrachloroethene | 127-18-4 | 9.1 | 9.1 | U | RL | | 9.2 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 5.3 | 5.3 | U | RL | | 5.3 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 7/15/08

Data Reviewer N. C. RK



New Environmental Horizons, Inc.

## *Compound List and DQOs*

| Analyte Name | CAS No. | Low Point of ICAL (ppbv) | Criteria LCL-UCL | LCS and CCV ICAL %RSD Criteria |
|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 0.5 | 70-130 | ≤ 30% |
| Chloroethane | 75-00-3 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethene | 75-35-4 | 0.5 | 70-130 | ≤ 30% |
| Freon 113 | 76-13-1 | 0.5 | 70-130 | ≤ 30% |
| Methylene Chloride | 75-09-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethane | 75-34-3 | 0.5 | 70-130 | ≤ 30% |
| cis-1,2-Dichloroethene | 156-59-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1,1-Trichloroethane | 71-55-6 | 0.5 | 70-130 | ≤ 30% |
| Trichloroethene | 79-01-6 | 0.5 | 70-130 | ≤ 30% |
| Tetrachloroethene | 127-18-4 | 0.5 | 70-130 | ≤ 30% |
| trans-1,2-Dichloroethene | 156-60-5 | 0.5 | 60-140 | ≤ 40% |

**Actions:**

*Canister Pressure (P):* Initial Field P < 25" Hg, J/UJ all results; Lab Receipt P > 15" Hg, J/UJ results; Lab Receipt P > ± 5" Hg of Final Field P, J/UJ results

*Hold Time (HT):* 14 days ≤ HT ≤ 28 days, J/UJ results; HT > 28 days, J detects/ R non-detects (or professional judgment)

*Blank Actions:* Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)
Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported
Equipment Blank (EB): Result<Blank Action, EB result at level reported

*BFB Tune:* SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 24-hours after tune; professional judgment on J/UJ or R of results

*LCS and CCV:* Laboratory Control Sample (LCS) and Continuing Calibration Verfication (CCV) evaluated: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <LCL; J/UJ all associated data; %Rec >UCL, J detects - no action for non-detects

*Initial Calibration (ICAL):* %RSD > criteria, J/UJ associated results

*Internal Standard (IS):* RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;
Area < 20% Area in CCV, J detects, R non-detects (or professional judgment); 20%< Area < 60% of CCV Area, J/UJ associated results; Area > 140% of CCV Area, J detects, no action for non-detects

*Surrogates:* %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

*Laboratory Duplicates:* LCS/LCSD RPD or Sample/LD RPD > 25% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*Field Duplicates:* RPD > 30% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*RLs + Quant:* Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data

Date 7/15/08

Data Reviewer [illegible]

New Environmental Horizons, Inc.

# DATA USABILITY ASSESSMENT

**Client:** Sanborn, Head & Associates, Inc., Concord, New Hampshire

**Site:** Endicott, New York

**Laboratory:** Air Toxics Limited (ATL), Folsom, California

**Work Order Number:** 0808367A

**Number of Samples:** 19 soil vapor samples + 1 equipment blank for eleven project-specific Volatile Organic Compounds (VOCs) by method TO-15 Full Scan

**Data Reviewer:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc. N.C.R.

**Date:** September 22, 2008

A Data Usability Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Soil Vapor Monitoring Project Work Plan, Endicott, New York*, prepared by Sanborn, Head & Associates, Inc.; US EPA Region II SOP HW-18, *Validating Canisters of Volatile Organics in Ambient Air*, Rev 0, August 1994; 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)*, January 1999, EPA/625/R-96/010b, and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*; Publication EPA A540/R-99/008, October 1999; 2) to determine if the data met the 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 Air Data Review Checklist, attached, was completed during this assessment to document the review. Samples EN0411D081108, EN0429D081108, EN0430S081208, EN049S081208, DU36383081208, and EN049D081208 were analyzed at dilutions to ensure that all of the results were reported within the linear range of the instrument calibration. As a consequence of the dilutions made for analysis, several non-detected results in these six samples are reported at levels exceeding the Expected Field Sample Laboratory Reporting Limits (RL) given in Table 2 of the Work Plan.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order. The results reported by the laboratory were unchanged as a consequence of this data review and the results presented in the validated database are considered usable for project objectives.

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Phone: (908) 874-5686 ◊ (781) 643-4294
Email: nrothman_NEH@comcast.net ◊ s.chapnick@comcast.net

Lab: Air Toxics Ltd.
Date Sampled: 8/11 - 8/12/08
Method of Analysis: TO-15 Full Scan

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Work Order #: 0808367A
No. Samples 17+2FD+1EB

| | Canister Receipt | HT | GC/MS Tunes + Calibrations | Internal Stds + Surrogates | LCS | Lab Dup (LCS and LD) | Field Duplicates | RL & Quant. |
|---|---|---|---|---|---|---|---|---|
| All Results OK | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Except:** | | | | | | | | 6 Samples RLs > expected |
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Comments: All Canisters were received intact & vacuums (lab receipt, final field & initial field) were acceptable => No Action required. No COC issues noted by lab either

Samples were all analyzed within 11 days of collection => HT OK - No Action

ICAL = Inst. tuned on 8/17/08 - 6-level for 0.5 → 200 ppbV for 11 Target Compounds - %RSD < 30% for all Targets => Valid ICAL - No Action

Date 9/22/08

Data Reviewer [illegible]

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/11 - 8/12/08

Work Order #: 0808367A
No. Samples 17 + 2FD + 1EB

Method of Analysis: TO-15 Full Scan

Associated Blanks: MB: b082105a + b082205 - Both w/ ND for all 11 Targets
EB: EB3362081108 (reported in this W.O.) + EB3300081208 (reported in 08083670) - Both ND

| Blank ID | Contaminant / Level (µg/m³) | | Action Level DF= | | Sample and reported result (µg/m³) | Corrected Database Result |
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| | | | | | No Blank Action Required. | |
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Date 9/22/08

Data Reviewer MJC.RK

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/11 - 8/12/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0808367A
No. Samples 17 + 2FD + 1EB

Additional Notes:

CCALs: b082102 + b082202 - % Rec for targets all OK => No Action
Tunes: 4 (2 IVA + 2 CVA): All Abundances OK => No Action

All 3 Surrogate % Rec + 3 IS Area + RTs were in criteria for all Smpls + QC => No Action
LCS/LCSD: b082103/b082104 + b082203/b082204 - % Rec + RPD all OK => No Action.

2 LDs: 1) EN0431D081108 Smpl/LD shown at the bottom of page 4 + 2) EN043D081108 Smpl/LD shown at the bottom of page 4A - LD precision was acceptable for all detected VOCs in these smpls => No Action required.

2 FDs: 1) EN0445081108 + DU3555708 1108 shown at the top of page 4 - All VOCs in both Smpls were ND => unable to quantitatively evaluate precision but results are consistent with one another => No Action
2) EN0495081208 + DU363883081208 shown at the top of page 4A - FD precision was acceptable for all detected VOCs => No Action required.

There were no "J" data reported - All RLs were ≤ expected RLs given in Table 2 of the Soil Vapor Monitoring Plan except for results in the following smpls: EN0411D081108 (DF=3.22); EN0429D081108 (DF=3.28); EN0430S081208 (DF=5); EN0495081208 (DF=17.5); DU363883081208 (DF=15); and EN049D081208 (DF=14) due to dilutions made at the instrument lab to ensure that all detects were within the instrument calibration range.

The narrative did not raise any additional issues.

The database was unchanged as a consequence of this review.

Date 9/22/08

Data Reviewer MJC.RK

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/11/08 - 8/12/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0808367A
No. Samples 17 + 2FD + 1EB

Field Duplicate Evaluation_ Sample IDs: Sample = EN044S081108 FD = DU35557081108

| Analyte Name | CAS No. | DF= 1.79* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.3 | 2.3 | U | RL | | 2.3 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.4 | 2.4 | U | RL | | 2.4 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.5 | 3.5 | U | RL | | 3.6 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.8 | 6.8 | U | RL | | 7 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3.1 | 3.1 | U | RL | | 3.2 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.6 | 3.6 | U | RL | | 3.7 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.5 | 3.5 | U | RL | | 3.6 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.9 | 4.9 | U | RL | | 5 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.8 | 4.8 | U | RL | | 4.9 | U | RL | NA | None |
| Tetrachloroethene | 127-18-4 | 6.1 | 6.1 | U | RL | | 6.2 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.5 | 3.5 | U | RL | | 3.6 | U | RL | NA | None |

*This is the sample DF and RLs, the FD DF was 1.83 and RLs are RLs shown x (1.83/1.79)

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0431D081108

| Analyte Name | CAS No. | DF= 1.61 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2 | 2 | U | RL | | 2 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.1 | 2.1 | U | RL | | 2.1 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.2 | 6.2 | U | RL | | 6.2 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 2.8 | 8.6 | | >RL but < 5xRL | | 8.6 | | >RL but < 5xRL | 0.0 | None |
| 1,1-Dichloroethane | 75-34-3 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.4 | 4.4 | U | RL | | 4.4 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.3 | 94 | | > 5 x RL | | 91 | | > 5 x RL | 3.2 | None |
| Tetrachloroethene | 127-18-4 | 5.5 | 5.5 | U | RL | | 5.5 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 9/22/08

Data Reviewer MC-RM

## *Compound List and DQOs*

| Analyte Name | CAS No. | Low Point of ICAL (ppbv) | Criteria LCL-UCL | LCS and CCV ICAL %RSD Criteria |
|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 0.5 | 70-130 | ≤ 30% |
| Chloroethane | 75-00-3 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethene | 75-35-4 | 0.5 | 70-130 | ≤ 30% |
| Freon 113 | 76-13-1 | 0.5 | 70-130 | ≤ 30% |
| Methylene Chloride | 75-09-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethane | 75-34-3 | 0.5 | 70-130 | ≤ 30% |
| cis-1,2-Dichloroethene | 156-59-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1,1-Trichloroethane | 71-55-6 | 0.5 | 70-130 | ≤ 30% |
| Trichloroethene | 79-01-6 | 0.5 | 70-130 | ≤ 30% |
| Tetrachloroethene | 127-18-4 | 0.5 | 70-130 | ≤ 30% |
| trans-1,2-Dichloroethene | 156-60-5 | 0.5 | 60-140 | ≤ 40% |

**Actions:**

*Canister Pressure (P):* Initial Field P < 25" Hg, J/UJ all results; Lab Receipt P > 15" Hg, J/UJ results; Lab Receipt P > ± 5" Hg of Final Field P, J/UJ results

*Hold Time (HT):* 14 days ≤ HT ≤ 28 days, J/UJ results; HT > 28 days, J detects/ R non-detects (or professional judgment)

*Blank Actions:* Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)
Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported
Equipment Blank (EB): Result<Blank Action, EB result at level reported

*BFB Tune:* SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 24-hours after tune; professional judgment on J/UJ or R of results

*LCS and CCV:* Laboratory Control Sample (LCS) and Continuing Calibration Verfication (CCV) evaluated: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <LCL; J/UJ all associated data; %Rec >UCL, J detects - no action for non-detects

*Initial Calibration (ICAL):* %RSD > criteria, J/UJ associated results

*Internal Standard (IS):* RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;
Area < 20% Area in CCV, J detects, R non-detects (or professional judgment); 20%< Area < 60% of CCV Area, J/UJ associated results; Area > 140% of CCV Area, J detects, no action for non-detects

*Surrogates:* %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

*Laboratory Duplicates:* LCS/LCSD RPD or Sample/LD RPD > 25% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*Field Duplicates:* RPD > 30% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*RLs + Quant:* Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data

Date 9/22/08

Data Reviewer MC.RK

# DATA USABILITY ASSESSMENT

**Client:** Sanborn, Head & Associates, Inc., Concord, New Hampshire

**Site:** Endicott, New York

**Laboratory:** Air Toxics Limited (ATL), Folsom, California

**Work Order Number:** 0808367B

**Number of Samples:** 20 soil vapor samples for eleven project-specific Volatile Organic Compounds (VOCs) by method TO-15 Full Scan

**Data Reviewer:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc.

**Date:** September 22, 2008

A Data Usability Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Soil Vapor Monitoring Project Work Plan, Endicott, New York*, prepared by Sanborn, Head & Associates, Inc.; US EPA Region II SOP HW-18, *Validating Canisters of Volatile Organics in Ambient Air*, Rev 0, August 1994; 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)*, January 1999, EPA/625/R-96/010b, and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*; Publication EPA A540/R-99/008, October 1999; 2) to determine if the data met the 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 Air Data Review Checklist, attached, was completed during this assessment to document the review. Samples EN0410S081208, EN0410D081208, EN0414D081208, and EN0416D081208 were analyzed at dilutions to ensure that all of the results were reported within the linear range of the instrument calibration. As a consequence of the dilutions made for analysis, several non-detected results in these four samples are reported at levels exceeding the Expected Field Sample Laboratory Reporting Limits (RL) given in Table 2 of the Work Plan.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order. The results reported by the laboratory were unchanged as a consequence of this data review and the results presented in the validated database are considered usable for project objectives.

*34 Pheasant Run Drive, Skillman, NJ 08558 ◊ 2 Farmer's Circle, Arlington, MA 02474*
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*Email: nrothman_NEH@comcast.net ◊ s.chapnick@comcast.net*

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/12/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0808367B
No. Samples 17 + 3FD

| | Canister Receipt | HT | GC/MS Tunes + Calibrations | Internal Stds + Surrogates | LCS | Lab Dup (LCS and LD) | Field Duplicates | RL & Quant. |
|---|---|---|---|---|---|---|---|---|
| All Results OK | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Except:** | | | | | | | | RLs > |
| | | | | | | | | expected |
| | | | | | | | | in 4 samples |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Comments: All Canister vacuums (lab receipt, field final + field initial) were acceptable and there were no COC issues noted => No Action

Samples were all analyzed within 13 days of collection => HT met - No Action

ICAL = Instrument tuned on 8/17/08 - 6-level ICAL for 0.5 -> 200 ppbv for 11 Target Compounds + %RSD < 30% across all levels => Valid ICAL - No Action.

Date 9/22/08

Data Reviewer NJC.RM

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/12/08

Work Order #: 0808367B
No. Samples 17 + 3FD

Method of Analysis: TO-15 Full Scan
Associated Blanks: MBs: 5082111, 5082407 + 5082505
EB: EB3300081208 (rep. in W.O # 0808367C)
All in Targets ND

| Blank ID | Contaminant / Level (µg/m³) | | Action Level DF= | | Sample and reported result (µg/m³) | Corrected Database Result |
|---|---|---|---|---|---|---|
| | | | | | | |

No Blank Action required.
NM 9/22/08

Date 9/22/08

Data Reviewer [illegible]



New Environmental Horizons, Inc.

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/12/08

Work Order #: 0808367B
No. Samples 17 + 3FD

Method of Analysis: TO-15 Full Scan

Additional Notes:

ICAL Inst. S on 8/14/08 - 7-level for 0.1 → 40 ppbV (Even 113 down to 0.05 ppbV + Trichloroethane + Tetrachloroethene) - %RSD ≤ 30% ⇒ Valid ICAL - Inst. S used 500mL Volume for evaluation at DF=1 ⇒ RL = 0.5 ppbV whereas Instrument b used 100mL Volume for DF=1 so RL of 111 0.5 ppbV - No Action valid ICALs.

CCALs: S082103, b082404 + b082502 - All %Rec 70-130% ⇒ No Action

Tuns: Inst. S 3 (2 ICAL + 1) + Inst. b 4 (2 ICAL + 2 CCAL): All Abundances OK ⇒ No Action.

All 3 Surrogate %Rec + 3 IS Area/RTs OK in all smpl + QC ⇒ No Action

LCS/LCSD = S082105/S082106; b082405/b082406; and b082503/b082504 - %Rec + RPD all OK ⇒ No Action

2 LDs: 1) EN0416S081208 Smpl/LD shown at the bottom of page 4 + 2) EN0416D081208 Smpl/LD shown at the bottom of page 4A - LD precision was acceptable for all detected VOCs ⇒ No Action

3 FDs: 1) EN042D081208 + DU3339081208 shown at the top of page 4; 2) EN0420I081208 + DU3372081208 shown at the top of page 4A + 3) EN0421S081208 + DU3325081208 shown at the top of page 4B - FD precision was acceptable for all detected VOCs ⇒ No Action required. (Note - last FD pair was all ND ⇒ unable to quantitatively evaluate precision through calculation of RPD - No Action).

There were no "J" values reported + narrative did not raise any issues.

RLs were all ≤ RLs expected (Table 2 of Work Plan) except: EN0410S081208 (DF = 59.6), EN0410D081208 (DF = 71.6), EN0414D081208 (DF = 2.33) + EN0416D081208 (DF = 6.56) due to dilutions made at the instrument to ensure all detects were within the calibration range.

The database was unchanged as a consequence of this review.

Date 9/22/08

Data Reviewer [signature]



New Environmental Horizons, Inc.

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/12/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0808367B
No. Samples 17 + 3FD

Field Duplicate Evaluation_ Sample IDs: Sample = EN042D081208 FD = DU3339081208

| Analyte Name | CAS No. | DF= 1.79* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.3 | 2.3 | U | RL | | 2.3 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.4 | 2.4 | U | RL | | 2.4 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.8 | 6.8 | U | RL | | 6.8 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3.1 | 3.1 | U | RL | | 3.1 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.6 | 3.6 | U | RL | | 3.6 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.9 | 12 | | >RL but < 5xRL | | 12 | | >RL but < 5xRL | 0.0 | None |
| Trichloroethene | 79-01-6 | 4.8 | 120 | | > 5 x RL | | 120 | | > 5 x RL | 0.0 | None |
| Tetrachloroethene | 127-18-4 | 6.1 | 20 | | >RL but < 5xRL | | 21 | | >RL but < 5xRL | 4.9 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |

*This is the sample and FD DF and RLs

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0416S081208

| Analyte Name | CAS No. | DF= 1.83 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.3 | 2.3 | U | RL | | 2.3 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.4 | 2.4 | U | RL | | 2.4 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.6 | 3.6 | U | RL | | 3.6 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 7 | 7 | U | RL | | 7 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.7 | 3.7 | U | RL | | 3.7 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.6 | 3.6 | U | RL | | 3.6 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 5 | 5 | U | RL | | 5 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.9 | 8.7 | | >RL but < 5xRL | | 8.8 | | >RL but < 5xRL | 1.1 | None |
| Tetrachloroethene | 127-18-4 | 6.2 | 16 | | >RL but < 5xRL | | 16 | | >RL but < 5xRL | 0.0 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.6 | 3.6 | U | RL | | 3.6 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 9/22/08

Data Reviewer [illegible]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/12/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0808367B
No. Samples 17 + 3FD

Field Duplicate Evaluation_ Sample IDs: Sample = EN0420I081208 FD = DU3372081208

| Analyte Name | CAS No. | DF=1.75* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.2 | 2.2 | U | RL | | 2.2 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.3 | 2.3 | U | RL | | 2.3 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.7 | 6.7 | U | RL | | 6.7 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3 | 3 | U | RL | | 3 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.8 | 4.8 | U | RL | | 4.8 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.7 | 17 | | >RL but < 5xRL | | 20 | | >RL but < 5xRL | 16.2 | None |
| Tetrachloroethene | 127-18-4 | 5.9 | 5.9 | U | RL | | 5.9 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |

*This is the sample and FD DF and RLs

Laboratory Duplicate Evaluation: Sample Used for LD Analysis:

| Analyte Name | CAS No. | DF= 6.56 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 8.4 | 8.4 | U | RL | | 8.4 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 8.6 | 8.6 | U | RL | | 8.6 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 13 | 13 | U | RL | | 13 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 25 | 25 | U | RL | | 25 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 11 | 11 | U | RL | | 11 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 13 | 13 | U | RL | | 13 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 13 | 19 | | >RL but < 5xRL | | 19 | | >RL but < 5xRL | 0.0 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 18 | 210 | | > 5 x RL | | 210 | | > 5 x RL | 0.0 | None |
| Trichloroethene | 79-01-6 | 18 | 4700 | | > 5 x RL | | 4600 | | > 5 x RL | 2.2 | None |
| Tetrachloroethene | 127-18-4 | 22 | 250 | | > 5 x RL | | 240 | | > 5 x RL | 4.1 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 13 | 13 | U | RL | | 13 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 9/22/08

Data Reviewer MC. RR



New Environmental Horizons, Inc.

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/12/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0808367B
No. Samples 17 + 3FD

Field Duplicate Evaluation_ Sample IDs: Sample = EN0421S081208 FD = DU3325081208

| Analyte Name | CAS No. | DF= 1.79* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.3 | 2.3 | U | RL | | 2.3 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.4 | 2.4 | U | RL | | 2.4 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.8 | 6.8 | U | RL | | 6.8 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3.1 | 3.1 | U | RL | | 3.1 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.6 | 3.6 | U | RL | | 3.6 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.9 | 4.9 | U | RL | | 4.9 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.8 | 4.8 | U | RL | | 4.8 | U | RL | NA | None |
| Tetrachloroethene | 127-18-4 | 6.1 | 6.1 | U | RL | | 6.1 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |

*This is the sample anf FD DF and RLs

Date 9/22/08

Data Reviewer MJC.BR



New Environmental Horizons, Inc.

## *Compound List and DQOs*

| Analyte Name | CAS No. | Low Point of ICAL (ppbv) | Criteria LCL-UCL | LCS and CCV ICAL %RSD Criteria |
|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 0.5 | 70-130 | ≤ 30% |
| Chloroethane | 75-00-3 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethene | 75-35-4 | 0.5 | 70-130 | ≤ 30% |
| Freon 113 | 76-13-1 | 0.5 | 70-130 | ≤ 30% |
| Methylene Chloride | 75-09-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethane | 75-34-3 | 0.5 | 70-130 | ≤ 30% |
| cis-1,2-Dichloroethene | 156-59-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1,1-Trichloroethane | 71-55-6 | 0.5 | 70-130 | ≤ 30% |
| Trichloroethene | 79-01-6 | 0.5 | 70-130 | ≤ 30% |
| Tetrachloroethene | 127-18-4 | 0.5 | 70-130 | ≤ 30% |
| trans-1,2-Dichloroethene | 156-60-5 | 0.5 | 60-140 | ≤ 40% |

**Actions:**

*Canister Pressure (P):* Initial Field P < 25" Hg, J/UJ all results; Lab Receipt P > 15" Hg, J/UJ results; Lab Receipt P > ± 5" Hg of Final Field P, J/UJ results

*Hold Time (HT):* 14 days ≤ HT ≤ 28 days, J/UJ results; HT > 28 days, J detects/ R non-detects (or professional judgment)

*Blank Actions:* Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)
Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported
Equipment Blank (EB): Result<Blank Action, EB result at level reported

*BFB Tune:* SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 24-hours after tune; professional judgment on J/UJ or R of results

*LCS and CCV:* Laboratory Control Sample (LCS) and Continuing Calibration Verfication (CCV) evaluated: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <LCL; J/UJ all associated data; %Rec >UCL, J detects - no action for non-detects

*Initial Calibration (ICAL):* %RSD > criteria, J/UJ associated results

*Internal Standard (IS):* RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;
Area < 20% Area in CCV, J detects, R non-detects (or professional judgment); 20%< Area < 60% of CCV Area, J/UJ associated results;
Area > 140% of CCV Area, J detects, no action for non-detects

*Surrogates:* %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

*Laboratory Duplicates:* LCS/LCSD RPD or Sample/LD RPD > 25% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*Field Duplicates:* RPD > 30% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*RLs + Quant:* Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data

Date 9/22/08

Data Reviewer [illegible]

New Environmental Horizons, Inc.

# DATA USABILITY ASSESSMENT

**Client:** Sanborn, Head & Associates, Inc., Concord, New Hampshire

**Site:** Endicott, New York

**Laboratory:** Air Toxics Limited (ATL), Folsom, California

**Work Order Number:** 0808367C

**Number of Samples:** 19 soil vapor samples + 1 equipment blank for eleven project-specific Volatile Organic Compounds (VOCs) by method TO-15 Full Scan

**Data Reviewer:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc. NC.R

**Date:** September 22, 2008

A Data Usability Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Soil Vapor Monitoring Project Work Plan, Endicott, New York*, prepared by Sanborn, Head & Associates, Inc.; US EPA Region II SOP HW-18, *Validating Canisters of Volatile Organics in Ambient Air*, Rev 0, August 1994; 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)*, January 1999, EPA/625/R-96/010b, and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*; Publication EPA A540/R-99/008, October 1999; 2) to determine if the data met the 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 Air Data Review Checklist, attached, was completed during this assessment to document the review. Samples EN0417D081208 and EN0533I21081308 were analyzed at dilutions to ensure that all of the results were reported within the linear range of the instrument calibration. As a consequence of the dilutions made for analysis, several non-detected results in these two samples are reported at levels exceeding the Expected Field Sample Laboratory Reporting Limits (RL) given in Table 2 of the Work Plan.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order. The results reported by the laboratory were unchanged as a consequence of this data review and the results presented in the validated database are considered usable for project objectives.

34 Pheasant Run Drive, Skillman, NJ 08558 ◊ 2 Farmer's Circle, Arlington, MA 02474
Phone: (908) 874-5686 ◊ (781) 643-4294
Email: nrothman_NEH@comcast.net ◊ s.chapnick@comcast.net

Lab: Air Toxics Ltd.
Date Sampled: 8/12 - 8/13/08
Method of Analysis: TO-15 Full Scan

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Work Order #: 0808367C
No. Samples 17+2FD+1EB

| | Canister Receipt | HT | GC/MS Tunes + Calibrations | Internal Stds + Surrogates | LCS | Lab Dup (LCS and LD) | Field Duplicates | RL & Quant. |
|---|---|---|---|---|---|---|---|---|
| All Results OK | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Except:** | | | | | | | | RLs > |
| | | | | | | | | expected |
| | | | | | | | | in 2 |
| | | | | | | | | samples |

Comments: All Canister vacuums (lab receipt, field final + initial) all ok + there were no COC issues noted => No Action.

Samples were all analyzed within 11 days of collection => HT met - No Action

ICAL = Inst. b on 8/17/08 - All 11 Targets had 6-level calibration for 0.5 -> 200 ppbv + % RSD < 30% => Valid ICAL - No Action

Date 9/22/08

Data Reviewer [signature]



New Environmental Horizons, Inc.

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/12-8/13/08

Work Order #: 0808367C
No. Samples 17+2FD+1EB

Method of Analysis: TO-15 Full Scan
Associated Blanks: MB: b082205 + b082305
EBs: EB3300081208 (this W.O.) + EB3345081308 (W.O # 0808367E) All 11 Targets were ND

| Blank ID | Contaminant / Level (µg/m³) | | Action Level DF= | | Sample and reported result (µg/m³) | Corrected Database Result |
|---|---|---|---|---|---|---|
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Date _____

Data Reviewer _____

Lab: Air Toxics Ltd.
Date Sampled: 8/12 - 8/13/08

Method of Analysis: TO-15 Full Scan

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Work Order #: 0808367C
No. Samples 17 + 2FD + 1EB

Additional Notes:

CCALs: b0802202 + b0802302 - % Rec all OK => No Action
Tune: 4 (2 IVAL + 2CCAL) - Abundances all OK => No Action

All 3 Surrogate % Rec + IS Areas / RTs were in criteria for all smpl + QC => No Action
LCS/LCSD: b082203 / b082204 + b082303 / b082304 - % Rec + RPD all OK => No Action required.

2 LDs: 1) EN0418D081208 Smpl / LD shown at the bottom of page 4 + 2) EN0417D081208 smpl / LD shown at the bottom of page 4A - LD precision was acceptable for all detected VOCs in these smpls => No Action

2 FDs: 1) EN0728I081308 + DU3353081308 shown at the top of page 4 - FD precision was OK for all 3 detected VOCs in these smpls - No Action
2) EN0637I081308 + DU1362081308 shown at the top of page 4A - All VOCs were non-detect in both smpls => although results are consistent with each other, unable to evaluate precision quantitatively (unable to calculate RPD) - No Action

No "J" data reported + narrative did not raise any issues.

All RLs were ≤ expected RLs except: EN0417D081208 (DF = 11.4) + EN0533I21081308 (DF = 3.58) due to dilution made at the instrument to ensure all detects were within the instrument calibration range.

The database was unchanged as a consequence of this review.

Date 9/22/08

Data Reviewer [signature]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/12/08 - 8/13/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0808367C
No. Samples 17 + 2FD + 1EB

Field Duplicate Evaluation_ Sample IDs: Sample = EN0728I081308 FD = DU3353081308

| Analyte Name | CAS No. | DF= 1.79* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.3 | 2.3 | U | RL | | 2.2 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.4 | 2.4 | U | RL | | 2.3 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.8 | 6.8 | U | RL | | 6.7 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3.1 | 3.1 | U | RL | | 3 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.6 | 3.6 | U | RL | | 3.5 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.5 | 41 | | > 5 x RL | | 39 | | > 5 x RL | 5.0 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.9 | 4.9 | U | RL | | 4.8 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.8 | 110 | | > 5 x RL | | 110 | | > 5 x RL | 0.0 | None |
| Tetrachloroethene | 127-18-4 | 6.1 | 1500 | | > 5 x RL | | 1400 | | > 5 x RL | 6.9 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |

*This is the sample DF and RLs, the FD DF was 1.75 and RLs are RLs shown x (1.75/1.79)

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0418D081208

| Analyte Name | CAS No. | DF= 1.61 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2 | 2 | U | RL | | 2 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.1 | 2.1 | U | RL | | 2.1 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.2 | 6.2 | U | RL | | 6.2 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 2.8 | 2.8 | U | RL | | 2.8 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.2 | 13 | | >RL but < 5xRL | | 12 | | >RL but < 5xRL | 8.0 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.4 | 86 | | > 5 x RL | | 83 | | > 5 x RL | 3.6 | None |
| Trichloroethene | 79-01-6 | 4.3 | 1100 | | > 5 x RL | | 1000 | | > 5 x RL | 9.5 | None |
| Tetrachloroethene | 127-18-4 | 5.5 | 10 | | >RL but < 5xRL | | 9.9 | | >RL but < 5xRL | 1.0 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 9/22/08

Data Reviewer MJC.RK

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/12/08 - 8/13/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0808367C
No. Samples 17 + 2FD + 1EB

Field Duplicate Evaluation_ Sample IDs: Sample = EN0637I081308 FD = DU1362081308

| Analyte Name | CAS No. | DF= 1.71* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.2 | 2.2 | U | RL | | 2.1 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.2 | 2.2 | U | RL | | 2.2 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.4 | 3.4 | U | RL | | 3.2 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.6 | 6.6 | U | RL | | 6.3 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3 | 3 | U | RL | | 2.8 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.5 | 3.5 | U | RL | | 3.3 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.4 | 3.4 | U | RL | | 3.2 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.7 | 4.7 | U | RL | | 4.5 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.6 | 4.6 | U | RL | | 4.4 | U | RL | NA | None |
| Tetrachloroethene | 127-18-4 | 5.8 | 5.8 | U | RL | | 5.6 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.4 | 3.4 | U | RL | | 3.2 | U | RL | NA | None |

*This is the sample DF and RLs, the FD DF was 1.64 and RLs are RLs shown x (1.64/1.71)

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0417D081208

| Analyte Name | CAS No. | DF= 11.4 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 14 | 14 | U | RL | | 14 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 15 | 15 | U | RL | | 15 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 23 | 23 | U | RL | | 23 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 44 | 44 | U | RL | | 44 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 20 | 20 | U | RL | | 20 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 23 | 23 | U | RL | | 23 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 22 | 120 | | > 5 x RL | | 110 | | > 5 x RL | 8.7 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 31 | 420 | | > 5 x RL | | 400 | | > 5 x RL | 4.9 | None |
| Trichloroethene | 79-01-6 | 31 | 9900 | | > 5 x RL | | 9900 | | > 5 x RL | 0.0 | None |
| Tetrachloroethene | 127-18-4 | 39 | 39 | U | RL | | 39 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 22 | 22 | U | RL | | 22 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 9/22/08

Data Reviewer [illegible]



New Environmental Horizons, Inc.

## *Compound List and DQOs*

| Analyte Name | CAS No. | Low Point of ICAL (ppbv) | Criteria LCL-UCL | LCS and CCV ICAL %RSD Criteria |
|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 0.5 | 70-130 | ≤ 30% |
| Chloroethane | 75-00-3 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethene | 75-35-4 | 0.5 | 70-130 | ≤ 30% |
| Freon 113 | 76-13-1 | 0.5 | 70-130 | ≤ 30% |
| Methylene Chloride | 75-09-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethane | 75-34-3 | 0.5 | 70-130 | ≤ 30% |
| cis-1,2-Dichloroethene | 156-59-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1,1-Trichloroethane | 71-55-6 | 0.5 | 70-130 | ≤ 30% |
| Trichloroethene | 79-01-6 | 0.5 | 70-130 | ≤ 30% |
| Tetrachloroethene | 127-18-4 | 0.5 | 70-130 | ≤ 30% |
| trans-1,2-Dichloroethene | 156-60-5 | 0.5 | 60-140 | ≤ 40% |

**Actions:**

*Canister Pressure (P):* Initial Field P < 25" Hg, J/UJ all results; Lab Receipt P > 15" Hg, J/UJ results; Lab Receipt P > ± 5" Hg of Final Field P, J/UJ results

*Hold Time (HT):* 14 days ≤ HT ≤ 28 days, J/UJ results; HT > 28 days, J detects/ R non-detects (or professional judgment)

*Blank Actions:* Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)
Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported
Equipment Blank (EB): Result<Blank Action, EB result at level reported

*BFB Tune:* SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 24-hours after tune; professional judgment on J/UJ or R of results

*LCS and CCV:* Laboratory Control Sample (LCS) and Continuing Calibration Verfication (CCV) evaluated: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <LCL; J/UJ all associated data; %Rec >UCL, J detects - no action for non-detects

*Initial Calibration (ICAL):* %RSD > criteria, J/UJ associated results

*Internal Standard (IS):* RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;
Area < 20% Area in CCV, J detects, R non-detects (or professional judgment); 20%< Area < 60% of CCV Area, J/UJ associated results; Area > 140% of CCV Area, J detects, no action for non-detects

*Surrogates:* %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

*Laboratory Duplicates:* LCS/LCSD RPD or Sample/LD RPD > 25% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*Field Duplicates:* RPD > 30% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*RLs + Quant:* Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data

Date 9/22/08

Data Reviewer [signature]

*New Environmental Horizons, Inc.*

# DATA USABILITY ASSESSMENT

**Client:** Sanborn, Head & Associates, Inc., Concord, New Hampshire

**Site:** Endicott, New York

**Laboratory:** Air Toxics Limited (ATL), Folsom, California

**Work Order Number:** 0808367D

**Number of Samples:** 20 soil vapor samples for eleven project-specific Volatile Organic Compounds (VOCs) by method TO-15 Full Scan

**Data Reviewer:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc. NC.R

**Date:** September 23, 2008

A Data Usability Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Soil Vapor Monitoring Project Work Plan, Endicott, New York*, prepared by Sanborn, Head & Associates, Inc.; US EPA Region II SOP HW-18, *Validating Canisters of Volatile Organics in Ambient Air*, Rev 0, August 1994; 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)*, January 1999, EPA/625/R-96/010b, and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*; Publication EPA A540/R-99/008, October 1999; 2) to determine if the data met the 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 Air Data Review Checklist, attached, was completed during this assessment to document the review. Samples EN0533I29081308, EN0533D081308, EN0413S081308, EN047D081308, and DU3335081308 were analyzed at dilutions to ensure that all of the results were reported within the linear range of the instrument calibration. As a consequence of the dilutions made for analysis, several non-detected results in these five samples are reported at levels exceeding the Expected Field Sample Laboratory Reporting Limits (RL) given in Table 2 of the Work Plan.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order with the following exceptions:

*34 Pheasant Run Drive, Skillman, NJ 08558 ◊ 2 Farmer's Circle, Arlington, MA 02474*
*Phone: (908) 874-5686 ◊ (781) 643-4294*
*Email: nrothman_NEH@comcast.net ◊ s.chapnick@comcast.net*

| Sample Name | Lab ID | Analyte Name | Qualifier | Bias | Comments |
|---|---|---|---|---|---|
| EN0635D081308 | 0808367D-70A | Tetrachloroethene | J | I | Result uncertain below the calibration range |

*Qualifiers: R = result rejected and unusable for project objectives; J = result is an estimated value; U = result is non-detect at the level reported; UJ = non-detect is an estimated value; EB = result detected in an associated equipment blank; JEB = result detected in an associated equipment blank and is an estimated value.*

*Bias: L = Low; H = High; I = Indeterminate*

The qualified (U and J) and unqualified results presented in the validated database are considered usable for project objectives.

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/13/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0808367D
No. Samples 18 + 2FD

| | Canister Receipt | HT | GC/MS Tunes + Calibrations | Internal Stds + Surrogates | LCS | Lab Dup (LCS and LD) | Field Duplicates | RL & Quant. |
|---|---|---|---|---|---|---|---|---|
| All Results OK | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Except:** | | | | | | | | 5 samples |
| | | | | | | | | RL > |
| | | | | | | | | expected |
| EN0635D081308 | | | | | | | | J PCE |
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Comments: All Canister vacuums were acceptable (field initial, field final + lab receipt) + there were no COC issues noted => No Action required.

Samples were all analyzed within 13 days of collection => HT met - No Action

IPAC - Instrument b on 8/17/08 - 6-level IPAC for 11 Target Compounds for 0.5 -> 200ppbV + % RSD ≤ 30% => Valid IPAC which supports RL = 0.5ppbV at DF=1 - No Action

Date 9/23/08

Data Reviewer [illegible]

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/13/08

Work Order #: 0808367D
No. Samples 18 + 2FD

Method of Analysis: TO-15 Full Scan
Associated Blanks: MB : b082505 + b082605
EB : EB3345081308 (reported in W.O. # 0808367E)
All 11 Targets were ND

| Blank ID | Contaminant / Level (µg/m$^3$) | | Action Level DF= | | Sample and reported result (µg/m$^3$) | Corrected Database Result |
|---|---|---|---|---|---|---|
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Date 9/23/08

Data Reviewer [illegible]

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/13/08

Work Order #: 0808367D
No. Samples 18 + 2FD

Method of Analysis: TO-15 Full Scan

Additional Notes:

CCAL: b082502 + b082602 - %Rec all OK => No Action
Tune: 4 - 2 IVAL + 2 CCAL - All Abundances OK => No Action

All 3 Surrogate %Rec + 3 IS Area/RTs were in criteria for all smpl + QC => No Action
LCS/LCSD = b082503/b082504 + b082603/b082604 - %Rec + RPD all OK for all Targets => acceptable accuracy + precision for method demonstrated - No Action.

2 LDs: 1) EN0533I29081308 Smpl/LD shown at the bottom of page 4 + 2) EN0636I22081308 Smpl/LD shown at the bottom of page 4A - LD precision was acceptable for all detected VOCs in these smpls => No Action

2 FDs: 1) EN0636I12081308 + DU3321081308 shown at the top of page 4 + 2) EN047D081308 + DU3335081308 shown at the top of page 4A - FD precision was acceptable for all detected VOCs between the FD pairs => No Action required.

NCM 9/23/08
~~There were no "J" data reported~~ + all data, except LD, were reported within calibration range. The narrative did not raise any issues. J value reported for PCE in EN0635D081308 - ACTION: J value accepted with I Bias due to uncertainty in quantitation

The RLs were ≤ expected RLs (i.e., DF ≤ 2) except: EN0533I29081308 (DF=6.72), EN0533D081308 (DF=7.84), EN0413S081308 (DF=3.42), EN047D081308 (DF=5.23) + DU3335081308 (DF=5.23) due to dilution made at the instrument level to ensure all detects were within the calibration range.
~~The database was unchanged as a consequence of this review.~~ NCM 9/23/08 - J value accepted.

Date 9/23/08

Data Reviewer [signature]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/13/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0808367D
No. Samples 18 + 2FD

Field Duplicate Evaluation_ Sample IDs: Sample = EN0636I12081308 FD = DU3321081308

| Analyte Name | CAS No. | DF= 1.83* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.3 | 2.3 | U | RL | | 2.3 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.4 | 2.4 | U | RL | | 2.4 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.6 | 3.6 | U | RL | | 3.5 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 7 | 7 | U | RL | | 6.8 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3.2 | 3.2 | U | RL | | 3.1 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.7 | 3.7 | U | RL | | 3.6 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.6 | 3.6 | U | RL | | 3.5 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 5 | 31 | | > 5 x RL | | 30 | | > 5 x RL | 3.3 | None |
| Trichloroethene | 79-01-6 | 4.9 | 4.9 | U | RL | | 4.8 | U | RL | NA | None |
| Tetrachloroethene | 127-18-4 | 6.2 | 6.2 | U | RL | | 6.1 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.6 | 3.6 | U | RL | | 3.5 | U | RL | NA | None |

*This is the sample DF and RLs, the FD DF was 1.79 and RLs are RLs shown x (1.79/1.83)

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0533I29081308

| Analyte Name | CAS No. | DF= 6.72* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 8.6 | 8.6 | U | RL | | 5.4 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 8.9 | 8.9 | U | RL | | 5.5 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 13 | 13 | U | RL | | 8.3 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 26 | 26 | U | RL | | 16 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 12 | 12 | U | RL | | 7.3 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 14 | 14 | U | RL | | 8.5 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 13 | 22 | | >RL but < 5xRL | | 23 | | >RL but < 5xRL | 4.4 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 18 | 260 | | > 5 x RL | | 260 | | > 5 x RL | 0.0 | None |
| Trichloroethene | 79-01-6 | 18 | 5700 | | > 5 x RL | | 5500 | E | > 5 x RL | 3.6 | None |
| Tetrachloroethene | 127-18-4 | 23 | 290 | | > 5 x RL | | 290 | | > 5 x RL | 0.0 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 13 | 13 | U | RL | | 8.3 | U | RL | NA | None |

* The LD DF was 4.2
Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 9/23/08

Data Reviewer MJC.PM

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/13/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0808367D
No. Samples 18 + 2FD

Field Duplicate Evaluation_ Sample IDs: Sample = EN047D081308 FD = DU3335081308

| Analyte Name | CAS No. | DF= 5.23* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 6.7 | 6.7 | U | RL | | 6.7 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 6.9 | 6.9 | U | RL | | 6.9 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 10 | 13 | | >RL but < 5xRL | | 12 | | >RL but < 5xRL | 8.0 | None |
| Freon 113 | 76-13-1 | 20 | 20 | U | RL | | 20 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 9.1 | 9.1 | U | RL | | 9.1 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 10 | 10 | U | RL | | 10 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 10 | 45 | | >RL but < 5xRL | | 39 | | >RL but < 5xRL | 14.3 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 14 | 310 | | > 5 x RL | | 280 | | > 5 x RL | 10.2 | None |
| Trichloroethene | 79-01-6 | 14 | 4700 | | > 5 x RL | | 4100 | | > 5 x RL | 13.6 | None |
| Tetrachloroethene | 127-18-4 | 18 | 18 | U | RL | | 18 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 10 | 10 | U | RL | | 10 | U | RL | NA | None |

*This is the sample and FD DF and RLs

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0636I22081308

| Analyte Name | CAS No. | DF= 1.91 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.4 | 2.4 | U | RL | | 2.4 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.5 | 3.2 | | >RL but < 5xRL | | 3.8 | | >RL but < 5xRL | 17.1 | None |
| 1,1-Dichloroethene | 75-35-4 | 3.8 | 3.8 | U | RL | | 3.8 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 7.3 | 7.3 | U | RL | | 7.3 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3.3 | 3.3 | U | RL | | 3.3 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.9 | 3.9 | U | RL | | 3.9 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.8 | 3.8 | U | RL | | 3.8 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 5.2 | 200 | | > 5 x RL | | 200 | | > 5 x RL | 0.0 | None |
| Trichloroethene | 79-01-6 | 5.1 | 72 | | > 5 x RL | | 70 | | > 5 x RL | 2.8 | None |
| Tetrachloroethene | 127-18-4 | 6.5 | 6.5 | U | RL | | 6.5 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.8 | 3.8 | U | RL | | 3.8 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 9/23/08

Data Reviewer [illegible]



New Environmental Horizons, Inc.

## *Compound List and DQOs*

| Analyte Name | CAS No. | Low Point of ICAL (ppbv) | Criteria LCL-UCL | LCS and CCV ICAL %RSD Criteria |
|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 0.5 | 70-130 | ≤ 30% |
| Chloroethane | 75-00-3 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethene | 75-35-4 | 0.5 | 70-130 | ≤ 30% |
| Freon 113 | 76-13-1 | 0.5 | 70-130 | ≤ 30% |
| Methylene Chloride | 75-09-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethane | 75-34-3 | 0.5 | 70-130 | ≤ 30% |
| cis-1,2-Dichloroethene | 156-59-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1,1-Trichloroethane | 71-55-6 | 0.5 | 70-130 | ≤ 30% |
| Trichloroethene | 79-01-6 | 0.5 | 70-130 | ≤ 30% |
| Tetrachloroethene | 127-18-4 | 0.5 | 70-130 | ≤ 30% |
| trans-1,2-Dichloroethene | 156-60-5 | 0.5 | 60-140 | ≤ 40% |

**Actions:**

*Canister Pressure (P):* Initial Field P < 25" Hg, J/UJ all results; Lab Receipt P > 15" Hg, J/UJ results; Lab Receipt P > ± 5" Hg of Final Field P, J/UJ results

*Hold Time (HT):* 14 days ≤ HT ≤ 28 days, J/UJ results; HT > 28 days, J detects/ R non-detects (or professional judgment)

*Blank Actions:* Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)
Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported
Equipment Blank (EB): Result<Blank Action, EB result at level reported

*BFB Tune:* SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 24-hours after tune; professional judgment on J/UJ or R of results

*LCS and CCV:* Laboratory Control Sample (LCS) and Continuing Calibration Verfication (CCV) evaluated: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <LCL; J/UJ all associated data; %Rec >UCL, J detects - no action for non-detects

*Initial Calibration (ICAL):* %RSD > criteria, J/UJ associated results

*Internal Standard (IS):* RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;
Area < 20% Area in CCV, J detects, R non-detects (or professional judgment); 20%< Area < 60% of CCV Area, J/UJ associated results; Area > 140% of CCV Area, J detects, no action for non-detects

*Surrogates:* %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

*Laboratory Duplicates:* LCS/LCSD RPD or Sample/LD RPD > 25% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*Field Duplicates:* RPD > 30% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*RLs + Quant:* Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data

Date 9/23/08

Data Reviewer N. C. B.

## DATA USABILITY ASSESSMENT

**Client:** Sanborn, Head & Associates, Inc., Concord, New Hampshire

**Site:** Endicott, New York

**Laboratory:** Air Toxics Limited (ATL), Folsom, California

**Work Order Number:** 0808367E

**Number of Samples:** 12 soil vapor samples + 2 equipment blanks for eleven project-specific Volatile Organic Compounds (VOCs) by method TO-15 Full Scan

**Data Reviewer:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc. NCR

**Date:** September 24, 2008

A Data Usability Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Soil Vapor Monitoring Project Work Plan, Endicott, New York*, prepared by Sanborn, Head & Associates, Inc.; US EPA Region II SOP HW-18, *Validating Canisters of Volatile Organics in Ambient Air*, Rev 0, August 1994; 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)*, January 1999, EPA/625/R-96/010b, and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*; Publication EPA A540/R-99/008, October 1999; 2) to determine if the data met the 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 Air Data Review Checklist, attached, was completed during this assessment to document the review. Samples EN045D081308 and EN0426D081408 were analyzed at dilutions to ensure that all of the results were reported within the linear range of the instrument calibration. As a consequence of the dilutions made for analysis, several non-detected results in these two samples are reported at levels exceeding the Expected Field Sample Laboratory Reporting Limits (RL) given in Table 2 of the Work Plan.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order with the following exceptions:

*34 Pheasant Run Drive, Skillman, NJ 08558 ◊ 2 Farmer's Circle, Arlington, MA 02474*
*Phone: (908) 874-5686 ◊ (781) 643-4294*
*Email: nrothman_NEH@comcast.net ◊ s.chapnick@comcast.net*

| Sample Name | Lab ID | Analyte Name | Qualifier | Bias | Comments |
|---|---|---|---|---|---|
| EN0426D081408 | 0808367E-92A | Trichloroethene | J | I | Result uncertain above the calibration range |

*Qualifiers: R = result rejected and unusable for project objectives; J = result is an estimated value; U = result is non-detect at the level reported; UJ = non-detect is an estimated value; EB = result detected in an associated equipment blank; JEB = result detected in an associated equipment blank and is an estimated value.*

*Bias: L = Low; H = High; I = Indeterminate*

The qualified (U and J) and unqualified results presented in the validated database are considered usable for project objectives.

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/13 - 8/14/08
Method of Analysis: TO-15 Full Scan

Work Order #: 080367E
No. Samples 12 + 2 EB

| | Canister Receipt | HT | GC/MS Tunes + Calibrations | Internal Stds + Surrogates | LCS | Lab Dup (LCS and LD) | Field Duplicates | RL & Quant. |
|---|---|---|---|---|---|---|---|---|
| All Results OK | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | NA | |
| **Except:** | | | | | | | | |
| EN0426S081408 | | | | | | | | J TCE |
| | | | | | | | | 25 ppb |
| | | | | | | | | RLs > expected |
| | | | | | | | | |
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Comments: All Canister vacuums (field initial, field final + lab receipt) were acceptable + there were no COC issues noted by the lab => No Action.

Samples were all analyzed within 14 days of collection => HT met. No Action

2 ICALs: 6 Instrument on 8/17/08 + Inst. 7 on 8/4/08 - 6-level for all 11 Targets from 0.5 -> 200 ppbV + % RSD < 30% for both ICALs => No Action Required.

Date 9/24/08

Data Reviewer [illegible]



New Environmental Horizons, Inc.

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/13-8/14/08

Work Order #: ~~08086~~ 0808367E NM
No. Samples 12 + 2EB

Method of Analysis: TO-15 Full Scan
Associated Blanks: MBs: b082605 + 7082606
EBs: EB3345081308 + EB3645081408 > All 11 Targets were ND

| Blank ID | Contaminant / Level (µg/m³) | | Action Level DF= | | Sample and reported result (µg/m³) | Corrected Database Result |
|---|---|---|---|---|---|---|
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| | | | | | No Blank Action Required. | |
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Date 9/24/08

Data Reviewer MCRM

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/13-8/14/08

Work Order #: 0808367E
No. Samples 12 + 2EB

Method of Analysis: TO-15 Full Scan

Additional Notes:

CCALs: b082602 + 7082602 - % Rec all OK => No Action reqd.
Tunes: Inst. b 3 (2 ICAL + 1 CCAL) + Inst. 7 4 (3 ICAL + 1 CCAL) - All Abundances were OK => No Action

All 3 Surrogate % Rec + 3 IS Area / RTs were in criteria in all Smpls + QC => No Action reqd.
LCS/LCSD: b082603 / b082604 + 7082604 / 7082605 - % Rec + RPD all OK => No Action

LDs: 1) EN045D081308 Smpl/LD shown at the bottom of page 4 + 2) EN042GD081408 shown at the top of page 4A - LD precision was acceptable for all detected VOCs in these Smpls => No Action

No FDs associated with the smpls in this W.O. - No Action

There were no "J" data reported however, Trichloroethene in smpl EN042GS081408 (0808367-92A) was qualified "E" by the lab since value was above the instrument calibration range - Raw data was checked + this was correct - No dilution analysis done => Trichloroethene result uncertain
* Action: Trichloroethene result in EN042GS081408 qualified as estimated (J) due to uncertainty in quantitation at a level ABOVE the calibration range.

All RLs were ≤ expected in all smpls except: EN045D081308 (DF=3.58) + EN042GD081408 (DF=3.22) due to dilution made for smpl analysis

Narrative did not raise any issues - Over-range result for TCE not mentioned => over-sight.

Date 9/24/08

Data Reviewer [signature]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/13/08 - 8/14/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0808367E
No. Samples 12 + 2EB

Field Duplicate Evaluation_ Sample IDs: There were no Field Duplicates associated with the samples in this Work Order

| Analyte Name | CAS No. | DF= RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | | | | | | | | | |
| Chloroethane | 75-00-3 | | | | | | | | | |
| 1,1-Dichloroethene | 75-35-4 | | | | | | | | | |
| Freon 113 | 76-13-1 | | | | | | | | | |
| Methylene Chloride | 75-09-2 | | | | | | | | | |
| 1,1-Dichloroethane | 75-34-3 | | | | | | | | | |
| cis-1,2-Dichloroethene | 156-59-2 | | | | | | | | | |
| 1,1,1-Trichloroethane | 71-55-6 | | | | | NCR | | | | |
| Trichloroethene | 79-01-6 | | | | | 9/24/08 | | | | |
| Tetrachloroethene | 127-18-4 | | | | | | | | | |
| trans-1,2-Dichloroethene | 156-60-5 | | | | | | | | | |

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN045D081308

| Analyte Name | CAS No. | DF= 3.58 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 4.6 | 4.6 | U | RL | 4.6 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 4.7 | 4.7 | U | RL | 4.7 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 7.1 | 7.1 | U | RL | 7.1 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 14 | 14 | U | RL | 14 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 6.2 | 6.2 | U | RL | 6.2 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 7.2 | 7.2 | U | RL | 7.2 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 7.1 | 7.1 | U | RL | 7.1 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 9.8 | 120 | | > 5 x RL | 120 | | > 5 x RL | 0.0 | None |
| Trichloroethene | 79-01-6 | 9.6 | 2700 | | > 5 x RL | 2700 | | > 5 x RL | 0.0 | None |
| Tetrachloroethene | 127-18-4 | 12 | 12 | U | RL | 12 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 7.1 | 7.1 | U | RL | 7.1 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 9/24/08

Data Reviewer [illegible]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 8/13/08 - 8/14/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0808367E
No. Samples 12 + 2EB

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0426D081408

| Analyte Name | CAS No. | DF= 3.22* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 4.1 | 4.1 | U | RL | | 8.2 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 4.2 | 4.2 | U | RL | | 8.5 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 6.4 | 6.4 | U | RL | | 13 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 12 | 12 | U | RL | | 25 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 5.6 | 5.6 | U | RL | | 11 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 6.5 | 6.5 | U | RL | | 13 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 6.4 | 6.4 | U | RL | | 13 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 8.8 | 150 | | > 5 x RL | | 140 | | > 5 x RL | 6.9 | None |
| Trichloroethene | 79-01-6 | 8.6 | 2600 | | > 5 x RL | | 2700 | | > 5 x RL | 3.8 | None |
| Tetrachloroethene | 127-18-4 | 11 | 16 | | >RL but < 5xRL | | 22 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 6.4 | 6.4 | U | RL | | 13 | U | RL | NA | None |

* The LD DF was 6.44
Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 9/24/08
Data Reviewer MJC.RR



New Environmental Horizons, Inc.

## *Compound List and DQOs*

| Analyte Name | CAS No. | Low Point of ICAL (ppbv) | Criteria LCL-UCL | LCS and CCV ICAL %RSD Criteria |
|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 0.5 | 70-130 | ≤ 30% |
| Chloroethane | 75-00-3 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethene | 75-35-4 | 0.5 | 70-130 | ≤ 30% |
| Freon 113 | 76-13-1 | 0.5 | 70-130 | ≤ 30% |
| Methylene Chloride | 75-09-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethane | 75-34-3 | 0.5 | 70-130 | ≤ 30% |
| cis-1,2-Dichloroethene | 156-59-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1,1-Trichloroethane | 71-55-6 | 0.5 | 70-130 | ≤ 30% |
| Trichloroethene | 79-01-6 | 0.5 | 70-130 | ≤ 30% |
| Tetrachloroethene | 127-18-4 | 0.5 | 70-130 | ≤ 30% |
| trans-1,2-Dichloroethene | 156-60-5 | 0.5 | 60-140 | ≤ 40% |

**Actions:**

*Canister Pressure (P):* Initial Field P < 25" Hg, J/UJ all results; Lab Receipt P > 15" Hg, J/UJ results; Lab Receipt P > ± 5" Hg of Final Field P, J/UJ results

*Hold Time (HT):* 14 days ≤ HT ≤ 28 days, J/UJ results; HT > 28 days, J detects/ R non-detects (or professional judgment)

*Blank Actions:* Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)
Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported
Equipment Blank (EB): Result<Blank Action, EB result at level reported

*BFB Tune:* SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 24-hours after tune; professional judgment on J/UJ or R of results

*LCS and CCV:* Laboratory Control Sample (LCS) and Continuing Calibration Verfication (CCV) evaluated: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <LCL; J/UJ all associated data; %Rec >UCL, J detects - no action for non-detects

*Initial Calibration (ICAL):* %RSD > criteria, J/UJ associated results

*Internal Standard (IS):* RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;
Area < 20% Area in CCV, J detects, R non-detects (or professional judgment); 20%< Area < 60% of CCV Area, J/UJ associated results; Area > 140% of CCV Area, J detects, no action for non-detects

*Surrogates:* %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

*Laboratory Duplicates:* LCS/LCSD RPD or Sample/LD RPD > 25% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*Field Duplicates:* RPD > 30% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*RLs + Quant:* Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data

Date 9/24/08

Data Reviewer MJC·RM

# DATA USABILITY ASSESSMENT

**Client:** Sanborn, Head & Associates, Inc., Concord, New Hampshire

**Site:** Endicott, New York

**Laboratory:** Air Toxics Limited (ATL), Folsom, California

**Work Order Number:** 0810416A

**Number of Samples:** 20 soil vapor samples for eleven project-specific Volatile Organic Compounds (VOCs) by method TO-15 Full Scan

**Data Reviewer:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc.

**Date:** November 13, 2008

A Data Usability Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Soil Vapor Monitoring Project Work Plan, Endicott, New York*, prepared by Sanborn, Head & Associates, Inc.; US EPA Region II SOP HW-18, *Validating Canisters of Volatile Organics in Ambient Air*, Rev 0, August 1994; 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)*, January 1999, EPA/625/R-96/010b, and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*; Publication EPA A540/R-99/008, October 1999; 2) to determine if the data met the 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 Air Data Review Checklist, attached, was completed during this assessment to document the review. Samples EN0636S101408, EN045S101408, EN045D101408, EN047D101408, and EN0416D101408 were analyzed at dilutions to ensure that all of the results were reported within the linear range of the instrument calibration. As a consequence of the dilutions made for analysis, several non-detected results in these five samples are reported at levels exceeding the Expected Field Sample Laboratory Reporting Limits (RL) given in Table 2 of the Work Plan.

There was no equipment blank collected on October 13, 2008; therefore, the equipment blank collected on October 14, 2008 (EB3332101408) was also used to associate with the samples collected on October 13, 2008.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order with the following exceptions:

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Phone: (908) 874-5686 ◊ (781) 643-4294
Email: nrothman_NEH@comcast.net ◊ s.chapnick@comcast.net

| Sample Name | Lab ID | Analyte Name | Qualifier | Bias | Comments |
|---|---|---|---|---|---|
| EN045S101408 | 0810416A-06A | Vinyl Chloride | UJ | I | Field final and Receipt vacuums disagree |
| EN045S101408 | 0810416A-06A | Chloroethane | UJ | I | Field final and Receipt vacuums disagree |
| EN045S101408 | 0810416A-06A | 1,1-Dichloroethene | UJ | I | Field final and Receipt vacuums disagree |
| EN045S101408 | 0810416A-06A | Freon 113 | UJ | I | Field final and Receipt vacuums disagree |
| EN045S101408 | 0810416A-06A | Methylene Chloride | UJ | I | Field final and Receipt vacuums disagree |
| EN045S101408 | 0810416A-06A | 1,1-Dichloroethane | UJ | I | Field final and Receipt vacuums disagree |
| EN045S101408 | 0810416A-06A | cis-1,2-Dichloroethene | UJ | I | Field final and Receipt vacuums disagree |
| EN045S101408 | 0810416A-06A | 1,1,1-Trichloroethane | J | I | Field final and Receipt vacuums disagree |
| EN045S101408 | 0810416A-06A | Trichloroethene | J | I | Field final and Receipt vacuums disagree |
| EN045S101408 | 0810416A-06A | Tetrachloroethene | UJ | I | Field final and Receipt vacuums disagree |
| EN045S101408 | 0810416A-06A | trans-1,2-Dichloroethene | UJ | I | Field final and Receipt vacuums disagree |
| EN0636S101408 | 0810416A-08A | Vinyl Chloride | UJ | I | Field final and Receipt vacuums disagree |
| EN0636S101408 | 0810416A-08A | Chloroethane | UJ | I | Field final and Receipt vacuums disagree |
| EN0636S101408 | 0810416A-08A | 1,1-Dichloroethene | UJ | I | Field final and Receipt vacuums disagree |
| EN0636S101408 | 0810416A-08A | Freon 113 | UJ | I | Field final and Receipt vacuums disagree |
| EN0636S101408 | 0810416A-08A | Methylene Chloride | UJ | I | Field final and Receipt vacuums disagree |
| EN0636S101408 | 0810416A-08A | 1,1-Dichloroethane | UJ | I | Field final and Receipt vacuums disagree |
| EN0636S101408 | 0810416A-08A | cis-1,2-Dichloroethene | UJ | I | Field final and Receipt vacuums disagree |
| EN0636S101408 | 0810416A-08A | 1,1,1-Trichloroethane | J | I | Field final and Receipt vacuums disagree |
| EN0636S101408 | 0810416A-08A | Trichloroethene | UJ | I | Field final and Receipt vacuums disagree |
| EN0636S101408 | 0810416A-08A | Tetrachloroethene | UJ | I | Field final and Receipt vacuums disagree |
| EN0636S101408 | 0810416A-08A | trans-1,2-Dichloroethene | UJ | I | Field final and Receipt vacuums disagree |

*Qualifiers: R = result rejected and unusable for project objectives; J = result is an estimated value; U = result is non-detect at the level reported; UJ = non-detect is an estimated value; EB = result detected in an associated equipment blank; JEB = result detected in an associated equipment blank and is an estimated value.*

*Bias: L = Low; H = High; I = Indeterminate*

The qualified (U, UJ, and J) and unqualified results presented in the validated database are considered usable for project objectives.

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/13 - 10/14/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0810416A
No. Samples 19 + 1 FD

| | Canister Receipt | HT | GC/MS Tunes + Calibrations | Internal Stds + Surrogates | LCS | Lab Dup (LCS and LD) | Field Duplicates | RL & Quant. |
|---|---|---|---|---|---|---|---|---|
| All Results OK | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Except:** | | | | | | | | |
| EN0455101408 | J/UJ | | | | | | | |
| EN0636S101408 | J/UJ | | | | | | | 5 samples RL> exputs |
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Comments: All Canister receipt vacuums (field initial, field final + lab receipt) were acceptable in all samples except EN0455101408 + EN0636S101308 which were both received with vacuums > 5" Hg than measured in field for final vacuums after sample collection (EN0455101408 field final vac. was 7.0" Hg + receipt was 17.5" Hg + EN0636S101308 final field for vac was 5.5" Hg + lab receipt was 12.0" Hg)

* Action: Results for EN0455101408 + EN0636S101308 estimated (J+UJ) due to inconsistent vacuum readings.

Date 11/13/08

Data Reviewer [signature]



New Environmental Horizons, Inc.

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/13 - 10/14/08

Work Order #: 0810416A
No. Samples 19 + 1FD

Method of Analysis: TO-15 Full Scan
Associated Blanks: MB: t102406 + t102506 } All 11 Targets were ND
EB: EB3332101408 (reported in W.O. # 0810416E) -
NO EB for 101308 -

| Blank ID | Contaminant / Level (µg/m³) | | Action Level DF= | | Sample and reported result (µg/m³) | Corrected Database Result |
|---|---|---|---|---|---|---|
| | | | | | | |

No Blank Action Required
NCR 11/13/08

Date 11/13/08

Data Reviewer C. R/h

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/13-10/14/08

Method of Analysis: TO-15 Full Scan

Work Order #: 0810416A ~~0810416~~ NM 11/13/08
No. Samples 19+1FD

Additional Notes:

All Samples were analyzed within 11 days of collection => HT met - No Action

ICAL = Inst. t 6-level ICAL from 0.5 -> 200 ppbV for 11 Target Compounds - %RSD < 30% for all => Valid ICAL - no action (ICAL done on 10/22/08)
CCALs: t102402 + t102504 - %Rec OK for all 11 Compounds in both CCALs -
BFB Tune: 3 (ICAL on 10/22) + 2 CCALs on 10/24 + 10/25/08 - All Abundances OK - Samples were all analyzed within 12 hrs. of tune => No Action

%Rec for 3 Surrogates + Areas/RTs of 3 IS' were OK in all Samples + QC => No Action
LCS/LCSD = t102403 / t102404 + t102503 / t102505 - %Rec + RPD all OK => No Action

2 LDs done 1) Sample/LD for EN0475101408 shown at the bottom of page 4 + 2) Sample/LD for EN0455101408 shown at the top of page 4A - LD precision was acceptable for all detected VOCs in these samples. No Action reqd.

FD pair = EN0475101408 + DU3320101408 shown at the top of page 4 - FD precision was OK for all 3 detected VOCs in these samples => No Action

There were no "J" data reported

All RLs were ≤ expected RLs (DF ≤ 2) except: EN0636S101408 (DF = 2.23), EN0455101408 (DF = 3.22), EN045D101408 (DF = 3.22), EN047D101408 (DF = 5.05) + EN0416D101408 (DF = 7.16) due to dilutions made at the instrument level to ensure all detects were within the instrument calibration range.

There were no issues raised in the narrative not already addressed here (i.e., narrative mentioned vacuum receipt issues for 2 Canisters).

Date 11/13/08

Data Reviewer [signature]



New Environmental Horizons, Inc.

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/13/08 - 10/14/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0810416A
No. Samples 19 + 1FD

Field Duplicate Evaluation_ Sample IDs: Sample = EN047S101408 FD = DU3320101408

| Analyte Name | CAS No. | DF= 1.71* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.2 | 2.2 | U | RL | | 2.2 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.2 | 2.2 | U | RL | | 2.3 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.4 | 3.4 | U | RL | | 3.5 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.6 | 6.6 | U | RL | | 6.7 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3 | 3 | U | RL | | 3 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.4 | 3.4 | U | RL | | 3.5 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.7 | 5 | | >RL but < 5xRL | | 5.1 | | >RL but < 5xRL | 2.0 | None |
| Trichloroethene | 79-01-6 | 4.6 | 36 | | > 5 x RL | | 37 | | > 5 x RL | 2.7 | None |
| Tetrachloroethene | 127-18-4 | 5.8 | 56 | | > 5 x RL | | 57 | | > 5 x RL | 1.8 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.4 | 3.4 | U | RL | | 3.5 | U | RL | NA | None |

*This is the sample DF and RLs, the FD DF was 1.75 and RLs are RLs shown x (1.75/1.71)

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN047S101408

| Analyte Name | CAS No. | DF= 1.71 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.2 | 2.2 | U | RL | | 2.2 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.2 | 2.2 | U | RL | | 2.2 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.4 | 3.4 | U | RL | | 3.4 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.6 | 6.6 | U | RL | | 6.6 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3 | 3 | U | RL | | 3 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.4 | 3.4 | U | RL | | 3.4 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.7 | 5 | | >RL but < 5xRL | | 5 | | >RL but < 5xRL | 0.0 | None |
| Trichloroethene | 79-01-6 | 4.6 | 36 | | > 5 x RL | | 38 | | > 5 x RL | 5.4 | None |
| Tetrachloroethene | 127-18-4 | 5.8 | 56 | | > 5 x RL | | 60 | | > 5 x RL | 6.9 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.4 | 3.4 | U | RL | | 3.4 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 11/13/08

Data Reviewer [signature]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/13/08 - 10/14/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0810416A
No. Samples 19 + 1FD

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN045S101408

| Analyte Name | CAS No. | DF= 3.22 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 4.1 | 4.1 | UJ | RL | | 4.1 | UJ | RL | NA | None |
| Chloroethane | 75-00-3 | 4.2 | 4.2 | UJ | RL | | 4.2 | UJ | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 6.4 | 6.4 | UJ | RL | | 6.4 | UJ | RL | NA | None |
| Freon 113 | 76-13-1 | 12 | 12 | UJ | RL | | 12 | UJ | RL | NA | None |
| Methylene Chloride | 75-09-2 | 5.6 | 5.6 | UJ | RL | | 5.6 | UJ | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 6.5 | 6.5 | UJ | RL | | 6.5 | UJ | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 6.4 | 6.4 | UJ | RL | | 6.4 | UJ | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 8.8 | 14 | J | >RL but < 5xRL | | 13 | J | >RL but < 5xRL | 7.4 | None |
| Trichloroethene | 79-01-6 | 8.6 | 240 | J | > 5 x RL | | 240 | J | > 5 x RL | 0.0 | None |
| Tetrachloroethene | 127-18-4 | 11 | 11 | UJ | RL | | 11 | UJ | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 6.4 | 6.4 | UJ | RL | | 6.4 | UJ | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 11/13/08

Data Reviewer TJC.RK



New Environmental Horizons, Inc.

## *Compound List and DQOs*

| Analyte Name | CAS No. | Low Point of ICAL (ppbv) | Criteria LCL-UCL | LCS and CCV ICAL %RSD Criteria |
|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 0.5 | 70-130 | ≤ 30% |
| Chloroethane | 75-00-3 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethene | 75-35-4 | 0.5 | 70-130 | ≤ 30% |
| Freon 113 | 76-13-1 | 0.5 | 70-130 | ≤ 30% |
| Methylene Chloride | 75-09-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethane | 75-34-3 | 0.5 | 70-130 | ≤ 30% |
| cis-1,2-Dichloroethene | 156-59-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1,1-Trichloroethane | 71-55-6 | 0.5 | 70-130 | ≤ 30% |
| Trichloroethene | 79-01-6 | 0.5 | 70-130 | ≤ 30% |
| Tetrachloroethene | 127-18-4 | 0.5 | 70-130 | ≤ 30% |
| trans-1,2-Dichloroethene | 156-60-5 | 0.5 | 60-140 | ≤ 40% |

**Actions:**

*Canister Pressure (P):* Initial Field P < 25" Hg, J/UJ all results; Lab Receipt P > 15" Hg, J/UJ results; Lab Receipt P > ± 5" Hg of Final Field P, J/UJ results

*Hold Time (HT):* 14 days ≤ HT ≤ 28 days, J/UJ results; HT > 28 days, J detects/ R non-detects (or professional judgment)

*Blank Actions:* Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)
Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported
Equipment Blank (EB): Result<Blank Action, EB result at level reported

*BFB Tune:* SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 24-hours after tune; professional judgment on J/UJ or R of results

*LCS and CCV:* Laboratory Control Sample (LCS) and Continuing Calibration Verfication (CCV) evaluated: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <LCL; J/UJ all associated data; %Rec >UCL, J detects - no action for non-detects

*Initial Calibration (ICAL):* %RSD > criteria, J/UJ associated results

*Internal Standard (IS):* RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;
Area < 20% Area in CCV, J detects, R non-detects (or professional judgment); 20%< Area < 60% of CCV Area, J/UJ associated results; Area > 140% of CCV Area, J detects, no action for non-detects

*Surrogates:* %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

*Laboratory Duplicates:* LCS/LCSD RPD or Sample/LD RPD > 25% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*Field Duplicates:* RPD > 30% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*RLs + Quant:* Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data

Date 11/13/08

Data Reviewer MJC.RM

New Environmental Horizons, Inc.

# DATA USABILITY ASSESSMENT

**Client:** Sanborn, Head & Associates, Inc., Concord, New Hampshire

**Site:** Endicott, New York

**Laboratory:** Air Toxics Limited (ATL), Folsom, California

**Work Order Number:** 0810416B

**Number of Samples:** 20 soil vapor samples for eleven project-specific Volatile Organic Compounds (VOCs) by method TO-15 Full Scan

**Data Reviewer:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc.

**Date:** November 14, 2008

A Data Usability Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Soil Vapor Monitoring Project Work Plan, Endicott, New York*, prepared by Sanborn, Head & Associates, Inc.; US EPA Region II SOP HW-18, *Validating Canisters of Volatile Organics in Ambient Air*, Rev 0, August 1994; 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)*, January 1999, EPA/625/R-96/010b, and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*; Publication EPA A540/R-99/008, October 1999; 2) to determine if the data met the 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 Air Data Review Checklist, attached, was completed during this assessment to document the review. Samples EN0412D101408, EN0414D101408, EN0413D101408, EN0533D101408, EN0429D101508, DU3361101508, and EN049S101508 were analyzed at dilutions to ensure that all of the results were reported within the linear range of the instrument calibration. As a consequence of the dilutions made for analysis, several non-detected results in these seven samples are reported at levels exceeding the Expected Field Sample Laboratory Reporting Limits (RL) given in Table 2 of the Work Plan.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order. The results reported by the laboratory were unchanged as a consequence of this data review and the results presented in the validated database are considered usable for project objectives.

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Phone: (908) 874-5686 ◊ (781) 643-4294
Email: nrothman_NEH@comcast.net ◊ s.chapnick@comcast.net

Lab: Air Toxics Ltd.
Date Sampled: 10/14 - 10/15/08
Method of Analysis: TO-15 Full Scan

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Work Order #: 0810416B
No. Samples 18 + 2 FD

| | Canister Receipt | HT | GC/MS Tunes + Calibrations | Internal Stds + Surrogates | LCS | Lab Dup (LCS and LD) | Field Duplicates | RL & Quant. |
|---|---|---|---|---|---|---|---|---|
| All Results OK | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Except:** | | | | | | | | 7 samples RLs > exceeds |
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Comments: All Canister vacuums (field initial, field final + lab receipt) were acceptable + there were no COC issues noted by lab => No Action

Samples were all analyzed within 14 days of collection => HT met - No Action

ICAL = Instrument tuned on 10/22/08 - 6-level ICAL for 0.5 → 200 ppbv for 11 Target Compounds - % RSD < 30% across ICAL => Valid ICAL which supports 0.5 ppbV RL for Targets - No Action

Date 11/14/08

Data Reviewer [signature]

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/14 - 10/15/08

Work Order #: 0810416B
No. Samples 18 + 2FD

Method of Analysis: TO-15 Full Scan
Associated Blanks: MB: t102705 + t102805
EBs: EB3332101408 (W.O. # 0810416E) + EB1440101508 (W.O. # 0810416D) All 11 Targets were ND

| Blank ID | Contaminant / Level (µg/m³) | | Action Level DF= | | Sample and reported result (µg/m³) | Corrected Database Result |
|---|---|---|---|---|---|---|
| | | | | | | |

No Blank Action Required.
NM 11/14/08

Date 11/14/08

Data Reviewer [signature]

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/14 - 10/15/08

Method of Analysis: TO-15 Full Scan

Work Order #: 0810416B
No. Samples 18 + 2FD

Additional Notes:

CCALs: t102702 + t102802 - % Rec all OK => No Action
BFB Tune: 3 (1 ICAL + 2 CCALs) - Abundances all OK + all Samples were analyzed within 12 hrs. of Tune => No Action

All 3 Surrogate % Rec + 3 IS Areas / RTs were within criteria for samples + QC => No Action

LCS/LCSD: t102703/t102704 + t102803/t102804 - All % Rec + RPDs OK => Acceptable accuracy + precision demonstrated by lab for method.

LDs - 2 LDs 1) Sample / LD for EN0635S101408 shown at the bottom of page 4 + 2) Sample / LD for EN0529S101508 shown at the bottom of page 4A. LD precision was acceptable for all detected VOCs => No Action

2 FDs: 1) EN0417D101408 + DU3338101408 - shown at the top of page 4 - FD precision OK for all detected VOCs => No Action 2) EN0429D101508 + DU3361101508 shown at the top of page 4A - All Detected VOCs had acceptable FD precision => No Action

There were no "J" data

All RLs were ≤ expected RLs (i.e. DF ≤ 2) except: EN0412D101408 (DF: 2.28), EN0414D101408 (DF: 4.2), EN0413D101408 (DF: 4.02), EN0533D101408 (DF: 9.37), EN0429D101508 (DF: 4.02), DU3361101508 (DF: 4.02) + EN0495101508 (DF: 13.1) due to dilutions made at the instrument to ensure all detects reported within the calibration range.

The narration did not raise any issues - The database was unchanged as a consequence of this review.

Date 11/14/08

Data Reviewer [signature]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/14/08 - 10/15/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0810416B
No. Samples 18 + 2FD

Field Duplicate Evaluation_ Sample IDs: Sample = EN0417D101408 FD = DU3338101408

| Analyte Name | CAS No. | DF= 1.79* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.3 | 2.3 | U | RL | | 2.3 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.4 | 2.4 | U | RL | | 2.4 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.8 | 6.8 | U | RL | | 6.8 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3.1 | 3.1 | U | RL | | 3.1 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.6 | 3.6 | U | RL | | 3.6 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.5 | 18 | | > 5 x RL | | 18 | | > 5 x RL | 0.0 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.9 | 52 | | > 5 x RL | | 52 | | > 5 x RL | 0.0 | None |
| Trichloroethene | 79-01-6 | 4.8 | 1800 | | > 5 x RL | | 1700 | | > 5 x RL | 5.7 | None |
| Tetrachloroethene | 127-18-4 | 6.1 | 14 | | >RL but < 5xRL | | 6.1 | U | >RL but < 5xRL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |

*This is the sample and FD DF and RLs

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0635S101408

| Analyte Name | CAS No. | DF= 1.71 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.2 | 2.2 | U | RL | | 2.2 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.2 | 2.2 | U | RL | | 2.2 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.4 | 3.4 | U | RL | | 3.4 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.6 | 6.6 | U | RL | | 6.6 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3 | 3 | U | RL | | 3 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.4 | 3.4 | U | RL | | 3.4 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.7 | 4.7 | U | RL | | 4.7 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.6 | 4.6 | U | RL | | 4.6 | U | RL | NA | None |
| Tetrachloroethene | 127-18-4 | 5.8 | 5.8 | U | RL | | 5.8 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.4 | 3.4 | U | RL | | 3.4 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 11/14/08

Data Reviewer C.R.K.

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/14/08 - 10/15/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0810416B
No. Samples 18 + 2FD

Field Duplicate Evaluation_ Sample IDs: Sample = EN0429D101508 FD = DU3361101508

| Analyte Name | CAS No. | DF= 4.02* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 5.1 | 5.1 | U | RL | | 5.1 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 5.3 | 5.3 | U | RL | | 5.3 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 8 | 8 | U | RL | | 8 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 15 | 15 | U | RL | | 15 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 7 | 7 | U | RL | | 7 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 8.1 | 8.1 | U | RL | | 8.1 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 8 | 8 | U | RL | | 8 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 11 | 160 | | > 5 x RL | | 170 | | > 5 x RL | 6.1 | None |
| Trichloroethene | 79-01-6 | 11 | 2200 | | > 5 x RL | | 2200 | | > 5 x RL | 0.0 | None |
| Tetrachloroethene | 127-18-4 | 14 | 14 | U | RL | | 14 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 8 | 8 | U | RL | | 8 | U | RL | NA | None |

*This is the sample and FD DF and RLs

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0529S101508

| Analyte Name | CAS No. | DF= 1.61 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2 | 2 | U | RL | | 2 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.1 | 2.1 | U | RL | | 2.1 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.2 | 6.2 | U | RL | | 6.2 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 2.8 | 2.8 | U | RL | | 2.8 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.4 | 53 | | > 5 x RL | | 52 | | > 5 x RL | 1.9 | None |
| Trichloroethene | 79-01-6 | 4.3 | 700 | | > 5 x RL | | 720 | | > 5 x RL | 2.8 | None |
| Tetrachloroethene | 127-18-4 | 5.5 | 5.5 | U | RL | | 5.5 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 11/14/08

Data Reviewer [signature]



New Environmental Horizons, Inc.

## *Compound List and DQOs*

| Analyte Name | CAS No. | Low Point of ICAL (ppbv) | Criteria LCL-UCL | LCS and CCV ICAL %RSD Criteria |
|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 0.5 | 70-130 | ≤ 30% |
| Chloroethane | 75-00-3 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethene | 75-35-4 | 0.5 | 70-130 | ≤ 30% |
| Freon 113 | 76-13-1 | 0.5 | 70-130 | ≤ 30% |
| Methylene Chloride | 75-09-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethane | 75-34-3 | 0.5 | 70-130 | ≤ 30% |
| cis-1,2-Dichloroethene | 156-59-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1,1-Trichloroethane | 71-55-6 | 0.5 | 70-130 | ≤ 30% |
| Trichloroethene | 79-01-6 | 0.5 | 70-130 | ≤ 30% |
| Tetrachloroethene | 127-18-4 | 0.5 | 70-130 | ≤ 30% |
| trans-1,2-Dichloroethene | 156-60-5 | 0.5 | 60-140 | ≤ 40% |

**Actions:**

*Canister Pressure (P):* Initial Field P < 25" Hg, J/UJ all results; Lab Receipt P > 15" Hg, J/UJ results; Lab Receipt P > ± 5" Hg of Final Field P, J/UJ results

*Hold Time (HT):* 14 days ≤ HT ≤ 28 days, J/UJ results; HT > 28 days, J detects/ R non-detects (or professional judgment)

*Blank Actions:* Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)
Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported
Equipment Blank (EB): Result<Blank Action, EB result at level reported

*BFB Tune:* SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 24-hours after tune; professional judgment on J/UJ or R of results

*LCS and CCV:* Laboratory Control Sample (LCS) and Continuing Calibration Verfication (CCV) evaluated: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <LCL; J/UJ all associated data; %Rec >UCL, J detects - no action for non-detects

*Initial Calibration (ICAL):* %RSD > criteria, J/UJ associated results

*Internal Standard (IS):* RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;
Area < 20% Area in CCV, J detects, R non-detects (or professional judgment); 20%< Area < 60% of CCV Area, J/UJ associated results; Area > 140% of CCV Area, J detects, no action for non-detects

*Surrogates:* %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

*Laboratory Duplicates:* LCS/LCSD RPD or Sample/LD RPD > 25% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*Field Duplicates:* RPD > 30% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*RLs + Quant:* Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data

Date 11/14/08

Data Reviewer [illegible]

## DATA USABILITY ASSESSMENT

**Client:** Sanborn, Head & Associates, Inc., Concord, New Hampshire

**Site:** Endicott, New York

**Laboratory:** Air Toxics Limited (ATL), Folsom, California

**Work Order Number:** 0810416C

**Number of Samples:** 20 soil vapor samples for eleven project-specific Volatile Organic Compounds (VOCs) by method TO-15 Full Scan

**Data Reviewer:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc.

**Date:** November 17, 2008

A Data Usability Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Soil Vapor Monitoring Project Work Plan, Endicott, New York*, prepared by Sanborn, Head & Associates, Inc.; US EPA Region II SOP HW-18, *Validating Canisters of Volatile Organics in Ambient Air*, Rev 0, August 1994; 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)*, January 1999, EPA/625/R-96/010b, and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*; Publication EPA A540/R-99/008, October 1999; 2) to determine if the data met the 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 Air Data Review Checklist, attached, was completed during this assessment to document the review. Samples EN049D101508, EN0410S101508, EN0410D101508, EN0422D101508, and EN0411D101508 were analyzed at dilutions to ensure that all of the results were reported within the linear range of the instrument calibration. As a consequence of the dilutions made for analysis, several non-detected results in these five samples are reported at levels exceeding the Expected Field Sample Laboratory Reporting Limits (RL) given in Table 2 of the Work Plan.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order. The results reported by the laboratory were unchanged as a consequence of this data review and the results presented in the validated database are considered usable for project objectives.

*34 Pheasant Run Drive, Skillman, NJ 08558 ◊ 2 Farmer's Circle, Arlington, MA 02474*
*Phone: (908) 874-5686 ◊ (781) 643-4294*
*Email: nrothman_NEH@comcast.net ◊ s.chapnick@comcast.net*

Lab: Air Toxics Ltd.
Date Sampled: 10/15/08
Method of Analysis: TO-15 Full Scan

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Work Order #: 0810416C
No. Samples 18 + 2FD

| | Canister Receipt | HT | GC/MS Tunes + Calibrations | Internal Stds + Surrogates | LCS | Lab Dup (LCS and LD) | Field Duplicates | RL & Quant. |
|---|---|---|---|---|---|---|---|---|
| All Results OK | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Except:** | | | | | | | | 5 samples |
| | | | | | | | | RL > |
| | | | | | | | | expected |
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Comments: All Canister vacuums (lab receipt, field final + field initial) were acceptable and there were no COC issues noted.

All samples were analyzed within 14 days of collection => HT met - No Action

ICAL's: Inst. t on 10/22 + Inst. 7 on 8/27/08 - 6-levels of stds analyzed for 0.5 -> 200 ppbV for both ICALs - %RSD < 30% for 11 Target Compounds => No Action required.

Date 11/17/08

Data Reviewer [illegible]

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/15/08

Work Order #: 0810416C
No. Samples 18 + 2FD

Method of Analysis: TO-15 Full Scan
Associated Blanks: MBs: 7102805, t102805 + t102905 } All 11 Targets were ND
EB: EB1440101508 (W.O # 0810416D)

| Blank ID | Contaminant / Level (µg/m³) | | Action Level DF= | | Sample and reported result (µg/m³) | Corrected Database Result |
|---|---|---|---|---|---|---|
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| | | | | | No Blank Action Required. | |
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Date 11/17/08

Data Reviewer [signature]



New Environmental Horizons, Inc.

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/15/08

Method of Analysis: TO-15 Full Scan

Work Order #: 0810416C
No. Samples 18 + 2FD

Additional Notes:

CCALs: 7102802, t102802 + t102902 - %Rec all OK => No Action
BFB Tune: Inst. 7 5 Tunes (4 ICAL + 1 CCAL) + Inst. t 3 Tunes (1 ICAL + 2 CCAL) - All Abundances were OK + all samples were analyzed within 12 hrs. of BFB Tune => No Action

All 3 Surrogate %Rec + 3 IS Areas / RTs were acceptable in all samples => No Action
LCS/LCSD: 7102803 / 7102804 ; t102803 / t102804 ; and t102903 / t102904 - %Rec + RPD all OK => acceptable accuracy + precision for method demonstration - No Action reqd.

2 LDs: 1) EN0422S101508 sample/LD shown at the bottom of page 4 + 2) EN043D101508 sample/LD shown at the bottom of page 4A. LD precision was acceptable for all detected VOCs in these samples => No Action

2 FDs: 1) EN0427S101508 / DU3365101508 shown at the top of page 4 + 2) EN044D101508 / DU3302101508 shown at the top of page 4A - FD precision was acceptable for all detected VOCs (NOTE - second FD pair was non-detect for all VOCs => results are consistent with one another but unable to calculate RPD for these results).

There were no "J" data reported + narrative did not raise any issues.

All RLs were ≤ RLs expected (i.e., DF ≤ 2) except: EN049D101508 (DF = 21.5), EN0410S101508 (DF = 68.4), EN0410D101508 (DF = 84), EN0422D101508 (DF = 3.42), and EN0411D101508 (DF = 2.1) due to dilutions made at the instrument lab to ensure all detects were within the calibration range.

The database was unchanged as a consequence of this review.

Date 11/17/08

Data Reviewer [signature]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/15/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0810416C
No. Samples 18 + 2FD

Field Duplicate Evaluation_ Sample IDs: Sample = EN0427S101508 FD = DU3365101508

| Analyte Name | CAS No. | DF= 1.83* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.3 | 2.3 | U | RL | | 2.3 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.4 | 2.4 | U | RL | | 2.4 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.6 | 3.6 | U | RL | | 3.6 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 7 | 7 | U | RL | | 7 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.7 | 3.7 | U | RL | | 3.7 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.6 | 3.6 | U | RL | | 3.6 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 5 | 120 | | > 5 x RL | | 120 | | > 5 x RL | 0.0 | None |
| Trichloroethene | 79-01-6 | 4.9 | 710 | | > 5 x RL | | 740 | | > 5 x RL | 4.1 | None |
| Tetrachloroethene | 127-18-4 | 6.2 | 110 | | > 5 x RL | | 110 | | > 5 x RL | 0.0 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.6 | 3.6 | U | RL | | 3.6 | U | RL | NA | None |

*This is the sample and FD DF and RLs

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0422S101508

| Analyte Name | CAS No. | DF= 1.71 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.2 | 2.2 | U | RL | | 2.2 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.2 | 2.2 | U | RL | | 2.2 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.4 | 3.4 | U | RL | | 3.4 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.6 | 8.2 | | >RL but < 5xRL | | 7.9 | | >RL but < 5xRL | 3.7 | None |
| Methylene Chloride | 75-09-2 | 3 | 3 | U | RL | | 3 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.4 | 260 | | > 5 x RL | | 260 | | > 5 x RL | 0.0 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.7 | 44 | | > 5 x RL | | 43 | | > 5 x RL | 2.3 | None |
| Trichloroethene | 79-01-6 | 4.6 | 580 | | > 5 x RL | | 590 | | > 5 x RL | 1.7 | None |
| Tetrachloroethene | 127-18-4 | 5.8 | 19 | | >RL but < 5xRL | | 20 | | >RL but < 5xRL | 5.1 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.4 | 16 | | >RL but < 5xRL | | 17 | | >RL but < 5xRL | 6.1 | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 11/17/08

Data Reviewer [illegible]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/15/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0810416C
No. Samples 18 + 2FD

Field Duplicate Evaluation_ Sample IDs: Sample = EN044D101508 FD = DU3302101508

| Analyte Name | CAS No. | DF= 1.52* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 1.9 | 1.9 | U | RL | | 1.9 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2 | 2 | U | RL | | 2 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3 | 3 | U | RL | | 3 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 5.8 | 5.8 | U | RL | | 5.8 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 2.6 | 2.6 | U | RL | | 2.6 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.1 | 3.1 | U | RL | | 3.1 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3 | 3 | U | RL | | 3 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.1 | 4.1 | U | RL | | 4.1 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.1 | 4.1 | U | RL | | 4.1 | U | RL | NA | None |
| Tetrachloroethene | 127-18-4 | 5.2 | 5.2 | U | RL | | 5.2 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3 | 3 | U | RL | | 3 | U | RL | NA | None |

*This is the sample an FD DF and RLs

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN043D101508

| Analyte Name | CAS No. | DF= 1.79 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.3 | 2.3 | U | RL | | 2.3 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.4 | 2.4 | U | RL | | 2.4 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.8 | 6.8 | U | RL | | 6.8 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3.1 | 3.1 | U | RL | | 3.1 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.6 | 3.6 | U | RL | | 3.6 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.9 | 4.9 | U | RL | | 4.9 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.8 | 22 | | >RL but < 5xRL | | 22 | | >RL but < 5xRL | 0.0 | None |
| Tetrachloroethene | 127-18-4 | 6.1 | 6.1 | U | RL | | 6.1 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.5 | 3.5 | U | RL | | 3.5 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 11/17/08

Data Reviewer [signature]



New Environmental Horizons, Inc.

## *Compound List and DQOs*

| Analyte Name | CAS No. | Low Point of ICAL (ppbv) | Criteria LCL-UCL | LCS and CCV ICAL %RSD Criteria |
|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 0.5 | 70-130 | ≤ 30% |
| Chloroethane | 75-00-3 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethene | 75-35-4 | 0.5 | 70-130 | ≤ 30% |
| Freon 113 | 76-13-1 | 0.5 | 70-130 | ≤ 30% |
| Methylene Chloride | 75-09-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethane | 75-34-3 | 0.5 | 70-130 | ≤ 30% |
| cis-1,2-Dichloroethene | 156-59-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1,1-Trichloroethane | 71-55-6 | 0.5 | 70-130 | ≤ 30% |
| Trichloroethene | 79-01-6 | 0.5 | 70-130 | ≤ 30% |
| Tetrachloroethene | 127-18-4 | 0.5 | 70-130 | ≤ 30% |
| trans-1,2-Dichloroethene | 156-60-5 | 0.5 | 60-140 | ≤ 40% |

**Actions:**

*Canister Pressure (P):* Initial Field P < 25" Hg, J/UJ all results; Lab Receipt P > 15" Hg, J/UJ results; Lab Receipt P > ± 5" Hg of Final Field P, J/UJ results

*Hold Time (HT):* 14 days ≤ HT ≤ 28 days, J/UJ results; HT > 28 days, J detects/ R non-detects (or professional judgment)

*Blank Actions:* Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)
Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported
Equipment Blank (EB): Result<Blank Action, EB result at level reported

*BFB Tune:* SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 24-hours after tune; professional judgment on J/UJ or R of results

*LCS and CCV:* Laboratory Control Sample (LCS) and Continuing Calibration Verfication (CCV) evaluated: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <LCL; J/UJ all associated data; %Rec >UCL, J detects - no action for non-detects

*Initial Calibration (ICAL):* %RSD > criteria, J/UJ associated results

*Internal Standard (IS):* RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;
Area < 20% Area in CCV, J detects, R non-detects (or professional judgment); 20%< Area < 60% of CCV Area, J/UJ associated results; Area > 140% of CCV Area, J detects, no action for non-detects

*Surrogates:* %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

*Laboratory Duplicates:* LCS/LCSD RPD or Sample/LD RPD > 25% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*Field Duplicates:* RPD > 30% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*RLs + Quant:* Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data

Date 11/17/08

Data Reviewer N. C. RM

# DATA USABILITY ASSESSMENT

**Client:** Sanborn, Head & Associates, Inc., Concord, New Hampshire

**Site:** Endicott, New York

**Laboratory:** Air Toxics Limited (ATL), Folsom, California

**Work Order Number:** 0810416D

**Number of Samples:** 9 soil vapor samples + 1 equipment blank for eleven project-specific Volatile Organic Compounds (VOCs) by method TO-15 Full Scan

**Data Reviewer:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc.

**Date:** November 17, 2008

A Data Usability Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Soil Vapor Monitoring Project Work Plan, Endicott, New York*, prepared by Sanborn, Head & Associates, Inc.; US EPA Region II SOP HW-18, *Validating Canisters of Volatile Organics in Ambient Air*, Rev 0, August 1994; 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)*, January 1999, EPA/625/R-96/010b, and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*; Publication EPA A540/R-99/008, October 1999; 2) to determine if the data met the 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 Air Data Review Checklist, attached, was completed during this assessment to document the review.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order. The results reported by the laboratory were unchanged as a consequence of this data review and the results presented in the validated database are considered usable for project objectives.

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Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/15 - 10/16/08
Method of Analysis: TO-15 Full Scan

Work Order #: 08104160
No. Samples 8+1FD+1EB

| | Canister Receipt | HT | GC/MS Tunes + Calibrations | Internal Stds + Surrogates | LCS | Lab Dup (LCS and LD) | Field Duplicates | RL & Quant. |
|---|---|---|---|---|---|---|---|---|
| All Results OK | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Except:** | | | | | | | | |
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Comments: All canister vacuums (field initial, field final + lab receipt) were acceptable + there were no COC issues noted => No Action

Samples were analyzed within 14 days of collection => HT met - No Action

ICAL Inst. 7 on 8/4-8/27/08 - 11 Targets calibrated for 0.5 -> 200 ppbV + %RSD < 30% across ICAL => RL supported + ICAL valid - No Action

Date 11/17/08

Data Reviewer MJC. RM

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/15 - 10/16/08

Work Order #: 0810416D
No. Samples 8 + 1 FD + 1 EB

Method of Analysis: TO-15 Full Scan
Associated Blanks: MB's 7102905
EBs: EB1440101508 + EB3642910160 8 (reported in W.O # 0810416E) } All 11 Targets were ND

| Blank ID | Contaminant / Level (µg/m³) | | Action Level DF= | | Sample and reported result (µg/m³) | Corrected Database Result |
|---|---|---|---|---|---|---|
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Date 11/17/08

Data Reviewer NJC.RK

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/5 - 10/16/08

Method of Analysis: TO-15 Full Scan

Work Order #: 0810416D
No. Samples 8+1FD+1EB

Additional Notes:

CCAL = 7102902 - %Rec all OK
BFB Tune: 5 (4 ICAL + 1 CCAL): All Abundance OK + all Smpls were analyzed within 12 hrs. of tune => No Action

All 3 Surrogate %Rec + 3 IS Area/RTs were in action for all Smpls + QC
LCS/LCSD = 7102903/7102904 - %Rec + RPD all OK => No Action

1 LD: Smpl/LD for EN0430D101508 shown at the bottom of page 4 - All detected VOCs (6) met LD precision => No Action reqd.

FD pair: EN0637D101608 / DU3637101608 - Results shown at the top of page 4 - FD precision was acceptable for all 3 detected VOCs in these smpls => No Action

There were no "J" data reported + the narrative did not raise any issues.

The RLs for all Smpls were ≤ expected RLs from Table 2 of the Soil Vapor Monitoring Plan => All results are usable as reported (i.e., all Dilution Factors (DF) were < 2).

The database was unchanged as a consequence of this review.

Date 11/17/08

Data Reviewer MJC.RK

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/15/08 - 10/16/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0810416D
No. Samples 8 + 1FD + 1EB

Field Duplicate Evaluation_ Sample IDs: Sample = EN0637D101608 FD = DU36377101608

| Analyte Name | CAS No. | DF= 1.64* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.1 | 2.1 | U | RL | | 2.1 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.2 | 2.2 | U | RL | | 2.2 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.3 | 6.3 | U | RL | | 6.3 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 2.8 | 2.8 | U | RL | | 2.8 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.3 | 3.3 | U | RL | | 3.3 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.2 | 35 | | > 5 x RL | | 35 | | > 5 x RL | 0.0 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.5 | 4.5 | U | RL | | 4.5 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.4 | 37 | | > 5 x RL | | 38 | | > 5 x RL | 2.7 | None |
| Tetrachloroethene | 127-18-4 | 5.6 | 16 | | >RL but < 5xRL | | 17 | | >RL but < 5xRL | 6.1 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |

*This is the sample and FD DF and RLs

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EN0430D101508

| Analyte Name | CAS No. | DF= 1.68 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.1 | 2.1 | U | RL | | 2.1 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.2 | 2.2 | U | RL | | 2.2 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.3 | 3.3 | U | RL | | 3.3 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.4 | 7.8 | | >RL but < 5xRL | | 8.5 | | >RL but < 5xRL | 8.6 | None |
| Methylene Chloride | 75-09-2 | 2.9 | 2.9 | U | RL | | 2.9 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.4 | 9.4 | | >RL but < 5xRL | | 9.2 | | >RL but < 5xRL | 2.2 | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.3 | 26 | | > 5 x RL | | 27 | | > 5 x RL | 3.8 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.6 | 120 | | > 5 x RL | | 130 | | > 5 x RL | 8.0 | None |
| Trichloroethene | 79-01-6 | 4.5 | 1500 | | > 5 x RL | | 1500 | | > 5 x RL | 0.0 | None |
| Tetrachloroethene | 127-18-4 | 5.7 | 52 | | > 5 x RL | | 50 | | > 5 x RL | 3.9 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.3 | 3.3 | U | RL | | 3.3 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 11/17/08

Data Reviewer NJCRM

## *Compound List and DQOs*

| Analyte Name | CAS No. | Low Point of ICAL (ppbv) | Criteria LCL-UCL | LCS and CCV ICAL %RSD Criteria |
|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 0.5 | 70-130 | ≤ 30% |
| Chloroethane | 75-00-3 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethene | 75-35-4 | 0.5 | 70-130 | ≤ 30% |
| Freon 113 | 76-13-1 | 0.5 | 70-130 | ≤ 30% |
| Methylene Chloride | 75-09-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethane | 75-34-3 | 0.5 | 70-130 | ≤ 30% |
| cis-1,2-Dichloroethene | 156-59-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1,1-Trichloroethane | 71-55-6 | 0.5 | 70-130 | ≤ 30% |
| Trichloroethene | 79-01-6 | 0.5 | 70-130 | ≤ 30% |
| Tetrachloroethene | 127-18-4 | 0.5 | 70-130 | ≤ 30% |
| trans-1,2-Dichloroethene | 156-60-5 | 0.5 | 60-140 | ≤ 40% |

**Actions:**

*Canister Pressure (P):* Initial Field P < 25" Hg, J/UJ all results; Lab Receipt P > 15" Hg, J/UJ results; Lab Receipt P > ± 5" Hg of Final Field P, J/UJ results

*Hold Time (HT):* 14 days ≤ HT ≤ 28 days, J/UJ results; HT > 28 days, J detects/ R non-detects (or professional judgment)

*Blank Actions:* Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)
Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported
Equipment Blank (EB): Result<Blank Action, EB result at level reported

*BFB Tune:* SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 24-hours after tune; professional judgment on J/UJ or R of results

*LCS and CCV:* Laboratory Control Sample (LCS) and Continuing Calibration Verfication (CCV) evaluated: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <LCL; J/UJ all associated data; %Rec >UCL, J detects - no action for non-detects

*Initial Calibration (ICAL):* %RSD > criteria, J/UJ associated results

*Internal Standard (IS):* RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;
Area < 20% Area in CCV, J detects, R non-detects (or professional judgment); 20%< Area < 60% of CCV Area, J/UJ associated results; Area > 140% of CCV Area, J detects, no action for non-detects

*Surrogates:* %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

*Laboratory Duplicates:* LCS/LCSD RPD or Sample/LD RPD > 25% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*Field Duplicates:* RPD > 30% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*RLs + Quant:* Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data

Date 11/17/08

Data Reviewer MJC.RK

*New Environmental Horizons, Inc.*

# DATA USABILITY ASSESSMENT

**Client:** Sanborn, Head & Associates, Inc., Concord, New Hampshire

**Site:** Endicott, New York

**Laboratory:** Air Toxics Limited (ATL), Folsom, California

**Work Order Number:** 0810416E

**Number of Samples:** 10 soil vapor samples + 2 equipment blanks for eleven project-specific Volatile Organic Compounds (VOCs) by method TO-15 Full Scan

**Data Reviewer:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc. N C. R

**Date:** November 18, 2008

A Data Usability Checklist Review was performed on the Work Order identified with the following intentions: 1) to determine if the data were generated and reported in accordance with the *Soil Vapor Monitoring Project Work Plan, Endicott, New York*, prepared by Sanborn, Head & Associates, Inc.; US EPA Region II SOP HW-18, *Validating Canisters of Volatile Organics in Ambient Air*, Rev 0, August 1994; 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)*, January 1999, EPA/625/R-96/010b, and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*; Publication EPA A540/R-99/008, October 1999; 2) to determine if the data met the 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 Air Data Review Checklist, attached, was completed during this assessment to document the review. Samples EN0426D101608, EN0839S101608, and DU34628101608 were analyzed at dilutions to ensure that all of the results were reported within the linear range of the instrument calibration. As a consequence of the dilutions made for analysis, several non-detected results in these three samples are reported at levels exceeding the Expected Field Sample Laboratory Reporting Limits (RL) given in Table 2 of the Work Plan.

All other quality control information associated with accuracy, precision, and sensitivity for the project-specific list of VOCs reported met project criteria for the samples in this Work Order. The results reported by the laboratory were unchanged as a consequence of this data review and the results presented in the validated database are considered usable for project objectives.

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*Email: nrothman_NEH@comcast.net ◊ s.chapnick@comcast.net*

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/16/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0810416E
No. Samples 8+2FD+2EB

| | Canister Receipt | HT | GC/MS Tunes + Calibrations | Internal Stds + Surrogates | LCS | Lab Dup (LCS and LD) | Field Duplicates | RL & Quant. |
|---|---|---|---|---|---|---|---|---|
| All Results OK | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| **Except:** | | | | | | | | 3 sp RL > |
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Comments: All Canister vacuums acceptable (field initial, field final + lab receipt) + there were no COC issues noted - No Action

All Samples were analyzed within 14 days of collection → HT met - No Action

Icals: Inst. 7 on 8/4-8/27/08 + Inst. t on 10/22/08. For both Icals 6-level calibration of 11 Target compounds done for 0.5 -> 200 ppbV + %RSD ≤ 30% across Ion of all Targets → Valid Icals - No Action

Date 11/18/08

Data Reviewer [signature]

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/16/08

Work Order #: 0810416E
No. Samples 8+2FD+2EB

Method of Analysis: TO-15 Full Scan
Associated Blanks: MB: 7102805, t102905 + t102923 > All 11 Targets ND
EB: EB3642910160 8

| Blank ID | Contaminant / Level (µg/m$^3$) | | Action Level DF= | | Sample and reported result (µg/m$^3$) | Corrected Database Result |
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Date 11/18/08

Data Reviewer [illegible]

Soil Vapor Monitoring Project, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/16/08

Method of Analysis: TO-15 Full Scan

Work Order #: 0810416E
No. Samples 8 + 2 FD + 2 EB

Additional Notes:

CCALs: 7102802, t102903 + t102920 - 90 Rec all OK => No Action
BFB Tuns: Inst. 7 (7 - 4 IAA - 2 CCA) + Inst. t 3 - 1 IAA + 2 CCA - All Abundances OK + all Samples were analyzed within 12 hrs. of tune => No Action

All 3 Surrogate 90 Rec + 3 IS Areas/RTs within criteria for all samples => No Action
LCS/LCSD: 7102803/7102804; t102903/t102904 + ; t102921/t102922 - 90 Rec + RPDs all OK => acceptable accuracy + precision demonstrated => No Action.

LD performed on EB3322101408 shown at the bottom of page 4 - All VOCs were ND => unable to calculate RPD but results are consistent with one another => No Action

2 FD pairs: 1) EN0838S101608 / DU317861016 08 (shown at the top of page 4) and 2) EN0728D101608 / DU346281016 08 (shown at the top of page 4A) - FD precision was acceptable for all detected VOCs in these FD pairs => NO Action required.

There were no J data reported. The narrative did not raise any issues.

All Results ≤ reported RLs (i.e. DF < 2) except: EN0426D101608 (DF = 3.92) EN0837S101608 (DF = 537) + DU346281016 08 (DF = 224) due to dilutions made to ensure all detects were reported within the instrument calibration range.

The data base was unchanged as a consequence of this review.

Date 11/18/08
Data Reviewer [signature]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/16/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0810416E
No. Samples 8 + 2FD + 2EB

Field Duplicate Evaluation_ Sample IDs: Sample = EN0838S101608 FD = DU31786101608

| Analyte Name | CAS No. | DF= 1.61* RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | FD µg/m³ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2 | 2 | U | RL | | 2.1 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.1 | 2.1 | U | RL | | 2.2 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.2 | 6.2 | U | RL | | 6.3 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 2.8 | 2.8 | U | RL | | 2.8 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.2 | 3.2 | U | RL | | 3.3 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.2 | 5 | | >RL but < 5xRL | | 5 | | >RL but < 5xRL | 0.0 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.4 | 4.4 | U | RL | | 4.5 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.3 | 7.8 | | >RL but < 5xRL | | 7.9 | | >RL but < 5xRL | 1.3 | None |
| Tetrachloroethene | 127-18-4 | 5.5 | 41 | | > 5 x RL | | 41 | | > 5 x RL | 0.0 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.2 | 3.2 | U | RL | | 3.2 | U | RL | NA | None |

*This is the sample DF and RLs, the FD DF was 1.64 and RLs are RLs shown x (1.64/1.61)

Laboratory Duplicate Evaluation: Sample Used for LD Analysis: EB3332101408

| Analyte Name | CAS No. | DF= 1.96 RL (µg/m³) | Sample µg/m³ | Q | Sample Result Level | | LD µg/m³ | Q | LD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.5 | 2.5 | U | RL | | 2.5 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.6 | 2.6 | U | RL | | 2.6 | U | RL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.9 | 3.9 | U | RL | | 3.9 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 7.5 | 7.5 | U | RL | | 7.5 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 3.4 | 3.4 | U | RL | | 3.4 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 4 | 4 | U | RL | | 4 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.9 | 3.9 | U | RL | | 3.9 | U | RL | NA | None |
| 1,1,1-Trichloroethane | 71-55-6 | 5.3 | 5.3 | U | RL | | 5.3 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 5.3 | 5.3 | U | RL | | 5.3 | U | RL | NA | None |
| Tetrachloroethene | 127-18-4 | 6.6 | 6.6 | U | RL | | 6.6 | U | RL | NA | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.9 | 3.9 | U | RL | | 3.9 | U | RL | NA | None |

Q = Data Qualifier as reported by ATL and/or NEH; U = non-detect, J = estimated result.
NA = Not Applicable. RPD not calculated since one or both results were non-detect or both were reported at levels below the RL.

Date 11/18/08

Data Reviewer [illegible]

Soil Vapor Monitoring, Endicott, NY
Air Data Review Checklist

Lab: Air Toxics Ltd.
Date Sampled: 10/16/08
Method of Analysis: TO-15 Full Scan

Work Order #: 0810416E
No. Samples 8 + 2FD + 2EB

Field Duplicate Evaluation_ Sample IDs: Sample = EN0728D101608 FD = DU34628101608

| Analyte Name | CAS No. | DF= 1.68* RL (µg/m$^3$) | Sample µg/m$^3$ | Q | Sample Result Level | | FD µg/m$^3$ | Q | FD Result Level | RPD | Action |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 2.1 | 2.1 | U | RL | | 2.9 | U | RL | NA | None |
| Chloroethane | 75-00-3 | 2.2 | 2.2 | U | RL | | 3.2 | | >RL but < 5xRL | NA | None |
| 1,1-Dichloroethene | 75-35-4 | 3.3 | 3.3 | U | RL | | 4.4 | U | RL | NA | None |
| Freon 113 | 76-13-1 | 6.4 | 6.4 | U | RL | | 8.6 | U | RL | NA | None |
| Methylene Chloride | 75-09-2 | 2.9 | 2.9 | U | RL | | 3.9 | U | RL | NA | None |
| 1,1-Dichloroethane | 75-34-3 | 3.4 | 3.4 | U | RL | | 4.5 | U | RL | NA | None |
| cis-1,2-Dichloroethene | 156-59-2 | 3.3 | 170 | | > 5 x RL | | 180 | | > 5 x RL | 5.7 | None |
| 1,1,1-Trichloroethane | 71-55-6 | 4.6 | 4.6 | U | RL | | 6.1 | U | RL | NA | None |
| Trichloroethene | 79-01-6 | 4.5 | 220 | | > 5 x RL | | 220 | | > 5 x RL | 0.0 | None |
| Tetrachloroethene | 127-18-4 | 5.7 | 2200 | | > 5 x RL | | 2300 | | > 5 x RL | 4.4 | None |
| trans-1,2-Dichloroethene | 156-60-5 | 3.3 | 30 | | > 5 x RL | | 31 | | > 5 x RL | 3.3 | None |

*This is the sample DF and RLs, the FD DF was 2.24 and RLs are RLs shown x (2.24/1.68)

Date 11/18/08

Data Reviewer C.R.M.

A



New Environmental Horizons, Inc.

## *Compound List and DQOs*

| Analyte Name | CAS No. | Low Point of ICAL (ppbv) | Criteria LCL-UCL | LCS and CCV ICAL %RSD Criteria |
|---|---|---|---|---|
| Vinyl Chloride | 75-01-4 | 0.5 | 70-130 | ≤ 30% |
| Chloroethane | 75-00-3 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethene | 75-35-4 | 0.5 | 70-130 | ≤ 30% |
| Freon 113 | 76-13-1 | 0.5 | 70-130 | ≤ 30% |
| Methylene Chloride | 75-09-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1-Dichloroethane | 75-34-3 | 0.5 | 70-130 | ≤ 30% |
| cis-1,2-Dichloroethene | 156-59-2 | 0.5 | 70-130 | ≤ 30% |
| 1,1,1-Trichloroethane | 71-55-6 | 0.5 | 70-130 | ≤ 30% |
| Trichloroethene | 79-01-6 | 0.5 | 70-130 | ≤ 30% |
| Tetrachloroethene | 127-18-4 | 0.5 | 70-130 | ≤ 30% |
| trans-1,2-Dichloroethene | 156-60-5 | 0.5 | 60-140 | ≤ 40% |

**Actions:**

*Canister Pressure (P):* Initial Field P < 25" Hg, J/UJ all results; Lab Receipt P > 15" Hg, J/UJ results; Lab Receipt P > ± 5" Hg of Final Field P, J/UJ results

*Hold Time (HT):* 14 days ≤ HT ≤ 28 days, J/UJ results; HT > 28 days, J detects/ R non-detects (or professional judgment)

*Blank Actions:* Action Level = 5 x Level in Blank; Sample-specific Blank Action Level = Action Level x (Sample DF/Blank DF)
Method Blank (MB): Result < RL, U result at RL; RL<Result<Blank Action, U result at level reported
Equipment Blank (EB): Result<Blank Action, EB result at level reported

*BFB Tune:* SW-846 method 8260B tune criteria not met, professional judgment on R of all data; samples analyzed > 24-hours after tune; professional judgment on J/UJ or R of results

*LCS and CCV:* Laboratory Control Sample (LCS) and Continuing Calibration Verfication (CCV) evaluated: Percent Recovery (%Rec) <10%, J detects, R non-detects; 10% < %Rec <LCL; J/UJ all associated data; %Rec >UCL, J detects - no action for non-detects

*Initial Calibration (ICAL):* %RSD > criteria, J/UJ associated results

*Internal Standard (IS):* RT > ±0.33 min of IS RT in daily CCV, J/UJ associated results;
Area < 20% Area in CCV, J detects, R non-detects (or professional judgment); 20%< Area < 60% of CCV Area, J/UJ associated results; Area > 140% of CCV Area, J detects, no action for non-detects

*Surrogates:* %Rec <10%, J detects, R non-detects; 10% < %Rec <70%; J/UJ all associated data; %Rec >130%, J detects - no action for non-detects

*Laboratory Duplicates:* LCS/LCSD RPD or Sample/LD RPD > 25% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*Field Duplicates:* RPD > 30% for detects > 5x RL, J associated data; professional judgment for results < 5 x RL

*RLs + Quant:* Compound reported outside calibration range (< RL or at ppbV level > sample-specific highest ICAL standard for compound), J data

Date 11/18/08

Data Reviewer [illegible]

# APPENDIX C.3

# ANALYTICAL LABORATORY REPORTS ON COMPACT DISC
# (SELECT COPIES)

SHA
IMPROVING EARTH

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**
**Hours 8:00 A.M to 6:00 P.M. Pacific**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0806222A

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 06/12/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 06/23/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 01A | EN047S060908 | Modified TO-15 | 8.0 "Hg | 5.0 psi |
| 02A | EN047D060908 | Modified TO-15 | 6.0 "Hg | 5.0 psi |
| 03A | EN045S060908 | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 04A | EN045D060908 | Modified TO-15 | 8.0 "Hg | 5.0 psi |
| 04AA | EN045D060908 Lab Duplicate | Modified TO-15 | 8.0 "Hg | 5.0 psi |
| 05A | EN0636S060908 | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 06A | EN0636D060908 | Modified TO-15 | 8.0 "Hg | 5.0 psi |
| 07A | EN042S060908 | Modified TO-15 | 9.0 "Hg | 5.0 psi |
| 08A | EN042D060908 | Modified TO-15 | 8.0 "Hg | 5.0 psi |
| 09A | EN0430S060908 | Modified TO-15 | 7.5 "Hg | 5.0 psi |
| 10A | EN0430D060908 | Modified TO-15 | 0.0 "Hg | 5.0 psi |
| 11A | DU35635060908 | Modified TO-15 | 9.0 "Hg | 5.0 psi |
| 12A | EN0414S060908 | Modified TO-15 | 7.0 "Hg | 5.0 psi |
| 13A | EN0414D060908 | Modified TO-15 | 8.5 "Hg | 5.0 psi |
| 14A | EN0635S060908 | Modified TO-15 | 7.0 "Hg | 5.0 psi |
| 15A | EN0635D060908 | Modified TO-15 | 7.0 "Hg | 5.0 psi |
| 16A | EN046S060908 | Modified TO-15 | 8.0 "Hg | 5.0 psi |

Continued on next page

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0806222A

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 06/12/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 06/23/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 17A | EN046D060908 | Modified TO-15 | 8.5 "Hg | 5.0 psi |
| 18A | EN041S060908 | Modified TO-15 | 9.0 "Hg | 5.0 psi |
| 19A | EN041D060908 | Modified TO-15 | 9.0 "Hg | 5.0 psi |
| 20A | EN043S060908 | Modified TO-15 | 3.5 "Hg | 5.0 psi |
| 20AA | EN043S060908 Lab Duplicate | Modified TO-15 | 3.5 "Hg | 5.0 psi |
| 21A | Lab Blank | Modified TO-15 | NA | NA |
| 21B | Lab Blank | Modified TO-15 | NA | NA |
| 22A | CCV | Modified TO-15 | NA | NA |
| 22B | CCV | Modified TO-15 | NA | NA |
| 23A | LCS | Modified TO-15 | NA | NA |
| 23AA | LCSD | Modified TO-15 | NA | NA |
| 23B | LCS | Modified TO-15 | NA | NA |
| 23BB | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda L. Freeman

Laboratory Director

DATE: 06/25/08

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE**
**Modified TO-15**
**Sanborn, Head & Associates**
**Workorder# 0806222A**

Twenty 1 Liter Summa Canister (100% Certified) samples were received on June 12, 2008. seventy-nine 1 Liter Summa Canister (100% Certified) samples were received on June 12, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | +- 30% Difference | </= 30% Difference with two allowed out up to </=40%.; flag and narrate outliers |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN047S060908**

**Lab ID#: 0806222A-01A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.92 | 5.5 | 4.9 | 29 |
| Tetrachloroethene | 0.92 | 7.1 | 6.2 | 48 |

**Client Sample ID: EN047D060908**

**Lab ID#: 0806222A-02A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethene | 3.4 | 5.2 | 13 | 21 |
| cis-1,2-Dichloroethene | 3.4 | 12 | 13 | 46 |
| 1,1,1-Trichloroethane | 3.4 | 60 | 18 | 330 |
| Trichloroethene | 3.4 | 930 | 18 | 5000 |

**Client Sample ID: EN045S060908**

**Lab ID#: 0806222A-03A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.86 | 2.1 | 4.7 | 12 |
| Trichloroethene | 0.86 | 43 | 4.6 | 230 |

**Client Sample ID: EN045D060908**

**Lab ID#: 0806222A-04A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 1.5 | 2.0 | 5.8 | 8.0 |
| 1,1,1-Trichloroethane | 1.5 | 21 | 8.0 | 110 |
| Trichloroethene | 1.5 | 510 | 7.9 | 2700 |

**Client Sample ID: EN045D060908 Lab Duplicate**

**Lab ID#: 0806222A-04AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.92 | 2.0 | 3.6 | 7.9 |
| 1,1,1-Trichloroethane | 0.92 | 21 | 5.0 | 110 |
| Trichloroethene | 0.92 | 490 E | 4.9 | 2600 E |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0636S060908**

**Lab ID#: 0806222A-05A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.86 | 1.5 | 4.7 | 8.0 |

**Client Sample ID: EN0636D060908**

**Lab ID#: 0806222A-06A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethene | 0.92 | 1.0 | 3.6 | 4.0 |
| cis-1,2-Dichloroethene | 0.92 | 1.3 | 3.6 | 5.3 |
| 1,1,1-Trichloroethane | 0.92 | 45 | 5.0 | 250 |
| Trichloroethene | 0.92 | 46 | 4.9 | 240 |

**Client Sample ID: EN042S060908**

**Lab ID#: 0806222A-07A**

No Detections Were Found.

**Client Sample ID: EN042D060908**

**Lab ID#: 0806222A-08A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.92 | 1.4 | 5.0 | 7.4 |
| Trichloroethene | 0.92 | 18 | 4.9 | 99 |
| Tetrachloroethene | 0.92 | 2.9 | 6.2 | 20 |

**Client Sample ID: EN0430S060908**

**Lab ID#: 0806222A-09A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.90 | 0.99 | 3.5 | 3.9 |
| 1,1,1-Trichloroethane | 0.90 | 1.2 | 4.9 | 6.8 |
| Trichloroethene | 0.90 | 180 | 4.8 | 960 |

**Client Sample ID: EN0430D060908**

**Lab ID#: 0806222A-10A**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0430D060908**

**Lab ID#: 0806222A-10A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethane | 0.67 | 0.96 | 2.7 | 3.9 |
| cis-1,2-Dichloroethene | 0.67 | 3.6 | 2.6 | 14 |
| 1,1,1-Trichloroethane | 0.67 | 6.7 | 3.6 | 36 |
| Trichloroethene | 0.67 | 78 | 3.6 | 420 |
| Tetrachloroethene | 0.67 | 3.0 | 4.5 | 20 |

**Client Sample ID: DU35635060908**

**Lab ID#: 0806222A-11A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethane | 0.96 | 1.5 | 3.9 | 6.2 |
| cis-1,2-Dichloroethene | 0.96 | 5.4 | 3.8 | 21 |
| 1,1,1-Trichloroethane | 0.96 | 11 | 5.2 | 62 |
| Trichloroethene | 0.96 | 120 | 5.1 | 650 |
| Tetrachloroethene | 0.96 | 4.5 | 6.5 | 30 |

**Client Sample ID: EN0414S060908**

**Lab ID#: 0806222A-12A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.88 | 1.1 | 4.8 | 6.2 |
| Trichloroethene | 0.88 | 2.7 | 4.7 | 15 |

**Client Sample ID: EN0414D060908**

**Lab ID#: 0806222A-13A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.9 | 20 | 10 | 110 |
| Trichloroethene | 1.9 | 480 | 10 | 2600 |

**Client Sample ID: EN0635S060908**

**Lab ID#: 0806222A-14A**

No Detections Were Found.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0635D060908**

**Lab ID#: 0806222A-15A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.88 | 4.0 | 4.8 | 22 |
| Trichloroethene | 0.88 | 26 | 4.7 | 140 |

**Client Sample ID: EN046S060908**

**Lab ID#: 0806222A-16A**

No Detections Were Found.

**Client Sample ID: EN046D060908**

**Lab ID#: 0806222A-17A**

No Detections Were Found.

**Client Sample ID: EN041S060908**

**Lab ID#: 0806222A-18A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.96 | 2.7 | 5.1 | 14 |

**Client Sample ID: EN041D060908**

**Lab ID#: 0806222A-19A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.96 | 3.6 | 5.2 | 20 |
| Trichloroethene | 0.96 | 28 | 5.1 | 150 |

**Client Sample ID: EN043S060908**

**Lab ID#: 0806222A-20A**

No Detections Were Found.

**Client Sample ID: EN043S060908 Lab Duplicate**

**Lab ID#: 0806222A-20AA**

No Detections Were Found.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN047S060908**

**Lab ID#: 0806222A-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061916** | **Date of Collection: 6/9/08** | |
| **Dil. Factor:** | **1.83** | **Date of Analysis: 6/19/08 07:43 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | Not Detected | 5.0 | Not Detected |
| Trichloroethene | 0.92 | 5.5 | 4.9 | 29 |
| Tetrachloroethene | 0.92 | 7.1 | 6.2 | 48 |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 90 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN047D060908**

**Lab ID#: 0806222A-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061920** | **Date of Collection: 6/9/08** | |
| **Dil. Factor:** | **6.72** | **Date of Analysis: 6/19/08 10:43 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 3.4 | Not Detected | 8.6 | Not Detected |
| Chloroethane | 3.4 | Not Detected | 8.9 | Not Detected |
| 1,1-Dichloroethene | 3.4 | 5.2 | 13 | 21 |
| Freon 113 | 3.4 | Not Detected | 26 | Not Detected |
| Methylene Chloride | 3.4 | Not Detected | 12 | Not Detected |
| 1,1-Dichloroethane | 3.4 | Not Detected | 14 | Not Detected |
| cis-1,2-Dichloroethene | 3.4 | 12 | 13 | 46 |
| 1,1,1-Trichloroethane | 3.4 | 60 | 18 | 330 |
| Trichloroethene | 3.4 | 930 | 18 | 5000 |
| Tetrachloroethene | 3.4 | Not Detected | 23 | Not Detected |
| trans-1,2-Dichloroethene | 3.4 | Not Detected | 13 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 108 | 70-130 |
| Toluene-d8 | 90 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN045S060908**

**Lab ID#: 0806222A-03A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061918** | **Date of Collection: 6/9/08** | |
| **Dil. Factor:** | **1.71** | **Date of Analysis: 6/19/08 09:13 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | 2.1 | 4.7 | 12 |
| Trichloroethene | 0.86 | 43 | 4.6 | 230 |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 107 | 70-130 |
| Toluene-d8 | 90 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN045D060908**

**Lab ID#: 0806222A-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061919** | **Date of Collection:** | **6/9/08** |
| **Dil. Factor:** | **2.93** | **Date of Analysis:** | **6/19/08 09:52 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.5 | Not Detected | 3.7 | Not Detected |
| Chloroethane | 1.5 | Not Detected | 3.9 | Not Detected |
| 1,1-Dichloroethene | 1.5 | Not Detected | 5.8 | Not Detected |
| Freon 113 | 1.5 | Not Detected | 11 | Not Detected |
| Methylene Chloride | 1.5 | Not Detected | 5.1 | Not Detected |
| 1,1-Dichloroethane | 1.5 | Not Detected | 5.9 | Not Detected |
| cis-1,2-Dichloroethene | 1.5 | 2.0 | 5.8 | 8.0 |
| 1,1,1-Trichloroethane | 1.5 | 21 | 8.0 | 110 |
| Trichloroethene | 1.5 | 510 | 7.9 | 2700 |
| Tetrachloroethene | 1.5 | Not Detected | 9.9 | Not Detected |
| trans-1,2-Dichloroethene | 1.5 | Not Detected | 5.8 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | 70-130 |
| Toluene-d8 | 89 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN045D060908 Lab Duplicate**

**Lab ID#: 0806222A-04AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061917** | **Date of Collection: 6/9/08** | |
| **Dil. Factor:** | **1.83** | **Date of Analysis: 6/19/08 08:35 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | 2.0 | 3.6 | 7.9 |
| 1,1,1-Trichloroethane | 0.92 | 21 | 5.0 | 110 |
| Trichloroethene | 0.92 | 490 E | 4.9 | 2600 E |
| Tetrachloroethene | 0.92 | Not Detected | 6.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

E = Exceeds instrument calibration range.

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | 70-130 |
| Toluene-d8 | 91 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0636S060908**

**Lab ID#: 0806222A-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061921** | **Date of Collection:** | **6/9/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **6/19/08 11:22 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | 1.5 | 4.7 | 8.0 |
| Trichloroethene | 0.86 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 90 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0636D060908**

**Lab ID#: 0806222A-06A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061922** | **Date of Collection: 6/9/08** | |
| **Dil. Factor:** | **1.83** | **Date of Analysis: 6/20/08 12:07 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | 1.0 | 3.6 | 4.0 |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | 1.3 | 3.6 | 5.3 |
| 1,1,1-Trichloroethane | 0.92 | 45 | 5.0 | 250 |
| Trichloroethene | 0.92 | 46 | 4.9 | 240 |
| Tetrachloroethene | 0.92 | Not Detected | 6.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 90 | 70-130 |
| 4-Bromofluorobenzene | 108 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN042S060908**

**Lab ID#: 0806222A-07A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061923** | **Date of Collection: 6/9/08** | |
| **Dil. Factor:** | **1.91** | **Date of Analysis: 6/20/08 01:03 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.96 | Not Detected | 2.4 | Not Detected |
| Chloroethane | 0.96 | Not Detected | 2.5 | Not Detected |
| 1,1-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |
| Freon 113 | 0.96 | Not Detected | 7.3 | Not Detected |
| Methylene Chloride | 0.96 | Not Detected | 3.3 | Not Detected |
| 1,1-Dichloroethane | 0.96 | Not Detected | 3.9 | Not Detected |
| cis-1,2-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |
| 1,1,1-Trichloroethane | 0.96 | Not Detected | 5.2 | Not Detected |
| Trichloroethene | 0.96 | Not Detected | 5.1 | Not Detected |
| Tetrachloroethene | 0.96 | Not Detected | 6.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| Toluene-d8 | 87 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN042D060908**

**Lab ID#: 0806222A-08A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061924** | **Date of Collection: 6/9/08** | |
| **Dil. Factor:** | **1.83** | **Date of Analysis: 6/20/08 01:43 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | 1.4 | 5.0 | 7.4 |
| Trichloroethene | 0.92 | 18 | 4.9 | 99 |
| Tetrachloroethene | 0.92 | 2.9 | 6.2 | 20 |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 115 | 70-130 |
| Toluene-d8 | 88 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0430S060908**

**Lab ID#: 0806222A-09A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061925** | **Date of Collection:** | **6/9/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **6/20/08 02:34 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | 0.99 | 3.5 | 3.9 |
| 1,1,1-Trichloroethane | 0.90 | 1.2 | 4.9 | 6.8 |
| Trichloroethene | 0.90 | 180 | 4.8 | 960 |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | 70-130 |
| Toluene-d8 | 89 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0430D060908**

**Lab ID#: 0806222A-10A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061926** | **Date of Collection:** | **6/9/08** |
| **Dil. Factor:** | **1.34** | **Date of Analysis:** | **6/20/08 03:13 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.67 | Not Detected | 1.7 | Not Detected |
| Chloroethane | 0.67 | Not Detected | 1.8 | Not Detected |
| 1,1-Dichloroethene | 0.67 | Not Detected | 2.6 | Not Detected |
| Freon 113 | 0.67 | Not Detected | 5.1 | Not Detected |
| Methylene Chloride | 0.67 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethane | 0.67 | 0.96 | 2.7 | 3.9 |
| cis-1,2-Dichloroethene | 0.67 | 3.6 | 2.6 | 14 |
| 1,1,1-Trichloroethane | 0.67 | 6.7 | 3.6 | 36 |
| Trichloroethene | 0.67 | 78 | 3.6 | 420 |
| Tetrachloroethene | 0.67 | 3.0 | 4.5 | 20 |
| trans-1,2-Dichloroethene | 0.67 | Not Detected | 2.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 90 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU35635060908**

**Lab ID#: 0806222A-11A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061927** | **Date of Collection: 6/9/08** | |
| **Dil. Factor:** | **1.91** | **Date of Analysis: 6/20/08 04:25 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.96 | Not Detected | 2.4 | Not Detected |
| Chloroethane | 0.96 | Not Detected | 2.5 | Not Detected |
| 1,1-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |
| Freon 113 | 0.96 | Not Detected | 7.3 | Not Detected |
| Methylene Chloride | 0.96 | Not Detected | 3.3 | Not Detected |
| 1,1-Dichloroethane | 0.96 | 1.5 | 3.9 | 6.2 |
| cis-1,2-Dichloroethene | 0.96 | 5.4 | 3.8 | 21 |
| 1,1,1-Trichloroethane | 0.96 | 11 | 5.2 | 62 |
| Trichloroethene | 0.96 | 120 | 5.1 | 650 |
| Tetrachloroethene | 0.96 | 4.5 | 6.5 | 30 |
| trans-1,2-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 85 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0414S060908**

**Lab ID#: 0806222A-12A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061928** | **Date of Collection:** | **6/9/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **6/20/08 05:04 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | 1.1 | 4.8 | 6.2 |
| Trichloroethene | 0.88 | 2.7 | 4.7 | 15 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 115 | 70-130 |
| Toluene-d8 | 89 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0414D060908**

**Lab ID#: 0806222A-13A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061929** | **Date of Collection:** | **6/9/08** |
| **Dil. Factor:** | **3.74** | **Date of Analysis:** | **6/20/08 05:43 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.9 | Not Detected | 4.8 | Not Detected |
| Chloroethane | 1.9 | Not Detected | 4.9 | Not Detected |
| 1,1-Dichloroethene | 1.9 | Not Detected | 7.4 | Not Detected |
| Freon 113 | 1.9 | Not Detected | 14 | Not Detected |
| Methylene Chloride | 1.9 | Not Detected | 6.5 | Not Detected |
| 1,1-Dichloroethane | 1.9 | Not Detected | 7.6 | Not Detected |
| cis-1,2-Dichloroethene | 1.9 | Not Detected | 7.4 | Not Detected |
| 1,1,1-Trichloroethane | 1.9 | 20 | 10 | 110 |
| Trichloroethene | 1.9 | 480 | 10 | 2600 |
| Tetrachloroethene | 1.9 | Not Detected | 13 | Not Detected |
| trans-1,2-Dichloroethene | 1.9 | Not Detected | 7.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 118 | 70-130 |
| Toluene-d8 | 89 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0635S060908**

**Lab ID#: 0806222A-14A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061930** | **Date of Collection:** | **6/9/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **6/20/08 06:30 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | Not Detected | 4.7 | Not Detected |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | 70-130 |
| Toluene-d8 | 86 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0635D060908**

**Lab ID#: 0806222A-15A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7062007** | **Date of Collection:** | **6/9/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **6/20/08 12:08 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | 4.0 | 4.8 | 22 |
| Trichloroethene | 0.88 | 26 | 4.7 | 140 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 109 | 70-130 |
| Toluene-d8 | 90 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN046S060908**

**Lab ID#: 0806222A-16A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7062008** | **Date of Collection: 6/9/08** | |
| **Dil. Factor:** | **1.83** | **Date of Analysis: 6/20/08 01:15 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | Not Detected | 5.0 | Not Detected |
| Trichloroethene | 0.92 | Not Detected | 4.9 | Not Detected |
| Tetrachloroethene | 0.92 | Not Detected | 6.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | 70-130 |
| Toluene-d8 | 90 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN046D060908**

**Lab ID#: 0806222A-17A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7062009** | **Date of Collection:** | **6/9/08** |
| **Dil. Factor:** | **1.87** | **Date of Analysis:** | **6/20/08 02:26 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.94 | Not Detected | 2.4 | Not Detected |
| Chloroethane | 0.94 | Not Detected | 2.5 | Not Detected |
| 1,1-Dichloroethene | 0.94 | Not Detected | 3.7 | Not Detected |
| Freon 113 | 0.94 | Not Detected | 7.2 | Not Detected |
| Methylene Chloride | 0.94 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.94 | Not Detected | 3.8 | Not Detected |
| cis-1,2-Dichloroethene | 0.94 | Not Detected | 3.7 | Not Detected |
| 1,1,1-Trichloroethane | 0.94 | Not Detected | 5.1 | Not Detected |
| Trichloroethene | 0.94 | Not Detected | 5.0 | Not Detected |
| Tetrachloroethene | 0.94 | Not Detected | 6.3 | Not Detected |
| trans-1,2-Dichloroethene | 0.94 | Not Detected | 3.7 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 92 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN041S060908**

**Lab ID#: 0806222A-18A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7062010** | **Date of Collection: 6/9/08** | |
| **Dil. Factor:** | **1.91** | **Date of Analysis: 6/20/08 03:21 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.96 | Not Detected | 2.4 | Not Detected |
| Chloroethane | 0.96 | Not Detected | 2.5 | Not Detected |
| 1,1-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |
| Freon 113 | 0.96 | Not Detected | 7.3 | Not Detected |
| Methylene Chloride | 0.96 | Not Detected | 3.3 | Not Detected |
| 1,1-Dichloroethane | 0.96 | Not Detected | 3.9 | Not Detected |
| cis-1,2-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |
| 1,1,1-Trichloroethane | 0.96 | Not Detected | 5.2 | Not Detected |
| Trichloroethene | 0.96 | 2.7 | 5.1 | 14 |
| Tetrachloroethene | 0.96 | Not Detected | 6.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | 70-130 |
| Toluene-d8 | 88 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN041D060908**

**Lab ID#: 0806222A-19A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7062011** | **Date of Collection: 6/9/08** | |
| **Dil. Factor:** | **1.91** | **Date of Analysis: 6/20/08 05:15 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.96 | Not Detected | 2.4 | Not Detected |
| Chloroethane | 0.96 | Not Detected | 2.5 | Not Detected |
| 1,1-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |
| Freon 113 | 0.96 | Not Detected | 7.3 | Not Detected |
| Methylene Chloride | 0.96 | Not Detected | 3.3 | Not Detected |
| 1,1-Dichloroethane | 0.96 | Not Detected | 3.9 | Not Detected |
| cis-1,2-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |
| 1,1,1-Trichloroethane | 0.96 | 3.6 | 5.2 | 20 |
| Trichloroethene | 0.96 | 28 | 5.1 | 150 |
| Tetrachloroethene | 0.96 | Not Detected | 6.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 117 | 70-130 |
| Toluene-d8 | 91 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN043S060908**

**Lab ID#: 0806222A-20A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7062012** | **Date of Collection: 6/9/08** | |
| **Dil. Factor:** | **1.52** | **Date of Analysis: 6/20/08 05:54 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.76 | Not Detected | 1.9 | Not Detected |
| Chloroethane | 0.76 | Not Detected | 2.0 | Not Detected |
| 1,1-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |
| Freon 113 | 0.76 | Not Detected | 5.8 | Not Detected |
| Methylene Chloride | 0.76 | Not Detected | 2.6 | Not Detected |
| 1,1-Dichloroethane | 0.76 | Not Detected | 3.1 | Not Detected |
| cis-1,2-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.76 | Not Detected | 4.1 | Not Detected |
| Trichloroethene | 0.76 | Not Detected | 4.1 | Not Detected |
| Tetrachloroethene | 0.76 | Not Detected | 5.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 90 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN043S060908 Lab Duplicate**

**Lab ID#: 0806222A-20AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7062013** | **Date of Collection:** | **6/9/08** |
| **Dil. Factor:** | **1.52** | **Date of Analysis:** | **6/20/08 06:32 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.76 | Not Detected | 1.9 | Not Detected |
| Chloroethane | 0.76 | Not Detected | 2.0 | Not Detected |
| 1,1-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |
| Freon 113 | 0.76 | Not Detected | 5.8 | Not Detected |
| Methylene Chloride | 0.76 | Not Detected | 2.6 | Not Detected |
| 1,1-Dichloroethane | 0.76 | Not Detected | 3.1 | Not Detected |
| cis-1,2-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.76 | Not Detected | 4.1 | Not Detected |
| Trichloroethene | 0.76 | Not Detected | 4.1 | Not Detected |
| Tetrachloroethene | 0.76 | Not Detected | 5.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 118 | 70-130 |
| Toluene-d8 | 91 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0806222A-21A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061907** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/19/08 12:05 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 108 | 70-130 |
| Toluene-d8 | 94 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0806222A-21B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7062006** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/20/08 11:11 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 111 | 70-130 |
| Toluene-d8 | 91 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0806222A-22A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061902** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/19/08 08:34 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 109 |
| Chloroethane | 96 |
| 1,1-Dichloroethene | 101 |
| Freon 113 | 101 |
| Methylene Chloride | 102 |
| 1,1-Dichloroethane | 99 |
| cis-1,2-Dichloroethene | 105 |
| 1,1,1-Trichloroethane | 102 |
| Trichloroethene | 108 |
| Tetrachloroethene | 108 |
| trans-1,2-Dichloroethene | 92 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 107 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0806222A-22B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7062002** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/20/08 07:59 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 108 |
| Chloroethane | 94 |
| 1,1-Dichloroethene | 101 |
| Freon 113 | 100 |
| Methylene Chloride | 100 |
| 1,1-Dichloroethane | 98 |
| cis-1,2-Dichloroethene | 107 |
| 1,1,1-Trichloroethane | 107 |
| Trichloroethene | 109 |
| Tetrachloroethene | 111 |
| trans-1,2-Dichloroethene | 90 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 117 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0806222A-23A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061904** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/19/08 10:02 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 107 |
| Chloroethane | 93 |
| 1,1-Dichloroethene | 112 |
| Freon 113 | 110 |
| Methylene Chloride | 110 |
| 1,1-Dichloroethane | 102 |
| cis-1,2-Dichloroethene | 106 |
| 1,1,1-Trichloroethane | 103 |
| Trichloroethene | 106 |
| Tetrachloroethene | 106 |
| trans-1,2-Dichloroethene | 91 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 108 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0806222A-23AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7061905** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/19/08 10:45 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 109 |
| Chloroethane | 96 |
| 1,1-Dichloroethene | 113 |
| Freon 113 | 111 |
| Methylene Chloride | 110 |
| 1,1-Dichloroethane | 104 |
| cis-1,2-Dichloroethene | 107 |
| 1,1,1-Trichloroethane | 104 |
| Trichloroethene | 104 |
| Tetrachloroethene | 108 |
| trans-1,2-Dichloroethene | 93 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 108 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0806222A-23B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **7062003** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/20/08 08:49 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 109 |
| Chloroethane | 94 |
| 1,1-Dichloroethene | 114 |
| Freon 113 | 112 |
| Methylene Chloride | 111 |
| 1,1-Dichloroethane | 102 |
| cis-1,2-Dichloroethene | 109 |
| 1,1,1-Trichloroethane | 108 |
| Trichloroethene | 107 |
| Tetrachloroethene | 111 |
| trans-1,2-Dichloroethene | 91 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 115 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 105 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0806222A-23BB**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **7062004** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/20/08 09:32 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 112 |
| Chloroethane | 96 |
| 1,1-Dichloroethene | 116 |
| Freon 113 | 115 |
| Methylene Chloride | 114 |
| 1,1-Dichloroethane | 106 |
| cis-1,2-Dichloroethene | 110 |
| 1,1,1-Trichloroethane | 109 |
| Trichloroethene | 107 |
| Tetrachloroethene | 108 |
| trans-1,2-Dichloroethene | 94 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**
**Hours 8:00 A.M to 6:00 P.M. Pacific**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0806222B

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 06/12/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 06/25/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 21A | EN043D060908 | Modified TO-15 | 7.5 "Hg | 5.0 psi |
| 22A | EN0415S060908 | Modified TO-15 | 7.5 "Hg | 5.0 psi |
| 23A | EN0415D060908 | Modified TO-15 | 7.5 "Hg | 5.0 psi |
| 24A | EB3343060908 | Modified TO-15 | 8.5 "Hg | 5.0 psi |
| 25A | EN044S061008 | Modified TO-15 | 5.5 "Hg | 5.0 psi |
| 26A | DU97108061008 | Modified TO-15 | 7.0 "Hg | 5.0 psi |
| 27A | EN044D061008 | Modified TO-15 | 7.5 "Hg | 5.0 psi |
| 28A | EN0432S061008 | Modified TO-15 | 5.0 "Hg | 5.0 psi |
| 29A | EN0432D061008 | Modified TO-15 | 7.5 "Hg | 5.0 psi |
| 30A | EN0411S061008 | Modified TO-15 | 7.0 "Hg | 5.0 psi |
| 31A | EN0411D061008 | Modified TO-15 | 5.0 "Hg | 5.0 psi |
| 31AA | EN0411D061008 Lab Duplicate | Modified TO-15 | 5.0 "Hg | 5.0 psi |
| 32A | EN0417S061008 | Modified TO-15 | 9.0 "Hg | 5.0 psi |
| 33A | EN0417D061008 | Modified TO-15 | 7.5 "Hg | 5.0 psi |
| 34A | EN0413S061008 | Modified TO-15 | 8.0 "Hg | 5.0 psi |
| 35A | EN0413D061008 | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 36A | EN0533S061008 | Modified TO-15 | 8.0 "Hg | 5.0 psi |

Continued on next page

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0806222B

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 06/12/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 06/25/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 37A | EN0533D061008 | Modified TO-15 | 7.0 "Hg | 5.0 psi |
| 38A | EN0416S061008 | Modified TO-15 | 8.0 "Hg | 5.0 psi |
| 39A | EN0416D061008 | Modified TO-15 | 7.5 "Hg | 5.0 psi |
| 40A | EN0418S061008 | Modified TO-15 | 7.0 "Hg | 5.0 psi |
| 41A | Lab Blank | Modified TO-15 | NA | NA |
| 41B | Lab Blank | Modified TO-15 | NA | NA |
| 41C | Lab Blank | Modified TO-15 | NA | NA |
| 42A | CCV | Modified TO-15 | NA | NA |
| 42B | CCV | Modified TO-15 | NA | NA |
| 42C | CCV | Modified TO-15 | NA | NA |
| 43A | LCS | Modified TO-15 | NA | NA |
| 43AA | LCSD | Modified TO-15 | NA | NA |
| 43B | LCS | Modified TO-15 | NA | NA |
| 43BB | LCSD | Modified TO-15 | NA | NA |
| 43C | LCS | Modified TO-15 | NA | NA |
| 43CC | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda L. Freeman DATE: 06/25/08

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE**
**Modified TO-15**
**Sanborn, Head & Associates**
**Workorder# 0806222B**

Twenty 1 Liter Summa Canister (100% Certified) samples were received on June 12, 2008. seventy-nine 1 Liter Summa Canister (100% Certified) samples were received on June 12, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | +- 30% Difference | </= 30% Difference with two allowed out up to </=40%.; flag and narrate outliers |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN043D060908**

**Lab ID#: 0806222B-21A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.90 | 2.5 | 4.8 | 13 |

**Client Sample ID: EN0415S060908**

**Lab ID#: 0806222B-22A**

No Detections Were Found.

**Client Sample ID: EN0415D060908**

**Lab ID#: 0806222B-23A**

No Detections Were Found.

**Client Sample ID: EB3343060908**

**Lab ID#: 0806222B-24A**

No Detections Were Found.

**Client Sample ID: EN044S061008**

**Lab ID#: 0806222B-25A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.82 | 2.1 | 4.4 | 11 |

**Client Sample ID: DU97108061008**

**Lab ID#: 0806222B-26A**

No Detections Were Found.

**Client Sample ID: EN044D061008**

**Lab ID#: 0806222B-27A**

No Detections Were Found.

**Client Sample ID: EN0432S061008**

**Lab ID#: 0806222B-28A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0432S061008**

**Lab ID#: 0806222B-28A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.80 | 53 | 4.3 | 280 |

**Client Sample ID: EN0432D061008**

**Lab ID#: 0806222B-29A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.90 | 1.8 | 4.9 | 9.8 |
| Trichloroethene | 0.90 | 170 | 4.8 | 900 |

**Client Sample ID: EN0411S061008**

**Lab ID#: 0806222B-30A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.88 | 1.0 | 4.8 | 5.7 |
| Trichloroethene | 0.88 | 17 | 4.7 | 92 |

**Client Sample ID: EN0411D061008**

**Lab ID#: 0806222B-31A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.80 | 0.86 | 3.2 | 3.4 |
| 1,1,1-Trichloroethane | 0.80 | 4.9 | 4.4 | 27 |
| Trichloroethene | 0.80 | 230 | 4.3 | 1200 |
| Tetrachloroethene | 0.80 | 4.8 | 5.5 | 33 |

**Client Sample ID: EN0411D061008 Lab Duplicate**

**Lab ID#: 0806222B-31AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.80 | 0.84 | 3.2 | 3.3 |
| 1,1,1-Trichloroethane | 0.80 | 4.7 | 4.4 | 26 |
| Trichloroethene | 0.80 | 230 | 4.3 | 1200 |
| Tetrachloroethene | 0.80 | 4.6 | 5.5 | 31 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0417S061008**

**Lab ID#: 0806222B-32A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.96 | 50 | 5.1 | 270 |

**Client Sample ID: EN0417D061008**

**Lab ID#: 0806222B-33A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 4.5 | 19 | 18 | 75 |
| 1,1,1-Trichloroethane | 4.5 | 46 | 24 | 250 |
| Trichloroethene | 4.5 | 1300 | 24 | 7000 |

**Client Sample ID: EN0413S061008**

**Lab ID#: 0806222B-34A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.92 | 44 | 5.0 | 240 |
| Trichloroethene | 0.92 | 260 | 4.9 | 1400 |

**Client Sample ID: EN0413D061008**

**Lab ID#: 0806222B-35A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.86 | 9.4 | 4.7 | 51 |
| Trichloroethene | 0.86 | 72 | 4.6 | 380 |

**Client Sample ID: EN0533S061008**

**Lab ID#: 0806222B-36A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.92 | 1.2 | 5.0 | 6.7 |
| Trichloroethene | 0.92 | 20 | 4.9 | 100 |
| Tetrachloroethene | 0.92 | 1.5 | 6.2 | 10 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0533D061008**

**Lab ID#: 0806222B-37A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 3.5 | 8.1 | 14 | 32 |
| 1,1,1-Trichloroethane | 3.5 | 59 | 19 | 320 |
| Trichloroethene | 3.5 | 1300 | 19 | 6800 |
| Tetrachloroethene | 3.5 | 46 | 24 | 310 |

**Client Sample ID: EN0416S061008**

**Lab ID#: 0806222B-38A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.92 | 1.4 | 4.9 | 7.4 |
| Tetrachloroethene | 0.92 | 1.1 | 6.2 | 7.8 |

**Client Sample ID: EN0416D061008**

**Lab ID#: 0806222B-39A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 3.6 | 5.5 | 14 | 22 |
| 1,1,1-Trichloroethane | 3.6 | 42 | 20 | 230 |
| Trichloroethene | 3.6 | 980 | 19 | 5300 |
| Tetrachloroethene | 3.6 | 36 | 24 | 240 |

**Client Sample ID: EN0418S061008**

**Lab ID#: 0806222B-40A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.88 | 0.88 | 4.7 | 4.7 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN043D060908**

**Lab ID#: 0806222B-21A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062006** | **Date of Collection: 6/9/08** | |
| **Dil. Factor:** | **1.79** | **Date of Analysis: 6/20/08 12:35 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | 2.5 | 4.8 | 13 |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 98 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0415S060908**

**Lab ID#: 0806222B-22A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062007** | **Date of Collection:** | **6/9/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **6/20/08 01:28 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | Not Detected | 4.8 | Not Detected |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0415D060908**

**Lab ID#: 0806222B-23A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062015** | **Date of Collection:** | **6/9/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **6/20/08 08:57 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | Not Detected | 4.8 | Not Detected |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 104 | 70-130 |
| Toluene-d8 | 95 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EB3343060908**

**Lab ID#: 0806222B-24A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062016** | **Date of Collection: 6/9/08** | |
| **Dil. Factor:** | **1.87** | **Date of Analysis: 6/20/08 09:41 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.94 | Not Detected | 2.4 | Not Detected |
| Chloroethane | 0.94 | Not Detected | 2.5 | Not Detected |
| 1,1-Dichloroethene | 0.94 | Not Detected | 3.7 | Not Detected |
| Freon 113 | 0.94 | Not Detected | 7.2 | Not Detected |
| Methylene Chloride | 0.94 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.94 | Not Detected | 3.8 | Not Detected |
| cis-1,2-Dichloroethene | 0.94 | Not Detected | 3.7 | Not Detected |
| 1,1,1-Trichloroethane | 0.94 | Not Detected | 5.1 | Not Detected |
| Trichloroethene | 0.94 | Not Detected | 5.0 | Not Detected |
| Tetrachloroethene | 0.94 | Not Detected | 6.3 | Not Detected |
| trans-1,2-Dichloroethene | 0.94 | Not Detected | 3.7 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN044S061008**

**Lab ID#: 0806222B-25A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062017** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **6/20/08 10:20 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.82 | Not Detected | 4.5 | Not Detected |
| Trichloroethene | 0.82 | 2.1 | 4.4 | 11 |
| Tetrachloroethene | 0.82 | Not Detected | 5.6 | Not Detected |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU97108061008**

**Lab ID#: 0806222B-26A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062018** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **6/20/08 11:00 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | Not Detected | 4.7 | Not Detected |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN044D061008**

**Lab ID#: 0806222B-27A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062106** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **6/21/08 12:45 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | Not Detected | 4.8 | Not Detected |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 89 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0432S061008**

**Lab ID#: 0806222B-28A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062107** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **6/21/08 01:24 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Trichloroethene | 0.80 | 53 | 4.3 | 280 |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0432D061008**

**Lab ID#: 0806222B-29A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062108** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **6/21/08 02:03 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | 1.8 | 4.9 | 9.8 |
| Trichloroethene | 0.90 | 170 | 4.8 | 900 |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0411S061008**

**Lab ID#: 0806222B-30A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062109** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **6/21/08 03:21 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | 1.0 | 4.8 | 5.7 |
| Trichloroethene | 0.88 | 17 | 4.7 | 92 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0411D061008**

**Lab ID#: 0806222B-31A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062110** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **6/21/08 04:01 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | 0.86 | 3.2 | 3.4 |
| 1,1,1-Trichloroethane | 0.80 | 4.9 | 4.4 | 27 |
| Trichloroethene | 0.80 | 230 | 4.3 | 1200 |
| Tetrachloroethene | 0.80 | 4.8 | 5.5 | 33 |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0411D061008 Lab Duplicate**

**Lab ID#: 0806222B-31AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062111** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **6/21/08 04:39 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | 0.84 | 3.2 | 3.3 |
| 1,1,1-Trichloroethane | 0.80 | 4.7 | 4.4 | 26 |
| Trichloroethene | 0.80 | 230 | 4.3 | 1200 |
| Tetrachloroethene | 0.80 | 4.6 | 5.5 | 31 |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0417S061008**

**Lab ID#: 0806222B-32A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062112** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.91** | **Date of Analysis:** | **6/21/08 05:21 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.96 | Not Detected | 2.4 | Not Detected |
| Chloroethane | 0.96 | Not Detected | 2.5 | Not Detected |
| 1,1-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |
| Freon 113 | 0.96 | Not Detected | 7.3 | Not Detected |
| Methylene Chloride | 0.96 | Not Detected | 3.3 | Not Detected |
| 1,1-Dichloroethane | 0.96 | Not Detected | 3.9 | Not Detected |
| cis-1,2-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |
| 1,1,1-Trichloroethane | 0.96 | Not Detected | 5.2 | Not Detected |
| Trichloroethene | 0.96 | 50 | 5.1 | 270 |
| Tetrachloroethene | 0.96 | Not Detected | 6.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0417D061008**

**Lab ID#: 0806222B-33A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062117** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **8.95** | **Date of Analysis:** | **6/21/08 09:04 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 4.5 | Not Detected | 11 | Not Detected |
| Chloroethane | 4.5 | Not Detected | 12 | Not Detected |
| 1,1-Dichloroethene | 4.5 | Not Detected | 18 | Not Detected |
| Freon 113 | 4.5 | Not Detected | 34 | Not Detected |
| Methylene Chloride | 4.5 | Not Detected | 16 | Not Detected |
| 1,1-Dichloroethane | 4.5 | Not Detected | 18 | Not Detected |
| cis-1,2-Dichloroethene | 4.5 | 19 | 18 | 75 |
| 1,1,1-Trichloroethane | 4.5 | 46 | 24 | 250 |
| Trichloroethene | 4.5 | 1300 | 24 | 7000 |
| Tetrachloroethene | 4.5 | Not Detected | 30 | Not Detected |
| trans-1,2-Dichloroethene | 4.5 | Not Detected | 18 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0413S061008**

**Lab ID#: 0806222B-34A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062118** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **6/21/08 09:46 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | 44 | 5.0 | 240 |
| Trichloroethene | 0.92 | 260 | 4.9 | 1400 |
| Tetrachloroethene | 0.92 | Not Detected | 6.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0413D061008**

**Lab ID#: 0806222B-35A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062206** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **6/22/08 12:14 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | 9.4 | 4.7 | 51 |
| Trichloroethene | 0.86 | 72 | 4.6 | 380 |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0533S061008**

**Lab ID#: 0806222B-36A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062207** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **6/22/08 12:53 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | 1.2 | 5.0 | 6.7 |
| Trichloroethene | 0.92 | 20 | 4.9 | 100 |
| Tetrachloroethene | 0.92 | 1.5 | 6.2 | 10 |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 118 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0533D061008**

**Lab ID#: 0806222B-37A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062208** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **7.00** | **Date of Analysis:** | **6/22/08 01:36 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 3.5 | Not Detected | 8.9 | Not Detected |
| Chloroethane | 3.5 | Not Detected | 9.2 | Not Detected |
| 1,1-Dichloroethene | 3.5 | Not Detected | 14 | Not Detected |
| Freon 113 | 3.5 | Not Detected | 27 | Not Detected |
| Methylene Chloride | 3.5 | Not Detected | 12 | Not Detected |
| 1,1-Dichloroethane | 3.5 | Not Detected | 14 | Not Detected |
| cis-1,2-Dichloroethene | 3.5 | 8.1 | 14 | 32 |
| 1,1,1-Trichloroethane | 3.5 | 59 | 19 | 320 |
| Trichloroethene | 3.5 | 1300 | 19 | 6800 |
| Tetrachloroethene | 3.5 | 46 | 24 | 310 |
| trans-1,2-Dichloroethene | 3.5 | Not Detected | 14 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0416S061008**

**Lab ID#: 0806222B-38A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062209** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **6/22/08 02:18 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | Not Detected | 5.0 | Not Detected |
| Trichloroethene | 0.92 | 1.4 | 4.9 | 7.4 |
| Tetrachloroethene | 0.92 | 1.1 | 6.2 | 7.8 |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0416D061008**

**Lab ID#: 0806222B-39A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062210** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **7.16** | **Date of Analysis:** | **6/22/08 03:20 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 3.6 | Not Detected | 9.2 | Not Detected |
| Chloroethane | 3.6 | Not Detected | 9.4 | Not Detected |
| 1,1-Dichloroethene | 3.6 | Not Detected | 14 | Not Detected |
| Freon 113 | 3.6 | Not Detected | 27 | Not Detected |
| Methylene Chloride | 3.6 | Not Detected | 12 | Not Detected |
| 1,1-Dichloroethane | 3.6 | Not Detected | 14 | Not Detected |
| cis-1,2-Dichloroethene | 3.6 | 5.5 | 14 | 22 |
| 1,1,1-Trichloroethane | 3.6 | 42 | 20 | 230 |
| Trichloroethene | 3.6 | 980 | 19 | 5300 |
| Tetrachloroethene | 3.6 | 36 | 24 | 240 |
| trans-1,2-Dichloroethene | 3.6 | Not Detected | 14 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 111 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0418S061008**

**Lab ID#: 0806222B-40A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062211** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **6/22/08 03:59 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | 0.88 | 4.7 | 4.7 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0806222B-41A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062005** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/20/08 11:29 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0806222B-41B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062105** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/21/08 11:49 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0806222B-41C**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062205** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/22/08 11:17 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 104 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0806222B-42A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t062002** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/20/08 08:55 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 97 |
| Chloroethane | 98 |
| 1,1-Dichloroethene | 103 |
| Freon 113 | 99 |
| Methylene Chloride | 93 |
| 1,1-Dichloroethane | 101 |
| cis-1,2-Dichloroethene | 100 |
| 1,1,1-Trichloroethane | 103 |
| Trichloroethene | 102 |
| Tetrachloroethene | 102 |
| trans-1,2-Dichloroethene | 98 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0806222B-42B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062102** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/21/08 08:52 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 103 |
| Chloroethane | 101 |
| 1,1-Dichloroethene | 108 |
| Freon 113 | 104 |
| Methylene Chloride | 98 |
| 1,1-Dichloroethane | 107 |
| cis-1,2-Dichloroethene | 105 |
| 1,1,1-Trichloroethane | 112 |
| Trichloroethene | 109 |
| Tetrachloroethene | 109 |
| trans-1,2-Dichloroethene | 96 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0806222B-42C**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062202** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/22/08 08:48 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 104 |
| Chloroethane | 99 |
| 1,1-Dichloroethene | 112 |
| Freon 113 | 103 |
| Methylene Chloride | 101 |
| 1,1-Dichloroethane | 106 |
| cis-1,2-Dichloroethene | 107 |
| 1,1,1-Trichloroethane | 118 |
| Trichloroethene | 112 |
| Tetrachloroethene | 109 |
| trans-1,2-Dichloroethene | 96 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| Toluene-d8 | 105 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0806222B-43A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062003** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/20/08 09:33 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 88 |
| Chloroethane | 91 |
| 1,1-Dichloroethene | 108 |
| Freon 113 | 102 |
| Methylene Chloride | 93 |
| 1,1-Dichloroethane | 98 |
| cis-1,2-Dichloroethene | 95 |
| 1,1,1-Trichloroethane | 96 |
| Trichloroethene | 100 |
| Tetrachloroethene | 99 |
| trans-1,2-Dichloroethene | 92 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0806222B-43AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062004** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/20/08 10:16 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 89 |
| Chloroethane | 91 |
| 1,1-Dichloroethene | 110 |
| Freon 113 | 104 |
| Methylene Chloride | 95 |
| 1,1-Dichloroethane | 99 |
| cis-1,2-Dichloroethene | 96 |
| 1,1,1-Trichloroethane | 97 |
| Trichloroethene | 102 |
| Tetrachloroethene | 100 |
| trans-1,2-Dichloroethene | 95 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0806222B-43B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062103** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/21/08 10:11 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 96 |
| Chloroethane | 92 |
| 1,1-Dichloroethene | 112 |
| Freon 113 | 107 |
| Methylene Chloride | 100 |
| 1,1-Dichloroethane | 101 |
| cis-1,2-Dichloroethene | 98 |
| 1,1,1-Trichloroethane | 104 |
| Trichloroethene | 102 |
| Tetrachloroethene | 103 |
| trans-1,2-Dichloroethene | 93 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0806222B-43BB**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062104** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/21/08 10:51 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 90 |
| Chloroethane | 90 |
| 1,1-Dichloroethene | 111 |
| Freon 113 | 104 |
| Methylene Chloride | 98 |
| 1,1-Dichloroethane | 101 |
| cis-1,2-Dichloroethene | 97 |
| 1,1,1-Trichloroethane | 101 |
| Trichloroethene | 103 |
| Tetrachloroethene | 102 |
| trans-1,2-Dichloroethene | 92 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0806222B-43C**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062203** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/22/08 09:31 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 96 |
| Chloroethane | 93 |
| 1,1-Dichloroethene | 115 |
| Freon 113 | 106 |
| Methylene Chloride | 102 |
| 1,1-Dichloroethane | 105 |
| cis-1,2-Dichloroethene | 102 |
| 1,1,1-Trichloroethane | 108 |
| Trichloroethene | 104 |
| Tetrachloroethene | 104 |
| trans-1,2-Dichloroethene | 92 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 104 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0806222B-43CC**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062204** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/22/08 10:12 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 96 |
| Chloroethane | 94 |
| 1,1-Dichloroethene | 118 |
| Freon 113 | 108 |
| Methylene Chloride | 102 |
| 1,1-Dichloroethane | 105 |
| cis-1,2-Dichloroethene | 103 |
| 1,1,1-Trichloroethane | 109 |
| Trichloroethene | 105 |
| Tetrachloroethene | 101 |
| trans-1,2-Dichloroethene | 93 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

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- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**
**Hours 8:00 A.M to 6:00 P.M. Pacific**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0806222C

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 06/12/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 06/25/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 41A | EN0418D061008 | Modified TO-15 | 7.5 "Hg | 5.0 psi |
| 42A | EN0422S061008 | Modified TO-15 | 7.0 "Hg | 5.0 psi |
| 43A | EN0422D061008 | Modified TO-15 | 6.0 "Hg | 5.0 psi |
| 44A | EN049S061008 | Modified TO-15 | 7.5 "Hg | 5.0 psi |
| 45A | DU2204061008 | Modified TO-15 | 8.0 "Hg | 5.0 psi |
| 46A | EN049D061008 | Modified TO-15 | 8.5 "Hg | 5.0 psi |
| 47A | EN0529S061008 | Modified TO-15 | 7.5 "Hg | 5.0 psi |
| 48A | EN0429D061008 | Modified TO-15 | 7.0 "Hg | 5.0 psi |
| 48AA | EN0429D061008 Lab Duplicate | Modified TO-15 | 7.0 "Hg | 5.0 psi |
| 49A | DU3374061008 | Modified TO-15 | 7.5 "Hg | 5.0 psi |
| 50A | EN0410S061008 | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 51A | EN0410D061008 | Modified TO-15 | 8.0 "Hg | 5.0 psi |
| 52A | EN0412S061008 | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 53A | EN0412D061008 | Modified TO-15 | 7.5 "Hg | 5.0 psi |
| 54A | EN0431S061008 | Modified TO-15 | 7.5 "Hg | 5.0 psi |
| 55A | EN0431D061008 | Modified TO-15 | 8.0 "Hg | 5.0 psi |
| 55AA | EN0431D061008 Lab Duplicate | Modified TO-15 | 8.0 "Hg | 5.0 psi |

Continued on next page

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0806222C

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 06/12/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 06/25/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 56A | EN0420S061008 | Modified TO-15 | 4.5 "Hg | 5.0 psi |
| 57A | EN0420D061008 | Modified TO-15 | 4.5 "Hg | 5.0 psi |
| 58A | EB34665061008 | Modified TO-15 | 8.5 "Hg | 5.0 psi |
| 59A | EN0419S061108 | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 60A | DU34110061108 | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 61A | Lab Blank | Modified TO-15 | NA | NA |
| 61B | Lab Blank | Modified TO-15 | NA | NA |
| 62A | CCV | Modified TO-15 | NA | NA |
| 62B | CCV | Modified TO-15 | NA | NA |
| 63A | LCS | Modified TO-15 | NA | NA |
| 63AA | LCSD | Modified TO-15 | NA | NA |
| 63B | LCS | Modified TO-15 | NA | NA |
| 63BB | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda L. Freeman

Laboratory Director

DATE: 06/25/08

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
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**LABORATORY NARRATIVE**
**Modified TO-15**
**Sanborn, Head & Associates**
**Workorder# 0806222C**

seventy-nine 1 Liter Summa Canister (100% Certified) samples were received on June 12, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | +- 30% Difference | </= 30% Difference with two allowed out up to </=40%.; flag and narrate outliers |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0418D061008**

**Lab ID#: 0806222C-41A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.90 | 3.6 | 3.5 | 14 |
| 1,1,1-Trichloroethane | 0.90 | 16 | 4.9 | 86 |
| Trichloroethene | 0.90 | 180 | 4.8 | 990 |
| Tetrachloroethene | 0.90 | 1.2 | 6.1 | 8.5 |

**Client Sample ID: EN0422S061008**

**Lab ID#: 0806222C-42A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Freon 113 | 0.88 | 1.1 | 6.7 | 8.4 |
| 1,1-Dichloroethane | 0.88 | 0.98 | 3.5 | 4.0 |
| cis-1,2-Dichloroethene | 0.88 | 95 | 3.5 | 380 |
| 1,1,1-Trichloroethane | 0.88 | 8.0 | 4.8 | 44 |
| Trichloroethene | 0.88 | 78 | 4.7 | 420 |
| trans-1,2-Dichloroethene | 0.88 | 4.9 | 3.5 | 20 |

**Client Sample ID: EN0422D061008**

**Lab ID#: 0806222C-43A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Chloroethane | 0.84 | 0.86 | 2.2 | 2.3 |
| 1,1-Dichloroethene | 0.84 | 0.86 | 3.3 | 3.4 |
| Freon 113 | 0.84 | 1.5 | 6.4 | 12 |
| 1,1-Dichloroethane | 0.84 | 1.9 | 3.4 | 7.6 |
| cis-1,2-Dichloroethene | 0.84 | 240 | 3.3 | 950 |
| 1,1,1-Trichloroethane | 0.84 | 11 | 4.6 | 61 |
| Trichloroethene | 0.84 | 120 | 4.5 | 660 |
| trans-1,2-Dichloroethene | 0.84 | 12 | 3.3 | 50 |

**Client Sample ID: EN049S061008**

**Lab ID#: 0806222C-44A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethane | 3.6 | 6.3 | 14 | 26 |
| cis-1,2-Dichloroethene | 3.6 | 6.7 | 14 | 26 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN049S061008**

**Lab ID#: 0806222C-44A**

| | | | | |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 3.6 | 59 | 20 | 320 |
| Trichloroethene | 3.6 | 820 | 19 | 4400 |
| Tetrachloroethene | 3.6 | 18 | 24 | 120 |

**Client Sample ID: DU2204061008**

**Lab ID#: 0806222C-45A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethane | 3.7 | 6.3 | 15 | 26 |
| cis-1,2-Dichloroethene | 3.7 | 5.8 | 14 | 23 |
| 1,1,1-Trichloroethane | 3.7 | 60 | 20 | 330 |
| Trichloroethene | 3.7 | 850 | 20 | 4600 |
| Tetrachloroethene | 3.7 | 18 | 25 | 120 |

**Client Sample ID: EN049D061008**

**Lab ID#: 0806222C-46A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethene | 1.2 | 3.3 | 4.9 | 13 |
| 1,1-Dichloroethane | 1.2 | 2.5 | 5.0 | 10 |
| cis-1,2-Dichloroethene | 1.2 | 9.9 | 4.9 | 39 |
| 1,1,1-Trichloroethane | 1.2 | 19 | 6.8 | 100 |
| Trichloroethene | 1.2 | 350 | 6.7 | 1900 |
| Tetrachloroethene | 1.2 | 11 | 8.4 | 75 |

**Client Sample ID: EN0529S061008**

**Lab ID#: 0806222C-47A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.90 | 7.4 | 4.9 | 40 |
| Trichloroethene | 0.90 | 86 | 4.8 | 460 |

**Client Sample ID: EN0429D061008**

**Lab ID#: 0806222C-48A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0429D061008**

**Lab ID#: 0806222C-48A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.88 | 15 | 4.8 | 81 |
| Trichloroethene | 0.88 | 160 | 4.7 | 880 |

**Client Sample ID: EN0429D061008 Lab Duplicate**

**Lab ID#: 0806222C-48AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.88 | 14 | 4.8 | 79 |
| Trichloroethene | 0.88 | 160 | 4.7 | 860 |

**Client Sample ID: DU3374061008**

**Lab ID#: 0806222C-49A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.90 | 16 | 4.9 | 87 |
| Trichloroethene | 0.90 | 170 | 4.8 | 930 |

**Client Sample ID: EN0410S061008**

**Lab ID#: 0806222C-50A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 21 | 51 | 55 | 130 |
| 1,1-Dichloroethene | 21 | 730 | 85 | 2900 |
| 1,1-Dichloroethane | 21 | 920 | 87 | 3700 |
| cis-1,2-Dichloroethene | 21 | 1900 | 85 | 7400 |
| 1,1,1-Trichloroethane | 21 | 1800 | 120 | 10000 |
| Trichloroethene | 21 | 5800 | 120 | 31000 |
| Tetrachloroethene | 21 | 46 | 140 | 310 |

**Client Sample ID: EN0410D061008**

**Lab ID#: 0806222C-51A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 23 | 58 | 58 | 150 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0410D061008**

**Lab ID#: 0806222C-51A**

| | | | | |
|---|---|---|---|---|
| 1,1-Dichloroethene | 23 | 810 | 91 | 3200 |
| Methylene Chloride | 23 | 24 | 80 | 83 |
| 1,1-Dichloroethane | 23 | 1200 | 93 | 4800 |
| cis-1,2-Dichloroethene | 23 | 3200 | 91 | 13000 |
| 1,1,1-Trichloroethane | 23 | 2100 | 120 | 12000 |
| Trichloroethene | 23 | 6200 | 120 | 33000 |
| Tetrachloroethene | 23 | 71 | 160 | 480 |

**Client Sample ID: EN0412S061008**

**Lab ID#: 0806222C-52A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.86 | 5.5 | 4.7 | 30 |
| Trichloroethene | 0.86 | 150 | 4.6 | 830 |

**Client Sample ID: EN0412D061008**

**Lab ID#: 0806222C-53A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.90 | 4.8 | 4.9 | 26 |
| Trichloroethene | 0.90 | 160 | 4.8 | 860 |

**Client Sample ID: EN0431S061008**

**Lab ID#: 0806222C-54A**

No Detections Were Found.

**Client Sample ID: EN0431D061008**

**Lab ID#: 0806222C-55A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.92 | 2.4 | 5.0 | 13 |
| Trichloroethene | 0.92 | 53 | 4.9 | 280 |

**Client Sample ID: EN0431D061008 Lab Duplicate**

**Lab ID#: 0806222C-55AA**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0431D061008 Lab Duplicate**

**Lab ID#: 0806222C-55AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.92 | 2.4 | 5.0 | 13 |
| Trichloroethene | 0.92 | 52 | 4.9 | 280 |

**Client Sample ID: EN0420S061008**

**Lab ID#: 0806222C-56A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Tetrachloroethene | 0.79 | 2.9 | 5.4 | 20 |

**Client Sample ID: EN0420D061008**

**Lab ID#: 0806222C-57A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Methylene Chloride | 0.79 | 0.87 | 2.7 | 3.0 |
| 1,1,1-Trichloroethane | 0.79 | 2.0 | 4.3 | 11 |
| Trichloroethene | 0.79 | 38 | 4.2 | 210 |

**Client Sample ID: EB34665061008**

**Lab ID#: 0806222C-58A**

No Detections Were Found.

**Client Sample ID: EN0419S061108**

**Lab ID#: 0806222C-59A**

No Detections Were Found.

**Client Sample ID: DU34110061108**

**Lab ID#: 0806222C-60A**

No Detections Were Found.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0418D061008**

**Lab ID#: 0806222C-41A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062106** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **6/21/08 12:07 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | 3.6 | 3.5 | 14 |
| 1,1,1-Trichloroethane | 0.90 | 16 | 4.9 | 86 |
| Trichloroethene | 0.90 | 180 | 4.8 | 990 |
| Tetrachloroethene | 0.90 | 1.2 | 6.1 | 8.5 |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0422S061008**

**Lab ID#: 0806222C-42A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062107** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **6/21/08 12:51 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | 1.1 | 6.7 | 8.4 |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | 0.98 | 3.5 | 4.0 |
| cis-1,2-Dichloroethene | 0.88 | 95 | 3.5 | 380 |
| 1,1,1-Trichloroethane | 0.88 | 8.0 | 4.8 | 44 |
| Trichloroethene | 0.88 | 78 | 4.7 | 420 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | 4.9 | 3.5 | 20 |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0422D061008**

**Lab ID#: 0806222C-43A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062108** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **6/21/08 01:24 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | 0.86 | 2.2 | 2.3 |
| 1,1-Dichloroethene | 0.84 | 0.86 | 3.3 | 3.4 |
| Freon 113 | 0.84 | 1.5 | 6.4 | 12 |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | 1.9 | 3.4 | 7.6 |
| cis-1,2-Dichloroethene | 0.84 | 240 | 3.3 | 950 |
| 1,1,1-Trichloroethane | 0.84 | 11 | 4.6 | 61 |
| Trichloroethene | 0.84 | 120 | 4.5 | 660 |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | 12 | 3.3 | 50 |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 115 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN049S061008**

**Lab ID#: 0806222C-44A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062109** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **7.16** | **Date of Analysis:** | **6/21/08 01:57 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 3.6 | Not Detected | 9.2 | Not Detected |
| Chloroethane | 3.6 | Not Detected | 9.4 | Not Detected |
| 1,1-Dichloroethene | 3.6 | Not Detected | 14 | Not Detected |
| Freon 113 | 3.6 | Not Detected | 27 | Not Detected |
| Methylene Chloride | 3.6 | Not Detected | 12 | Not Detected |
| 1,1-Dichloroethane | 3.6 | 6.3 | 14 | 26 |
| cis-1,2-Dichloroethene | 3.6 | 6.7 | 14 | 26 |
| 1,1,1-Trichloroethane | 3.6 | 59 | 20 | 320 |
| Trichloroethene | 3.6 | 820 | 19 | 4400 |
| Tetrachloroethene | 3.6 | 18 | 24 | 120 |
| trans-1,2-Dichloroethene | 3.6 | Not Detected | 14 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 119 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU2204061008**

**Lab ID#: 0806222C-45A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062112** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **7.32** | **Date of Analysis:** | **6/21/08 05:13 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 3.7 | Not Detected | 9.4 | Not Detected |
| Chloroethane | 3.7 | Not Detected | 9.6 | Not Detected |
| 1,1-Dichloroethene | 3.7 | Not Detected | 14 | Not Detected |
| Freon 113 | 3.7 | Not Detected | 28 | Not Detected |
| Methylene Chloride | 3.7 | Not Detected | 13 | Not Detected |
| 1,1-Dichloroethane | 3.7 | 6.3 | 15 | 26 |
| cis-1,2-Dichloroethene | 3.7 | 5.8 | 14 | 23 |
| 1,1,1-Trichloroethane | 3.7 | 60 | 20 | 330 |
| Trichloroethene | 3.7 | 850 | 20 | 4600 |
| Tetrachloroethene | 3.7 | 18 | 25 | 120 |
| trans-1,2-Dichloroethene | 3.7 | Not Detected | 14 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 120 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN049D061008**

**Lab ID#: 0806222C-46A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062111** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **2.49** | **Date of Analysis:** | **6/21/08 04:31 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.2 | Not Detected | 3.2 | Not Detected |
| Chloroethane | 1.2 | Not Detected | 3.3 | Not Detected |
| 1,1-Dichloroethene | 1.2 | 3.3 | 4.9 | 13 |
| Freon 113 | 1.2 | Not Detected | 9.5 | Not Detected |
| Methylene Chloride | 1.2 | Not Detected | 4.3 | Not Detected |
| 1,1-Dichloroethane | 1.2 | 2.5 | 5.0 | 10 |
| cis-1,2-Dichloroethene | 1.2 | 9.9 | 4.9 | 39 |
| 1,1,1-Trichloroethane | 1.2 | 19 | 6.8 | 100 |
| Trichloroethene | 1.2 | 350 | 6.7 | 1900 |
| Tetrachloroethene | 1.2 | 11 | 8.4 | 75 |
| trans-1,2-Dichloroethene | 1.2 | Not Detected | 4.9 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 117 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0529S061008**

**Lab ID#: 0806222C-47A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062113** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **6/21/08 05:56 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | 7.4 | 4.9 | 40 |
| Trichloroethene | 0.90 | 86 | 4.8 | 460 |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 118 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0429D061008**

**Lab ID#: 0806222C-48A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062114** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **6/21/08 06:31 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | 15 | 4.8 | 81 |
| Trichloroethene | 0.88 | 160 | 4.7 | 880 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 117 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0429D061008 Lab Duplicate**

**Lab ID#: 0806222C-48AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062115** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **6/21/08 07:11 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | 14 | 4.8 | 79 |
| Trichloroethene | 0.88 | 160 | 4.7 | 860 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU3374061008**

**Lab ID#: 0806222C-49A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062116** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **6/21/08 07:53 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | 16 | 4.9 | 87 |
| Trichloroethene | 0.90 | 170 | 4.8 | 930 |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 118 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0410S061008**

**Lab ID#: 0806222C-50A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062118** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **42.8** | **Date of Analysis:** | **6/21/08 09:17 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 21 | 51 | 55 | 130 |
| Chloroethane | 21 | Not Detected | 56 | Not Detected |
| 1,1-Dichloroethene | 21 | 730 | 85 | 2900 |
| Freon 113 | 21 | Not Detected | 160 | Not Detected |
| Methylene Chloride | 21 | Not Detected | 74 | Not Detected |
| 1,1-Dichloroethane | 21 | 920 | 87 | 3700 |
| cis-1,2-Dichloroethene | 21 | 1900 | 85 | 7400 |
| 1,1,1-Trichloroethane | 21 | 1800 | 120 | 10000 |
| Trichloroethene | 21 | 5800 | 120 | 31000 |
| Tetrachloroethene | 21 | 46 | 140 | 310 |
| trans-1,2-Dichloroethene | 21 | Not Detected | 85 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0410D061008**

**Lab ID#: 0806222C-51A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062119** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **45.8** | **Date of Analysis:** | **6/21/08 10:04 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 23 | 58 | 58 | 150 |
| Chloroethane | 23 | Not Detected | 60 | Not Detected |
| 1,1-Dichloroethene | 23 | 810 | 91 | 3200 |
| Freon 113 | 23 | Not Detected | 180 | Not Detected |
| Methylene Chloride | 23 | 24 | 80 | 83 |
| 1,1-Dichloroethane | 23 | 1200 | 93 | 4800 |
| cis-1,2-Dichloroethene | 23 | 3200 | 91 | 13000 |
| 1,1,1-Trichloroethane | 23 | 2100 | 120 | 12000 |
| Trichloroethene | 23 | 6200 | 120 | 33000 |
| Tetrachloroethene | 23 | 71 | 160 | 480 |
| trans-1,2-Dichloroethene | 23 | Not Detected | 91 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 118 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0412S061008**

**Lab ID#: 0806222C-52A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062206** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **6/22/08 12:08 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | 5.5 | 4.7 | 30 |
| Trichloroethene | 0.86 | 150 | 4.6 | 830 |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0412D061008**

**Lab ID#: 0806222C-53A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062207** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **6/22/08 12:46 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | 4.8 | 4.9 | 26 |
| Trichloroethene | 0.90 | 160 | 4.8 | 860 |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0431S061008**

**Lab ID#: 0806222C-54A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062208** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **6/22/08 01:19 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | Not Detected | 4.8 | Not Detected |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0431D061008**

**Lab ID#: 0806222C-55A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062209** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **6/22/08 01:59 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | 2.4 | 5.0 | 13 |
| Trichloroethene | 0.92 | 53 | 4.9 | 280 |
| Tetrachloroethene | 0.92 | Not Detected | 6.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 115 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0431D061008 Lab Duplicate**

**Lab ID#: 0806222C-55AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062215** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **6/22/08 06:10 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | 2.4 | 5.0 | 13 |
| Trichloroethene | 0.92 | 52 | 4.9 | 280 |
| Tetrachloroethene | 0.92 | Not Detected | 6.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0420S061008**

**Lab ID#: 0806222C-56A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062210** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.58** | **Date of Analysis:** | **6/22/08 02:32 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.79 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.79 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| Freon 113 | 0.79 | Not Detected | 6.0 | Not Detected |
| Methylene Chloride | 0.79 | Not Detected | 2.7 | Not Detected |
| 1,1-Dichloroethane | 0.79 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| 1,1,1-Trichloroethane | 0.79 | Not Detected | 4.3 | Not Detected |
| Trichloroethene | 0.79 | Not Detected | 4.2 | Not Detected |
| Tetrachloroethene | 0.79 | 2.9 | 5.4 | 20 |
| trans-1,2-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0420D061008**

**Lab ID#: 0806222C-57A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062211** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.58** | **Date of Analysis:** | **6/22/08 03:08 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.79 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.79 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| Freon 113 | 0.79 | Not Detected | 6.0 | Not Detected |
| Methylene Chloride | 0.79 | 0.87 | 2.7 | 3.0 |
| 1,1-Dichloroethane | 0.79 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| 1,1,1-Trichloroethane | 0.79 | 2.0 | 4.3 | 11 |
| Trichloroethene | 0.79 | 38 | 4.2 | 210 |
| Tetrachloroethene | 0.79 | Not Detected | 5.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EB34665061008**

**Lab ID#: 0806222C-58A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062212** | **Date of Collection:** | **6/10/08** |
| **Dil. Factor:** | **1.87** | **Date of Analysis:** | **6/22/08 03:50 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.94 | Not Detected | 2.4 | Not Detected |
| Chloroethane | 0.94 | Not Detected | 2.5 | Not Detected |
| 1,1-Dichloroethene | 0.94 | Not Detected | 3.7 | Not Detected |
| Freon 113 | 0.94 | Not Detected | 7.2 | Not Detected |
| Methylene Chloride | 0.94 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.94 | Not Detected | 3.8 | Not Detected |
| cis-1,2-Dichloroethene | 0.94 | Not Detected | 3.7 | Not Detected |
| 1,1,1-Trichloroethane | 0.94 | Not Detected | 5.1 | Not Detected |
| Trichloroethene | 0.94 | Not Detected | 5.0 | Not Detected |
| Tetrachloroethene | 0.94 | Not Detected | 6.3 | Not Detected |
| trans-1,2-Dichloroethene | 0.94 | Not Detected | 3.7 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 118 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0419S061108**

**Lab ID#: 0806222C-59A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062213** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **6/22/08 04:54 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 117 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU34110061108**

**Lab ID#: 0806222C-60A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062214** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **6/22/08 05:34 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 119 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0806222C-61A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062105** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/21/08 10:57 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0806222C-61B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062205** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/22/08 11:21 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0806222C-62A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062102** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/21/08 08:51 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 120 |
| Chloroethane | 120 |
| 1,1-Dichloroethene | 109 |
| Freon 113 | 111 |
| Methylene Chloride | 112 |
| 1,1-Dichloroethane | 114 |
| cis-1,2-Dichloroethene | 109 |
| 1,1,1-Trichloroethane | 117 |
| Trichloroethene | 103 |
| Tetrachloroethene | 100 |
| trans-1,2-Dichloroethene | 111 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0806222C-62B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062202** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/22/08 09:12 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 122 |
| Chloroethane | 120 |
| 1,1-Dichloroethene | 110 |
| Freon 113 | 107 |
| Methylene Chloride | 115 |
| 1,1-Dichloroethane | 113 |
| cis-1,2-Dichloroethene | 110 |
| 1,1,1-Trichloroethane | 123 |
| Trichloroethene | 102 |
| Tetrachloroethene | 100 |
| trans-1,2-Dichloroethene | 106 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 120 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0806222C-63A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062103** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/21/08 09:28 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 115 |
| Chloroethane | 118 |
| 1,1-Dichloroethene | 121 |
| Freon 113 | 122 |
| Methylene Chloride | 121 |
| 1,1-Dichloroethane | 118 |
| cis-1,2-Dichloroethene | 111 |
| 1,1,1-Trichloroethane | 118 |
| Trichloroethene | 103 |
| Tetrachloroethene | 102 |
| trans-1,2-Dichloroethene | 111 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0806222C-63AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062104** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/21/08 10:10 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 116 |
| Chloroethane | 121 |
| 1,1-Dichloroethene | 125 |
| Freon 113 | 125 |
| Methylene Chloride | 124 |
| 1,1-Dichloroethane | 122 |
| cis-1,2-Dichloroethene | 115 |
| 1,1,1-Trichloroethane | 120 |
| Trichloroethene | 104 |
| Tetrachloroethene | 102 |
| trans-1,2-Dichloroethene | 115 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0806222C-63B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062203** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/22/08 09:59 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 117 |
| Chloroethane | 121 |
| 1,1-Dichloroethene | 123 |
| Freon 113 | 120 |
| Methylene Chloride | 123 |
| 1,1-Dichloroethane | 118 |
| cis-1,2-Dichloroethene | 111 |
| 1,1,1-Trichloroethane | 122 |
| Trichloroethene | 103 |
| Tetrachloroethene | 101 |
| trans-1,2-Dichloroethene | 108 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 117 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0806222C-63BB**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b062204** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/22/08 10:41 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 121 |
| Chloroethane | 125 |
| 1,1-Dichloroethene | 127 |
| Freon 113 | 124 |
| Methylene Chloride | 128 |
| 1,1-Dichloroethane | 123 |
| cis-1,2-Dichloroethene | 117 |
| 1,1,1-Trichloroethane | 126 |
| Trichloroethene | 105 |
| Tetrachloroethene | 103 |
| trans-1,2-Dichloroethene | 114 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 117 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**
**Hours 8:00 A.M to 6:00 P.M. Pacific**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0806222D

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 06/12/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 06/25/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 61A | EN0419D061108 | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 62A | EN0421S061108 | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 63A | EN0421D061108 | Modified TO-15 | 7.0 "Hg | 5.0 psi |
| 64A | EN0534S061108 | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 65A | EN0534D061108 | Modified TO-15 | 6.0 "Hg | 5.0 psi |
| 66A | EN0423S061108 | Modified TO-15 | 6.0 "Hg | 5.0 psi |
| 67A | EN0423D061108 | Modified TO-15 | 5.5 "Hg | 5.0 psi |
| 68A | EN0637S061108 | Modified TO-15 | 5.0 "Hg | 5.0 psi |
| 69A | EN0637D061108 | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 70A | EN0728S061108 | Modified TO-15 | 7.0 "Hg | 5.0 psi |
| 71A | EN0728D061108 | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 72A | EN0425S061108 | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 73A | DU3301061108 | Modified TO-15 | 8.0 "Hg | 5.0 psi |
| 74A | EN0425D061108 | Modified TO-15 | 6.0 "Hg | 5.0 psi |
| 75A | EB3323061108 | Modified TO-15 | 8.0 "Hg | 5.0 psi |
| 76A | EN0427S061108 | Modified TO-15 | 5.5 "Hg | 5.0 psi |
| 77A | EN0426S061108 | Modified TO-15 | 6.5 "Hg | 5.0 psi |

Continued on next page

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0806222D

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 06/12/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 06/25/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 78A | EN0426D061108 | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 78AA | EN0426D061108 Lab Duplicate | Modified TO-15 | 6.5 "Hg | 5.0 psi |
| 79A | DU36523061108 | Modified TO-15 | 6.0 "Hg | 5.0 psi |
| 79AA | DU36523061108 Lab Duplicate | Modified TO-15 | 6.0 "Hg | 5.0 psi |
| 80A | Lab Blank | Modified TO-15 | NA | NA |
| 80B | Lab Blank | Modified TO-15 | NA | NA |
| 81A | CCV | Modified TO-15 | NA | NA |
| 81B | CCV | Modified TO-15 | NA | NA |
| 82A | LCS | Modified TO-15 | NA | NA |
| 82AA | LCSD | Modified TO-15 | NA | NA |
| 82B | LCS | Modified TO-15 | NA | NA |
| 82BB | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda L. Freeman

Laboratory Director

DATE: 06/25/08

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE**
**Modified TO-15**
**Sanborn, Head & Associates**
**Workorder# 0806222D**

seventy-nine 1 Liter Summa Canister (100% Certified) samples were received on June 12, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | +- 30% Difference | </= 30% Difference with two allowed out up to </=40%.; flag and narrate outliers |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0419D061108**

**Lab ID#: 0806222D-61A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.86 | 2.6 | 3.4 | 10 |
| 1,1,1-Trichloroethane | 0.86 | 9.9 | 4.7 | 54 |
| Trichloroethene | 0.86 | 200 | 4.6 | 1100 |

**Client Sample ID: EN0421S061108**

**Lab ID#: 0806222D-62A**

No Detections Were Found.

**Client Sample ID: EN0421D061108**

**Lab ID#: 0806222D-63A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Methylene Chloride | 0.88 | 3.2 | 3.0 | 11 |
| Trichloroethene | 0.88 | 17 | 4.7 | 93 |

**Client Sample ID: EN0534S061108**

**Lab ID#: 0806222D-64A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.86 | 2.4 | 4.6 | 13 |

**Client Sample ID: EN0534D061108**

**Lab ID#: 0806222D-65A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Methylene Chloride | 0.84 | 3.5 | 2.9 | 12 |
| 1,1,1-Trichloroethane | 0.84 | 0.92 | 4.6 | 5.0 |
| Trichloroethene | 0.84 | 15 | 4.5 | 80 |
| Tetrachloroethene | 0.84 | 0.99 | 5.7 | 6.7 |

**Client Sample ID: EN0423S061108**

**Lab ID#: 0806222D-66A**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0423S061108**

**Lab ID#: 0806222D-66A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Methylene Chloride | 0.84 | 3.2 | 2.9 | 11 |

**Client Sample ID: EN0423D061108**

**Lab ID#: 0806222D-67A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethane | 0.82 | 5.2 | 3.3 | 21 |
| cis-1,2-Dichloroethene | 0.82 | 41 | 3.2 | 160 |
| Trichloroethene | 0.82 | 92 | 4.4 | 490 |
| Tetrachloroethene | 0.82 | 2.5 | 5.6 | 17 |
| trans-1,2-Dichloroethene | 0.82 | 1.7 | 3.2 | 6.8 |

**Client Sample ID: EN0637S061108**

**Lab ID#: 0806222D-68A**

No Detections Were Found.

**Client Sample ID: EN0637D061108**

**Lab ID#: 0806222D-69A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.86 | 14 | 3.4 | 55 |
| Trichloroethene | 0.86 | 8.1 | 4.6 | 44 |
| Tetrachloroethene | 0.86 | 2.8 | 5.8 | 19 |

**Client Sample ID: EN0728S061108**

**Lab ID#: 0806222D-70A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.88 | 2.4 | 4.7 | 13 |
| Tetrachloroethene | 0.88 | 43 | 5.9 | 290 |

**Client Sample ID: EN0728D061108**

**Lab ID#: 0806222D-71A**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0728D061108**

**Lab ID#: 0806222D-71A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.86 | 31 | 3.4 | 120 |
| Trichloroethene | 0.86 | 34 | 4.6 | 180 |
| Tetrachloroethene | 0.86 | 290 | 5.8 | 2000 |
| trans-1,2-Dichloroethene | 0.86 | 1.1 | 3.4 | 4.6 |

**Client Sample ID: EN0425S061108**

**Lab ID#: 0806222D-72A**

No Detections Were Found.

**Client Sample ID: DU3301061108**

**Lab ID#: 0806222D-73A**

No Detections Were Found.

**Client Sample ID: EN0425D061108**

**Lab ID#: 0806222D-74A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.84 | 2.0 | 4.5 | 11 |

**Client Sample ID: EB3323061108**

**Lab ID#: 0806222D-75A**

No Detections Were Found.

**Client Sample ID: EN0427S061108**

**Lab ID#: 0806222D-76A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.82 | 13 | 4.5 | 73 |
| Trichloroethene | 0.82 | 110 | 4.4 | 570 |
| Tetrachloroethene | 0.82 | 14 | 5.6 | 94 |

**Client Sample ID: EN0426S061108**

**Lab ID#: 0806222D-77A**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0426S061108**

**Lab ID#: 0806222D-77A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.86 | 13 | 4.7 | 71 |
| Trichloroethene | 0.86 | 210 | 4.6 | 1100 |
| Tetrachloroethene | 0.86 | 1.6 | 5.8 | 10 |

**Client Sample ID: EN0426D061108**

**Lab ID#: 0806222D-78A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.4 | 14 | 7.5 | 76 |
| Trichloroethene | 1.4 | 280 | 7.4 | 1500 |
| Tetrachloroethene | 1.4 | 1.4 | 9.3 | 9.6 |

**Client Sample ID: EN0426D061108 Lab Duplicate**

**Lab ID#: 0806222D-78AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.4 | 14 | 7.5 | 75 |
| Trichloroethene | 1.4 | 280 | 7.4 | 1500 |
| Tetrachloroethene | 1.4 | 1.4 | 9.3 | 9.7 |

**Client Sample ID: DU36523061108**

**Lab ID#: 0806222D-79A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.3 | 14 | 7.3 | 79 |
| Trichloroethene | 1.3 | 280 | 7.2 | 1500 |

**Client Sample ID: DU36523061108 Lab Duplicate**

**Lab ID#: 0806222D-79AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.3 | 14 | 7.3 | 78 |
| Trichloroethene | 1.3 | 280 | 7.2 | 1500 |
| Tetrachloroethene | 1.3 | 1.4 | 9.1 | 9.2 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0419D061108**

**Lab ID#: 0806222D-61A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062213** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **6/22/08 05:30 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | 2.6 | 3.4 | 10 |
| 1,1,1-Trichloroethane | 0.86 | 9.9 | 4.7 | 54 |
| Trichloroethene | 0.86 | 200 | 4.6 | 1100 |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0421S061108**

**Lab ID#: 0806222D-62A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062214** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **6/22/08 06:11 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0421D061108**

**Lab ID#: 0806222D-63A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062215** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **6/22/08 06:53 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | 3.2 | 3.0 | 11 |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | 17 | 4.7 | 93 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0534S061108**

**Lab ID#: 0806222D-64A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062216** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **6/22/08 07:36 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | 2.4 | 4.6 | 13 |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0534D061108**

**Lab ID#: 0806222D-65A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062217** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **6/22/08 08:36 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | 3.5 | 2.9 | 12 |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | 0.92 | 4.6 | 5.0 |
| Trichloroethene | 0.84 | 15 | 4.5 | 80 |
| Tetrachloroethene | 0.84 | 0.99 | 5.7 | 6.7 |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 115 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0423S061108**

**Lab ID#: 0806222D-66A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062219** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **6/22/08 10:12 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | 3.2 | 2.9 | 11 |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | Not Detected | 4.5 | Not Detected |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0423D061108**

**Lab ID#: 0806222D-67A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062220** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **6/22/08 10:49 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | 5.2 | 3.3 | 21 |
| cis-1,2-Dichloroethene | 0.82 | 41 | 3.2 | 160 |
| 1,1,1-Trichloroethane | 0.82 | Not Detected | 4.5 | Not Detected |
| Trichloroethene | 0.82 | 92 | 4.4 | 490 |
| Tetrachloroethene | 0.82 | 2.5 | 5.6 | 17 |
| trans-1,2-Dichloroethene | 0.82 | 1.7 | 3.2 | 6.8 |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0637S061108**

**Lab ID#: 0806222D-68A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062221** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **6/22/08 11:39 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Trichloroethene | 0.80 | Not Detected | 4.3 | Not Detected |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0637D061108**

**Lab ID#: 0806222D-69A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062222** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **6/23/08 12:23 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | 14 | 3.4 | 55 |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | 8.1 | 4.6 | 44 |
| Tetrachloroethene | 0.86 | 2.8 | 5.8 | 19 |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0728S061108**

**Lab ID#: 0806222D-70A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062223** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **6/23/08 01:19 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | 2.4 | 4.7 | 13 |
| Tetrachloroethene | 0.88 | 43 | 5.9 | 290 |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0728D061108**

**Lab ID#: 0806222D-71A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062224** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **6/23/08 01:57 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | 31 | 3.4 | 120 |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | 34 | 4.6 | 180 |
| Tetrachloroethene | 0.86 | 290 | 5.8 | 2000 |
| trans-1,2-Dichloroethene | 0.86 | 1.1 | 3.4 | 4.6 |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 117 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0425S061108**

**Lab ID#: 0806222D-72A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062229** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **6/23/08 05:23 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 115 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU3301061108**

**Lab ID#: 0806222D-73A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062306** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **6/23/08 02:17 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | Not Detected | 5.0 | Not Detected |
| Trichloroethene | 0.92 | Not Detected | 4.9 | Not Detected |
| Tetrachloroethene | 0.92 | Not Detected | 6.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0425D061108**

**Lab ID#: 0806222D-74A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062307** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **6/23/08 03:02 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | 2.0 | 4.5 | 11 |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EB3323061108**

**Lab ID#: 0806222D-75A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062308** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **6/23/08 03:43 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | Not Detected | 5.0 | Not Detected |
| Trichloroethene | 0.92 | Not Detected | 4.9 | Not Detected |
| Tetrachloroethene | 0.92 | Not Detected | 6.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0427S061108**

**Lab ID#: 0806222D-76A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062310** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **6/23/08 05:33 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.82 | 13 | 4.5 | 73 |
| Trichloroethene | 0.82 | 110 | 4.4 | 570 |
| Tetrachloroethene | 0.82 | 14 | 5.6 | 94 |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0426S061108**

**Lab ID#: 0806222D-77A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062311** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **6/23/08 06:18 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | 13 | 4.7 | 71 |
| Trichloroethene | 0.86 | 210 | 4.6 | 1100 |
| Tetrachloroethene | 0.86 | 1.6 | 5.8 | 10 |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0426D061108**

**Lab ID#: 0806222D-78A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062227** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **2.74** | **Date of Analysis:** | **6/23/08 04:00 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.4 | Not Detected | 3.5 | Not Detected |
| Chloroethane | 1.4 | Not Detected | 3.6 | Not Detected |
| 1,1-Dichloroethene | 1.4 | Not Detected | 5.4 | Not Detected |
| Freon 113 | 1.4 | Not Detected | 10 | Not Detected |
| Methylene Chloride | 1.4 | Not Detected | 4.8 | Not Detected |
| 1,1-Dichloroethane | 1.4 | Not Detected | 5.5 | Not Detected |
| cis-1,2-Dichloroethene | 1.4 | Not Detected | 5.4 | Not Detected |
| 1,1,1-Trichloroethane | 1.4 | 14 | 7.5 | 76 |
| Trichloroethene | 1.4 | 280 | 7.4 | 1500 |
| Tetrachloroethene | 1.4 | 1.4 | 9.3 | 9.6 |
| trans-1,2-Dichloroethene | 1.4 | Not Detected | 5.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0426D061108 Lab Duplicate**

**Lab ID#: 0806222D-78AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062228** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **2.74** | **Date of Analysis:** | **6/23/08 04:45 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.4 | Not Detected | 3.5 | Not Detected |
| Chloroethane | 1.4 | Not Detected | 3.6 | Not Detected |
| 1,1-Dichloroethene | 1.4 | Not Detected | 5.4 | Not Detected |
| Freon 113 | 1.4 | Not Detected | 10 | Not Detected |
| Methylene Chloride | 1.4 | Not Detected | 4.8 | Not Detected |
| 1,1-Dichloroethane | 1.4 | Not Detected | 5.5 | Not Detected |
| cis-1,2-Dichloroethene | 1.4 | Not Detected | 5.4 | Not Detected |
| 1,1,1-Trichloroethane | 1.4 | 14 | 7.5 | 75 |
| Trichloroethene | 1.4 | 280 | 7.4 | 1500 |
| Tetrachloroethene | 1.4 | 1.4 | 9.3 | 9.7 |
| trans-1,2-Dichloroethene | 1.4 | Not Detected | 5.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 115 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU36523061108**

**Lab ID#: 0806222D-79A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062225** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **2.69** | **Date of Analysis:** | **6/23/08 02:39 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.3 | Not Detected | 3.4 | Not Detected |
| Chloroethane | 1.3 | Not Detected | 3.5 | Not Detected |
| 1,1-Dichloroethene | 1.3 | Not Detected | 5.3 | Not Detected |
| Freon 113 | 1.3 | Not Detected | 10 | Not Detected |
| Methylene Chloride | 1.3 | Not Detected | 4.7 | Not Detected |
| 1,1-Dichloroethane | 1.3 | Not Detected | 5.4 | Not Detected |
| cis-1,2-Dichloroethene | 1.3 | Not Detected | 5.3 | Not Detected |
| 1,1,1-Trichloroethane | 1.3 | 14 | 7.3 | 79 |
| Trichloroethene | 1.3 | 280 | 7.2 | 1500 |
| Tetrachloroethene | 1.3 | Not Detected | 9.1 | Not Detected |
| trans-1,2-Dichloroethene | 1.3 | Not Detected | 5.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU36523061108 Lab Duplicate**

**Lab ID#: 0806222D-79AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062226** | **Date of Collection:** | **6/11/08** |
| **Dil. Factor:** | **2.69** | **Date of Analysis:** | **6/23/08 03:23 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.3 | Not Detected | 3.4 | Not Detected |
| Chloroethane | 1.3 | Not Detected | 3.5 | Not Detected |
| 1,1-Dichloroethene | 1.3 | Not Detected | 5.3 | Not Detected |
| Freon 113 | 1.3 | Not Detected | 10 | Not Detected |
| Methylene Chloride | 1.3 | Not Detected | 4.7 | Not Detected |
| 1,1-Dichloroethane | 1.3 | Not Detected | 5.4 | Not Detected |
| cis-1,2-Dichloroethene | 1.3 | Not Detected | 5.3 | Not Detected |
| 1,1,1-Trichloroethane | 1.3 | 14 | 7.3 | 78 |
| Trichloroethene | 1.3 | 280 | 7.2 | 1500 |
| Tetrachloroethene | 1.3 | 1.4 | 9.1 | 9.2 |
| trans-1,2-Dichloroethene | 1.3 | Not Detected | 5.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 118 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0806222D-80A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062205** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/22/08 11:17 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 104 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0806222D-80B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062305** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/23/08 01:09 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 108 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0806222D-81A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062202** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/22/08 08:48 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 104 |
| Chloroethane | 99 |
| 1,1-Dichloroethene | 112 |
| Freon 113 | 103 |
| Methylene Chloride | 101 |
| 1,1-Dichloroethane | 106 |
| cis-1,2-Dichloroethene | 107 |
| 1,1,1-Trichloroethane | 118 |
| Trichloroethene | 112 |
| Tetrachloroethene | 109 |
| trans-1,2-Dichloroethene | 96 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| Toluene-d8 | 105 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0806222D-81B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062302** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/23/08 09:58 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 100 |
| Chloroethane | 96 |
| 1,1-Dichloroethene | 111 |
| Freon 113 | 100 |
| Methylene Chloride | 100 |
| 1,1-Dichloroethane | 105 |
| cis-1,2-Dichloroethene | 106 |
| 1,1,1-Trichloroethane | 117 |
| Trichloroethene | 114 |
| Tetrachloroethene | 107 |
| trans-1,2-Dichloroethene | 92 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 122 | 70-130 |
| Toluene-d8 | 107 | 70-130 |
| 4-Bromofluorobenzene | 110 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0806222D-82A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062203** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/22/08 09:31 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 96 |
| Chloroethane | 93 |
| 1,1-Dichloroethene | 115 |
| Freon 113 | 106 |
| Methylene Chloride | 102 |
| 1,1-Dichloroethane | 105 |
| cis-1,2-Dichloroethene | 102 |
| 1,1,1-Trichloroethane | 108 |
| Trichloroethene | 104 |
| Tetrachloroethene | 104 |
| trans-1,2-Dichloroethene | 92 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 114 | 70-130 |
| Toluene-d8 | 104 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0806222D-82AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062204** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/22/08 10:12 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 96 |
| Chloroethane | 94 |
| 1,1-Dichloroethene | 118 |
| Freon 113 | 108 |
| Methylene Chloride | 102 |
| 1,1-Dichloroethane | 105 |
| cis-1,2-Dichloroethene | 103 |
| 1,1,1-Trichloroethane | 109 |
| Trichloroethene | 105 |
| Tetrachloroethene | 101 |
| trans-1,2-Dichloroethene | 93 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0806222D-82B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062303** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/23/08 10:55 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 98 |
| Chloroethane | 93 |
| 1,1-Dichloroethene | 117 |
| Freon 113 | 105 |
| Methylene Chloride | 105 |
| 1,1-Dichloroethane | 105 |
| cis-1,2-Dichloroethene | 103 |
| 1,1,1-Trichloroethane | 111 |
| Trichloroethene | 108 |
| Tetrachloroethene | 103 |
| trans-1,2-Dichloroethene | 91 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 121 | 70-130 |
| Toluene-d8 | 105 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0806222D-82BB**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t062304** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 6/23/08 12:04 PM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 96 |
| Chloroethane | 92 |
| 1,1-Dichloroethene | 118 |
| Freon 113 | 104 |
| Methylene Chloride | 105 |
| 1,1-Dichloroethane | 105 |
| cis-1,2-Dichloroethene | 104 |
| 1,1,1-Trichloroethane | 109 |
| Trichloroethene | 106 |
| Tetrachloroethene | 100 |
| trans-1,2-Dichloroethene | 92 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 118 | 70-130 |
| Toluene-d8 | 104 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Air Toxics Ltd. Introduces the Electronic Report

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This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**
**Hours 8:00 A.M to 6:00 P.M. Pacific**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0808367A

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | 2755 BCT |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755 GVP |
| **DATE RECEIVED:** | 08/15/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 08/26/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 01A | EN0431S081108 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 02A | EN0431D081108 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 02AA | EN0431D081108 Lab Duplicate | Modified TO-15 | 5.0 "Hg | 5 psi |
| 03A | EN043S081108 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 04A | EN043D081108 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 04AA | EN043D081108 Lab Duplicate | Modified TO-15 | 6.0 "Hg | 5 psi |
| 05A | EN044S081108 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 06A | DU35557081108 | Modified TO-15 | 8.0 "Hg | 5 psi |
| 07A | EN044D081108 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 08A | EN0411S081108 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 09A | EN0411D081108 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 10A | EN0432S081108 | Modified TO-15 | 8.0 "Hg | 5 psi |
| 11A | EN0432D081108 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 12A | EN0529S081108 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 13A | EN0529I081108 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 14A | EN0429D081108 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 15A | EB3362081108 | Modified TO-15 | 3.5 "Hg | 5 psi |

Continued on next page

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0808367A

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | 2755 BCT |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755 GVP |
| **DATE RECEIVED:** | 08/15/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 08/26/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 16A | EN0430S081208 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 17A | EN0430D081208 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 18A | EN049S081208 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 19A | DU36383081208 | Modified TO-15 | 8.5 "Hg | 5 psi |
| 20A | EN049D081208 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 21A | Lab Blank | Modified TO-15 | NA | NA |
| 21B | Lab Blank | Modified TO-15 | NA | NA |
| 22A | CCV | Modified TO-15 | NA | NA |
| 22B | CCV | Modified TO-15 | NA | NA |
| 23A | LCS | Modified TO-15 | NA | NA |
| 23AA | LCSD | Modified TO-15 | NA | NA |
| 23B | LCS | Modified TO-15 | NA | NA |
| 23BB | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda L. Freeman

DATE: 08/28/08

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**
**Modified TO-15**
**Sanborn, Head & Associates**
**Workorder# 0808367A**

Twenty 1 Liter Summa Canister (100% Certified) samples were received on August 15, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | </= 30% Difference | </= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0431S081108**

**Lab ID#: 0808367A-01A**

No Detections Were Found.

**Client Sample ID: EN0431D081108**

**Lab ID#: 0808367A-02A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Methylene Chloride | 0.80 | 2.5 | 2.8 | 8.6 |
| Trichloroethene | 0.80 | 17 | 4.3 | 94 |

**Client Sample ID: EN0431D081108 Lab Duplicate**

**Lab ID#: 0808367A-02AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Methylene Chloride | 0.80 | 2.5 | 2.8 | 8.6 |
| Trichloroethene | 0.80 | 17 | 4.3 | 91 |

**Client Sample ID: EN043S081108**

**Lab ID#: 0808367A-03A**

No Detections Were Found.

**Client Sample ID: EN043D081108**

**Lab ID#: 0808367A-04A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.84 | 4.5 | 4.5 | 24 |

**Client Sample ID: EN043D081108 Lab Duplicate**

**Lab ID#: 0808367A-04AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.84 | 4.3 | 4.5 | 23 |

**Client Sample ID: EN044S081108**

**Lab ID#: 0808367A-05A**

No Detections Were Found.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: DU35557081108**

**Lab ID#: 0808367A-06A**

No Detections Were Found.

**Client Sample ID: EN044D081108**

**Lab ID#: 0808367A-07A**

No Detections Were Found.

**Client Sample ID: EN0411S081108**

**Lab ID#: 0808367A-08A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.86 | 1.6 | 4.7 | 8.7 |
| Trichloroethene | 0.86 | 34 | 4.6 | 180 |
| Tetrachloroethene | 0.86 | 1.4 | 5.8 | 9.7 |

**Client Sample ID: EN0411D081108**

**Lab ID#: 0808367A-09A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 1.6 | 1.6 | 6.4 | 6.3 |
| 1,1,1-Trichloroethane | 1.6 | 9.4 | 8.8 | 51 |
| Trichloroethene | 1.6 | 350 | 8.6 | 1900 |
| Tetrachloroethene | 1.6 | 8.0 | 11 | 54 |

**Client Sample ID: EN0432S081108**

**Lab ID#: 0808367A-10A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.92 | 1.1 | 5.0 | 5.9 |
| Trichloroethene | 0.92 | 88 | 4.9 | 470 |

**Client Sample ID: EN0432D081108**

**Lab ID#: 0808367A-11A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.80 | 2.4 | 4.4 | 13 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0432D081108**

**Lab ID#: 0808367A-11A**

| | | | | |
|---|---|---|---|---|
| Trichloroethene | 0.80 | 200 | 4.3 | 1100 |

**Client Sample ID: EN0529S081108**

**Lab ID#: 0808367A-12A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.82 | 11 | 4.5 | 62 |
| Trichloroethene | 0.82 | 170 | 4.4 | 900 |

**Client Sample ID: EN0529I081108**

**Lab ID#: 0808367A-13A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.82 | 14 | 4.5 | 77 |
| Trichloroethene | 0.82 | 180 | 4.4 | 940 |

**Client Sample ID: EN0429D081108**

**Lab ID#: 0808367A-14A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.6 | 24 | 8.9 | 130 |
| Trichloroethene | 1.6 | 330 | 8.8 | 1800 |

**Client Sample ID: EB3362081108**

**Lab ID#: 0808367A-15A**

No Detections Were Found.

**Client Sample ID: EN0430S081208**

**Lab ID#: 0808367A-16A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 2.5 | 3.9 | 14 | 21 |
| Trichloroethene | 2.5 | 550 | 13 | 3000 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0430D081208**

**Lab ID#: 0808367A-17A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethene | 0.84 | 0.86 | 3.3 | 3.4 |
| Freon 113 | 0.84 | 0.92 | 6.4 | 7.0 |
| 1,1-Dichloroethane | 0.84 | 2.5 | 3.4 | 10 |
| cis-1,2-Dichloroethene | 0.84 | 7.6 | 3.3 | 30 |
| 1,1,1-Trichloroethane | 0.84 | 18 | 4.6 | 100 |
| Trichloroethene | 0.84 | 180 | 4.5 | 970 |
| Tetrachloroethene | 0.84 | 7.1 | 5.7 | 48 |

**Client Sample ID: EN049S081208**

**Lab ID#: 0808367A-18A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 8.8 | 97 | 48 | 530 |
| Trichloroethene | 8.8 | 1700 | 47 | 9000 |
| Tetrachloroethene | 8.8 | 44 | 59 | 300 |

**Client Sample ID: DU36383081208**

**Lab ID#: 0808367A-19A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethane | 7.5 | 7.5 | 30 | 30 |
| 1,1,1-Trichloroethane | 7.5 | 120 | 41 | 640 |
| Trichloroethene | 7.5 | 1900 | 40 | 10000 |
| Tetrachloroethene | 7.5 | 50 | 51 | 340 |

**Client Sample ID: EN049D081208**

**Lab ID#: 0808367A-20A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethene | 7.0 | 140 | 28 | 550 |
| Freon 113 | 7.0 | 24 | 54 | 180 |
| 1,1-Dichloroethane | 7.0 | 66 | 28 | 260 |
| cis-1,2-Dichloroethene | 7.0 | 200 | 28 | 790 |
| 1,1,1-Trichloroethane | 7.0 | 270 | 38 | 1400 |
| Trichloroethene | 7.0 | 1800 | 38 | 9700 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN049D081208**

**Lab ID#: 0808367A-20A**

| | | | | |
|---|---|---|---|---|
| Tetrachloroethene | 7.0 | 110 | 47 | 770 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0431S081108**

**Lab ID#: 0808367A-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082110** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **8/21/08 03:07 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.82 | Not Detected | 4.5 | Not Detected |
| Trichloroethene | 0.82 | Not Detected | 4.4 | Not Detected |
| Tetrachloroethene | 0.82 | Not Detected | 5.6 | Not Detected |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0431D081108**

**Lab ID#: 0808367A-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082111** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **8/21/08 03:42 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | 2.5 | 2.8 | 8.6 |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Trichloroethene | 0.80 | 17 | 4.3 | 94 |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0431D081108 Lab Duplicate**

**Lab ID#: 0808367A-02AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082113** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **8/21/08 05:48 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | 2.5 | 2.8 | 8.6 |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Trichloroethene | 0.80 | 17 | 4.3 | 91 |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN043S081108**

**Lab ID#: 0808367A-03A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082112** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **8/21/08 04:36 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | Not Detected | 4.5 | Not Detected |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN043D081108**

**Lab ID#: 0808367A-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082114** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **8/21/08 06:45 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | 4.5 | 4.5 | 24 |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN043D081108 Lab Duplicate**

**Lab ID#: 0808367A-04AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082117** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **8/21/08 10:27 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | 4.3 | 4.5 | 23 |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN044S081108**

**Lab ID#: 0808367A-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082115** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **8/21/08 07:34 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | Not Detected | 4.8 | Not Detected |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU35557081108**

**Lab ID#: 0808367A-06A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082118** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **8/21/08 11:51 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | Not Detected | 5.0 | Not Detected |
| Trichloroethene | 0.92 | Not Detected | 4.9 | Not Detected |
| Tetrachloroethene | 0.92 | Not Detected | 6.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN044D081108**

**Lab ID#: 0808367A-07A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082119** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **8/22/08 12:52 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | Not Detected | 4.5 | Not Detected |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0411S081108**

**Lab ID#: 0808367A-08A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082120** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **8/22/08 01:40 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | 1.6 | 4.7 | 8.7 |
| Trichloroethene | 0.86 | 34 | 4.6 | 180 |
| Tetrachloroethene | 0.86 | 1.4 | 5.8 | 9.7 |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0411D081108**

**Lab ID#: 0808367A-09A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082121** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **3.22** | **Date of Analysis:** | **8/22/08 02:24 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.6 | Not Detected | 4.1 | Not Detected |
| Chloroethane | 1.6 | Not Detected | 4.2 | Not Detected |
| 1,1-Dichloroethene | 1.6 | Not Detected | 6.4 | Not Detected |
| Freon 113 | 1.6 | Not Detected | 12 | Not Detected |
| Methylene Chloride | 1.6 | Not Detected | 5.6 | Not Detected |
| 1,1-Dichloroethane | 1.6 | Not Detected | 6.5 | Not Detected |
| cis-1,2-Dichloroethene | 1.6 | 1.6 | 6.4 | 6.3 |
| 1,1,1-Trichloroethane | 1.6 | 9.4 | 8.8 | 51 |
| Trichloroethene | 1.6 | 350 | 8.6 | 1900 |
| Tetrachloroethene | 1.6 | 8.0 | 11 | 54 |
| trans-1,2-Dichloroethene | 1.6 | Not Detected | 6.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0432S081108**

**Lab ID#: 0808367A-10A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082122** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **8/22/08 03:09 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | 1.1 | 5.0 | 5.9 |
| Trichloroethene | 0.92 | 88 | 4.9 | 470 |
| Tetrachloroethene | 0.92 | Not Detected | 6.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0432D081108**

**Lab ID#: 0808367A-11A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082123** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **8/22/08 03:51 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | 2.4 | 4.4 | 13 |
| Trichloroethene | 0.80 | 200 | 4.3 | 1100 |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0529S081108**

**Lab ID#: 0808367A-12A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082124** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **8/22/08 04:43 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.82 | 11 | 4.5 | 62 |
| Trichloroethene | 0.82 | 170 | 4.4 | 900 |
| Tetrachloroethene | 0.82 | Not Detected | 5.6 | Not Detected |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0529I081108**

**Lab ID#: 0808367A-13A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082125** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **8/22/08 05:51 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.82 | 14 | 4.5 | 77 |
| Trichloroethene | 0.82 | 180 | 4.4 | 940 |
| Tetrachloroethene | 0.82 | Not Detected | 5.6 | Not Detected |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0429D081108**

**Lab ID#: 0808367A-14A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082126** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **3.28** | **Date of Analysis:** | **8/22/08 06:26 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.6 | Not Detected | 4.2 | Not Detected |
| Chloroethane | 1.6 | Not Detected | 4.3 | Not Detected |
| 1,1-Dichloroethene | 1.6 | Not Detected | 6.5 | Not Detected |
| Freon 113 | 1.6 | Not Detected | 12 | Not Detected |
| Methylene Chloride | 1.6 | Not Detected | 5.7 | Not Detected |
| 1,1-Dichloroethane | 1.6 | Not Detected | 6.6 | Not Detected |
| cis-1,2-Dichloroethene | 1.6 | Not Detected | 6.5 | Not Detected |
| 1,1,1-Trichloroethane | 1.6 | 24 | 8.9 | 130 |
| Trichloroethene | 1.6 | 330 | 8.8 | 1800 |
| Tetrachloroethene | 1.6 | Not Detected | 11 | Not Detected |
| trans-1,2-Dichloroethene | 1.6 | Not Detected | 6.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EB3362081108**

**Lab ID#: 0808367A-15A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082206** | **Date of Collection:** | **8/11/08** |
| **Dil. Factor:** | **1.52** | **Date of Analysis:** | **8/22/08 11:02 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.76 | Not Detected | 1.9 | Not Detected |
| Chloroethane | 0.76 | Not Detected | 2.0 | Not Detected |
| 1,1-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |
| Freon 113 | 0.76 | Not Detected | 5.8 | Not Detected |
| Methylene Chloride | 0.76 | Not Detected | 2.6 | Not Detected |
| 1,1-Dichloroethane | 0.76 | Not Detected | 3.1 | Not Detected |
| cis-1,2-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.76 | Not Detected | 4.1 | Not Detected |
| Trichloroethene | 0.76 | Not Detected | 4.1 | Not Detected |
| Tetrachloroethene | 0.76 | Not Detected | 5.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0430S081208**

**Lab ID#: 0808367A-16A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082207** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **5.00** | **Date of Analysis:** | **8/22/08 11:36 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 2.5 | Not Detected | 6.4 | Not Detected |
| Chloroethane | 2.5 | Not Detected | 6.6 | Not Detected |
| 1,1-Dichloroethene | 2.5 | Not Detected | 9.9 | Not Detected |
| Freon 113 | 2.5 | Not Detected | 19 | Not Detected |
| Methylene Chloride | 2.5 | Not Detected | 8.7 | Not Detected |
| 1,1-Dichloroethane | 2.5 | Not Detected | 10 | Not Detected |
| cis-1,2-Dichloroethene | 2.5 | Not Detected | 9.9 | Not Detected |
| 1,1,1-Trichloroethane | 2.5 | 3.9 | 14 | 21 |
| Trichloroethene | 2.5 | 550 | 13 | 3000 |
| Tetrachloroethene | 2.5 | Not Detected | 17 | Not Detected |
| trans-1,2-Dichloroethene | 2.5 | Not Detected | 9.9 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0430D081208**

**Lab ID#: 0808367A-17A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082208** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **8/22/08 12:18 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | 0.86 | 3.3 | 3.4 |
| Freon 113 | 0.84 | 0.92 | 6.4 | 7.0 |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | 2.5 | 3.4 | 10 |
| cis-1,2-Dichloroethene | 0.84 | 7.6 | 3.3 | 30 |
| 1,1,1-Trichloroethane | 0.84 | 18 | 4.6 | 100 |
| Trichloroethene | 0.84 | 180 | 4.5 | 970 |
| Tetrachloroethene | 0.84 | 7.1 | 5.7 | 48 |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN049S081208**

**Lab ID#: 0808367A-18A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082209** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **17.5** | **Date of Analysis:** | **8/22/08 12:53 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 8.8 | Not Detected | 22 | Not Detected |
| Chloroethane | 8.8 | Not Detected | 23 | Not Detected |
| 1,1-Dichloroethene | 8.8 | Not Detected | 35 | Not Detected |
| Freon 113 | 8.8 | Not Detected | 67 | Not Detected |
| Methylene Chloride | 8.8 | Not Detected | 30 | Not Detected |
| 1,1-Dichloroethane | 8.8 | Not Detected | 35 | Not Detected |
| cis-1,2-Dichloroethene | 8.8 | Not Detected | 35 | Not Detected |
| 1,1,1-Trichloroethane | 8.8 | 97 | 48 | 530 |
| Trichloroethene | 8.8 | 1700 | 47 | 9000 |
| Tetrachloroethene | 8.8 | 44 | 59 | 300 |
| trans-1,2-Dichloroethene | 8.8 | Not Detected | 35 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU36383081208**

**Lab ID#: 0808367A-19A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082210** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **15.0** | **Date of Analysis:** | **8/22/08 01:52 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 7.5 | Not Detected | 19 | Not Detected |
| Chloroethane | 7.5 | Not Detected | 20 | Not Detected |
| 1,1-Dichloroethene | 7.5 | Not Detected | 30 | Not Detected |
| Freon 113 | 7.5 | Not Detected | 57 | Not Detected |
| Methylene Chloride | 7.5 | Not Detected | 26 | Not Detected |
| 1,1-Dichloroethane | 7.5 | 7.5 | 30 | 30 |
| cis-1,2-Dichloroethene | 7.5 | Not Detected | 30 | Not Detected |
| 1,1,1-Trichloroethane | 7.5 | 120 | 41 | 640 |
| Trichloroethene | 7.5 | 1900 | 40 | 10000 |
| Tetrachloroethene | 7.5 | 50 | 51 | 340 |
| trans-1,2-Dichloroethene | 7.5 | Not Detected | 30 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN049D081208**

**Lab ID#: 0808367A-20A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082212** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **14.0** | **Date of Analysis:** | **8/22/08 03:15 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 7.0 | Not Detected | 18 | Not Detected |
| Chloroethane | 7.0 | Not Detected | 18 | Not Detected |
| 1,1-Dichloroethene | 7.0 | 140 | 28 | 550 |
| Freon 113 | 7.0 | 24 | 54 | 180 |
| Methylene Chloride | 7.0 | Not Detected | 24 | Not Detected |
| 1,1-Dichloroethane | 7.0 | 66 | 28 | 260 |
| cis-1,2-Dichloroethene | 7.0 | 200 | 28 | 790 |
| 1,1,1-Trichloroethane | 7.0 | 270 | 38 | 1400 |
| Trichloroethene | 7.0 | 1800 | 38 | 9700 |
| Tetrachloroethene | 7.0 | 110 | 47 | 770 |
| trans-1,2-Dichloroethene | 7.0 | Not Detected | 28 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0808367A-21A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082105a** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/21/08 10:52 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0808367A-21B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082205** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/22/08 10:10 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0808367A-22A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082102** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/21/08 08:28 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 99 |
| Chloroethane | 102 |
| 1,1-Dichloroethene | 99 |
| Freon 113 | 100 |
| Methylene Chloride | 94 |
| 1,1-Dichloroethane | 101 |
| cis-1,2-Dichloroethene | 100 |
| 1,1,1-Trichloroethane | 102 |
| Trichloroethene | 104 |
| Tetrachloroethene | 103 |
| trans-1,2-Dichloroethene | 104 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 98 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0808367A-22B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082202** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/22/08 08:29 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 94 |
| Chloroethane | 99 |
| 1,1-Dichloroethene | 95 |
| Freon 113 | 98 |
| Methylene Chloride | 93 |
| 1,1-Dichloroethane | 98 |
| cis-1,2-Dichloroethene | 97 |
| 1,1,1-Trichloroethane | 101 |
| Trichloroethene | 104 |
| Tetrachloroethene | 105 |
| trans-1,2-Dichloroethene | 101 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0808367A-23A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082103** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/21/08 09:11 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 101 |
| Chloroethane | 105 |
| 1,1-Dichloroethene | 115 |
| Freon 113 | 116 |
| Methylene Chloride | 107 |
| 1,1-Dichloroethane | 110 |
| cis-1,2-Dichloroethene | 107 |
| 1,1,1-Trichloroethane | 108 |
| Trichloroethene | 106 |
| Tetrachloroethene | 108 |
| trans-1,2-Dichloroethene | 110 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0808367A-23AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082104** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/21/08 09:47 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 106 |
| Chloroethane | 112 |
| 1,1-Dichloroethene | 120 |
| Freon 113 | 120 |
| Methylene Chloride | 110 |
| 1,1-Dichloroethane | 115 |
| cis-1,2-Dichloroethene | 110 |
| 1,1,1-Trichloroethane | 109 |
| Trichloroethene | 108 |
| Tetrachloroethene | 110 |
| trans-1,2-Dichloroethene | 113 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0808367A-23B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082203** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/22/08 09:02 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 96 |
| Chloroethane | 101 |
| 1,1-Dichloroethene | 109 |
| Freon 113 | 111 |
| Methylene Chloride | 103 |
| 1,1-Dichloroethane | 106 |
| cis-1,2-Dichloroethene | 102 |
| 1,1,1-Trichloroethane | 104 |
| Trichloroethene | 104 |
| Tetrachloroethene | 110 |
| trans-1,2-Dichloroethene | 105 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0808367A-23BB**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082204** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/22/08 09:36 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 99 |
| Chloroethane | 106 |
| 1,1-Dichloroethene | 114 |
| Freon 113 | 115 |
| Methylene Chloride | 105 |
| 1,1-Dichloroethane | 108 |
| cis-1,2-Dichloroethene | 105 |
| 1,1,1-Trichloroethane | 105 |
| Trichloroethene | 105 |
| Tetrachloroethene | 109 |
| trans-1,2-Dichloroethene | 109 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

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Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**
**Hours 8:00 A.M to 6:00 P.M. Pacific**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0808367B

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | 2755 BCT |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755 GVP |
| **DATE RECEIVED:** | 08/15/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 08/26/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 21A | EN0410S081208 | Modified TO-15 | 3.0 "Hg | 5 psi |
| 22A | EN0410D081208 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 23A | EN042S081208 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 24A | EN042D081208 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 25A | DU3339081208 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 26A | EN0412S081208 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 27A | EN0412D081208 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 28A | EN0414S081208 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 29A | EN0414D081208 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 30A | EN0420S081208 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 31A | EN0420D081208 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 32A | EN0420I081208 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 33A | DU3372081208 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 34A | EN0421S081208 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 35A | DU3325081208 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 36A | EN0421D081208 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 37A | EN0419S081208 | Modified TO-15 | 5.0 "Hg | 5 psi |

Continued on next page

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0808367B

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | 2755 BCT |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755 GVP |
| **DATE RECEIVED:** | 08/15/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 08/26/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 38A | EN0419D081208 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 39A | EN0416S081208 | Modified TO-15 | 8.0 "Hg | 5 psi |
| 39AA | EN0416S081208 Lab Duplicate | Modified TO-15 | 8.0 "Hg | 5 psi |
| 40A | EN0416D081208 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 40AA | EN0416D081208 Lab Duplicate | Modified TO-15 | 5.5 "Hg | 5 psi |
| 41A | Lab Blank | Modified TO-15 | NA | NA |
| 41B | Lab Blank | Modified TO-15 | NA | NA |
| 41C | Lab Blank | Modified TO-15 | NA | NA |
| 42A | CCV | Modified TO-15 | NA | NA |
| 42B | CCV | Modified TO-15 | NA | NA |
| 42C | CCV | Modified TO-15 | NA | NA |
| 43A | LCS | Modified TO-15 | NA | NA |
| 43AA | LCSD | Modified TO-15 | NA | NA |
| 43B | LCS | Modified TO-15 | NA | NA |
| 43BB | LCSD | Modified TO-15 | NA | NA |
| 43C | LCS | Modified TO-15 | NA | NA |
| 43CC | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda L. Freeman DATE: 08/28/08

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE**
**Modified TO-15**
**Sanborn, Head & Associates**
**Workorder# 0808367B**

Twenty 1 Liter Summa Canister (100% Certified) samples were received on August 15, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | </= 30% Difference | </= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0410S081208**

**Lab ID#: 0808367B-21A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethene | 30 | 420 | 120 | 1700 |
| 1,1-Dichloroethane | 30 | 1000 | 120 | 4200 |
| cis-1,2-Dichloroethene | 30 | 2200 | 120 | 8700 |
| 1,1,1-Trichloroethane | 30 | 1800 | 160 | 9800 |
| Trichloroethene | 30 | 7600 | 160 | 41000 |
| Tetrachloroethene | 30 | 68 | 200 | 460 |

**Client Sample ID: EN0410D081208**

**Lab ID#: 0808367B-22A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethene | 36 | 710 | 140 | 2800 |
| 1,1-Dichloroethane | 36 | 1300 | 140 | 5400 |
| cis-1,2-Dichloroethene | 36 | 3400 | 140 | 14000 |
| 1,1,1-Trichloroethane | 36 | 2300 | 200 | 13000 |
| Trichloroethene | 36 | 7700 | 190 | 41000 |
| Tetrachloroethene | 36 | 96 | 240 | 650 |

**Client Sample ID: EN042S081208**

**Lab ID#: 0808367B-23A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.88 | 1.1 | 4.7 | 6.2 |

**Client Sample ID: EN042D081208**

**Lab ID#: 0808367B-24A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.90 | 2.2 | 4.9 | 12 |
| Trichloroethene | 0.90 | 23 | 4.8 | 120 |
| Tetrachloroethene | 0.90 | 2.9 | 6.1 | 20 |

**Client Sample ID: DU3339081208**

**Lab ID#: 0808367B-25A**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: DU3339081208**

**Lab ID#: 0808367B-25A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.90 | 2.2 | 4.9 | 12 |
| Trichloroethene | 0.90 | 23 | 4.8 | 120 |
| Tetrachloroethene | 0.90 | 3.1 | 6.1 | 21 |

**Client Sample ID: EN0412S081208**

**Lab ID#: 0808367B-26A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.82 | 7.3 | 4.5 | 40 |
| Trichloroethene | 0.82 | 300 | 4.4 | 1600 |
| Tetrachloroethene | 0.82 | 4.1 | 5.6 | 28 |

**Client Sample ID: EN0412D081208**

**Lab ID#: 0808367B-27A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.86 | 6.0 | 4.7 | 33 |
| Trichloroethene | 0.86 | 270 | 4.6 | 1400 |

**Client Sample ID: EN0414S081208**

**Lab ID#: 0808367B-28A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.84 | 1.4 | 4.6 | 7.7 |
| Trichloroethene | 0.84 | 4.4 | 4.5 | 24 |

**Client Sample ID: EN0414D081208**

**Lab ID#: 0808367B-29A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.2 | 20 | 6.4 | 110 |
| Trichloroethene | 1.2 | 420 | 6.3 | 2300 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0420S081208**

**Lab ID#: 0808367B-30A**

No Detections Were Found.

**Client Sample ID: EN0420D081208**

**Lab ID#: 0808367B-31A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.84 | 1.7 | 4.6 | 9.2 |
| Trichloroethene | 0.84 | 38 | 4.5 | 200 |

**Client Sample ID: EN0420I081208**

**Lab ID#: 0808367B-32A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.88 | 3.2 | 4.7 | 17 |

**Client Sample ID: DU3372081208**

**Lab ID#: 0808367B-33A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.88 | 3.7 | 4.7 | 20 |

**Client Sample ID: EN0421S081208**

**Lab ID#: 0808367B-34A**

No Detections Were Found.

**Client Sample ID: DU3325081208**

**Lab ID#: 0808367B-35A**

No Detections Were Found.

**Client Sample ID: EN0421D081208**

**Lab ID#: 0808367B-36A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.84 | 1.1 | 4.6 | 5.9 |
| Trichloroethene | 0.84 | 39 | 4.5 | 210 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0419S081208**

**Lab ID#: 0808367B-37A**

No Detections Were Found.

**Client Sample ID: EN0419D081208**

**Lab ID#: 0808367B-38A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.88 | 2.6 | 3.5 | 10 |
| 1,1,1-Trichloroethane | 0.88 | 11 | 4.8 | 58 |
| Trichloroethene | 0.88 | 210 | 4.7 | 1100 |

**Client Sample ID: EN0416S081208**

**Lab ID#: 0808367B-39A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.92 | 1.6 | 4.9 | 8.7 |
| Tetrachloroethene | 0.92 | 2.3 | 6.2 | 16 |

**Client Sample ID: EN0416S081208 Lab Duplicate**

**Lab ID#: 0808367B-39AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.92 | 1.6 | 4.9 | 8.8 |
| Tetrachloroethene | 0.92 | 2.3 | 6.2 | 16 |

**Client Sample ID: EN0416D081208**

**Lab ID#: 0808367B-40A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 3.3 | 4.9 | 13 | 19 |
| 1,1,1-Trichloroethane | 3.3 | 39 | 18 | 210 |
| Trichloroethene | 3.3 | 880 | 18 | 4700 |
| Tetrachloroethene | 3.3 | 36 | 22 | 250 |

**Client Sample ID: EN0416D081208 Lab Duplicate**

**Lab ID#: 0808367B-40AA**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0416D081208 Lab Duplicate**

**Lab ID#: 0808367B-40AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 3.3 | 4.7 | 13 | 19 |
| 1,1,1-Trichloroethane | 3.3 | 38 | 18 | 210 |
| Trichloroethene | 3.3 | 860 | 18 | 4600 |
| Tetrachloroethene | 3.3 | 36 | 22 | 240 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0410S081208**

**Lab ID#: 0808367B-21A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082409** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **59.6** | **Date of Analysis:** | **8/24/08 02:46 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 30 | Not Detected | 76 | Not Detected |
| Chloroethane | 30 | Not Detected | 79 | Not Detected |
| 1,1-Dichloroethene | 30 | 420 | 120 | 1700 |
| Freon 113 | 30 | Not Detected | 230 | Not Detected |
| Methylene Chloride | 30 | Not Detected | 100 | Not Detected |
| 1,1-Dichloroethane | 30 | 1000 | 120 | 4200 |
| cis-1,2-Dichloroethene | 30 | 2200 | 120 | 8700 |
| 1,1,1-Trichloroethane | 30 | 1800 | 160 | 9800 |
| Trichloroethene | 30 | 7600 | 160 | 41000 |
| Tetrachloroethene | 30 | 68 | 200 | 460 |
| trans-1,2-Dichloroethene | 30 | Not Detected | 120 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0410D081208**

**Lab ID#: 0808367B-22A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082410** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **71.6** | **Date of Analysis:** | **8/24/08 03:20 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 36 | Not Detected | 92 | Not Detected |
| Chloroethane | 36 | Not Detected | 94 | Not Detected |
| 1,1-Dichloroethene | 36 | 710 | 140 | 2800 |
| Freon 113 | 36 | Not Detected | 270 | Not Detected |
| Methylene Chloride | 36 | Not Detected | 120 | Not Detected |
| 1,1-Dichloroethane | 36 | 1300 | 140 | 5400 |
| cis-1,2-Dichloroethene | 36 | 3400 | 140 | 14000 |
| 1,1,1-Trichloroethane | 36 | 2300 | 200 | 13000 |
| Trichloroethene | 36 | 7700 | 190 | 41000 |
| Tetrachloroethene | 36 | 96 | 240 | 650 |
| trans-1,2-Dichloroethene | 36 | Not Detected | 140 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN042S081208**

**Lab ID#: 0808367B-23A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **s082118** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **8/22/08 02:07 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | 1.1 | 4.7 | 6.2 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 98 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN042D081208**

**Lab ID#: 0808367B-24A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **s082119** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **8/22/08 02:57 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | 2.2 | 4.9 | 12 |
| Trichloroethene | 0.90 | 23 | 4.8 | 120 |
| Tetrachloroethene | 0.90 | 2.9 | 6.1 | 20 |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU3339081208**

**Lab ID#: 0808367B-25A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **s082120** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **8/22/08 03:48 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | 2.2 | 4.9 | 12 |
| Trichloroethene | 0.90 | 23 | 4.8 | 120 |
| Tetrachloroethene | 0.90 | 3.1 | 6.1 | 21 |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 107 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0412S081208**

**Lab ID#: 0808367B-26A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082411** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **8/24/08 04:09 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.82 | 7.3 | 4.5 | 40 |
| Trichloroethene | 0.82 | 300 | 4.4 | 1600 |
| Tetrachloroethene | 0.82 | 4.1 | 5.6 | 28 |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0412D081208**

**Lab ID#: 0808367B-27A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082412** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **8/24/08 04:41 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | 6.0 | 4.7 | 33 |
| Trichloroethene | 0.86 | 270 | 4.6 | 1400 |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0414S081208**

**Lab ID#: 0808367B-28A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **s082121** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **8/22/08 04:39 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | 1.4 | 4.6 | 7.7 |
| Trichloroethene | 0.84 | 4.4 | 4.5 | 24 |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 107 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0414D081208**

**Lab ID#: 0808367B-29A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082413** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **2.33** | **Date of Analysis:** | **8/24/08 05:14 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.2 | Not Detected | 3.0 | Not Detected |
| Chloroethane | 1.2 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethene | 1.2 | Not Detected | 4.6 | Not Detected |
| Freon 113 | 1.2 | Not Detected | 8.9 | Not Detected |
| Methylene Chloride | 1.2 | Not Detected | 4.0 | Not Detected |
| 1,1-Dichloroethane | 1.2 | Not Detected | 4.7 | Not Detected |
| cis-1,2-Dichloroethene | 1.2 | Not Detected | 4.6 | Not Detected |
| 1,1,1-Trichloroethane | 1.2 | 20 | 6.4 | 110 |
| Trichloroethene | 1.2 | 420 | 6.3 | 2300 |
| Tetrachloroethene | 1.2 | Not Detected | 7.9 | Not Detected |
| trans-1,2-Dichloroethene | 1.2 | Not Detected | 4.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0420S081208**

**Lab ID#: 0808367B-30A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **s082122** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **8/22/08 05:46 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 104 | 70-130 |
| 4-Bromofluorobenzene | 105 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0420D081208**

**Lab ID#: 0808367B-31A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **s082124** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **8/22/08 07:36 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | 1.7 | 4.6 | 9.2 |
| Trichloroethene | 0.84 | 38 | 4.5 | 200 |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 105 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0420I081208**

**Lab ID#: 0808367B-32A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **s082125** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **8/22/08 08:23 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | 3.2 | 4.7 | 17 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 106 | 70-130 |
| 4-Bromofluorobenzene | 107 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU3372081208**

**Lab ID#: 0808367B-33A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082506** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **8/25/08 11:58 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | 3.7 | 4.7 | 20 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0421S081208**

**Lab ID#: 0808367B-34A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082414** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **8/24/08 05:54 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | Not Detected | 4.8 | Not Detected |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU3325081208**

**Lab ID#: 0808367B-35A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082415** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **8/24/08 06:33 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | Not Detected | 4.8 | Not Detected |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0421D081208**

**Lab ID#: 0808367B-36A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **s082123** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **8/22/08 06:42 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | 1.1 | 4.6 | 5.9 |
| Trichloroethene | 0.84 | 39 | 4.5 | 210 |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 107 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0419S081208**

**Lab ID#: 0808367B-37A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082507** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **8/25/08 12:50 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Trichloroethene | 0.80 | Not Detected | 4.3 | Not Detected |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0419D081208**

**Lab ID#: 0808367B-38A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082416** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **8/24/08 07:06 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | 2.6 | 3.5 | 10 |
| 1,1,1-Trichloroethane | 0.88 | 11 | 4.8 | 58 |
| Trichloroethene | 0.88 | 210 | 4.7 | 1100 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0416S081208**

**Lab ID#: 0808367B-39A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082508** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **8/25/08 01:25 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | Not Detected | 5.0 | Not Detected |
| Trichloroethene | 0.92 | 1.6 | 4.9 | 8.7 |
| Tetrachloroethene | 0.92 | 2.3 | 6.2 | 16 |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0416S081208 Lab Duplicate**

**Lab ID#: 0808367B-39AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082509** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **8/25/08 02:33 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | Not Detected | 5.0 | Not Detected |
| Trichloroethene | 0.92 | 1.6 | 4.9 | 8.8 |
| Tetrachloroethene | 0.92 | 2.3 | 6.2 | 16 |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0416D081208**

**Lab ID#: 0808367B-40A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082417** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **6.56** | **Date of Analysis:** | **8/24/08 07:40 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 3.3 | Not Detected | 8.4 | Not Detected |
| Chloroethane | 3.3 | Not Detected | 8.6 | Not Detected |
| 1,1-Dichloroethene | 3.3 | Not Detected | 13 | Not Detected |
| Freon 113 | 3.3 | Not Detected | 25 | Not Detected |
| Methylene Chloride | 3.3 | Not Detected | 11 | Not Detected |
| 1,1-Dichloroethane | 3.3 | Not Detected | 13 | Not Detected |
| cis-1,2-Dichloroethene | 3.3 | 4.9 | 13 | 19 |
| 1,1,1-Trichloroethane | 3.3 | 39 | 18 | 210 |
| Trichloroethene | 3.3 | 880 | 18 | 4700 |
| Tetrachloroethene | 3.3 | 36 | 22 | 250 |
| trans-1,2-Dichloroethene | 3.3 | Not Detected | 13 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0416D081208 Lab Duplicate**

**Lab ID#: 0808367B-40AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082418** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **6.56** | **Date of Analysis:** | **8/24/08 08:16 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 3.3 | Not Detected | 8.4 | Not Detected |
| Chloroethane | 3.3 | Not Detected | 8.6 | Not Detected |
| 1,1-Dichloroethene | 3.3 | Not Detected | 13 | Not Detected |
| Freon 113 | 3.3 | Not Detected | 25 | Not Detected |
| Methylene Chloride | 3.3 | Not Detected | 11 | Not Detected |
| 1,1-Dichloroethane | 3.3 | Not Detected | 13 | Not Detected |
| cis-1,2-Dichloroethene | 3.3 | 4.7 | 13 | 19 |
| 1,1,1-Trichloroethane | 3.3 | 38 | 18 | 210 |
| Trichloroethene | 3.3 | 860 | 18 | 4600 |
| Tetrachloroethene | 3.3 | 36 | 22 | 240 |
| trans-1,2-Dichloroethene | 3.3 | Not Detected | 13 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0808367B-41A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **s082111** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/21/08 04:53 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0808367B-41B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082407** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/24/08 01:24 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0808367B-41C**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082505** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/25/08 11:01 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0808367B-42A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **s082103** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/21/08 09:28 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 104 |
| Chloroethane | 99 |
| 1,1-Dichloroethene | 103 |
| Freon 113 | 104 |
| Methylene Chloride | 98 |
| 1,1-Dichloroethane | 93 |
| cis-1,2-Dichloroethene | 95 |
| 1,1,1-Trichloroethane | 87 |
| Trichloroethene | 91 |
| Tetrachloroethene | 91 |
| trans-1,2-Dichloroethene | 98 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0808367B-42B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082404** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/24/08 11:17 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 107 |
| Chloroethane | 116 |
| 1,1-Dichloroethene | 105 |
| Freon 113 | 107 |
| Methylene Chloride | 100 |
| 1,1-Dichloroethane | 109 |
| cis-1,2-Dichloroethene | 107 |
| 1,1,1-Trichloroethane | 106 |
| Trichloroethene | 108 |
| Tetrachloroethene | 110 |
| trans-1,2-Dichloroethene | 112 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0808367B-42C**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082502** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/25/08 08:52 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 90 |
| Chloroethane | 93 |
| 1,1-Dichloroethene | 92 |
| Freon 113 | 95 |
| Methylene Chloride | 90 |
| 1,1-Dichloroethane | 95 |
| cis-1,2-Dichloroethene | 96 |
| 1,1,1-Trichloroethane | 99 |
| Trichloroethene | 103 |
| Tetrachloroethene | 106 |
| trans-1,2-Dichloroethene | 99 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0808367B-43A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **s082105** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/21/08 11:41 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 85 |
| Chloroethane | 77 |
| 1,1-Dichloroethene | 90 |
| Freon 113 | 96 |
| Methylene Chloride | 86 |
| 1,1-Dichloroethane | 85 |
| cis-1,2-Dichloroethene | 92 |
| 1,1,1-Trichloroethane | 80 |
| Trichloroethene | 83 |
| Tetrachloroethene | 79 |
| trans-1,2-Dichloroethene | 80 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 105 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0808367B-43AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **s082106** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/21/08 12:25 PM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 81 |
| Chloroethane | 77 |
| 1,1-Dichloroethene | 89 |
| Freon 113 | 93 |
| Methylene Chloride | 87 |
| 1,1-Dichloroethane | 84 |
| cis-1,2-Dichloroethene | 88 |
| 1,1,1-Trichloroethane | 77 |
| Trichloroethene | 82 |
| Tetrachloroethene | 76 |
| trans-1,2-Dichloroethene | 80 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 89 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0808367B-43B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082405** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/24/08 12:02 PM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 98 |
| Chloroethane | 104 |
| 1,1-Dichloroethene | 110 |
| Freon 113 | 110 |
| Methylene Chloride | 102 |
| 1,1-Dichloroethane | 106 |
| cis-1,2-Dichloroethene | 102 |
| 1,1,1-Trichloroethane | 100 |
| Trichloroethene | 102 |
| Tetrachloroethene | 105 |
| trans-1,2-Dichloroethene | 105 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0808367B-43BB**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082406** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/24/08 12:42 PM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 98 |
| Chloroethane | 104 |
| 1,1-Dichloroethene | 110 |
| Freon 113 | 111 |
| Methylene Chloride | 102 |
| 1,1-Dichloroethane | 105 |
| cis-1,2-Dichloroethene | 102 |
| 1,1,1-Trichloroethane | 100 |
| Trichloroethene | 101 |
| Tetrachloroethene | 104 |
| trans-1,2-Dichloroethene | 105 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0808367B-43C**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082503** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/25/08 09:31 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 90 |
| Chloroethane | 95 |
| 1,1-Dichloroethene | 106 |
| Freon 113 | 108 |
| Methylene Chloride | 99 |
| 1,1-Dichloroethane | 102 |
| cis-1,2-Dichloroethene | 99 |
| 1,1,1-Trichloroethane | 99 |
| Trichloroethene | 102 |
| Tetrachloroethene | 104 |
| trans-1,2-Dichloroethene | 102 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0808367B-43CC**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082504** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/25/08 10:07 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 90 |
| Chloroethane | 96 |
| 1,1-Dichloroethene | 105 |
| Freon 113 | 109 |
| Methylene Chloride | 97 |
| 1,1-Dichloroethane | 103 |
| cis-1,2-Dichloroethene | 100 |
| 1,1,1-Trichloroethane | 97 |
| Trichloroethene | 101 |
| Tetrachloroethene | 105 |
| trans-1,2-Dichloroethene | 104 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**
**Hours 8:00 A.M to 6:00 P.M. Pacific**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0808367C

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | 2755 BCT |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755 GVP |
| **DATE RECEIVED:** | 08/15/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 08/27/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 41A | EN0418S081208 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 42A | EN0418D081208 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 42AA | EN0418D081208 Lab Duplicate | Modified TO-15 | 5.0 "Hg | 5 psi |
| 43A | EN0417S081208 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 44A | EN0417D081208 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 44AA | EN0417D081208 Lab Duplicate | Modified TO-15 | 6.5 "Hg | 5 psi |
| 45A | EB3300081208 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 46A | EN0422S081308 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 47A | EN0422D081308 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 48A | EN0728S081308 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 49A | EN0728I081308 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 50A | DU3353081308 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 51A | EN0728D081308 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 52A | EN0637S081308 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 53A | EN0637I081308 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 54A | DU1362081308 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 55A | EN0637D081308 | Modified TO-15 | 6.0 "Hg | 5 psi |

Continued on next page

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0808367C

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | 2755 BCT |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755 GVP |
| **DATE RECEIVED:** | 08/15/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 08/27/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 56A | EN0423S081308 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 57A | EN0423I081308 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 58A | EN0423D081308 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 59A | EN0533S081308 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 60A | EN0533I21081308 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 61A | Lab Blank | Modified TO-15 | NA | NA |
| 61B | Lab Blank | Modified TO-15 | NA | NA |
| 62A | CCV | Modified TO-15 | NA | NA |
| 62B | CCV | Modified TO-15 | NA | NA |
| 63A | LCS | Modified TO-15 | NA | NA |
| 63AA | LCSD | Modified TO-15 | NA | NA |
| 63B | LCS | Modified TO-15 | NA | NA |
| 63BB | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda L. Freeman

DATE: 08/27/08

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE**
**Modified TO-15**
**Sanborn, Head & Associates**
**Workorder# 0808367C**

Twenty 1 Liter Summa Canister (100% Certified) samples were received on August 15, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | </= 30% Difference | </= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0418S081208**

**Lab ID#: 0808367C-41A**

No Detections Were Found.

**Client Sample ID: EN0418D081208**

**Lab ID#: 0808367C-42A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.80 | 3.2 | 3.2 | 13 |
| 1,1,1-Trichloroethane | 0.80 | 16 | 4.4 | 86 |
| Trichloroethene | 0.80 | 200 | 4.3 | 1100 |
| Tetrachloroethene | 0.80 | 1.5 | 5.5 | 10 |

**Client Sample ID: EN0418D081208 Lab Duplicate**

**Lab ID#: 0808367C-42AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.80 | 3.1 | 3.2 | 12 |
| 1,1,1-Trichloroethane | 0.80 | 15 | 4.4 | 83 |
| Trichloroethene | 0.80 | 190 | 4.3 | 1000 |
| Tetrachloroethene | 0.80 | 1.5 | 5.5 | 9.9 |

**Client Sample ID: EN0417S081208**

**Lab ID#: 0808367C-43A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.82 | 1.4 | 4.5 | 7.4 |
| Trichloroethene | 0.82 | 79 | 4.4 | 420 |

**Client Sample ID: EN0417D081208**

**Lab ID#: 0808367C-44A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 5.7 | 29 | 22 | 120 |
| 1,1,1-Trichloroethane | 5.7 | 77 | 31 | 420 |
| Trichloroethene | 5.7 | 1800 | 31 | 9900 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0417D081208 Lab Duplicate**

**Lab ID#: 0808367C-44AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 5.7 | 28 | 22 | 110 |
| 1,1,1-Trichloroethane | 5.7 | 73 | 31 | 400 |
| Trichloroethene | 5.7 | 1800 | 31 | 9900 |

**Client Sample ID: EB3300081208**

**Lab ID#: 0808367C-45A**

No Detections Were Found.

**Client Sample ID: EN0422S081308**

**Lab ID#: 0808367C-46A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Freon 113 | 0.90 | 1.6 | 6.8 | 12 |
| 1,1-Dichloroethane | 0.90 | 1.3 | 3.6 | 5.2 |
| cis-1,2-Dichloroethene | 0.90 | 110 | 3.5 | 460 |
| 1,1,1-Trichloroethane | 0.90 | 11 | 4.9 | 60 |
| Trichloroethene | 0.90 | 170 | 4.8 | 900 |
| Tetrachloroethene | 0.90 | 1.2 | 6.1 | 8.0 |
| trans-1,2-Dichloroethene | 0.90 | 6.4 | 3.5 | 25 |

**Client Sample ID: EN0422D081308**

**Lab ID#: 0808367C-47A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Freon 113 | 0.80 | 1.8 | 6.2 | 14 |
| 1,1-Dichloroethane | 0.80 | 2.4 | 3.2 | 9.8 |
| cis-1,2-Dichloroethene | 0.80 | 290 | 3.2 | 1200 |
| 1,1,1-Trichloroethane | 0.80 | 15 | 4.4 | 81 |
| Trichloroethene | 0.80 | 180 | 4.3 | 990 |
| Tetrachloroethene | 0.80 | 1.0 | 5.5 | 7.1 |
| trans-1,2-Dichloroethene | 0.80 | 16 | 3.2 | 63 |

**Client Sample ID: EN0728S081308**

**Lab ID#: 0808367C-48A**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0728S081308**

**Lab ID#: 0808367C-48A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.86 | 4.7 | 4.6 | 25 |
| Tetrachloroethene | 0.86 | 85 | 5.8 | 580 |

**Client Sample ID: EN0728I081308**

**Lab ID#: 0808367C-49A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.90 | 10 | 3.5 | 41 |
| Trichloroethene | 0.90 | 21 | 4.8 | 110 |
| Tetrachloroethene | 0.90 | 220 | 6.1 | 1500 |

**Client Sample ID: DU3353081308**

**Lab ID#: 0808367C-50A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.88 | 9.9 | 3.5 | 39 |
| Trichloroethene | 0.88 | 20 | 4.7 | 110 |
| Tetrachloroethene | 0.88 | 210 | 5.9 | 1400 |

**Client Sample ID: EN0728D081308**

**Lab ID#: 0808367C-51A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.86 | 200 | 3.4 | 800 |
| Trichloroethene | 0.86 | 38 | 4.6 | 200 |
| Tetrachloroethene | 0.86 | 310 | 5.8 | 2100 |
| trans-1,2-Dichloroethene | 0.86 | 13 | 3.4 | 53 |

**Client Sample ID: EN0637S081308**

**Lab ID#: 0808367C-52A**

No Detections Were Found.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0637I081308**

**Lab ID#: 0808367C-53A**

No Detections Were Found.

**Client Sample ID: DU1362081308**

**Lab ID#: 0808367C-54A**

No Detections Were Found.

**Client Sample ID: EN0637D081308**

**Lab ID#: 0808367C-55A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.84 | 14 | 3.3 | 54 |
| Trichloroethene | 0.84 | 8.2 | 4.5 | 44 |
| Tetrachloroethene | 0.84 | 3.2 | 5.7 | 22 |

**Client Sample ID: EN0423S081308**

**Lab ID#: 0808367C-56A**

No Detections Were Found.

**Client Sample ID: EN0423I081308**

**Lab ID#: 0808367C-57A**

No Detections Were Found.

**Client Sample ID: EN0423D081308**

**Lab ID#: 0808367C-58A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethane | 0.88 | 5.4 | 3.5 | 22 |
| cis-1,2-Dichloroethene | 0.88 | 41 | 3.5 | 160 |
| Trichloroethene | 0.88 | 90 | 4.7 | 490 |
| Tetrachloroethene | 0.88 | 2.9 | 5.9 | 20 |
| trans-1,2-Dichloroethene | 0.88 | 1.8 | 3.5 | 7.1 |

**Client Sample ID: EN0533S081308**

**Lab ID#: 0808367C-59A**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0533S081308**

**Lab ID#: 0808367C-59A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.86 | 2.1 | 4.7 | 11 |
| Trichloroethene | 0.86 | 35 | 4.6 | 190 |
| Tetrachloroethene | 0.86 | 3.5 | 5.8 | 24 |

**Client Sample ID: EN0533I21081308**

**Lab ID#: 0808367C-60A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.8 | 24 | 9.8 | 130 |
| Trichloroethene | 1.8 | 590 | 9.6 | 3200 |
| Tetrachloroethene | 1.8 | 19 | 12 | 130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0418S081208**

**Lab ID#: 0808367C-41A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082213** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **8/22/08 04:00 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.82 | Not Detected | 4.5 | Not Detected |
| Trichloroethene | 0.82 | Not Detected | 4.4 | Not Detected |
| Tetrachloroethene | 0.82 | Not Detected | 5.6 | Not Detected |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0418D081208**

**Lab ID#: 0808367C-42A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082214** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **8/22/08 04:44 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | 3.2 | 3.2 | 13 |
| 1,1,1-Trichloroethane | 0.80 | 16 | 4.4 | 86 |
| Trichloroethene | 0.80 | 200 | 4.3 | 1100 |
| Tetrachloroethene | 0.80 | 1.5 | 5.5 | 10 |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0418D081208 Lab Duplicate**

**Lab ID#: 0808367C-42AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082215** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **8/22/08 05:46 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | 3.1 | 3.2 | 12 |
| 1,1,1-Trichloroethane | 0.80 | 15 | 4.4 | 83 |
| Trichloroethene | 0.80 | 190 | 4.3 | 1000 |
| Tetrachloroethene | 0.80 | 1.5 | 5.5 | 9.9 |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0417S081208**

**Lab ID#: 0808367C-43A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082216** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **8/22/08 06:34 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.82 | 1.4 | 4.5 | 7.4 |
| Trichloroethene | 0.82 | 79 | 4.4 | 420 |
| Tetrachloroethene | 0.82 | Not Detected | 5.6 | Not Detected |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0417D081208**

**Lab ID#: 0808367C-44A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082217** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **11.4** | **Date of Analysis:** | **8/22/08 07:39 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 5.7 | Not Detected | 14 | Not Detected |
| Chloroethane | 5.7 | Not Detected | 15 | Not Detected |
| 1,1-Dichloroethene | 5.7 | Not Detected | 23 | Not Detected |
| Freon 113 | 5.7 | Not Detected | 44 | Not Detected |
| Methylene Chloride | 5.7 | Not Detected | 20 | Not Detected |
| 1,1-Dichloroethane | 5.7 | Not Detected | 23 | Not Detected |
| cis-1,2-Dichloroethene | 5.7 | 29 | 22 | 120 |
| 1,1,1-Trichloroethane | 5.7 | 77 | 31 | 420 |
| Trichloroethene | 5.7 | 1800 | 31 | 9900 |
| Tetrachloroethene | 5.7 | Not Detected | 39 | Not Detected |
| trans-1,2-Dichloroethene | 5.7 | Not Detected | 22 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0417D081208 Lab Duplicate**

**Lab ID#: 0808367C-44AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082218** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **11.4** | **Date of Analysis:** | **8/22/08 09:19 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 5.7 | Not Detected | 14 | Not Detected |
| Chloroethane | 5.7 | Not Detected | 15 | Not Detected |
| 1,1-Dichloroethene | 5.7 | Not Detected | 23 | Not Detected |
| Freon 113 | 5.7 | Not Detected | 44 | Not Detected |
| Methylene Chloride | 5.7 | Not Detected | 20 | Not Detected |
| 1,1-Dichloroethane | 5.7 | Not Detected | 23 | Not Detected |
| cis-1,2-Dichloroethene | 5.7 | 28 | 22 | 110 |
| 1,1,1-Trichloroethane | 5.7 | 73 | 31 | 400 |
| Trichloroethene | 5.7 | 1800 | 31 | 9900 |
| Tetrachloroethene | 5.7 | Not Detected | 39 | Not Detected |
| trans-1,2-Dichloroethene | 5.7 | Not Detected | 22 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EB3300081208**

**Lab ID#: 0808367C-45A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082306** | **Date of Collection:** | **8/12/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **8/23/08 10:57 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Trichloroethene | 0.80 | Not Detected | 4.3 | Not Detected |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0422S081308**

**Lab ID#: 0808367C-46A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082307** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **8/23/08 11:34 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | 1.6 | 6.8 | 12 |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | 1.3 | 3.6 | 5.2 |
| cis-1,2-Dichloroethene | 0.90 | 110 | 3.5 | 460 |
| 1,1,1-Trichloroethane | 0.90 | 11 | 4.9 | 60 |
| Trichloroethene | 0.90 | 170 | 4.8 | 900 |
| Tetrachloroethene | 0.90 | 1.2 | 6.1 | 8.0 |
| trans-1,2-Dichloroethene | 0.90 | 6.4 | 3.5 | 25 |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0422D081308**

**Lab ID#: 0808367C-47A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082308** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **8/23/08 12:07 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | 1.8 | 6.2 | 14 |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | 2.4 | 3.2 | 9.8 |
| cis-1,2-Dichloroethene | 0.80 | 290 | 3.2 | 1200 |
| 1,1,1-Trichloroethane | 0.80 | 15 | 4.4 | 81 |
| Trichloroethene | 0.80 | 180 | 4.3 | 990 |
| Tetrachloroethene | 0.80 | 1.0 | 5.5 | 7.1 |
| trans-1,2-Dichloroethene | 0.80 | 16 | 3.2 | 63 |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0728S081308**

**Lab ID#: 0808367C-48A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082309** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **8/23/08 12:42 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | 4.7 | 4.6 | 25 |
| Tetrachloroethene | 0.86 | 85 | 5.8 | 580 |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0728I081308**

**Lab ID#: 0808367C-49A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082310** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **8/23/08 01:15 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | 10 | 3.5 | 41 |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | 21 | 4.8 | 110 |
| Tetrachloroethene | 0.90 | 220 | 6.1 | 1500 |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU3353081308**

**Lab ID#: 0808367C-50A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082311** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **8/23/08 01:47 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | 9.9 | 3.5 | 39 |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | 20 | 4.7 | 110 |
| Tetrachloroethene | 0.88 | 210 | 5.9 | 1400 |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0728D081308**

**Lab ID#: 0808367C-51A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082312** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **8/23/08 02:26 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | 200 | 3.4 | 800 |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | 38 | 4.6 | 200 |
| Tetrachloroethene | 0.86 | 310 | 5.8 | 2100 |
| trans-1,2-Dichloroethene | 0.86 | 13 | 3.4 | 53 |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0637S081308**

**Lab ID#: 0808367C-52A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082313** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **8/23/08 03:01 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.82 | Not Detected | 4.5 | Not Detected |
| Trichloroethene | 0.82 | Not Detected | 4.4 | Not Detected |
| Tetrachloroethene | 0.82 | Not Detected | 5.6 | Not Detected |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0637I081308**

**Lab ID#: 0808367C-53A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082314** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **8/23/08 03:37 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU1362081308**

**Lab ID#: 0808367C-54A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082315** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **8/23/08 04:12 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.82 | Not Detected | 4.5 | Not Detected |
| Trichloroethene | 0.82 | Not Detected | 4.4 | Not Detected |
| Tetrachloroethene | 0.82 | Not Detected | 5.6 | Not Detected |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0637D081308**

**Lab ID#: 0808367C-55A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082316** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **8/23/08 04:51 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | 14 | 3.3 | 54 |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | 8.2 | 4.5 | 44 |
| Tetrachloroethene | 0.84 | 3.2 | 5.7 | 22 |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0423S081308**

**Lab ID#: 0808367C-56A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082317** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **8/23/08 05:24 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | Not Detected | 4.7 | Not Detected |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0423I081308**

**Lab ID#: 0808367C-57A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082318** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **8/23/08 05:57 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.82 | Not Detected | 4.5 | Not Detected |
| Trichloroethene | 0.82 | Not Detected | 4.4 | Not Detected |
| Tetrachloroethene | 0.82 | Not Detected | 5.6 | Not Detected |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0423D081308**

**Lab ID#: 0808367C-58A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082319** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **8/23/08 06:44 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | 5.4 | 3.5 | 22 |
| cis-1,2-Dichloroethene | 0.88 | 41 | 3.5 | 160 |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | 90 | 4.7 | 490 |
| Tetrachloroethene | 0.88 | 2.9 | 5.9 | 20 |
| trans-1,2-Dichloroethene | 0.88 | 1.8 | 3.5 | 7.1 |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0533S081308**

**Lab ID#: 0808367C-59A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082320** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **8/23/08 07:46 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | 2.1 | 4.7 | 11 |
| Trichloroethene | 0.86 | 35 | 4.6 | 190 |
| Tetrachloroethene | 0.86 | 3.5 | 5.8 | 24 |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0533I21081308**

**Lab ID#: 0808367C-60A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082322** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **3.58** | **Date of Analysis:** | **8/23/08 09:11 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.8 | Not Detected | 4.6 | Not Detected |
| Chloroethane | 1.8 | Not Detected | 4.7 | Not Detected |
| 1,1-Dichloroethene | 1.8 | Not Detected | 7.1 | Not Detected |
| Freon 113 | 1.8 | Not Detected | 14 | Not Detected |
| Methylene Chloride | 1.8 | Not Detected | 6.2 | Not Detected |
| 1,1-Dichloroethane | 1.8 | Not Detected | 7.2 | Not Detected |
| cis-1,2-Dichloroethene | 1.8 | Not Detected | 7.1 | Not Detected |
| 1,1,1-Trichloroethane | 1.8 | 24 | 9.8 | 130 |
| Trichloroethene | 1.8 | 590 | 9.6 | 3200 |
| Tetrachloroethene | 1.8 | 19 | 12 | 130 |
| trans-1,2-Dichloroethene | 1.8 | Not Detected | 7.1 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0808367C-61A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082205** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/22/08 10:10 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0808367C-61B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082305** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/23/08 10:17 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0808367C-62A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082202** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/22/08 08:29 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 94 |
| Chloroethane | 99 |
| 1,1-Dichloroethene | 95 |
| Freon 113 | 98 |
| Methylene Chloride | 93 |
| 1,1-Dichloroethane | 98 |
| cis-1,2-Dichloroethene | 97 |
| 1,1,1-Trichloroethane | 101 |
| Trichloroethene | 104 |
| Tetrachloroethene | 105 |
| trans-1,2-Dichloroethene | 101 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0808367C-62B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082302** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/23/08 07:45 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 94 |
| Chloroethane | 98 |
| 1,1-Dichloroethene | 96 |
| Freon 113 | 99 |
| Methylene Chloride | 93 |
| 1,1-Dichloroethane | 100 |
| cis-1,2-Dichloroethene | 99 |
| 1,1,1-Trichloroethane | 105 |
| Trichloroethene | 106 |
| Tetrachloroethene | 107 |
| trans-1,2-Dichloroethene | 101 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0808367C-63A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082203** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/22/08 09:02 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 96 |
| Chloroethane | 101 |
| 1,1-Dichloroethene | 109 |
| Freon 113 | 111 |
| Methylene Chloride | 103 |
| 1,1-Dichloroethane | 106 |
| cis-1,2-Dichloroethene | 102 |
| 1,1,1-Trichloroethane | 104 |
| Trichloroethene | 104 |
| Tetrachloroethene | 110 |
| trans-1,2-Dichloroethene | 105 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0808367C-63AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082204** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/22/08 09:36 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 99 |
| Chloroethane | 106 |
| 1,1-Dichloroethene | 114 |
| Freon 113 | 115 |
| Methylene Chloride | 105 |
| 1,1-Dichloroethane | 108 |
| cis-1,2-Dichloroethene | 105 |
| 1,1,1-Trichloroethane | 105 |
| Trichloroethene | 105 |
| Tetrachloroethene | 109 |
| trans-1,2-Dichloroethene | 109 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0808367C-63B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082303** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/23/08 09:05 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 93 |
| Chloroethane | 99 |
| 1,1-Dichloroethene | 107 |
| Freon 113 | 110 |
| Methylene Chloride | 101 |
| 1,1-Dichloroethane | 104 |
| cis-1,2-Dichloroethene | 101 |
| 1,1,1-Trichloroethane | 104 |
| Trichloroethene | 102 |
| Tetrachloroethene | 107 |
| trans-1,2-Dichloroethene | 103 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0808367C-63BB**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082304** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/23/08 09:37 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 96 |
| Chloroethane | 103 |
| 1,1-Dichloroethene | 110 |
| Freon 113 | 112 |
| Methylene Chloride | 102 |
| 1,1-Dichloroethane | 106 |
| cis-1,2-Dichloroethene | 103 |
| 1,1,1-Trichloroethane | 104 |
| Trichloroethene | 103 |
| Tetrachloroethene | 107 |
| trans-1,2-Dichloroethene | 105 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**
**Hours 8:00 A.M to 6:00 P.M. Pacific**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0808367D

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | 2755 BCT |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755 GVP |
| **DATE RECEIVED:** | 08/15/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 08/27/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 61A | EN0533I29081308 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 61AA | EN0533I29081308 Lab Duplicate | Modified TO-15 | 6.0 "Hg | 5 psi |
| 62A | EN0533D081308 | Modified TO-15 | 9.5 "Hg | 5 psi |
| 63A | EN0413S081308 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 64A | EN0413D081308 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 65A | EN041S081308 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 66A | EN041D081308 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 67A | EN0635S081308 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 68A | EN0635I16081308 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 69A | EN0635I24081308 | Modified TO-15 | 8.0 "Hg | 5 psi |
| 70A | EN0635D081308 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 71A | EN0636S081308 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 72A | EN0636D081308 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 73A | EN0636I12081308 | Modified TO-15 | 8.0 "Hg | 5 psi |
| 74A | DU3321081308 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 75A | EN0636I22081308 | Modified TO-15 | 9.0 "Hg | 5 psi |
| 75AA | EN0636I22081308 Lab Duplicate | Modified TO-15 | 9.0 "Hg | 5 psi |

Continued on next page

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0808367D

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | 2755 BCT |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755 GVP |
| **DATE RECEIVED:** | 08/15/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 08/27/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 76A | EN046S081308 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 77A | EN046D081308 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 78A | EN047S081308 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 79A | EN047D081308 | Modified TO-15 | 8.0 "Hg | 5 psi |
| 80A | DU3335081308 | Modified TO-15 | 8.0 "Hg | 5 psi |
| 81A | Lab Blank | Modified TO-15 | NA | NA |
| 81B | Lab Blank | Modified TO-15 | NA | NA |
| 82A | CCV | Modified TO-15 | NA | NA |
| 82B | CCV | Modified TO-15 | NA | NA |
| 83A | LCS | Modified TO-15 | NA | NA |
| 83AA | LCSD | Modified TO-15 | NA | NA |
| 83B | LCS | Modified TO-15 | NA | NA |
| 83BB | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda L. Freeman

Laboratory Director

DATE: 08/28/08

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE**
**Modified TO-15**
**Sanborn, Head & Associates**
**Workorder# 0808367D**

Twenty 1 Liter Summa Canister (100% Certified) samples were received on August 15, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | </= 30% Difference | </= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0533I29081308**

**Lab ID#: 0808367D-61A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 3.4 | 5.5 | 13 | 22 |
| 1,1,1-Trichloroethane | 3.4 | 47 | 18 | 260 |
| Trichloroethene | 3.4 | 1100 | 18 | 5700 |
| Tetrachloroethene | 3.4 | 43 | 23 | 290 |

**Client Sample ID: EN0533I29081308 Lab Duplicate**

**Lab ID#: 0808367D-61AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 2.1 | 5.8 | 8.3 | 23 |
| 1,1,1-Trichloroethane | 2.1 | 48 | 11 | 260 |
| Trichloroethene | 2.1 | 1000 E | 11 | 5500 E |
| Tetrachloroethene | 2.1 | 43 | 14 | 290 |

**Client Sample ID: EN0533D081308**

**Lab ID#: 0808367D-62A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 3.9 | 7.2 | 16 | 29 |
| 1,1,1-Trichloroethane | 3.9 | 56 | 21 | 310 |
| Trichloroethene | 3.9 | 1200 | 21 | 6200 |
| Tetrachloroethene | 3.9 | 46 | 26 | 310 |

**Client Sample ID: EN0413S081308**

**Lab ID#: 0808367D-63A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.7 | 46 | 9.3 | 250 |
| Trichloroethene | 1.7 | 370 | 9.2 | 2000 |

**Client Sample ID: EN0413D081308**

**Lab ID#: 0808367D-64A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0413D081308**

**Lab ID#: 0808367D-64A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.88 | 18 | 4.8 | 100 |
| Trichloroethene | 0.88 | 140 | 4.7 | 750 |

**Client Sample ID: EN041S081308**

**Lab ID#: 0808367D-65A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.88 | 1.0 | 4.8 | 5.4 |
| Trichloroethene | 0.88 | 5.6 | 4.7 | 30 |

**Client Sample ID: EN041D081308**

**Lab ID#: 0808367D-66A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.90 | 5.1 | 4.9 | 28 |
| Trichloroethene | 0.90 | 34 | 4.8 | 180 |

**Client Sample ID: EN0635S081308**

**Lab ID#: 0808367D-67A**

No Detections Were Found.

**Client Sample ID: EN0635I16081308**

**Lab ID#: 0808367D-68A**

No Detections Were Found.

**Client Sample ID: EN0635I24081308**

**Lab ID#: 0808367D-69A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.92 | 1.3 | 5.0 | 7.0 |
| Trichloroethene | 0.92 | 6.4 | 4.9 | 34 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0635D081308**

**Lab ID#: 0808367D-70A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.84 | 3.8 | 4.6 | 20 |
| Trichloroethene | 0.84 | 24 | 4.5 | 130 |
| Tetrachloroethene | 0.84 | 0.83 J | 5.7 | 5.6 J |

**Client Sample ID: EN0636S081308**

**Lab ID#: 0808367D-71A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.88 | 2.7 | 4.8 | 15 |

**Client Sample ID: EN0636D081308**

**Lab ID#: 0808367D-72A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.86 | 1.2 | 3.4 | 4.8 |
| 1,1,1-Trichloroethane | 0.86 | 47 | 4.7 | 260 |
| Trichloroethene | 0.86 | 48 | 4.6 | 260 |

**Client Sample ID: EN0636I12081308**

**Lab ID#: 0808367D-73A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.92 | 5.7 | 5.0 | 31 |

**Client Sample ID: DU3321081308**

**Lab ID#: 0808367D-74A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.90 | 5.6 | 4.9 | 30 |

**Client Sample ID: EN0636I22081308**

**Lab ID#: 0808367D-75A**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0636I22081308**

**Lab ID#: 0808367D-75A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Chloroethane | 0.96 | 1.2 | 2.5 | 3.2 |
| 1,1,1-Trichloroethane | 0.96 | 37 | 5.2 | 200 |
| Trichloroethene | 0.96 | 13 | 5.1 | 72 |

**Client Sample ID: EN0636I22081308 Lab Duplicate**

**Lab ID#: 0808367D-75AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Chloroethane | 0.96 | 1.4 | 2.5 | 3.8 |
| 1,1,1-Trichloroethane | 0.96 | 36 | 5.2 | 200 |
| Trichloroethene | 0.96 | 13 | 5.1 | 70 |

**Client Sample ID: EN046S081308**

**Lab ID#: 0808367D-76A**

No Detections Were Found.

**Client Sample ID: EN046D081308**

**Lab ID#: 0808367D-77A**

No Detections Were Found.

**Client Sample ID: EN047S081308**

**Lab ID#: 0808367D-78A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.86 | 1.3 | 4.7 | 7.0 |
| Trichloroethene | 0.86 | 10 | 4.6 | 56 |
| Tetrachloroethene | 0.86 | 15 | 5.8 | 100 |

**Client Sample ID: EN047D081308**

**Lab ID#: 0808367D-79A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethene | 2.6 | 3.3 | 10 | 13 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN047D081308**

**Lab ID#: 0808367D-79A**

| | | | | |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 2.6 | 11 | 10 | 45 |
| 1,1,1-Trichloroethane | 2.6 | 57 | 14 | 310 |
| Trichloroethene | 2.6 | 870 | 14 | 4700 |

**Client Sample ID: DU3335081308**

**Lab ID#: 0808367D-80A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethene | 2.6 | 3.0 | 10 | 12 |
| cis-1,2-Dichloroethene | 2.6 | 9.9 | 10 | 39 |
| 1,1,1-Trichloroethane | 2.6 | 50 | 14 | 280 |
| Trichloroethene | 2.6 | 760 | 14 | 4100 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0533I29081308**

**Lab ID#: 0808367D-61A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082513** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **6.72** | **Date of Analysis:** | **8/25/08 05:54 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 3.4 | Not Detected | 8.6 | Not Detected |
| Chloroethane | 3.4 | Not Detected | 8.9 | Not Detected |
| 1,1-Dichloroethene | 3.4 | Not Detected | 13 | Not Detected |
| Freon 113 | 3.4 | Not Detected | 26 | Not Detected |
| Methylene Chloride | 3.4 | Not Detected | 12 | Not Detected |
| 1,1-Dichloroethane | 3.4 | Not Detected | 14 | Not Detected |
| cis-1,2-Dichloroethene | 3.4 | 5.5 | 13 | 22 |
| 1,1,1-Trichloroethane | 3.4 | 47 | 18 | 260 |
| Trichloroethene | 3.4 | 1100 | 18 | 5700 |
| Tetrachloroethene | 3.4 | 43 | 23 | 290 |
| trans-1,2-Dichloroethene | 3.4 | Not Detected | 13 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0533I29081308 Lab Duplicate**

**Lab ID#: 0808367D-61AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082510** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **4.20** | **Date of Analysis:** | **8/25/08 03:17 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 2.1 | Not Detected | 5.4 | Not Detected |
| Chloroethane | 2.1 | Not Detected | 5.5 | Not Detected |
| 1,1-Dichloroethene | 2.1 | Not Detected | 8.3 | Not Detected |
| Freon 113 | 2.1 | Not Detected | 16 | Not Detected |
| Methylene Chloride | 2.1 | Not Detected | 7.3 | Not Detected |
| 1,1-Dichloroethane | 2.1 | Not Detected | 8.5 | Not Detected |
| cis-1,2-Dichloroethene | 2.1 | 5.8 | 8.3 | 23 |
| 1,1,1-Trichloroethane | 2.1 | 48 | 11 | 260 |
| Trichloroethene | 2.1 | 1000 E | 11 | 5500 E |
| Tetrachloroethene | 2.1 | 43 | 14 | 290 |
| trans-1,2-Dichloroethene | 2.1 | Not Detected | 8.3 | Not Detected |

E = Exceeds instrument calibration range.

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0533D081308**

**Lab ID#: 0808367D-62A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082514** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **7.84** | **Date of Analysis:** | **8/25/08 06:54 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 3.9 | Not Detected | 10 | Not Detected |
| Chloroethane | 3.9 | Not Detected | 10 | Not Detected |
| 1,1-Dichloroethene | 3.9 | Not Detected | 16 | Not Detected |
| Freon 113 | 3.9 | Not Detected | 30 | Not Detected |
| Methylene Chloride | 3.9 | Not Detected | 14 | Not Detected |
| 1,1-Dichloroethane | 3.9 | Not Detected | 16 | Not Detected |
| cis-1,2-Dichloroethene | 3.9 | 7.2 | 16 | 29 |
| 1,1,1-Trichloroethane | 3.9 | 56 | 21 | 310 |
| Trichloroethene | 3.9 | 1200 | 21 | 6200 |
| Tetrachloroethene | 3.9 | 46 | 26 | 310 |
| trans-1,2-Dichloroethene | 3.9 | Not Detected | 16 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0413S081308**

**Lab ID#: 0808367D-63A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082515** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **3.42** | **Date of Analysis:** | **8/25/08 07:37 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.7 | Not Detected | 4.4 | Not Detected |
| Chloroethane | 1.7 | Not Detected | 4.5 | Not Detected |
| 1,1-Dichloroethene | 1.7 | Not Detected | 6.8 | Not Detected |
| Freon 113 | 1.7 | Not Detected | 13 | Not Detected |
| Methylene Chloride | 1.7 | Not Detected | 5.9 | Not Detected |
| 1,1-Dichloroethane | 1.7 | Not Detected | 6.9 | Not Detected |
| cis-1,2-Dichloroethene | 1.7 | Not Detected | 6.8 | Not Detected |
| 1,1,1-Trichloroethane | 1.7 | 46 | 9.3 | 250 |
| Trichloroethene | 1.7 | 370 | 9.2 | 2000 |
| Tetrachloroethene | 1.7 | Not Detected | 12 | Not Detected |
| trans-1,2-Dichloroethene | 1.7 | Not Detected | 6.8 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0413D081308**

**Lab ID#: 0808367D-64A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082516** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **8/25/08 08:51 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | 18 | 4.8 | 100 |
| Trichloroethene | 0.88 | 140 | 4.7 | 750 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN041S081308**

**Lab ID#: 0808367D-65A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082517** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **8/25/08 09:38 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | 1.0 | 4.8 | 5.4 |
| Trichloroethene | 0.88 | 5.6 | 4.7 | 30 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN041D081308**

**Lab ID#: 0808367D-66A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082518** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **8/25/08 10:22 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | 5.1 | 4.9 | 28 |
| Trichloroethene | 0.90 | 34 | 4.8 | 180 |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0635S081308**

**Lab ID#: 0808367D-67A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082519** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **8/25/08 11:06 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | Not Detected | 4.5 | Not Detected |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 89 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0635I16081308**

**Lab ID#: 0808367D-68A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082520** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **8/25/08 11:48 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | Not Detected | 4.7 | Not Detected |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0635I24081308**

**Lab ID#: 0808367D-69A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082606** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **8/26/08 10:59 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | 1.3 | 5.0 | 7.0 |
| Trichloroethene | 0.92 | 6.4 | 4.9 | 34 |
| Tetrachloroethene | 0.92 | Not Detected | 6.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0635D081308**

**Lab ID#: 0808367D-70A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082607** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **8/26/08 11:34 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | 3.8 | 4.6 | 20 |
| Trichloroethene | 0.84 | 24 | 4.5 | 130 |
| Tetrachloroethene | 0.84 | 0.83 J | 5.7 | 5.6 J |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

J = Estimated value.

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 91 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0636S081308**

**Lab ID#: 0808367D-71A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082608** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **8/26/08 12:13 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | 2.7 | 4.8 | 15 |
| Trichloroethene | 0.88 | Not Detected | 4.7 | Not Detected |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0636D081308**

**Lab ID#: 0808367D-72A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082609** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **8/26/08 01:07 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | 1.2 | 3.4 | 4.8 |
| 1,1,1-Trichloroethane | 0.86 | 47 | 4.7 | 260 |
| Trichloroethene | 0.86 | 48 | 4.6 | 260 |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0636I12081308**

**Lab ID#: 0808367D-73A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082610** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **8/26/08 01:40 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | 5.7 | 5.0 | 31 |
| Trichloroethene | 0.92 | Not Detected | 4.9 | Not Detected |
| Tetrachloroethene | 0.92 | Not Detected | 6.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU3321081308**

**Lab ID#: 0808367D-74A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082611** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **8/26/08 02:12 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | 5.6 | 4.9 | 30 |
| Trichloroethene | 0.90 | Not Detected | 4.8 | Not Detected |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0636I22081308**

**Lab ID#: 0808367D-75A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082612** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.91** | **Date of Analysis:** | **8/26/08 02:50 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.96 | Not Detected | 2.4 | Not Detected |
| Chloroethane | 0.96 | 1.2 | 2.5 | 3.2 |
| 1,1-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |
| Freon 113 | 0.96 | Not Detected | 7.3 | Not Detected |
| Methylene Chloride | 0.96 | Not Detected | 3.3 | Not Detected |
| 1,1-Dichloroethane | 0.96 | Not Detected | 3.9 | Not Detected |
| cis-1,2-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |
| 1,1,1-Trichloroethane | 0.96 | 37 | 5.2 | 200 |
| Trichloroethene | 0.96 | 13 | 5.1 | 72 |
| Tetrachloroethene | 0.96 | Not Detected | 6.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0636I22081308 Lab Duplicate**

**Lab ID#: 0808367D-75AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082614** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.91** | **Date of Analysis:** | **8/26/08 03:57 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.96 | Not Detected | 2.4 | Not Detected |
| Chloroethane | 0.96 | 1.4 | 2.5 | 3.8 |
| 1,1-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |
| Freon 113 | 0.96 | Not Detected | 7.3 | Not Detected |
| Methylene Chloride | 0.96 | Not Detected | 3.3 | Not Detected |
| 1,1-Dichloroethane | 0.96 | Not Detected | 3.9 | Not Detected |
| cis-1,2-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |
| 1,1,1-Trichloroethane | 0.96 | 36 | 5.2 | 200 |
| Trichloroethene | 0.96 | 13 | 5.1 | 70 |
| Tetrachloroethene | 0.96 | Not Detected | 6.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.96 | Not Detected | 3.8 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN046S081308**

**Lab ID#: 0808367D-76A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082613** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **8/26/08 03:24 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN046D081308**

**Lab ID#: 0808367D-77A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082615** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **8/26/08 05:31 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | Not Detected | 4.5 | Not Detected |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN047S081308**

**Lab ID#: 0808367D-78A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082616** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **8/26/08 06:26 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | 1.3 | 4.7 | 7.0 |
| Trichloroethene | 0.86 | 10 | 4.6 | 56 |
| Tetrachloroethene | 0.86 | 15 | 5.8 | 100 |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN047D081308**

**Lab ID#: 0808367D-79A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082618** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **5.23** | **Date of Analysis:** | **8/26/08 08:44 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 2.6 | Not Detected | 6.7 | Not Detected |
| Chloroethane | 2.6 | Not Detected | 6.9 | Not Detected |
| 1,1-Dichloroethene | 2.6 | 3.3 | 10 | 13 |
| Freon 113 | 2.6 | Not Detected | 20 | Not Detected |
| Methylene Chloride | 2.6 | Not Detected | 9.1 | Not Detected |
| 1,1-Dichloroethane | 2.6 | Not Detected | 10 | Not Detected |
| cis-1,2-Dichloroethene | 2.6 | 11 | 10 | 45 |
| 1,1,1-Trichloroethane | 2.6 | 57 | 14 | 310 |
| Trichloroethene | 2.6 | 870 | 14 | 4700 |
| Tetrachloroethene | 2.6 | Not Detected | 18 | Not Detected |
| trans-1,2-Dichloroethene | 2.6 | Not Detected | 10 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU3335081308**

**Lab ID#: 0808367D-80A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082619** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **5.23** | **Date of Analysis:** | **8/26/08 10:34 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 2.6 | Not Detected | 6.7 | Not Detected |
| Chloroethane | 2.6 | Not Detected | 6.9 | Not Detected |
| 1,1-Dichloroethene | 2.6 | 3.0 | 10 | 12 |
| Freon 113 | 2.6 | Not Detected | 20 | Not Detected |
| Methylene Chloride | 2.6 | Not Detected | 9.1 | Not Detected |
| 1,1-Dichloroethane | 2.6 | Not Detected | 10 | Not Detected |
| cis-1,2-Dichloroethene | 2.6 | 9.9 | 10 | 39 |
| 1,1,1-Trichloroethane | 2.6 | 50 | 14 | 280 |
| Trichloroethene | 2.6 | 760 | 14 | 4100 |
| Tetrachloroethene | 2.6 | Not Detected | 18 | Not Detected |
| trans-1,2-Dichloroethene | 2.6 | Not Detected | 10 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0808367D-81A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082505** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/25/08 11:01 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0808367D-81B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082605** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/26/08 10:15 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0808367D-82A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082502** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/25/08 08:52 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 90 |
| Chloroethane | 93 |
| 1,1-Dichloroethene | 92 |
| Freon 113 | 95 |
| Methylene Chloride | 90 |
| 1,1-Dichloroethane | 95 |
| cis-1,2-Dichloroethene | 96 |
| 1,1,1-Trichloroethane | 99 |
| Trichloroethene | 103 |
| Tetrachloroethene | 106 |
| trans-1,2-Dichloroethene | 99 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0808367D-82B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082602** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/26/08 08:20 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 90 |
| Chloroethane | 96 |
| 1,1-Dichloroethene | 93 |
| Freon 113 | 96 |
| Methylene Chloride | 90 |
| 1,1-Dichloroethane | 96 |
| cis-1,2-Dichloroethene | 95 |
| 1,1,1-Trichloroethane | 101 |
| Trichloroethene | 104 |
| Tetrachloroethene | 107 |
| trans-1,2-Dichloroethene | 100 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0808367D-83A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082503** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/25/08 09:31 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 90 |
| Chloroethane | 95 |
| 1,1-Dichloroethene | 106 |
| Freon 113 | 108 |
| Methylene Chloride | 99 |
| 1,1-Dichloroethane | 102 |
| cis-1,2-Dichloroethene | 99 |
| 1,1,1-Trichloroethane | 99 |
| Trichloroethene | 102 |
| Tetrachloroethene | 104 |
| trans-1,2-Dichloroethene | 102 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0808367D-83AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082504** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/25/08 10:07 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 90 |
| Chloroethane | 96 |
| 1,1-Dichloroethene | 105 |
| Freon 113 | 109 |
| Methylene Chloride | 97 |
| 1,1-Dichloroethane | 103 |
| cis-1,2-Dichloroethene | 100 |
| 1,1,1-Trichloroethane | 97 |
| Trichloroethene | 101 |
| Tetrachloroethene | 105 |
| trans-1,2-Dichloroethene | 104 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0808367D-83B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082603** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/26/08 08:52 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 89 |
| Chloroethane | 95 |
| 1,1-Dichloroethene | 105 |
| Freon 113 | 109 |
| Methylene Chloride | 99 |
| 1,1-Dichloroethane | 102 |
| cis-1,2-Dichloroethene | 99 |
| 1,1,1-Trichloroethane | 101 |
| Trichloroethene | 102 |
| Tetrachloroethene | 107 |
| trans-1,2-Dichloroethene | 103 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0808367D-83BB**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082604** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/26/08 09:26 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 92 |
| Chloroethane | 97 |
| 1,1-Dichloroethene | 106 |
| Freon 113 | 109 |
| Methylene Chloride | 99 |
| 1,1-Dichloroethane | 102 |
| cis-1,2-Dichloroethene | 99 |
| 1,1,1-Trichloroethane | 100 |
| Trichloroethene | 101 |
| Tetrachloroethene | 105 |
| trans-1,2-Dichloroethene | 103 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Air Toxics Ltd. Introduces the Electronic Report

Thank you for choosing Air Toxics Ltd. To better serve our customers, we are providing your report by e-mail. This document is provided in Portable Document Format which can be viewed with Acrobat Reader by Adobe.

This electronic report includes the following:

- Work order Summary;
- Laboratory Narrative;
- Results; and
- Chain of Custody (copy).

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**

**(916) 985-1000 .FAX (916) 985-1020**
**Hours 8:00 A.M to 6:00 P.M. Pacific**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0808367E

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | 2755 BCT |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755 GVP |
| **DATE RECEIVED:** | 08/15/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 08/27/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 81A | EN045S081308 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 82A | EN045D081308 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 82AA | EN045D081308 Lab Duplicate | Modified TO-15 | 7.5 "Hg | 5 psi |
| 83A | EN0425S081308 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 84A | EN0425D081308 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 85A | EB3345081308 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 86A | EN0415S081408 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 87A | EN0415D081408 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 88A | EN0427S081408 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 89A | EN0534S081408 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 90A | EN0534I081408 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 91A | EN0534D081408 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 92A | EN0426S081408 | Modified TO-15 | 4.5 "Hg | 5 psi |
| 93A | EN0426D081408 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 93AA | EN0426D081408 Lab Duplicate | Modified TO-15 | 5.0 "Hg | 5 psi |
| 94A | EB36435081408 | Modified TO-15 | 2.0 "Hg | 5 psi |
| 95A | Lab Blank | Modified TO-15 | NA | NA |

Continued on next page

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0808367E

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | 2755 BCT |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755 GVP |
| **DATE RECEIVED:** | 08/15/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 08/27/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 95B | Lab Blank | Modified TO-15 | NA | NA |
| 96A | CCV | Modified TO-15 | NA | NA |
| 96B | CCV | Modified TO-15 | NA | NA |
| 97A | LCS | Modified TO-15 | NA | NA |
| 97AA | LCSD | Modified TO-15 | NA | NA |
| 97B | LCS | Modified TO-15 | NA | NA |
| 97BB | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda L. Freeman DATE: 08/28/08

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/07, Expiration date: 06/30/08
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE**
**Modified TO-15**
**Sanborn, Head & Associates**
**Workorder# 0808367E**

Fourteen 1 Liter Summa Canister (100% Certified) samples were received on August 15, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | </= 30% Difference | </= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN045S081308**

**Lab ID#: 0808367E-81A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.88 | 2.9 | 4.8 | 16 |
| Trichloroethene | 0.88 | 61 | 4.7 | 330 |

**Client Sample ID: EN045D081308**

**Lab ID#: 0808367E-82A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.8 | 21 | 9.8 | 120 |
| Trichloroethene | 1.8 | 510 | 9.6 | 2700 |

**Client Sample ID: EN045D081308 Lab Duplicate**

**Lab ID#: 0808367E-82AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.8 | 21 | 9.8 | 120 |
| Trichloroethene | 1.8 | 500 | 9.6 | 2700 |

**Client Sample ID: EN0425S081308**

**Lab ID#: 0808367E-83A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.90 | 1.6 | 4.8 | 8.7 |
| Tetrachloroethene | 0.90 | 1.5 | 6.1 | 10 |

**Client Sample ID: EN0425D081308**

**Lab ID#: 0808367E-84A**

No Detections Were Found.

**Client Sample ID: EB3345081308**

**Lab ID#: 0808367E-85A**

No Detections Were Found.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0415S081408**

**Lab ID#: 0808367E-86A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Tetrachloroethene | 0.88 | 1.0 | 5.9 | 6.8 |

**Client Sample ID: EN0415D081408**

**Lab ID#: 0808367E-87A**

No Detections Were Found.

**Client Sample ID: EN0427S081408**

**Lab ID#: 0808367E-88A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.86 | 27 | 4.7 | 140 |
| Trichloroethene | 0.86 | 180 | 4.6 | 960 |
| Tetrachloroethene | 0.86 | 25 | 5.8 | 170 |

**Client Sample ID: EN0534S081408**

**Lab ID#: 0808367E-89A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.86 | 5.5 | 4.6 | 30 |
| Tetrachloroethene | 0.86 | 0.92 | 5.8 | 6.2 |

**Client Sample ID: EN0534I081408**

**Lab ID#: 0808367E-90A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.82 | 4.6 | 4.5 | 25 |
| Trichloroethene | 0.82 | 60 | 4.4 | 320 |
| Tetrachloroethene | 0.82 | 4.9 | 5.6 | 33 |

**Client Sample ID: EN0534D081408**

**Lab ID#: 0808367E-91A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0534D081408**

**Lab ID#: 0808367E-91A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.84 | 5.8 | 4.6 | 32 |
| Trichloroethene | 0.84 | 74 | 4.5 | 400 |
| Tetrachloroethene | 0.84 | 4.6 | 5.7 | 31 |

**Client Sample ID: EN0426S081408**

**Lab ID#: 0808367E-92A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.79 | 23 | 4.3 | 130 |
| Trichloroethene | 0.79 | 320 E | 4.2 | 1700 E |
| Tetrachloroethene | 0.79 | 2.6 | 5.4 | 18 |

**Client Sample ID: EN0426D081408**

**Lab ID#: 0808367E-93A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.6 | 28 | 8.8 | 150 |
| Trichloroethene | 1.6 | 490 | 8.6 | 2600 |
| Tetrachloroethene | 1.6 | 2.3 | 11 | 16 |

**Client Sample ID: EN0426D081408 Lab Duplicate**

**Lab ID#: 0808367E-93AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 3.2 | 26 | 18 | 140 |
| Trichloroethene | 3.2 | 500 | 17 | 2700 |

**Client Sample ID: EB36435081408**

**Lab ID#: 0808367E-94A**

No Detections Were Found.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN045S081308**

**Lab ID#: 0808367E-81A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082620** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **8/27/08 12:33 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | 2.9 | 4.8 | 16 |
| Trichloroethene | 0.88 | 61 | 4.7 | 330 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN045D081308**

**Lab ID#: 0808367E-82A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082621** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **3.58** | **Date of Analysis:** | **8/27/08 01:08 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.8 | Not Detected | 4.6 | Not Detected |
| Chloroethane | 1.8 | Not Detected | 4.7 | Not Detected |
| 1,1-Dichloroethene | 1.8 | Not Detected | 7.1 | Not Detected |
| Freon 113 | 1.8 | Not Detected | 14 | Not Detected |
| Methylene Chloride | 1.8 | Not Detected | 6.2 | Not Detected |
| 1,1-Dichloroethane | 1.8 | Not Detected | 7.2 | Not Detected |
| cis-1,2-Dichloroethene | 1.8 | Not Detected | 7.1 | Not Detected |
| 1,1,1-Trichloroethane | 1.8 | 21 | 9.8 | 120 |
| Trichloroethene | 1.8 | 510 | 9.6 | 2700 |
| Tetrachloroethene | 1.8 | Not Detected | 12 | Not Detected |
| trans-1,2-Dichloroethene | 1.8 | Not Detected | 7.1 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN045D081308 Lab Duplicate**

**Lab ID#: 0808367E-82AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082624** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **3.58** | **Date of Analysis:** | **8/27/08 03:13 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.8 | Not Detected | 4.6 | Not Detected |
| Chloroethane | 1.8 | Not Detected | 4.7 | Not Detected |
| 1,1-Dichloroethene | 1.8 | Not Detected | 7.1 | Not Detected |
| Freon 113 | 1.8 | Not Detected | 14 | Not Detected |
| Methylene Chloride | 1.8 | Not Detected | 6.2 | Not Detected |
| 1,1-Dichloroethane | 1.8 | Not Detected | 7.2 | Not Detected |
| cis-1,2-Dichloroethene | 1.8 | Not Detected | 7.1 | Not Detected |
| 1,1,1-Trichloroethane | 1.8 | 21 | 9.8 | 120 |
| Trichloroethene | 1.8 | 500 | 9.6 | 2700 |
| Tetrachloroethene | 1.8 | Not Detected | 12 | Not Detected |
| trans-1,2-Dichloroethene | 1.8 | Not Detected | 7.1 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 89 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0425S081308**

**Lab ID#: 0808367E-83A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082622** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **8/27/08 01:43 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | 1.6 | 4.8 | 8.7 |
| Tetrachloroethene | 0.90 | 1.5 | 6.1 | 10 |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 91 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0425D081308**

**Lab ID#: 0808367E-84A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082623** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **8/27/08 02:32 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | Not Detected | 4.8 | Not Detected |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 90 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 89 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EB3345081308**

**Lab ID#: 0808367E-85A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082625** | **Date of Collection:** | **8/13/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **8/27/08 04:10 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | Not Detected | 4.5 | Not Detected |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0415S081408**

**Lab ID#: 0808367E-86A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082626** | **Date of Collection:** | **8/14/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **8/27/08 04:43 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | Not Detected | 4.7 | Not Detected |
| Tetrachloroethene | 0.88 | 1.0 | 5.9 | 6.8 |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0415D081408**

**Lab ID#: 0808367E-87A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082627** | **Date of Collection:** | **8/14/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **8/27/08 06:14 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0427S081408**

**Lab ID#: 0808367E-88A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7082621** | **Date of Collection:** | **8/14/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **8/27/08 12:13 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | 27 | 4.7 | 140 |
| Trichloroethene | 0.86 | 180 | 4.6 | 960 |
| Tetrachloroethene | 0.86 | 25 | 5.8 | 170 |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0534S081408**

**Lab ID#: 0808367E-89A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7082620** | **Date of Collection:** | **8/14/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **8/26/08 11:32 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | 5.5 | 4.6 | 30 |
| Tetrachloroethene | 0.86 | 0.92 | 5.8 | 6.2 |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0534I081408**

**Lab ID#: 0808367E-90A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7082619** | **Date of Collection:** | **8/14/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **8/26/08 10:35 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.82 | 4.6 | 4.5 | 25 |
| Trichloroethene | 0.82 | 60 | 4.4 | 320 |
| Tetrachloroethene | 0.82 | 4.9 | 5.6 | 33 |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0534D081408**

**Lab ID#: 0808367E-91A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7082618** | **Date of Collection:** | **8/14/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **8/26/08 09:41 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | 5.8 | 4.6 | 32 |
| Trichloroethene | 0.84 | 74 | 4.5 | 400 |
| Tetrachloroethene | 0.84 | 4.6 | 5.7 | 31 |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0426S081408**

**Lab ID#: 0808367E-92A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7082617** | **Date of Collection:** | **8/14/08** |
| **Dil. Factor:** | **1.58** | **Date of Analysis:** | **8/26/08 08:35 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.79 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.79 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| Freon 113 | 0.79 | Not Detected | 6.0 | Not Detected |
| Methylene Chloride | 0.79 | Not Detected | 2.7 | Not Detected |
| 1,1-Dichloroethane | 0.79 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| 1,1,1-Trichloroethane | 0.79 | 23 | 4.3 | 130 |
| Trichloroethene | 0.79 | 320 E | 4.2 | 1700 E |
| Tetrachloroethene | 0.79 | 2.6 | 5.4 | 18 |
| trans-1,2-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |

E = Exceeds instrument calibration range.

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0426D081408**

**Lab ID#: 0808367E-93A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7082616** | **Date of Collection:** | **8/14/08** |
| **Dil. Factor:** | **3.22** | **Date of Analysis:** | **8/26/08 07:11 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.6 | Not Detected | 4.1 | Not Detected |
| Chloroethane | 1.6 | Not Detected | 4.2 | Not Detected |
| 1,1-Dichloroethene | 1.6 | Not Detected | 6.4 | Not Detected |
| Freon 113 | 1.6 | Not Detected | 12 | Not Detected |
| Methylene Chloride | 1.6 | Not Detected | 5.6 | Not Detected |
| 1,1-Dichloroethane | 1.6 | Not Detected | 6.5 | Not Detected |
| cis-1,2-Dichloroethene | 1.6 | Not Detected | 6.4 | Not Detected |
| 1,1,1-Trichloroethane | 1.6 | 28 | 8.8 | 150 |
| Trichloroethene | 1.6 | 490 | 8.6 | 2600 |
| Tetrachloroethene | 1.6 | 2.3 | 11 | 16 |
| trans-1,2-Dichloroethene | 1.6 | Not Detected | 6.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0426D081408 Lab Duplicate**

**Lab ID#: 0808367E-93AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7082615** | **Date of Collection:** | **8/14/08** |
| **Dil. Factor:** | **6.44** | **Date of Analysis:** | **8/26/08 06:23 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 3.2 | Not Detected | 8.2 | Not Detected |
| Chloroethane | 3.2 | Not Detected | 8.5 | Not Detected |
| 1,1-Dichloroethene | 3.2 | Not Detected | 13 | Not Detected |
| Freon 113 | 3.2 | Not Detected | 25 | Not Detected |
| Methylene Chloride | 3.2 | Not Detected | 11 | Not Detected |
| 1,1-Dichloroethane | 3.2 | Not Detected | 13 | Not Detected |
| cis-1,2-Dichloroethene | 3.2 | Not Detected | 13 | Not Detected |
| 1,1,1-Trichloroethane | 3.2 | 26 | 18 | 140 |
| Trichloroethene | 3.2 | 500 | 17 | 2700 |
| Tetrachloroethene | 3.2 | Not Detected | 22 | Not Detected |
| trans-1,2-Dichloroethene | 3.2 | Not Detected | 13 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EB36435081408**

**Lab ID#: 0808367E-94A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7082614** | **Date of Collection:** | **8/14/08** |
| **Dil. Factor:** | **1.44** | **Date of Analysis:** | **8/26/08 05:24 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.72 | Not Detected | 1.8 | Not Detected |
| Chloroethane | 0.72 | Not Detected | 1.9 | Not Detected |
| 1,1-Dichloroethene | 0.72 | Not Detected | 2.8 | Not Detected |
| Freon 113 | 0.72 | Not Detected | 5.5 | Not Detected |
| Methylene Chloride | 0.72 | Not Detected | 2.5 | Not Detected |
| 1,1-Dichloroethane | 0.72 | Not Detected | 2.9 | Not Detected |
| cis-1,2-Dichloroethene | 0.72 | Not Detected | 2.8 | Not Detected |
| 1,1,1-Trichloroethane | 0.72 | Not Detected | 3.9 | Not Detected |
| Trichloroethene | 0.72 | Not Detected | 3.9 | Not Detected |
| Tetrachloroethene | 0.72 | Not Detected | 4.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.72 | Not Detected | 2.8 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0808367E-95A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **b082605** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/26/08 10:15 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0808367E-95B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7082606** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/26/08 11:13 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 90 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0808367E-96A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082602** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/26/08 08:20 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 90 |
| Chloroethane | 96 |
| 1,1-Dichloroethene | 93 |
| Freon 113 | 96 |
| Methylene Chloride | 90 |
| 1,1-Dichloroethane | 96 |
| cis-1,2-Dichloroethene | 95 |
| 1,1,1-Trichloroethane | 101 |
| Trichloroethene | 104 |
| Tetrachloroethene | 107 |
| trans-1,2-Dichloroethene | 100 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0808367E-96B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **7082602** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/26/08 08:26 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 93 |
| Chloroethane | 93 |
| 1,1-Dichloroethene | 93 |
| Freon 113 | 98 |
| Methylene Chloride | 89 |
| 1,1-Dichloroethane | 96 |
| cis-1,2-Dichloroethene | 94 |
| 1,1,1-Trichloroethane | 100 |
| Trichloroethene | 100 |
| Tetrachloroethene | 96 |
| trans-1,2-Dichloroethene | 95 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0808367E-97A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082603** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/26/08 08:52 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 89 |
| Chloroethane | 95 |
| 1,1-Dichloroethene | 105 |
| Freon 113 | 109 |
| Methylene Chloride | 99 |
| 1,1-Dichloroethane | 102 |
| cis-1,2-Dichloroethene | 99 |
| 1,1,1-Trichloroethane | 101 |
| Trichloroethene | 102 |
| Tetrachloroethene | 107 |
| trans-1,2-Dichloroethene | 103 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0808367E-97AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **b082604** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/26/08 09:26 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 92 |
| Chloroethane | 97 |
| 1,1-Dichloroethene | 106 |
| Freon 113 | 109 |
| Methylene Chloride | 99 |
| 1,1-Dichloroethane | 102 |
| cis-1,2-Dichloroethene | 99 |
| 1,1,1-Trichloroethane | 100 |
| Trichloroethene | 101 |
| Tetrachloroethene | 105 |
| trans-1,2-Dichloroethene | 103 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0808367E-97B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **7082604** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/26/08 09:43 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 90 |
| Chloroethane | 90 |
| 1,1-Dichloroethene | 103 |
| Freon 113 | 107 |
| Methylene Chloride | 96 |
| 1,1-Dichloroethane | 99 |
| cis-1,2-Dichloroethene | 94 |
| 1,1,1-Trichloroethane | 100 |
| Trichloroethene | 100 |
| Tetrachloroethene | 102 |
| trans-1,2-Dichloroethene | 96 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0808367E-97BB**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **7082605** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 8/26/08 10:22 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 90 |
| Chloroethane | 93 |
| 1,1-Dichloroethene | 101 |
| Freon 113 | 106 |
| Methylene Chloride | 95 |
| 1,1-Dichloroethane | 97 |
| cis-1,2-Dichloroethene | 94 |
| 1,1,1-Trichloroethane | 100 |
| Trichloroethene | 100 |
| Tetrachloroethene | 100 |
| trans-1,2-Dichloroethene | 96 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 91 | 70-130 |
| Toluene-d8 | 105 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABRATORY

10/30/2008
Ms. Betsy Tomaswick
Sanborn, Head & Associates
20 Foundry Street

Concord NH 03301

Project Name: GVP
Project #: 2755.01

Dear Ms. Betsy Tomaswick

The following report includes the data for the above referenced project for sample(s) received on 10/17/2008 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for you air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Bryanna Langley

Bryanna Langley
Project Manager

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**
**(916) 985-1000 .FAX (916) 985-1020**
**Hours 8:00 A.M to 6:00 P.M. Pacific**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0810416A

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT 2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 10/17/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 10/29/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 01A | EN041S101308 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 02A | EN041D101308 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 03A | EN047S101408 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 03AA | EN047S101408 Lab Duplicate | Modified TO-15 | 6.5 "Hg | 5 psi |
| 04A | DU3320101408 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 05A | EN047D101408 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 06A | EN045S101408 | Modified TO-15 | 17.5 "Hg | 5 psi |
| 06AA | EN045S101408 Lab Duplicate | Modified TO-15 | 17.5 "Hg | 5 psi |
| 07A | EN045D101408 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 08A | EN0636S101408 | Modified TO-15 | 12.0 "Hg | 5 psi |
| 09A | EN0636D101408 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 10A | EN0420S101408 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 11A | EN0420D101408 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 12A | EN0421S101408 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 13A | EN0421D101408 | Modified TO-15 | 4.5 "Hg | 5 psi |
| 14A | EN0419S101408 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 15A | EN0419D101408 | Modified TO-15 | 6.5 "Hg | 5 psi |

Continued on next page

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0810416A

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT 2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 10/17/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 10/29/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 16A | EN0418S101408 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 17A | EN0418D101408 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 18A | EN0416S101408 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 19A | EN0416D101408 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 20A | EN0412S101408 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 21A | Lab Blank | Modified TO-15 | NA | NA |
| 21B | Lab Blank | Modified TO-15 | NA | NA |
| 22A | CCV | Modified TO-15 | NA | NA |
| 22B | CCV | Modified TO-15 | NA | NA |
| 23A | LCS | Modified TO-15 | NA | NA |
| 23AA | LCSD | Modified TO-15 | NA | NA |
| 23B | LCS | Modified TO-15 | NA | NA |
| 23BB | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda L. Freeman DATE: 10/30/08

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**
**Modified TO-15**
**Sanborn, Head & Associates**
**Workorder# 0810416A**

Twenty 1 Liter Summa Canister (100% Certified) samples were received on October 17, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | </= 30% Difference | </= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

Sample EN045S101408 was received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

There was a significant difference (greater than 7.0" Hg) between the measured canister receipt vacuum and that which was reported on the Chain of Custody (COC) for sample EN0636S101408. Therefore the vacuum measured in the laboratory was used to calculate results.

## Analytical Notes

There were no analytical discrepancies.

**Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN041S101308**

**Lab ID#: 0810416A-01A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.84 | 4.1 | 4.5 | 22 |

**Client Sample ID: EN041D101308**

**Lab ID#: 0810416A-02A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.88 | 6.4 | 4.8 | 35 |
| Trichloroethene | 0.88 | 38 | 4.7 | 210 |

**Client Sample ID: EN047S101408**

**Lab ID#: 0810416A-03A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.86 | 0.92 | 4.7 | 5.0 |
| Trichloroethene | 0.86 | 6.6 | 4.6 | 36 |
| Tetrachloroethene | 0.86 | 8.2 | 5.8 | 56 |

**Client Sample ID: EN047S101408 Lab Duplicate**

**Lab ID#: 0810416A-03AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.86 | 0.92 | 4.7 | 5.0 |
| Trichloroethene | 0.86 | 7.0 | 4.6 | 38 |
| Tetrachloroethene | 0.86 | 8.8 | 5.8 | 60 |

**Client Sample ID: DU3320101408**

**Lab ID#: 0810416A-04A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.88 | 0.94 | 4.8 | 5.1 |
| Trichloroethene | 0.88 | 7.0 | 4.7 | 37 |
| Tetrachloroethene | 0.88 | 8.4 | 5.9 | 57 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN047D101408**

**Lab ID#: 0810416A-05A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethene | 2.5 | 5.0 | 10 | 20 |
| 1,1-Dichloroethane | 2.5 | 2.6 | 10 | 10 |
| cis-1,2-Dichloroethene | 2.5 | 15 | 10 | 59 |
| 1,1,1-Trichloroethane | 2.5 | 62 | 14 | 340 |
| Trichloroethene | 2.5 | 980 | 14 | 5300 |

**Client Sample ID: EN045S101408**

**Lab ID#: 0810416A-06A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.6 | 2.5 | 8.8 | 14 |
| Trichloroethene | 1.6 | 45 | 8.6 | 240 |

**Client Sample ID: EN045S101408 Lab Duplicate**

**Lab ID#: 0810416A-06AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.6 | 2.5 | 8.8 | 13 |
| Trichloroethene | 1.6 | 46 | 8.6 | 240 |

**Client Sample ID: EN045D101408**

**Lab ID#: 0810416A-07A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 1.6 | 2.9 | 6.4 | 11 |
| 1,1,1-Trichloroethane | 1.6 | 24 | 8.8 | 130 |
| Trichloroethene | 1.6 | 560 | 8.6 | 3000 |

**Client Sample ID: EN0636S101408**

**Lab ID#: 0810416A-08A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.1 | 2.3 | 6.1 | 12 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0636D101408**

**Lab ID#: 0810416A-09A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.80 | 1.5 | 3.2 | 6.0 |
| 1,1,1-Trichloroethane | 0.80 | 61 | 4.4 | 330 |
| Trichloroethene | 0.80 | 58 | 4.3 | 310 |

**Client Sample ID: EN0420S101408**

**Lab ID#: 0810416A-10A**

No Detections Were Found.

**Client Sample ID: EN0420D101408**

**Lab ID#: 0810416A-11A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.80 | 2.4 | 4.4 | 13 |
| Trichloroethene | 0.80 | 57 | 4.3 | 310 |

**Client Sample ID: EN0421S101408**

**Lab ID#: 0810416A-12A**

No Detections Were Found.

**Client Sample ID: EN0421D101408**

**Lab ID#: 0810416A-13A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.79 | 3.1 | 4.3 | 17 |
| Trichloroethene | 0.79 | 75 | 4.2 | 400 |

**Client Sample ID: EN0419S101408**

**Lab ID#: 0810416A-14A**

No Detections Were Found.

**Client Sample ID: EN0419D101408**

**Lab ID#: 0810416A-15A**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0419D101408**

**Lab ID#: 0810416A-15A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.86 | 3.2 | 3.4 | 13 |
| 1,1,1-Trichloroethane | 0.86 | 12 | 4.7 | 67 |
| Trichloroethene | 0.86 | 250 | 4.6 | 1400 |

**Client Sample ID: EN0418S101408**

**Lab ID#: 0810416A-16A**

No Detections Were Found.

**Client Sample ID: EN0418D101408**

**Lab ID#: 0810416A-17A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.86 | 3.8 | 3.4 | 15 |
| 1,1,1-Trichloroethane | 0.86 | 17 | 4.7 | 93 |
| Trichloroethene | 0.86 | 240 | 4.6 | 1300 |
| Tetrachloroethene | 0.86 | 1.5 | 5.8 | 10 |

**Client Sample ID: EN0416S101408**

**Lab ID#: 0810416A-18A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.90 | 1.7 | 4.8 | 9.0 |
| Tetrachloroethene | 0.90 | 1.3 | 6.1 | 8.6 |

**Client Sample ID: EN0416D101408**

**Lab ID#: 0810416A-19A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 3.6 | 8.2 | 14 | 33 |
| 1,1,1-Trichloroethane | 3.6 | 48 | 20 | 260 |
| Trichloroethene | 3.6 | 1100 | 19 | 5800 |
| Tetrachloroethene | 3.6 | 41 | 24 | 280 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0412S101408**

**Lab ID#: 0810416A-20A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Methylene Chloride | 0.90 | 1.4 | 3.1 | 5.0 |
| 1,1,1-Trichloroethane | 0.90 | 4.2 | 4.9 | 23 |
| Trichloroethene | 0.90 | 200 | 4.8 | 1100 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN041S101308**

**Lab ID#: 0810416A-01A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102406** | **Date of Collection:** | **10/13/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/24/08 12:03 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | 4.1 | 4.5 | 22 |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 82 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN041D101308**

**Lab ID#: 0810416A-02A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102407** | **Date of Collection:** | **10/13/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **10/24/08 12:37 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | 6.4 | 4.8 | 35 |
| Trichloroethene | 0.88 | 38 | 4.7 | 210 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 85 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN047S101408**

**Lab ID#: 0810416A-03A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102408** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **10/24/08 01:19 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | 0.92 | 4.7 | 5.0 |
| Trichloroethene | 0.86 | 6.6 | 4.6 | 36 |
| Tetrachloroethene | 0.86 | 8.2 | 5.8 | 56 |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 85 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN047S101408 Lab Duplicate**

**Lab ID#: 0810416A-03AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102409** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **10/24/08 01:52 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | 0.92 | 4.7 | 5.0 |
| Trichloroethene | 0.86 | 7.0 | 4.6 | 38 |
| Tetrachloroethene | 0.86 | 8.8 | 5.8 | 60 |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 82 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU3320101408**

**Lab ID#: 0810416A-04A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102410** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **10/24/08 02:55 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | 0.94 | 4.8 | 5.1 |
| Trichloroethene | 0.88 | 7.0 | 4.7 | 37 |
| Tetrachloroethene | 0.88 | 8.4 | 5.9 | 57 |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 83 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN047D101408**

**Lab ID#: 0810416A-05A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102414** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **5.05** | **Date of Analysis:** | **10/24/08 07:08 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 2.5 | Not Detected | 6.4 | Not Detected |
| Chloroethane | 2.5 | Not Detected | 6.7 | Not Detected |
| 1,1-Dichloroethene | 2.5 | 5.0 | 10 | 20 |
| Freon 113 | 2.5 | Not Detected | 19 | Not Detected |
| Methylene Chloride | 2.5 | Not Detected | 8.8 | Not Detected |
| 1,1-Dichloroethane | 2.5 | 2.6 | 10 | 10 |
| cis-1,2-Dichloroethene | 2.5 | 15 | 10 | 59 |
| 1,1,1-Trichloroethane | 2.5 | 62 | 14 | 340 |
| Trichloroethene | 2.5 | 980 | 14 | 5300 |
| Tetrachloroethene | 2.5 | Not Detected | 17 | Not Detected |
| trans-1,2-Dichloroethene | 2.5 | Not Detected | 10 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN045S101408**

**Lab ID#: 0810416A-06A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102415** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **3.22** | **Date of Analysis:** | **10/24/08 08:00 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.6 | Not Detected | 4.1 | Not Detected |
| Chloroethane | 1.6 | Not Detected | 4.2 | Not Detected |
| 1,1-Dichloroethene | 1.6 | Not Detected | 6.4 | Not Detected |
| Freon 113 | 1.6 | Not Detected | 12 | Not Detected |
| Methylene Chloride | 1.6 | Not Detected | 5.6 | Not Detected |
| 1,1-Dichloroethane | 1.6 | Not Detected | 6.5 | Not Detected |
| cis-1,2-Dichloroethene | 1.6 | Not Detected | 6.4 | Not Detected |
| 1,1,1-Trichloroethane | 1.6 | 2.5 | 8.8 | 14 |
| Trichloroethene | 1.6 | 45 | 8.6 | 240 |
| Tetrachloroethene | 1.6 | Not Detected | 11 | Not Detected |
| trans-1,2-Dichloroethene | 1.6 | Not Detected | 6.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 85 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN045S101408 Lab Duplicate**

**Lab ID#: 0810416A-06AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102412** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **3.22** | **Date of Analysis:** | **10/24/08 04:32 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.6 | Not Detected | 4.1 | Not Detected |
| Chloroethane | 1.6 | Not Detected | 4.2 | Not Detected |
| 1,1-Dichloroethene | 1.6 | Not Detected | 6.4 | Not Detected |
| Freon 113 | 1.6 | Not Detected | 12 | Not Detected |
| Methylene Chloride | 1.6 | Not Detected | 5.6 | Not Detected |
| 1,1-Dichloroethane | 1.6 | Not Detected | 6.5 | Not Detected |
| cis-1,2-Dichloroethene | 1.6 | Not Detected | 6.4 | Not Detected |
| 1,1,1-Trichloroethane | 1.6 | 2.5 | 8.8 | 13 |
| Trichloroethene | 1.6 | 46 | 8.6 | 240 |
| Tetrachloroethene | 1.6 | Not Detected | 11 | Not Detected |
| trans-1,2-Dichloroethene | 1.6 | Not Detected | 6.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 86 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN045D101408**

**Lab ID#: 0810416A-07A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102416** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **3.22** | **Date of Analysis:** | **10/24/08 08:43 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.6 | Not Detected | 4.1 | Not Detected |
| Chloroethane | 1.6 | Not Detected | 4.2 | Not Detected |
| 1,1-Dichloroethene | 1.6 | Not Detected | 6.4 | Not Detected |
| Freon 113 | 1.6 | Not Detected | 12 | Not Detected |
| Methylene Chloride | 1.6 | Not Detected | 5.6 | Not Detected |
| 1,1-Dichloroethane | 1.6 | Not Detected | 6.5 | Not Detected |
| cis-1,2-Dichloroethene | 1.6 | 2.9 | 6.4 | 11 |
| 1,1,1-Trichloroethane | 1.6 | 24 | 8.8 | 130 |
| Trichloroethene | 1.6 | 560 | 8.6 | 3000 |
| Tetrachloroethene | 1.6 | Not Detected | 11 | Not Detected |
| trans-1,2-Dichloroethene | 1.6 | Not Detected | 6.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0636S101408**

**Lab ID#: 0810416A-08A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102507** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **2.23** | **Date of Analysis:** | **10/25/08 12:37 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.1 | Not Detected | 2.8 | Not Detected |
| Chloroethane | 1.1 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethene | 1.1 | Not Detected | 4.4 | Not Detected |
| Freon 113 | 1.1 | Not Detected | 8.5 | Not Detected |
| Methylene Chloride | 1.1 | Not Detected | 3.9 | Not Detected |
| 1,1-Dichloroethane | 1.1 | Not Detected | 4.5 | Not Detected |
| cis-1,2-Dichloroethene | 1.1 | Not Detected | 4.4 | Not Detected |
| 1,1,1-Trichloroethane | 1.1 | 2.3 | 6.1 | 12 |
| Trichloroethene | 1.1 | Not Detected | 6.0 | Not Detected |
| Tetrachloroethene | 1.1 | Not Detected | 7.6 | Not Detected |
| trans-1,2-Dichloroethene | 1.1 | Not Detected | 4.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 81 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 107 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0636D101408**

**Lab ID#: 0810416A-09A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102508** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **10/25/08 01:11 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | 1.5 | 3.2 | 6.0 |
| 1,1,1-Trichloroethane | 0.80 | 61 | 4.4 | 330 |
| Trichloroethene | 0.80 | 58 | 4.3 | 310 |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 90 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0420S101408**

**Lab ID#: 0810416A-10A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102509** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **10/25/08 01:52 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.82 | Not Detected | 4.5 | Not Detected |
| Trichloroethene | 0.82 | Not Detected | 4.4 | Not Detected |
| Tetrachloroethene | 0.82 | Not Detected | 5.6 | Not Detected |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 79 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 105 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0420D101408**

**Lab ID#: 0810416A-11A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102510** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **10/25/08 02:34 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | 2.4 | 4.4 | 13 |
| Trichloroethene | 0.80 | 57 | 4.3 | 310 |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 87 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0421S101408**

**Lab ID#: 0810416A-12A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102511** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/25/08 03:15 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | Not Detected | 4.5 | Not Detected |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 85 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0421D101408**

**Lab ID#: 0810416A-13A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102512** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.58** | **Date of Analysis:** | **10/25/08 04:04 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.79 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.79 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| Freon 113 | 0.79 | Not Detected | 6.0 | Not Detected |
| Methylene Chloride | 0.79 | Not Detected | 2.7 | Not Detected |
| 1,1-Dichloroethane | 0.79 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| 1,1,1-Trichloroethane | 0.79 | 3.1 | 4.3 | 17 |
| Trichloroethene | 0.79 | 75 | 4.2 | 400 |
| Tetrachloroethene | 0.79 | Not Detected | 5.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 84 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0419S101408**

**Lab ID#: 0810416A-14A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102513** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **10/25/08 04:41 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | Not Detected | 4.7 | Not Detected |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 88 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0419D101408**

**Lab ID#: 0810416A-15A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102514** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **10/25/08 05:15 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | 3.2 | 3.4 | 13 |
| 1,1,1-Trichloroethane | 0.86 | 12 | 4.7 | 67 |
| Trichloroethene | 0.86 | 250 | 4.6 | 1400 |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0418S101408**

**Lab ID#: 0810416A-16A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102515** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **10/25/08 05:52 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | Not Detected | 4.7 | Not Detected |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 87 | 70-130 |
| Toluene-d8 | 106 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0418D101408**

**Lab ID#: 0810416A-17A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102516** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **10/25/08 06:26 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | 3.8 | 3.4 | 15 |
| 1,1,1-Trichloroethane | 0.86 | 17 | 4.7 | 93 |
| Trichloroethene | 0.86 | 240 | 4.6 | 1300 |
| Tetrachloroethene | 0.86 | 1.5 | 5.8 | 10 |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0416S101408**

**Lab ID#: 0810416A-18A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102517** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **10/25/08 07:03 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | 1.7 | 4.8 | 9.0 |
| Tetrachloroethene | 0.90 | 1.3 | 6.1 | 8.6 |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 86 | 70-130 |
| Toluene-d8 | 104 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0416D101408**

**Lab ID#: 0810416A-19A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102518** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **7.16** | **Date of Analysis:** | **10/25/08 07:37 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 3.6 | Not Detected | 9.2 | Not Detected |
| Chloroethane | 3.6 | Not Detected | 9.4 | Not Detected |
| 1,1-Dichloroethene | 3.6 | Not Detected | 14 | Not Detected |
| Freon 113 | 3.6 | Not Detected | 27 | Not Detected |
| Methylene Chloride | 3.6 | Not Detected | 12 | Not Detected |
| 1,1-Dichloroethane | 3.6 | Not Detected | 14 | Not Detected |
| cis-1,2-Dichloroethene | 3.6 | 8.2 | 14 | 33 |
| 1,1,1-Trichloroethane | 3.6 | 48 | 20 | 260 |
| Trichloroethene | 3.6 | 1100 | 19 | 5800 |
| Tetrachloroethene | 3.6 | 41 | 24 | 280 |
| trans-1,2-Dichloroethene | 3.6 | Not Detected | 14 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0412S101408**

**Lab ID#: 0810416A-20A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102519** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **10/25/08 08:12 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | 1.4 | 3.1 | 5.0 |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | 4.2 | 4.9 | 23 |
| Trichloroethene | 0.90 | 200 | 4.8 | 1100 |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 83 | 70-130 |
| Toluene-d8 | 105 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0810416A-21A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102405** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/24/08 10:59 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 89 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 109 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0810416A-21B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102506** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/25/08 11:39 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 108 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0810416A-22A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102402** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/24/08 09:08 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 109 |
| Chloroethane | 108 |
| 1,1-Dichloroethene | 101 |
| Freon 113 | 106 |
| Methylene Chloride | 105 |
| 1,1-Dichloroethane | 100 |
| cis-1,2-Dichloroethene | 101 |
| 1,1,1-Trichloroethane | 116 |
| Trichloroethene | 104 |
| Tetrachloroethene | 106 |
| trans-1,2-Dichloroethene | 99 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 98 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 110 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0810416A-22B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102504** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/25/08 10:19 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 110 |
| Chloroethane | 106 |
| 1,1-Dichloroethene | 98 |
| Freon 113 | 104 |
| Methylene Chloride | 99 |
| 1,1-Dichloroethane | 100 |
| cis-1,2-Dichloroethene | 101 |
| 1,1,1-Trichloroethane | 114 |
| Trichloroethene | 102 |
| Tetrachloroethene | 104 |
| trans-1,2-Dichloroethene | 101 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 109 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0810416A-23A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102403** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/24/08 09:42 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 108 |
| Chloroethane | 105 |
| 1,1-Dichloroethene | 112 |
| Freon 113 | 116 |
| Methylene Chloride | 112 |
| 1,1-Dichloroethane | 111 |
| cis-1,2-Dichloroethene | 110 |
| 1,1,1-Trichloroethane | 119 |
| Trichloroethene | 105 |
| Tetrachloroethene | 114 |
| trans-1,2-Dichloroethene | 107 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0810416A-23AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102404** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/24/08 10:15 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 110 |
| Chloroethane | 105 |
| 1,1-Dichloroethene | 111 |
| Freon 113 | 114 |
| Methylene Chloride | 109 |
| 1,1-Dichloroethane | 114 |
| cis-1,2-Dichloroethene | 112 |
| 1,1,1-Trichloroethane | 118 |
| Trichloroethene | 105 |
| Tetrachloroethene | 115 |
| trans-1,2-Dichloroethene | 109 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 107 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0810416A-23B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102503** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/25/08 09:43 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 98 |
| Chloroethane | 96 |
| 1,1-Dichloroethene | 105 |
| Freon 113 | 109 |
| Methylene Chloride | 100 |
| 1,1-Dichloroethane | 114 |
| cis-1,2-Dichloroethene | 112 |
| 1,1,1-Trichloroethane | 113 |
| Trichloroethene | 106 |
| Tetrachloroethene | 113 |
| trans-1,2-Dichloroethene | 108 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0810416A-23BB**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102505** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/25/08 10:57 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 113 |
| Chloroethane | 109 |
| 1,1-Dichloroethene | 117 |
| Freon 113 | 121 |
| Methylene Chloride | 116 |
| 1,1-Dichloroethane | 108 |
| cis-1,2-Dichloroethene | 108 |
| 1,1,1-Trichloroethane | 121 |
| Trichloroethene | 107 |
| Tetrachloroethene | 107 |
| trans-1,2-Dichloroethene | 106 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 110 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABRATORY

10/30/2008
Ms. Betsy Tomaswick
Sanborn, Head & Associates
20 Foundry Street

Concord NH 03301

Project Name: GVP
Project #: 2755.01

Dear Ms. Betsy Tomaswick

The following report includes the data for the above referenced project for sample(s) received on 10/17/2008 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for you air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Bryanna Langley

Bryanna Langley
Project Manager

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**
**(916) 985-1000 .FAX (916) 985-1020**
**Hours 8:00 A.M to 6:00 P.M. Pacific**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0810416B

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT 2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 10/17/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 10/29/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 21A | EN0412D101408 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 22A | EN0635S101408 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 22AA | EN0635S101408 Lab Duplicate | Modified TO-15 | 6.5 "Hg | 5 psi |
| 23A | EN0635D101408 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 24A | EN046S101408 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 25A | EN046D101408 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 26A | EN0417S101408 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 27A | EN0417D101408 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 28A | DU3338101408 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 29A | EN0414S101408 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 30A | EN0414D101408 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 31A | EN0413S101408 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 32A | EN0413D101408 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 33A | EN0533S101408 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 34A | EN0533D101408 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 35A | EN0425S101508 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 36A | EN0425D101508 | Modified TO-15 | 6.0 "Hg | 5 psi |

Continued on next page

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0810416B

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT 2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 10/17/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 10/29/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 37A | EN0529S101508 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 37AA | EN0529S101508 Lab Duplicate | Modified TO-15 | 5.0 "Hg | 5 psi |
| 38A | EN0429D101508 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 39A | DU3361101508 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 40A | EN049S101508 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 41A | Lab Blank | Modified TO-15 | NA | NA |
| 41B | Lab Blank | Modified TO-15 | NA | NA |
| 42A | CCV | Modified TO-15 | NA | NA |
| 42B | CCV | Modified TO-15 | NA | NA |
| 43A | LCS | Modified TO-15 | NA | NA |
| 43AA | LCSD | Modified TO-15 | NA | NA |
| 43B | LCS | Modified TO-15 | NA | NA |
| 43BB | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda L. Freeman DATE: 10/30/08

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**
**Modified TO-15**
**Sanborn, Head & Associates**
**Workorder# 0810416B**

Twenty 1 Liter Summa Canister (100% Certified) samples were received on October 17, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | </= 30% Difference | </= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0412D101408**

**Lab ID#: 0810416B-21A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.1 | 7.2 | 6.2 | 40 |
| Trichloroethene | 1.1 | 290 | 6.1 | 1500 |

**Client Sample ID: EN0635S101408**

**Lab ID#: 0810416B-22A**

No Detections Were Found.

**Client Sample ID: EN0635S101408 Lab Duplicate**

**Lab ID#: 0810416B-22AA**

No Detections Were Found.

**Client Sample ID: EN0635D101408**

**Lab ID#: 0810416B-23A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.80 | 4.0 | 4.4 | 22 |
| Trichloroethene | 0.80 | 26 | 4.3 | 140 |

**Client Sample ID: EN046S101408**

**Lab ID#: 0810416B-24A**

No Detections Were Found.

**Client Sample ID: EN046D101408**

**Lab ID#: 0810416B-25A**

No Detections Were Found.

**Client Sample ID: EN0417S101408**

**Lab ID#: 0810416B-26A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.88 | 1.4 | 4.8 | 7.5 |
| Trichloroethene | 0.88 | 65 | 4.7 | 350 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0417D101408**

**Lab ID#: 0810416B-27A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.90 | 4.6 | 3.5 | 18 |
| 1,1,1-Trichloroethane | 0.90 | 9.6 | 4.9 | 52 |
| Trichloroethene | 0.90 | 330 | 4.8 | 1800 |
| Tetrachloroethene | 0.90 | 2.1 | 6.1 | 14 |

**Client Sample ID: DU3338101408**

**Lab ID#: 0810416B-28A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.90 | 4.5 | 3.5 | 18 |
| 1,1,1-Trichloroethane | 0.90 | 9.5 | 4.9 | 52 |
| Trichloroethene | 0.90 | 320 | 4.8 | 1700 |

**Client Sample ID: EN0414S101408**

**Lab ID#: 0810416B-29A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.84 | 1.7 | 4.6 | 9.5 |
| Trichloroethene | 0.84 | 4.5 | 4.5 | 24 |

**Client Sample ID: EN0414D101408**

**Lab ID#: 0810416B-30A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 2.1 | 24 | 11 | 130 |
| Trichloroethene | 2.1 | 560 | 11 | 3000 |

**Client Sample ID: EN0413S101408**

**Lab ID#: 0810416B-31A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.84 | 33 | 4.6 | 180 |
| Trichloroethene | 0.84 | 270 | 4.5 | 1500 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0413D101408**

**Lab ID#: 0810416B-32A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 2.0 | 83 | 11 | 450 |
| Trichloroethene | 2.0 | 560 | 11 | 3000 |

**Client Sample ID: EN0533S101408**

**Lab ID#: 0810416B-33A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.86 | 1.5 | 4.7 | 8.2 |
| Trichloroethene | 0.86 | 20 | 4.6 | 110 |
| Tetrachloroethene | 0.86 | 1.9 | 5.8 | 13 |

**Client Sample ID: EN0533D101408**

**Lab ID#: 0810416B-34A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 4.7 | 9.2 | 18 | 36 |
| 1,1,1-Trichloroethane | 4.7 | 67 | 26 | 360 |
| Trichloroethene | 4.7 | 1300 | 25 | 7200 |
| Tetrachloroethene | 4.7 | 49 | 32 | 330 |

**Client Sample ID: EN0425S101508**

**Lab ID#: 0810416B-35A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.84 | 1.0 | 4.5 | 5.4 |
| Tetrachloroethene | 0.84 | 0.86 | 5.7 | 5.8 |

**Client Sample ID: EN0425D101508**

**Lab ID#: 0810416B-36A**

No Detections Were Found.

**Client Sample ID: EN0529S101508**

**Lab ID#: 0810416B-37A**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0529S101508**

**Lab ID#: 0810416B-37A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.80 | 9.7 | 4.4 | 53 |
| Trichloroethene | 0.80 | 130 | 4.3 | 700 |

**Client Sample ID: EN0529S101508 Lab Duplicate**

**Lab ID#: 0810416B-37AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.80 | 9.6 | 4.4 | 52 |
| Trichloroethene | 0.80 | 130 | 4.3 | 720 |

**Client Sample ID: EN0429D101508**

**Lab ID#: 0810416B-38A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 2.0 | 30 | 11 | 160 |
| Trichloroethene | 2.0 | 400 | 11 | 2200 |

**Client Sample ID: DU3361101508**

**Lab ID#: 0810416B-39A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 2.0 | 31 | 11 | 170 |
| Trichloroethene | 2.0 | 420 | 11 | 2200 |

**Client Sample ID: EN049S101508**

**Lab ID#: 0810416B-40A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 6.6 | 98 | 36 | 540 |
| Trichloroethene | 6.6 | 1600 | 35 | 8400 |
| Tetrachloroethene | 6.6 | 32 | 44 | 220 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0412D101408**

**Lab ID#: 0810416B-21A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102706** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **2.28** | **Date of Analysis:** | **10/27/08 12:27 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.1 | Not Detected | 2.9 | Not Detected |
| Chloroethane | 1.1 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethene | 1.1 | Not Detected | 4.5 | Not Detected |
| Freon 113 | 1.1 | Not Detected | 8.7 | Not Detected |
| Methylene Chloride | 1.1 | Not Detected | 4.0 | Not Detected |
| 1,1-Dichloroethane | 1.1 | Not Detected | 4.6 | Not Detected |
| cis-1,2-Dichloroethene | 1.1 | Not Detected | 4.5 | Not Detected |
| 1,1,1-Trichloroethane | 1.1 | 7.2 | 6.2 | 40 |
| Trichloroethene | 1.1 | 290 | 6.1 | 1500 |
| Tetrachloroethene | 1.1 | Not Detected | 7.7 | Not Detected |
| trans-1,2-Dichloroethene | 1.1 | Not Detected | 4.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0635S101408**

**Lab ID#: 0810416B-22A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102707** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **10/27/08 01:10 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 85 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0635S101408 Lab Duplicate**

**Lab ID#: 0810416B-22AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102708** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **10/27/08 01:44 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 77 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0635D101408**

**Lab ID#: 0810416B-23A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102709** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **10/27/08 02:23 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | 4.0 | 4.4 | 22 |
| Trichloroethene | 0.80 | 26 | 4.3 | 140 |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 82 | 70-130 |
| Toluene-d8 | 105 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN046S101408**

**Lab ID#: 0810416B-24A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102710** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/27/08 02:57 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | Not Detected | 4.5 | Not Detected |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 88 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN046D101408**

**Lab ID#: 0810416B-25A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102711** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **10/27/08 03:30 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | Not Detected | 4.7 | Not Detected |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 85 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0417S101408**

**Lab ID#: 0810416B-26A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102712** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **10/27/08 04:04 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | 1.4 | 4.8 | 7.5 |
| Trichloroethene | 0.88 | 65 | 4.7 | 350 |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 86 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0417D101408**

**Lab ID#: 0810416B-27A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102713** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **10/27/08 04:41 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | 4.6 | 3.5 | 18 |
| 1,1,1-Trichloroethane | 0.90 | 9.6 | 4.9 | 52 |
| Trichloroethene | 0.90 | 330 | 4.8 | 1800 |
| Tetrachloroethene | 0.90 | 2.1 | 6.1 | 14 |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 84 | 70-130 |
| Toluene-d8 | 106 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU3338101408**

**Lab ID#: 0810416B-28A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102714** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **10/27/08 05:15 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | 4.5 | 3.5 | 18 |
| 1,1,1-Trichloroethane | 0.90 | 9.5 | 4.9 | 52 |
| Trichloroethene | 0.90 | 320 | 4.8 | 1700 |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 86 | 70-130 |
| Toluene-d8 | 104 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0414S101408**

**Lab ID#: 0810416B-29A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102715** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/27/08 05:48 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | 1.7 | 4.6 | 9.5 |
| Trichloroethene | 0.84 | 4.5 | 4.5 | 24 |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 89 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0414D101408**

**Lab ID#: 0810416B-30A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102719** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **4.20** | **Date of Analysis:** | **10/27/08 08:08 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 2.1 | Not Detected | 5.4 | Not Detected |
| Chloroethane | 2.1 | Not Detected | 5.5 | Not Detected |
| 1,1-Dichloroethene | 2.1 | Not Detected | 8.3 | Not Detected |
| Freon 113 | 2.1 | Not Detected | 16 | Not Detected |
| Methylene Chloride | 2.1 | Not Detected | 7.3 | Not Detected |
| 1,1-Dichloroethane | 2.1 | Not Detected | 8.5 | Not Detected |
| cis-1,2-Dichloroethene | 2.1 | Not Detected | 8.3 | Not Detected |
| 1,1,1-Trichloroethane | 2.1 | 24 | 11 | 130 |
| Trichloroethene | 2.1 | 560 | 11 | 3000 |
| Tetrachloroethene | 2.1 | Not Detected | 14 | Not Detected |
| trans-1,2-Dichloroethene | 2.1 | Not Detected | 8.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0413S101408**

**Lab ID#: 0810416B-31A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102717** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/27/08 07:01 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | 33 | 4.6 | 180 |
| Trichloroethene | 0.84 | 270 | 4.5 | 1500 |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 85 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0413D101408**

**Lab ID#: 0810416B-32A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102806** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **4.02** | **Date of Analysis:** | **10/28/08 11:44 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 2.0 | Not Detected | 5.1 | Not Detected |
| Chloroethane | 2.0 | Not Detected | 5.3 | Not Detected |
| 1,1-Dichloroethene | 2.0 | Not Detected | 8.0 | Not Detected |
| Freon 113 | 2.0 | Not Detected | 15 | Not Detected |
| Methylene Chloride | 2.0 | Not Detected | 7.0 | Not Detected |
| 1,1-Dichloroethane | 2.0 | Not Detected | 8.1 | Not Detected |
| cis-1,2-Dichloroethene | 2.0 | Not Detected | 8.0 | Not Detected |
| 1,1,1-Trichloroethane | 2.0 | 83 | 11 | 450 |
| Trichloroethene | 2.0 | 560 | 11 | 3000 |
| Tetrachloroethene | 2.0 | Not Detected | 14 | Not Detected |
| trans-1,2-Dichloroethene | 2.0 | Not Detected | 8.0 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 88 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0533S101408**

**Lab ID#: 0810416B-33A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102807** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **10/28/08 12:24 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | 1.5 | 4.7 | 8.2 |
| Trichloroethene | 0.86 | 20 | 4.6 | 110 |
| Tetrachloroethene | 0.86 | 1.9 | 5.8 | 13 |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 83 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0533D101408**

**Lab ID#: 0810416B-34A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102808** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **9.37** | **Date of Analysis:** | **10/28/08 01:00 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 4.7 | Not Detected | 12 | Not Detected |
| Chloroethane | 4.7 | Not Detected | 12 | Not Detected |
| 1,1-Dichloroethene | 4.7 | Not Detected | 18 | Not Detected |
| Freon 113 | 4.7 | Not Detected | 36 | Not Detected |
| Methylene Chloride | 4.7 | Not Detected | 16 | Not Detected |
| 1,1-Dichloroethane | 4.7 | Not Detected | 19 | Not Detected |
| cis-1,2-Dichloroethene | 4.7 | 9.2 | 18 | 36 |
| 1,1,1-Trichloroethane | 4.7 | 67 | 26 | 360 |
| Trichloroethene | 4.7 | 1300 | 25 | 7200 |
| Tetrachloroethene | 4.7 | 49 | 32 | 330 |
| trans-1,2-Dichloroethene | 4.7 | Not Detected | 18 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0425S101508**

**Lab ID#: 0810416B-35A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102809** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/28/08 02:06 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | 1.0 | 4.5 | 5.4 |
| Tetrachloroethene | 0.84 | 0.86 | 5.7 | 5.8 |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 84 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0425D101508**

**Lab ID#: 0810416B-36A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102810** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/28/08 02:47 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | Not Detected | 4.5 | Not Detected |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 86 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0529S101508**

**Lab ID#: 0810416B-37A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102811** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **10/28/08 03:21 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | 9.7 | 4.4 | 53 |
| Trichloroethene | 0.80 | 130 | 4.3 | 700 |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 87 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0529S101508 Lab Duplicate**

**Lab ID#: 0810416B-37AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102815** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **10/28/08 05:43 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | 9.6 | 4.4 | 52 |
| Trichloroethene | 0.80 | 130 | 4.3 | 720 |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0429D101508**

**Lab ID#: 0810416B-38A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102812** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **4.02** | **Date of Analysis:** | **10/28/08 03:54 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 2.0 | Not Detected | 5.1 | Not Detected |
| Chloroethane | 2.0 | Not Detected | 5.3 | Not Detected |
| 1,1-Dichloroethene | 2.0 | Not Detected | 8.0 | Not Detected |
| Freon 113 | 2.0 | Not Detected | 15 | Not Detected |
| Methylene Chloride | 2.0 | Not Detected | 7.0 | Not Detected |
| 1,1-Dichloroethane | 2.0 | Not Detected | 8.1 | Not Detected |
| cis-1,2-Dichloroethene | 2.0 | Not Detected | 8.0 | Not Detected |
| 1,1,1-Trichloroethane | 2.0 | 30 | 11 | 160 |
| Trichloroethene | 2.0 | 400 | 11 | 2200 |
| Tetrachloroethene | 2.0 | Not Detected | 14 | Not Detected |
| trans-1,2-Dichloroethene | 2.0 | Not Detected | 8.0 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU3361101508**

**Lab ID#: 0810416B-39A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102813** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **4.02** | **Date of Analysis:** | **10/28/08 04:29 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 2.0 | Not Detected | 5.1 | Not Detected |
| Chloroethane | 2.0 | Not Detected | 5.3 | Not Detected |
| 1,1-Dichloroethene | 2.0 | Not Detected | 8.0 | Not Detected |
| Freon 113 | 2.0 | Not Detected | 15 | Not Detected |
| Methylene Chloride | 2.0 | Not Detected | 7.0 | Not Detected |
| 1,1-Dichloroethane | 2.0 | Not Detected | 8.1 | Not Detected |
| cis-1,2-Dichloroethene | 2.0 | Not Detected | 8.0 | Not Detected |
| 1,1,1-Trichloroethane | 2.0 | 31 | 11 | 170 |
| Trichloroethene | 2.0 | 420 | 11 | 2200 |
| Tetrachloroethene | 2.0 | Not Detected | 14 | Not Detected |
| trans-1,2-Dichloroethene | 2.0 | Not Detected | 8.0 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN049S101508**

**Lab ID#: 0810416B-40A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102814** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **13.1** | **Date of Analysis:** | **10/28/08 05:09 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 6.6 | Not Detected | 17 | Not Detected |
| Chloroethane | 6.6 | Not Detected | 17 | Not Detected |
| 1,1-Dichloroethene | 6.6 | Not Detected | 26 | Not Detected |
| Freon 113 | 6.6 | Not Detected | 50 | Not Detected |
| Methylene Chloride | 6.6 | Not Detected | 23 | Not Detected |
| 1,1-Dichloroethane | 6.6 | Not Detected | 26 | Not Detected |
| cis-1,2-Dichloroethene | 6.6 | Not Detected | 26 | Not Detected |
| 1,1,1-Trichloroethane | 6.6 | 98 | 36 | 540 |
| Trichloroethene | 6.6 | 1600 | 35 | 8400 |
| Tetrachloroethene | 6.6 | 32 | 44 | 220 |
| trans-1,2-Dichloroethene | 6.6 | Not Detected | 26 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0810416B-41A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102705** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/27/08 11:43 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 91 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0810416B-41B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102805** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 11:01 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 89 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0810416B-42A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102702** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/27/08 09:10 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 110 |
| Chloroethane | 108 |
| 1,1-Dichloroethene | 99 |
| Freon 113 | 101 |
| Methylene Chloride | 96 |
| 1,1-Dichloroethane | 107 |
| cis-1,2-Dichloroethene | 110 |
| 1,1,1-Trichloroethane | 111 |
| Trichloroethene | 106 |
| Tetrachloroethene | 101 |
| trans-1,2-Dichloroethene | 106 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0810416B-42B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102802** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 08:24 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 106 |
| Chloroethane | 103 |
| 1,1-Dichloroethene | 98 |
| Freon 113 | 103 |
| Methylene Chloride | 97 |
| 1,1-Dichloroethane | 101 |
| cis-1,2-Dichloroethene | 102 |
| 1,1,1-Trichloroethane | 113 |
| Trichloroethene | 104 |
| Tetrachloroethene | 102 |
| trans-1,2-Dichloroethene | 102 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0810416B-43A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102703** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/27/08 10:15 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 108 |
| Chloroethane | 107 |
| 1,1-Dichloroethene | 111 |
| Freon 113 | 118 |
| Methylene Chloride | 104 |
| 1,1-Dichloroethane | 111 |
| cis-1,2-Dichloroethene | 110 |
| 1,1,1-Trichloroethane | 117 |
| Trichloroethene | 109 |
| Tetrachloroethene | 110 |
| trans-1,2-Dichloroethene | 109 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0810416B-43AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102704** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/27/08 10:55 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 108 |
| Chloroethane | 105 |
| 1,1-Dichloroethene | 112 |
| Freon 113 | 118 |
| Methylene Chloride | 108 |
| 1,1-Dichloroethane | 110 |
| cis-1,2-Dichloroethene | 108 |
| 1,1,1-Trichloroethane | 118 |
| Trichloroethene | 108 |
| Tetrachloroethene | 111 |
| trans-1,2-Dichloroethene | 106 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0810416B-43B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102803** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 09:17 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 103 |
| Chloroethane | 102 |
| 1,1-Dichloroethene | 112 |
| Freon 113 | 118 |
| Methylene Chloride | 110 |
| 1,1-Dichloroethane | 111 |
| cis-1,2-Dichloroethene | 108 |
| 1,1,1-Trichloroethane | 120 |
| Trichloroethene | 108 |
| Tetrachloroethene | 110 |
| trans-1,2-Dichloroethene | 107 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0810416B-43BB**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102804** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 09:57 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 108 |
| Chloroethane | 104 |
| 1,1-Dichloroethene | 110 |
| Freon 113 | 118 |
| Methylene Chloride | 109 |
| 1,1-Dichloroethane | 106 |
| cis-1,2-Dichloroethene | 105 |
| 1,1,1-Trichloroethane | 118 |
| Trichloroethene | 108 |
| Tetrachloroethene | 108 |
| trans-1,2-Dichloroethene | 102 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 105 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABRATORY

10/30/2008
Ms. Betsy Tomaswick
Sanborn, Head & Associates
20 Foundry Street

Concord NH 03301

Project Name: GVP
Project #: 2755.01

Dear Ms. Betsy Tomaswick

The following report includes the data for the above referenced project for sample(s) received on 10/17/2008 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for you air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Bryanna Langley

Bryanna Langley
Project Manager

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**
**(916) 985-1000 .FAX (916) 985-1020**
**Hours 8:00 A.M to 6:00 P.M. Pacific**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0810416C

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT 2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 10/17/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 10/30/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 41A | EN049D101508 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 42A | EN0410S101508 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 43A | EN0410D101508 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 44A | EN0427S101508 | Modified TO-15 | 8.0 "Hg | 5 psi |
| 45A | DU3365101508 | Modified TO-15 | 8.0 "Hg | 5 psi |
| 46A | EN0534S101508 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 47A | EN0534D101508 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 48A | EN0415S101508 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 49A | EN0415D101508 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 50A | EN0422S101508 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 50AA | EN0422S101508 Lab Duplicate | Modified TO-15 | 6.5 "Hg | 5 psi |
| 51A | EN0422D101508 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 52A | EN044D101508 | Modified TO-15 | 3.5 "Hg | 5 psi |
| 53A | DU3302101508 | Modified TO-15 | 3.5 "Hg | 5 psi |
| 54A | EN044S101508 | Modified TO-15 | 3.5 "Hg | 5 psi |
| 55A | EN0432S101508 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 56A | EN0432D101508 | Modified TO-15 | 4.5 "Hg | 5 psi |

Continued on next page

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0810416C

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT 2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 10/17/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 10/30/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 57A | EN0411D101508 | Modified TO-15 | 3.5 "Hg | 5 psi |
| 58A | EN0411S101508 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 59A | EN043S101508 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 60A | EN043D101508 | Modified TO-15 | 7.5 "Hg | 5 psi |
| 60AA | EN043D101508 Lab Duplicate | Modified TO-15 | 7.5 "Hg | 5 psi |
| 61A | Lab Blank | Modified TO-15 | NA | NA |
| 61B | Lab Blank | Modified TO-15 | NA | NA |
| 61C | Lab Blank | Modified TO-15 | NA | NA |
| 62A | CCV | Modified TO-15 | NA | NA |
| 62B | CCV | Modified TO-15 | NA | NA |
| 62C | CCV | Modified TO-15 | NA | NA |
| 63A | LCS | Modified TO-15 | NA | NA |
| 63AA | LCSD | Modified TO-15 | NA | NA |
| 63B | LCS | Modified TO-15 | NA | NA |
| 63BB | LCSD | Modified TO-15 | NA | NA |
| 63C | LCS | Modified TO-15 | NA | NA |
| 63CC | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda L. Freeman DATE: 10/30/08

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**
**Modified TO-15**
**Sanborn, Head & Associates**
**Workorder# 0810416C**

Twenty 1 Liter Summa Canister (100% Certified) samples were received on October 17, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | </= 30% Difference | </= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN049D101508**

**Lab ID#: 0810416C-41A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethene | 11 | 110 | 43 | 440 |
| 1,1-Dichloroethane | 11 | 100 | 44 | 410 |
| cis-1,2-Dichloroethene | 11 | 260 | 43 | 1000 |
| 1,1,1-Trichloroethane | 11 | 310 | 59 | 1700 |
| Trichloroethene | 11 | 2200 | 58 | 12000 |
| Tetrachloroethene | 11 | 120 | 73 | 800 |

**Client Sample ID: EN0410S101508**

**Lab ID#: 0810416C-42A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethene | 34 | 370 | 140 | 1500 |
| 1,1-Dichloroethane | 34 | 1000 | 140 | 4200 |
| cis-1,2-Dichloroethene | 34 | 2300 | 140 | 9100 |
| 1,1,1-Trichloroethane | 34 | 2200 | 190 | 12000 |
| Trichloroethene | 34 | 9100 | 180 | 49000 |
| Tetrachloroethene | 34 | 66 | 230 | 450 |

**Client Sample ID: EN0410D101508**

**Lab ID#: 0810416C-43A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethene | 42 | 640 | 170 | 2500 |
| 1,1-Dichloroethane | 42 | 1400 | 170 | 5900 |
| cis-1,2-Dichloroethene | 42 | 3800 | 170 | 15000 |
| 1,1,1-Trichloroethane | 42 | 3200 | 230 | 17000 |
| Trichloroethene | 42 | 10000 | 220 | 57000 |
| Tetrachloroethene | 42 | 100 | 280 | 710 |

**Client Sample ID: EN0427S101508**

**Lab ID#: 0810416C-44A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.92 | 21 | 5.0 | 120 |
| Trichloroethene | 0.92 | 130 | 4.9 | 710 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0427S101508**

**Lab ID#: 0810416C-44A**

| | | | | |
|---|---|---|---|---|
| Tetrachloroethene | 0.92 | 16 | 6.2 | 110 |

**Client Sample ID: DU3365101508**

**Lab ID#: 0810416C-45A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.92 | 23 | 5.0 | 120 |
| Trichloroethene | 0.92 | 140 | 4.9 | 740 |
| Tetrachloroethene | 0.92 | 16 | 6.2 | 110 |

**Client Sample ID: EN0534S101508**

**Lab ID#: 0810416C-46A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.84 | 3.2 | 4.5 | 17 |

**Client Sample ID: EN0534D101508**

**Lab ID#: 0810416C-47A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Freon 113 | 0.86 | 4.4 | 6.6 | 34 |
| 1,1,1-Trichloroethane | 0.86 | 8.2 | 4.7 | 45 |
| Trichloroethene | 0.86 | 85 | 4.6 | 460 |
| Tetrachloroethene | 0.86 | 5.2 | 5.8 | 35 |

**Client Sample ID: EN0415S101508**

**Lab ID#: 0810416C-48A**

No Detections Were Found.

**Client Sample ID: EN0415D101508**

**Lab ID#: 0810416C-49A**

No Detections Were Found.

**Client Sample ID: EN0422S101508**

**Lab ID#: 0810416C-50A**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0422S101508**

**Lab ID#: 0810416C-50A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Freon 113 | 0.86 | 1.1 | 6.6 | 8.2 |
| cis-1,2-Dichloroethene | 0.86 | 67 | 3.4 | 260 |
| 1,1,1-Trichloroethane | 0.86 | 8.1 | 4.7 | 44 |
| Trichloroethene | 0.86 | 110 | 4.6 | 580 |
| Tetrachloroethene | 0.86 | 2.8 | 5.8 | 19 |
| trans-1,2-Dichloroethene | 0.86 | 4.0 | 3.4 | 16 |

**Client Sample ID: EN0422S101508 Lab Duplicate**

**Lab ID#: 0810416C-50AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Freon 113 | 0.86 | 1.0 | 6.6 | 7.9 |
| cis-1,2-Dichloroethene | 0.86 | 65 | 3.4 | 260 |
| 1,1,1-Trichloroethane | 0.86 | 7.9 | 4.7 | 43 |
| Trichloroethene | 0.86 | 110 | 4.6 | 590 |
| Tetrachloroethene | 0.86 | 2.9 | 5.8 | 20 |
| trans-1,2-Dichloroethene | 0.86 | 4.2 | 3.4 | 17 |

**Client Sample ID: EN0422D101508**

**Lab ID#: 0810416C-51A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Freon 113 | 1.7 | 1.8 | 13 | 14 |
| 1,1-Dichloroethane | 1.7 | 3.1 | 6.9 | 12 |
| cis-1,2-Dichloroethene | 1.7 | 360 | 6.8 | 1400 |
| 1,1,1-Trichloroethane | 1.7 | 18 | 9.3 | 98 |
| Trichloroethene | 1.7 | 230 | 9.2 | 1200 |
| trans-1,2-Dichloroethene | 1.7 | 18 | 6.8 | 72 |

**Client Sample ID: EN044D101508**

**Lab ID#: 0810416C-52A**

No Detections Were Found.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: DU3302101508**

**Lab ID#: 0810416C-53A**

No Detections Were Found.

**Client Sample ID: EN044S101508**

**Lab ID#: 0810416C-54A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Methylene Chloride | 0.76 | 0.85 | 2.6 | 3.0 |

**Client Sample ID: EN0432S101508**

**Lab ID#: 0810416C-55A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.84 | 50 | 4.5 | 270 |

**Client Sample ID: EN0432D101508**

**Lab ID#: 0810416C-56A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.79 | 2.4 | 4.3 | 13 |
| Trichloroethene | 0.79 | 200 | 4.2 | 1100 |
| Tetrachloroethene | 0.79 | 1.8 | 5.4 | 12 |

**Client Sample ID: EN0411D101508**

**Lab ID#: 0810416C-57A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 1.0 | 1.4 | 4.2 | 5.6 |
| 1,1,1-Trichloroethane | 1.0 | 7.4 | 5.7 | 40 |
| Trichloroethene | 1.0 | 300 | 5.6 | 1600 |
| Tetrachloroethene | 1.0 | 6.2 | 7.1 | 42 |

**Client Sample ID: EN0411S101508**

**Lab ID#: 0810416C-58A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0411S101508**

**Lab ID#: 0810416C-58A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.80 | 11 | 4.3 | 58 |

**Client Sample ID: EN043S101508**

**Lab ID#: 0810416C-59A**

No Detections Were Found.

**Client Sample ID: EN043D101508**

**Lab ID#: 0810416C-60A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.90 | 4.1 | 4.8 | 22 |

**Client Sample ID: EN043D101508 Lab Duplicate**

**Lab ID#: 0810416C-60AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.90 | 4.2 | 4.8 | 22 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN049D101508**

**Lab ID#: 0810416C-41A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102810** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **21.5** | **Date of Analysis:** | **10/28/08 03:54 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 11 | Not Detected | 27 | Not Detected |
| Chloroethane | 11 | Not Detected | 28 | Not Detected |
| 1,1-Dichloroethene | 11 | 110 | 43 | 440 |
| Freon 113 | 11 | Not Detected | 82 | Not Detected |
| Methylene Chloride | 11 | Not Detected | 37 | Not Detected |
| 1,1-Dichloroethane | 11 | 100 | 44 | 410 |
| cis-1,2-Dichloroethene | 11 | 260 | 43 | 1000 |
| 1,1,1-Trichloroethane | 11 | 310 | 59 | 1700 |
| Trichloroethene | 11 | 2200 | 58 | 12000 |
| Tetrachloroethene | 11 | 120 | 73 | 800 |
| trans-1,2-Dichloroethene | 11 | Not Detected | 43 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0410S101508**

**Lab ID#: 0810416C-42A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102811** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **68.4** | **Date of Analysis:** | **10/28/08 04:34 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 34 | Not Detected | 87 | Not Detected |
| Chloroethane | 34 | Not Detected | 90 | Not Detected |
| 1,1-Dichloroethene | 34 | 370 | 140 | 1500 |
| Freon 113 | 34 | Not Detected | 260 | Not Detected |
| Methylene Chloride | 34 | Not Detected | 120 | Not Detected |
| 1,1-Dichloroethane | 34 | 1000 | 140 | 4200 |
| cis-1,2-Dichloroethene | 34 | 2300 | 140 | 9100 |
| 1,1,1-Trichloroethane | 34 | 2200 | 190 | 12000 |
| Trichloroethene | 34 | 9100 | 180 | 49000 |
| Tetrachloroethene | 34 | 66 | 230 | 450 |
| trans-1,2-Dichloroethene | 34 | Not Detected | 140 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0410D101508**

**Lab ID#: 0810416C-43A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102812** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **84.0** | **Date of Analysis:** | **10/28/08 05:15 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 42 | Not Detected | 110 | Not Detected |
| Chloroethane | 42 | Not Detected | 110 | Not Detected |
| 1,1-Dichloroethene | 42 | 640 | 170 | 2500 |
| Freon 113 | 42 | Not Detected | 320 | Not Detected |
| Methylene Chloride | 42 | Not Detected | 140 | Not Detected |
| 1,1-Dichloroethane | 42 | 1400 | 170 | 5900 |
| cis-1,2-Dichloroethene | 42 | 3800 | 170 | 15000 |
| 1,1,1-Trichloroethane | 42 | 3200 | 230 | 17000 |
| Trichloroethene | 42 | 10000 | 220 | 57000 |
| Tetrachloroethene | 42 | 100 | 280 | 710 |
| trans-1,2-Dichloroethene | 42 | Not Detected | 170 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 92 | 70-130 |
| 4-Bromofluorobenzene | 88 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0427S101508**

**Lab ID#: 0810416C-44A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102808** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **10/28/08 02:37 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | 21 | 5.0 | 120 |
| Trichloroethene | 0.92 | 130 | 4.9 | 710 |
| Tetrachloroethene | 0.92 | 16 | 6.2 | 110 |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU3365101508**

**Lab ID#: 0810416C-45A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102813** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.83** | **Date of Analysis:** | **10/28/08 05:53 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.92 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.92 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| Freon 113 | 0.92 | Not Detected | 7.0 | Not Detected |
| Methylene Chloride | 0.92 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.92 | Not Detected | 3.7 | Not Detected |
| cis-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |
| 1,1,1-Trichloroethane | 0.92 | 23 | 5.0 | 120 |
| Trichloroethene | 0.92 | 140 | 4.9 | 740 |
| Tetrachloroethene | 0.92 | 16 | 6.2 | 110 |
| trans-1,2-Dichloroethene | 0.92 | Not Detected | 3.6 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 116 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0534S101508**

**Lab ID#: 0810416C-46A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102809** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/28/08 03:16 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | 3.2 | 4.5 | 17 |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 107 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0534D101508**

**Lab ID#: 0810416C-47A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102814** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **10/28/08 06:32 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | 4.4 | 6.6 | 34 |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | 8.2 | 4.7 | 45 |
| Trichloroethene | 0.86 | 85 | 4.6 | 460 |
| Tetrachloroethene | 0.86 | 5.2 | 5.8 | 35 |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 111 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 89 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0415S101508**

**Lab ID#: 0810416C-48A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102815** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **10/28/08 07:13 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | Not Detected | 4.7 | Not Detected |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0415D101508**

**Lab ID#: 0810416C-49A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102816** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **10/28/08 07:57 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | Not Detected | 4.8 | Not Detected |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 109 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0422S101508**

**Lab ID#: 0810416C-50A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102906** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **10/29/08 08:54 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | 1.1 | 6.6 | 8.2 |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | 67 | 3.4 | 260 |
| 1,1,1-Trichloroethane | 0.86 | 8.1 | 4.7 | 44 |
| Trichloroethene | 0.86 | 110 | 4.6 | 580 |
| Tetrachloroethene | 0.86 | 2.8 | 5.8 | 19 |
| trans-1,2-Dichloroethene | 0.86 | 4.0 | 3.4 | 16 |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 83 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0422S101508 Lab Duplicate**

**Lab ID#: 0810416C-50AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102907** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **10/29/08 09:28 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | 1.0 | 6.6 | 7.9 |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | 65 | 3.4 | 260 |
| 1,1,1-Trichloroethane | 0.86 | 7.9 | 4.7 | 43 |
| Trichloroethene | 0.86 | 110 | 4.6 | 590 |
| Tetrachloroethene | 0.86 | 2.9 | 5.8 | 20 |
| trans-1,2-Dichloroethene | 0.86 | 4.2 | 3.4 | 17 |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 80 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0422D101508**

**Lab ID#: 0810416C-51A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102816** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **3.42** | **Date of Analysis:** | **10/28/08 06:18 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.7 | Not Detected | 4.4 | Not Detected |
| Chloroethane | 1.7 | Not Detected | 4.5 | Not Detected |
| 1,1-Dichloroethene | 1.7 | Not Detected | 6.8 | Not Detected |
| Freon 113 | 1.7 | 1.8 | 13 | 14 |
| Methylene Chloride | 1.7 | Not Detected | 5.9 | Not Detected |
| 1,1-Dichloroethane | 1.7 | 3.1 | 6.9 | 12 |
| cis-1,2-Dichloroethene | 1.7 | 360 | 6.8 | 1400 |
| 1,1,1-Trichloroethane | 1.7 | 18 | 9.3 | 98 |
| Trichloroethene | 1.7 | 230 | 9.2 | 1200 |
| Tetrachloroethene | 1.7 | Not Detected | 12 | Not Detected |
| trans-1,2-Dichloroethene | 1.7 | 18 | 6.8 | 72 |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN044D101508**

**Lab ID#: 0810416C-52A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102817** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.52** | **Date of Analysis:** | **10/28/08 06:52 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.76 | Not Detected | 1.9 | Not Detected |
| Chloroethane | 0.76 | Not Detected | 2.0 | Not Detected |
| 1,1-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |
| Freon 113 | 0.76 | Not Detected | 5.8 | Not Detected |
| Methylene Chloride | 0.76 | Not Detected | 2.6 | Not Detected |
| 1,1-Dichloroethane | 0.76 | Not Detected | 3.1 | Not Detected |
| cis-1,2-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.76 | Not Detected | 4.1 | Not Detected |
| Trichloroethene | 0.76 | Not Detected | 4.1 | Not Detected |
| Tetrachloroethene | 0.76 | Not Detected | 5.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 91 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU3302101508**

**Lab ID#: 0810416C-53A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102818** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.52** | **Date of Analysis:** | **10/28/08 07:30 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.76 | Not Detected | 1.9 | Not Detected |
| Chloroethane | 0.76 | Not Detected | 2.0 | Not Detected |
| 1,1-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |
| Freon 113 | 0.76 | Not Detected | 5.8 | Not Detected |
| Methylene Chloride | 0.76 | Not Detected | 2.6 | Not Detected |
| 1,1-Dichloroethane | 0.76 | Not Detected | 3.1 | Not Detected |
| cis-1,2-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.76 | Not Detected | 4.1 | Not Detected |
| Trichloroethene | 0.76 | Not Detected | 4.1 | Not Detected |
| Tetrachloroethene | 0.76 | Not Detected | 5.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 87 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN044S101508**

**Lab ID#: 0810416C-54A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102908** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.52** | **Date of Analysis:** | **10/29/08 10:20 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.76 | Not Detected | 1.9 | Not Detected |
| Chloroethane | 0.76 | Not Detected | 2.0 | Not Detected |
| 1,1-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |
| Freon 113 | 0.76 | Not Detected | 5.8 | Not Detected |
| Methylene Chloride | 0.76 | 0.85 | 2.6 | 3.0 |
| 1,1-Dichloroethane | 0.76 | Not Detected | 3.1 | Not Detected |
| cis-1,2-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.76 | Not Detected | 4.1 | Not Detected |
| Trichloroethene | 0.76 | Not Detected | 4.1 | Not Detected |
| Tetrachloroethene | 0.76 | Not Detected | 5.2 | Not Detected |
| trans-1,2-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 79 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0432S101508**

**Lab ID#: 0810416C-55A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102911** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/29/08 12:19 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | 50 | 4.5 | 270 |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 81 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 105 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0432D101508**

**Lab ID#: 0810416C-56A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102910** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.58** | **Date of Analysis:** | **10/29/08 11:28 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.79 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.79 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| Freon 113 | 0.79 | Not Detected | 6.0 | Not Detected |
| Methylene Chloride | 0.79 | Not Detected | 2.7 | Not Detected |
| 1,1-Dichloroethane | 0.79 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| 1,1,1-Trichloroethane | 0.79 | 2.4 | 4.3 | 13 |
| Trichloroethene | 0.79 | 200 | 4.2 | 1100 |
| Tetrachloroethene | 0.79 | 1.8 | 5.4 | 12 |
| trans-1,2-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 88 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0411D101508**

**Lab ID#: 0810416C-57A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102912** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **2.10** | **Date of Analysis:** | **10/29/08 12:53 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.0 | Not Detected | 2.7 | Not Detected |
| Chloroethane | 1.0 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethene | 1.0 | Not Detected | 4.2 | Not Detected |
| Freon 113 | 1.0 | Not Detected | 8.0 | Not Detected |
| Methylene Chloride | 1.0 | Not Detected | 3.6 | Not Detected |
| 1,1-Dichloroethane | 1.0 | Not Detected | 4.2 | Not Detected |
| cis-1,2-Dichloroethene | 1.0 | 1.4 | 4.2 | 5.6 |
| 1,1,1-Trichloroethane | 1.0 | 7.4 | 5.7 | 40 |
| Trichloroethene | 1.0 | 300 | 5.6 | 1600 |
| Tetrachloroethene | 1.0 | 6.2 | 7.1 | 42 |
| trans-1,2-Dichloroethene | 1.0 | Not Detected | 4.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0411S101508**

**Lab ID#: 0810416C-58A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102913** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **10/29/08 01:27 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Trichloroethene | 0.80 | 11 | 4.3 | 58 |
| Tetrachloroethene | 0.80 | Not Detected | 5.5 | Not Detected |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 87 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN043S101508**

**Lab ID#: 0810416C-59A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102914** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/29/08 02:34 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | Not Detected | 4.5 | Not Detected |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 85 | 70-130 |
| Toluene-d8 | 104 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN043D101508**

**Lab ID#: 0810416C-60A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102915** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **10/29/08 03:14 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | 4.1 | 4.8 | 22 |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 86 | 70-130 |
| Toluene-d8 | 104 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN043D101508 Lab Duplicate**

**Lab ID#: 0810416C-60AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102916** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.79** | **Date of Analysis:** | **10/29/08 03:56 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.90 | Not Detected | 2.3 | Not Detected |
| Chloroethane | 0.90 | Not Detected | 2.4 | Not Detected |
| 1,1-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.90 | Not Detected | 6.8 | Not Detected |
| Methylene Chloride | 0.90 | Not Detected | 3.1 | Not Detected |
| 1,1-Dichloroethane | 0.90 | Not Detected | 3.6 | Not Detected |
| cis-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.90 | Not Detected | 4.9 | Not Detected |
| Trichloroethene | 0.90 | 4.2 | 4.8 | 22 |
| Tetrachloroethene | 0.90 | Not Detected | 6.1 | Not Detected |
| trans-1,2-Dichloroethene | 0.90 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 82 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0810416C-61A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102805** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 11:55 AM** | |

| **Compound** | **Rpt. Limit (ppbv)** | **Amount (ppbv)** | **Rpt. Limit (uG/m3)** | **Amount (uG/m3)** |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0810416C-61B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102805** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 11:01 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 89 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0810416C-61C**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102905** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 08:11 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 85 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0810416C-62A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **7102802** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 09:12 AM** |

| Compound | %Recovery |
|---|---|
| Vinyl Chloride | 80 |
| Chloroethane | 74 |
| 1,1-Dichloroethene | 79 |
| Freon 113 | 82 |
| Methylene Chloride | 87 |
| 1,1-Dichloroethane | 82 |
| cis-1,2-Dichloroethene | 81 |
| 1,1,1-Trichloroethane | 102 |
| Trichloroethene | 102 |
| Tetrachloroethene | 92 |
| trans-1,2-Dichloroethene | 80 |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 108 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0810416C-62B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102802** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 08:24 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 106 |
| Chloroethane | 103 |
| 1,1-Dichloroethene | 98 |
| Freon 113 | 103 |
| Methylene Chloride | 97 |
| 1,1-Dichloroethane | 101 |
| cis-1,2-Dichloroethene | 102 |
| 1,1,1-Trichloroethane | 113 |
| Trichloroethene | 104 |
| Tetrachloroethene | 102 |
| trans-1,2-Dichloroethene | 102 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0810416C-62C**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102902** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 05:55 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 106 |
| Chloroethane | 102 |
| 1,1-Dichloroethene | 95 |
| Freon 113 | 100 |
| Methylene Chloride | 94 |
| 1,1-Dichloroethane | 100 |
| cis-1,2-Dichloroethene | 100 |
| 1,1,1-Trichloroethane | 108 |
| Trichloroethene | 103 |
| Tetrachloroethene | 101 |
| trans-1,2-Dichloroethene | 102 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0810416C-63A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **7102803** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 09:55 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 89 |
| Chloroethane | 84 |
| 1,1-Dichloroethene | 95 |
| Freon 113 | 99 |
| Methylene Chloride | 100 |
| 1,1-Dichloroethane | 94 |
| cis-1,2-Dichloroethene | 88 |
| 1,1,1-Trichloroethane | 103 |
| Trichloroethene | 102 |
| Tetrachloroethene | 94 |
| trans-1,2-Dichloroethene | 90 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0810416C-63AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **7102804** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 10:45 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 88 |
| Chloroethane | 84 |
| 1,1-Dichloroethene | 91 |
| Freon 113 | 96 |
| Methylene Chloride | 96 |
| 1,1-Dichloroethane | 92 |
| cis-1,2-Dichloroethene | 86 |
| 1,1,1-Trichloroethane | 99 |
| Trichloroethene | 100 |
| Tetrachloroethene | 93 |
| trans-1,2-Dichloroethene | 88 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0810416C-63B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102803** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 09:17 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 103 |
| Chloroethane | 102 |
| 1,1-Dichloroethene | 112 |
| Freon 113 | 118 |
| Methylene Chloride | 110 |
| 1,1-Dichloroethane | 111 |
| cis-1,2-Dichloroethene | 108 |
| 1,1,1-Trichloroethane | 120 |
| Trichloroethene | 108 |
| Tetrachloroethene | 110 |
| trans-1,2-Dichloroethene | 107 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0810416C-63BB**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102804** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 09:57 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 108 |
| Chloroethane | 104 |
| 1,1-Dichloroethene | 110 |
| Freon 113 | 118 |
| Methylene Chloride | 109 |
| 1,1-Dichloroethane | 106 |
| cis-1,2-Dichloroethene | 105 |
| 1,1,1-Trichloroethane | 118 |
| Trichloroethene | 108 |
| Tetrachloroethene | 108 |
| trans-1,2-Dichloroethene | 102 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 105 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0810416C-63C**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102903** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 06:41 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 108 |
| Chloroethane | 106 |
| 1,1-Dichloroethene | 112 |
| Freon 113 | 122 |
| Methylene Chloride | 109 |
| 1,1-Dichloroethane | 110 |
| cis-1,2-Dichloroethene | 108 |
| 1,1,1-Trichloroethane | 122 |
| Trichloroethene | 109 |
| Tetrachloroethene | 110 |
| trans-1,2-Dichloroethene | 108 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0810416C-63CC**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102904** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 07:19 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 112 |
| Chloroethane | 110 |
| 1,1-Dichloroethene | 115 |
| Freon 113 | 122 |
| Methylene Chloride | 113 |
| 1,1-Dichloroethane | 110 |
| cis-1,2-Dichloroethene | 109 |
| 1,1,1-Trichloroethane | 123 |
| Trichloroethene | 108 |
| Tetrachloroethene | 112 |
| trans-1,2-Dichloroethene | 108 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 105 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABRATORY

10/31/2008
Ms. Betsy Tomaswick
Sanborn, Head & Associates
20 Foundry Street

Concord NH 03301

Project Name: GVP
Project #: 2755.01

Dear Ms. Betsy Tomaswick

The following report includes the data for the above referenced project for sample(s) received on 10/17/2008 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for you air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Bryanna Langley

Bryanna Langley
Project Manager

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**
**(916) 985-1000 .FAX (916) 985-1020**
**Hours 8:00 A.M to 6:00 P.M. Pacific**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0810416D

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT 2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 10/17/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 10/31/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 61A | EN0430S101508 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 62A | EN0430D101508 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 62AA | EN0430D101508 Lab Duplicate | Modified TO-15 | 6.0 "Hg | 5 psi |
| 63A | EN0431S101508 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 64A | EN0431D101508 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 65A | EB1440101508 | Modified TO-15 | 6.5 "Hg | 5 psi |
| 66A | EN042S101608 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 67A | EN042D101608 | Modified TO-15 | 7.0 "Hg | 5 psi |
| 68A | EN0637S101608 | Modified TO-15 | 8.5 "Hg | 5 psi |
| 69A | EN0637D101608 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 70A | DU36377101608 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 71A | Lab Blank | Modified TO-15 | NA | NA |
| 72A | CCV | Modified TO-15 | NA | NA |
| 73A | LCS | Modified TO-15 | NA | NA |
| 73AA | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda L. Freeman DATE: 10/31/08

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**
**Modified TO-15**
**Sanborn, Head & Associates**
**Workorder# 0810416D**

Ten 1 Liter Summa Canister (100% Certified) samples were received on October 17, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | </= 30% Difference | </= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0430S101508**

**Lab ID#: 0810416D-61A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.84 | 1.3 | 3.3 | 5.1 |
| 1,1,1-Trichloroethane | 0.84 | 2.8 | 4.6 | 15 |
| Trichloroethene | 0.84 | 340 | 4.5 | 1800 |

**Client Sample ID: EN0430D101508**

**Lab ID#: 0810416D-62A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Freon 113 | 0.84 | 1.0 | 6.4 | 7.8 |
| 1,1-Dichloroethane | 0.84 | 2.3 | 3.4 | 9.4 |
| cis-1,2-Dichloroethene | 0.84 | 6.6 | 3.3 | 26 |
| 1,1,1-Trichloroethane | 0.84 | 23 | 4.6 | 120 |
| Trichloroethene | 0.84 | 280 | 4.5 | 1500 |
| Tetrachloroethene | 0.84 | 7.6 | 5.7 | 52 |

**Client Sample ID: EN0430D101508 Lab Duplicate**

**Lab ID#: 0810416D-62AA**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Freon 113 | 0.84 | 1.1 | 6.4 | 8.5 |
| 1,1-Dichloroethane | 0.84 | 2.3 | 3.4 | 9.2 |
| cis-1,2-Dichloroethene | 0.84 | 6.8 | 3.3 | 27 |
| 1,1,1-Trichloroethane | 0.84 | 24 | 4.6 | 130 |
| Trichloroethene | 0.84 | 280 | 4.5 | 1500 |
| Tetrachloroethene | 0.84 | 7.4 | 5.7 | 50 |

**Client Sample ID: EN0431S101508**

**Lab ID#: 0810416D-63A**

No Detections Were Found.

**Client Sample ID: EN0431D101508**

**Lab ID#: 0810416D-64A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0431D101508**

**Lab ID#: 0810416D-64A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.82 | 1.2 | 4.5 | 6.8 |
| Trichloroethene | 0.82 | 17 | 4.4 | 92 |

**Client Sample ID: EB1440101508**

**Lab ID#: 0810416D-65A**

No Detections Were Found.

**Client Sample ID: EN042S101608**

**Lab ID#: 0810416D-66A**

No Detections Were Found.

**Client Sample ID: EN042D101608**

**Lab ID#: 0810416D-67A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.88 | 2.2 | 4.8 | 12 |
| Trichloroethene | 0.88 | 29 | 4.7 | 160 |
| Tetrachloroethene | 0.88 | 3.8 | 5.9 | 26 |

**Client Sample ID: EN0637S101608**

**Lab ID#: 0810416D-68A**

No Detections Were Found.

**Client Sample ID: EN0637D101608**

**Lab ID#: 0810416D-69A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.82 | 8.8 | 3.2 | 35 |
| Trichloroethene | 0.82 | 7.0 | 4.4 | 37 |
| Tetrachloroethene | 0.82 | 2.3 | 5.6 | 16 |

**Client Sample ID: DU36377101608**

**Lab ID#: 0810416D-70A**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: DU36377101608**

**Lab ID#: 0810416D-70A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.82 | 8.8 | 3.2 | 35 |
| Trichloroethene | 0.82 | 7.0 | 4.4 | 38 |
| Tetrachloroethene | 0.82 | 2.5 | 5.6 | 17 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0430S101508**

**Lab ID#: 0810416D-61A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102907** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/29/08 01:03 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | 1.3 | 3.3 | 5.1 |
| 1,1,1-Trichloroethane | 0.84 | 2.8 | 4.6 | 15 |
| Trichloroethene | 0.84 | 340 | 4.5 | 1800 |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0430D101508**

**Lab ID#: 0810416D-62A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102908** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/29/08 01:51 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | 1.0 | 6.4 | 7.8 |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | 2.3 | 3.4 | 9.4 |
| cis-1,2-Dichloroethene | 0.84 | 6.6 | 3.3 | 26 |
| 1,1,1-Trichloroethane | 0.84 | 23 | 4.6 | 120 |
| Trichloroethene | 0.84 | 280 | 4.5 | 1500 |
| Tetrachloroethene | 0.84 | 7.6 | 5.7 | 52 |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0430D101508 Lab Duplicate**

**Lab ID#: 0810416D-62AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102909** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/29/08 02:39 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | 1.1 | 6.4 | 8.5 |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | 2.3 | 3.4 | 9.2 |
| cis-1,2-Dichloroethene | 0.84 | 6.8 | 3.3 | 27 |
| 1,1,1-Trichloroethane | 0.84 | 24 | 4.6 | 130 |
| Trichloroethene | 0.84 | 280 | 4.5 | 1500 |
| Tetrachloroethene | 0.84 | 7.4 | 5.7 | 50 |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0431S101508**

**Lab ID#: 0810416D-63A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102910** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/29/08 03:20 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | Not Detected | 4.5 | Not Detected |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 104 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0431D101508**

**Lab ID#: 0810416D-64A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102911** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **10/29/08 03:58 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.82 | 1.2 | 4.5 | 6.8 |
| Trichloroethene | 0.82 | 17 | 4.4 | 92 |
| Tetrachloroethene | 0.82 | Not Detected | 5.6 | Not Detected |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EB1440101508**

**Lab ID#: 0810416D-65A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102912** | **Date of Collection:** | **10/15/08** |
| **Dil. Factor:** | **1.71** | **Date of Analysis:** | **10/29/08 04:37 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.86 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.86 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| Freon 113 | 0.86 | Not Detected | 6.6 | Not Detected |
| Methylene Chloride | 0.86 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.86 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |
| 1,1,1-Trichloroethane | 0.86 | Not Detected | 4.7 | Not Detected |
| Trichloroethene | 0.86 | Not Detected | 4.6 | Not Detected |
| Tetrachloroethene | 0.86 | Not Detected | 5.8 | Not Detected |
| trans-1,2-Dichloroethene | 0.86 | Not Detected | 3.4 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 107 | 70-130 |
| Toluene-d8 | 95 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN042S101608**

**Lab ID#: 0810416D-66A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102913** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **10/29/08 05:16 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | Not Detected | 4.8 | Not Detected |
| Trichloroethene | 0.88 | Not Detected | 4.7 | Not Detected |
| Tetrachloroethene | 0.88 | Not Detected | 5.9 | Not Detected |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN042D101608**

**Lab ID#: 0810416D-67A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102914** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **1.75** | **Date of Analysis:** | **10/29/08 05:59 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.88 | Not Detected | 2.2 | Not Detected |
| Chloroethane | 0.88 | Not Detected | 2.3 | Not Detected |
| 1,1-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| Freon 113 | 0.88 | Not Detected | 6.7 | Not Detected |
| Methylene Chloride | 0.88 | Not Detected | 3.0 | Not Detected |
| 1,1-Dichloroethane | 0.88 | Not Detected | 3.5 | Not Detected |
| cis-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |
| 1,1,1-Trichloroethane | 0.88 | 2.2 | 4.8 | 12 |
| Trichloroethene | 0.88 | 29 | 4.7 | 160 |
| Tetrachloroethene | 0.88 | 3.8 | 5.9 | 26 |
| trans-1,2-Dichloroethene | 0.88 | Not Detected | 3.5 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0637S101608**

**Lab ID#: 0810416D-68A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102915** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **1.87** | **Date of Analysis:** | **10/29/08 06:38 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.94 | Not Detected | 2.4 | Not Detected |
| Chloroethane | 0.94 | Not Detected | 2.5 | Not Detected |
| 1,1-Dichloroethene | 0.94 | Not Detected | 3.7 | Not Detected |
| Freon 113 | 0.94 | Not Detected | 7.2 | Not Detected |
| Methylene Chloride | 0.94 | Not Detected | 3.2 | Not Detected |
| 1,1-Dichloroethane | 0.94 | Not Detected | 3.8 | Not Detected |
| cis-1,2-Dichloroethene | 0.94 | Not Detected | 3.7 | Not Detected |
| 1,1,1-Trichloroethane | 0.94 | Not Detected | 5.1 | Not Detected |
| Trichloroethene | 0.94 | Not Detected | 5.0 | Not Detected |
| Tetrachloroethene | 0.94 | Not Detected | 6.3 | Not Detected |
| trans-1,2-Dichloroethene | 0.94 | Not Detected | 3.7 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0637D101608**

**Lab ID#: 0810416D-69A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102916** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **10/29/08 07:17 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | 8.8 | 3.2 | 35 |
| 1,1,1-Trichloroethane | 0.82 | Not Detected | 4.5 | Not Detected |
| Trichloroethene | 0.82 | 7.0 | 4.4 | 37 |
| Tetrachloroethene | 0.82 | 2.3 | 5.6 | 16 |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 89 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU36377101608**

**Lab ID#: 0810416D-70A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102917** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **10/29/08 07:56 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | 8.8 | 3.2 | 35 |
| 1,1,1-Trichloroethane | 0.82 | Not Detected | 4.5 | Not Detected |
| Trichloroethene | 0.82 | 7.0 | 4.4 | 38 |
| Tetrachloroethene | 0.82 | 2.5 | 5.6 | 17 |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0810416D-71A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102905** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 11:11 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0810416D-72A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **7102902** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 08:49 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 84 |
| Chloroethane | 79 |
| 1,1-Dichloroethene | 82 |
| Freon 113 | 83 |
| Methylene Chloride | 88 |
| 1,1-Dichloroethane | 83 |
| cis-1,2-Dichloroethene | 82 |
| 1,1,1-Trichloroethane | 105 |
| Trichloroethene | 100 |
| Tetrachloroethene | 90 |
| trans-1,2-Dichloroethene | 82 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 111 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0810416D-73A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **7102903** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 09:38 AM** |

| Compound | %Recovery |
|---|---|
| Vinyl Chloride | 88 |
| Chloroethane | 84 |
| 1,1-Dichloroethene | 96 |
| Freon 113 | 100 |
| Methylene Chloride | 100 |
| 1,1-Dichloroethane | 94 |
| cis-1,2-Dichloroethene | 89 |
| 1,1,1-Trichloroethane | 106 |
| Trichloroethene | 100 |
| Tetrachloroethene | 92 |
| trans-1,2-Dichloroethene | 90 |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 107 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0810416D-73AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **7102904** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 10:24 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 88 |
| Chloroethane | 86 |
| 1,1-Dichloroethene | 95 |
| Freon 113 | 100 |
| Methylene Chloride | 101 |
| 1,1-Dichloroethane | 94 |
| cis-1,2-Dichloroethene | 88 |
| 1,1,1-Trichloroethane | 102 |
| Trichloroethene | 101 |
| Tetrachloroethene | 91 |
| trans-1,2-Dichloroethene | 91 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 94 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABRATORY

10/30/2008
Ms. Betsy Tomaswick
Sanborn, Head & Associates
20 Foundry Street

Concord NH 03301

Project Name: GVP
Project #: 2755.01

Dear Ms. Betsy Tomaswick

The following report includes the data for the above referenced project for sample(s) received on 10/17/2008 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for you air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Bryanna Langley

Bryanna Langley
Project Manager

**180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630**
**(916) 985-1000 .FAX (916) 985-1020**
**Hours 8:00 A.M to 6:00 P.M. Pacific**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0810416E

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT 2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 10/17/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 10/30/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 71A | EN0423S101608 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 72A | EN0423D101608 | Modified TO-15 | 4.5 "Hg | 5 psi |
| 73A | EN0426S101608 | Modified TO-15 | 3.5 "Hg | 5 psi |
| 74A | EN0426D101608 | Modified TO-15 | 9.5 "Hg | 5 psi |
| 75A | EN0838S101608 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 76A | DU31786101608 | Modified TO-15 | 5.5 "Hg | 5 psi |
| 77A | EN0839S101608 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 78A | EN0728S101608 | Modified TO-15 | 5.0 "Hg | 5 psi |
| 79A | EN0728D101608 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 80A | DU34628101608 | Modified TO-15 | 6.0 "Hg | 5 psi |
| 81A | EB3332101408 | Modified TO-15 | 9.5 "Hg | 5 psi |
| 81AA | EB3332101408 Lab Duplicate | Modified TO-15 | 9.5 "Hg | 5 psi |
| 82A | EB36429101608 | Modified TO-15 | 4.5 "Hg | 5 psi |
| 83A | Lab Blank | Modified TO-15 | NA | NA |
| 83B | Lab Blank | Modified TO-15 | NA | NA |
| 83C | Lab Blank | Modified TO-15 | NA | NA |
| 84A | CCV | Modified TO-15 | NA | NA |

Continued on next page

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# WORK ORDER #: 0810416E

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 | **BILL TO:** | Ms. Betsy Tomaswick<br>Sanborn, Head & Associates<br>20 Foundry Street<br>Concord, NH 03301 |
| **PHONE:** | 603-229-1900 | **P.O. #** | BCT 2755 |
| **FAX:** | 603-229-1919 | **PROJECT #** | 2755.01 GVP |
| **DATE RECEIVED:** | 10/17/2008 | **CONTACT:** | Bryanna Langley |
| **DATE COMPLETED:** | 10/30/2008 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 84B | CCV | Modified TO-15 | NA | NA |
| 84C | CCV | Modified TO-15 | NA | NA |
| 85A | LCS | Modified TO-15 | NA | NA |
| 85AA | LCSD | Modified TO-15 | NA | NA |
| 85B | LCS | Modified TO-15 | NA | NA |
| 85BB | LCSD | Modified TO-15 | NA | NA |
| 85C | LCS | Modified TO-15 | NA | NA |
| 85CC | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Linda L. Freeman DATE: 10/30/08

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**
**Modified TO-15**
**Sanborn, Head & Associates**
**Workorder# 0810416E**

Twelve 1 Liter Summa Canister (100% Certified) samples were received on October 17, 2008. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| Daily CCV | </= 30% Difference | </= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated. |
| Sample collection media | Summa canister | ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

There were no analytical discrepancies.

## Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0423S101608**

**Lab ID#: 0810416E-71A**

No Detections Were Found.

**Client Sample ID: EN0423D101608**

**Lab ID#: 0810416E-72A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| 1,1-Dichloroethane | 0.79 | 5.4 | 3.2 | 22 |
| cis-1,2-Dichloroethene | 0.79 | 41 | 3.1 | 160 |
| Trichloroethene | 0.79 | 100 | 4.2 | 560 |
| Tetrachloroethene | 0.79 | 3.1 | 5.4 | 21 |
| trans-1,2-Dichloroethene | 0.79 | 2.0 | 3.1 | 8.0 |

**Client Sample ID: EN0426S101608**

**Lab ID#: 0810416E-73A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Freon 113 | 0.76 | 4.3 | 5.8 | 33 |
| 1,1,1-Trichloroethane | 0.76 | 19 | 4.1 | 100 |
| Trichloroethene | 0.76 | 260 | 4.1 | 1400 |
| Tetrachloroethene | 0.76 | 2.1 | 5.2 | 14 |

**Client Sample ID: EN0426D101608**

**Lab ID#: 0810416E-74A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Freon 113 | 2.0 | 6.8 | 15 | 52 |
| 1,1,1-Trichloroethane | 2.0 | 28 | 11 | 150 |
| Trichloroethene | 2.0 | 500 | 10 | 2700 |
| Tetrachloroethene | 2.0 | 3.0 | 13 | 21 |

**Client Sample ID: EN0838S101608**

**Lab ID#: 0810416E-75A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.80 | 1.3 | 3.2 | 5.0 |
| Trichloroethene | 0.80 | 1.4 | 4.3 | 7.8 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: EN0838S101608**

**Lab ID#: 0810416E-75A**

| | | | | |
|---|---|---|---|---|
| Tetrachloroethene | 0.80 | 6.1 | 5.5 | 41 |

**Client Sample ID: DU31786101608**

**Lab ID#: 0810416E-76A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.82 | 1.2 | 3.2 | 5.0 |
| Trichloroethene | 0.82 | 1.5 | 4.4 | 7.9 |
| Tetrachloroethene | 0.82 | 6.1 | 5.6 | 41 |

**Client Sample ID: EN0839S101608**

**Lab ID#: 0810416E-77A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 270 | 610 | 1400 | 3300 |
| Tetrachloroethene | 270 | 78000 | 1800 | 530000 |

**Client Sample ID: EN0728S101608**

**Lab ID#: 0810416E-78A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Trichloroethene | 0.80 | 3.3 | 4.3 | 18 |
| Tetrachloroethene | 0.80 | 56 | 5.5 | 380 |

**Client Sample ID: EN0728D101608**

**Lab ID#: 0810416E-79A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| cis-1,2-Dichloroethene | 0.84 | 43 | 3.3 | 170 |
| Trichloroethene | 0.84 | 41 | 4.5 | 220 |
| Tetrachloroethene | 0.84 | 330 | 5.7 | 2200 |
| trans-1,2-Dichloroethene | 0.84 | 7.6 | 3.3 | 30 |

**Client Sample ID: DU34628101608**

**Lab ID#: 0810416E-80A**

AN ENVIRONMENTAL ANALYTICAL LABORATORY

# Summary of Detected Compounds
# MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: DU34628101608**

**Lab ID#: 0810416E-80A**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Chloroethane | 1.1 | 1.2 | 3.0 | 3.2 |
| cis-1,2-Dichloroethene | 1.1 | 44 | 4.4 | 180 |
| Trichloroethene | 1.1 | 41 | 6.0 | 220 |
| Tetrachloroethene | 1.1 | 340 | 7.6 | 2300 |
| trans-1,2-Dichloroethene | 1.1 | 7.8 | 4.4 | 31 |

**Client Sample ID: EB3332101408**

**Lab ID#: 0810416E-81A**

No Detections Were Found.

**Client Sample ID: EB3332101408 Lab Duplicate**

**Lab ID#: 0810416E-81AA**

No Detections Were Found.

**Client Sample ID: EB36429101608**

**Lab ID#: 0810416E-82A**

No Detections Were Found.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0423S101608**

**Lab ID#: 0810416E-71A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102917** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/29/08 04:40 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | Not Detected | 4.5 | Not Detected |
| Tetrachloroethene | 0.84 | Not Detected | 5.7 | Not Detected |
| trans-1,2-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 85 | 70-130 |
| Toluene-d8 | 104 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0423D101608**

**Lab ID#: 0810416E-72A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102924** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **1.58** | **Date of Analysis:** | **10/29/08 10:02 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.79 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.79 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| Freon 113 | 0.79 | Not Detected | 6.0 | Not Detected |
| Methylene Chloride | 0.79 | Not Detected | 2.7 | Not Detected |
| 1,1-Dichloroethane | 0.79 | 5.4 | 3.2 | 22 |
| cis-1,2-Dichloroethene | 0.79 | 41 | 3.1 | 160 |
| 1,1,1-Trichloroethane | 0.79 | Not Detected | 4.3 | Not Detected |
| Trichloroethene | 0.79 | 100 | 4.2 | 560 |
| Tetrachloroethene | 0.79 | 3.1 | 5.4 | 21 |
| trans-1,2-Dichloroethene | 0.79 | 2.0 | 3.1 | 8.0 |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 83 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0426S101608**

**Lab ID#: 0810416E-73A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102918** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **1.52** | **Date of Analysis:** | **10/29/08 05:15 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.76 | Not Detected | 1.9 | Not Detected |
| Chloroethane | 0.76 | Not Detected | 2.0 | Not Detected |
| 1,1-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |
| Freon 113 | 0.76 | 4.3 | 5.8 | 33 |
| Methylene Chloride | 0.76 | Not Detected | 2.6 | Not Detected |
| 1,1-Dichloroethane | 0.76 | Not Detected | 3.1 | Not Detected |
| cis-1,2-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.76 | 19 | 4.1 | 100 |
| Trichloroethene | 0.76 | 260 | 4.1 | 1400 |
| Tetrachloroethene | 0.76 | 2.1 | 5.2 | 14 |
| trans-1,2-Dichloroethene | 0.76 | Not Detected | 3.0 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 85 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0426D101608**

**Lab ID#: 0810416E-74A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102925** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **3.92** | **Date of Analysis:** | **10/29/08 10:36 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 2.0 | Not Detected | 5.0 | Not Detected |
| Chloroethane | 2.0 | Not Detected | 5.2 | Not Detected |
| 1,1-Dichloroethene | 2.0 | Not Detected | 7.8 | Not Detected |
| Freon 113 | 2.0 | 6.8 | 15 | 52 |
| Methylene Chloride | 2.0 | Not Detected | 6.8 | Not Detected |
| 1,1-Dichloroethane | 2.0 | Not Detected | 7.9 | Not Detected |
| cis-1,2-Dichloroethene | 2.0 | Not Detected | 7.8 | Not Detected |
| 1,1,1-Trichloroethane | 2.0 | 28 | 11 | 150 |
| Trichloroethene | 2.0 | 500 | 10 | 2700 |
| Tetrachloroethene | 2.0 | 3.0 | 13 | 21 |
| trans-1,2-Dichloroethene | 2.0 | Not Detected | 7.8 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0838S101608**

**Lab ID#: 0810416E-75A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102926** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **10/29/08 11:31 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | 1.3 | 3.2 | 5.0 |
| 1,1,1-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Trichloroethene | 0.80 | 1.4 | 4.3 | 7.8 |
| Tetrachloroethene | 0.80 | 6.1 | 5.5 | 41 |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 81 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 105 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU31786101608**

**Lab ID#: 0810416E-76A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102927** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **1.64** | **Date of Analysis:** | **10/30/08 12:07 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.82 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.82 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.82 | Not Detected | 6.3 | Not Detected |
| Methylene Chloride | 0.82 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.82 | Not Detected | 3.3 | Not Detected |
| cis-1,2-Dichloroethene | 0.82 | 1.2 | 3.2 | 5.0 |
| 1,1,1-Trichloroethane | 0.82 | Not Detected | 4.5 | Not Detected |
| Trichloroethene | 0.82 | 1.5 | 4.4 | 7.9 |
| Tetrachloroethene | 0.82 | 6.1 | 5.6 | 41 |
| trans-1,2-Dichloroethene | 0.82 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 84 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0839S101608**

**Lab ID#: 0810416E-77A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102932** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **537** | **Date of Analysis:** | **10/30/08 03:41 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 270 | Not Detected | 690 | Not Detected |
| Chloroethane | 270 | Not Detected | 710 | Not Detected |
| 1,1-Dichloroethene | 270 | Not Detected | 1100 | Not Detected |
| Freon 113 | 270 | Not Detected | 2000 | Not Detected |
| Methylene Chloride | 270 | Not Detected | 930 | Not Detected |
| 1,1-Dichloroethane | 270 | Not Detected | 1100 | Not Detected |
| cis-1,2-Dichloroethene | 270 | Not Detected | 1100 | Not Detected |
| 1,1,1-Trichloroethane | 270 | Not Detected | 1500 | Not Detected |
| Trichloroethene | 270 | 610 | 1400 | 3300 |
| Tetrachloroethene | 270 | 78000 | 1800 | 530000 |
| trans-1,2-Dichloroethene | 270 | Not Detected | 1100 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 100 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0728S101608**

**Lab ID#: 0810416E-78A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102930** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **1.61** | **Date of Analysis:** | **10/30/08 02:13 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.80 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.80 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| Freon 113 | 0.80 | Not Detected | 6.2 | Not Detected |
| Methylene Chloride | 0.80 | Not Detected | 2.8 | Not Detected |
| 1,1-Dichloroethane | 0.80 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |
| 1,1,1-Trichloroethane | 0.80 | Not Detected | 4.4 | Not Detected |
| Trichloroethene | 0.80 | 3.3 | 4.3 | 18 |
| Tetrachloroethene | 0.80 | 56 | 5.5 | 380 |
| trans-1,2-Dichloroethene | 0.80 | Not Detected | 3.2 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 85 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EN0728D101608**

**Lab ID#: 0810416E-79A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102928** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **1.68** | **Date of Analysis:** | **10/30/08 12:41 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.84 | Not Detected | 2.1 | Not Detected |
| Chloroethane | 0.84 | Not Detected | 2.2 | Not Detected |
| 1,1-Dichloroethene | 0.84 | Not Detected | 3.3 | Not Detected |
| Freon 113 | 0.84 | Not Detected | 6.4 | Not Detected |
| Methylene Chloride | 0.84 | Not Detected | 2.9 | Not Detected |
| 1,1-Dichloroethane | 0.84 | Not Detected | 3.4 | Not Detected |
| cis-1,2-Dichloroethene | 0.84 | 43 | 3.3 | 170 |
| 1,1,1-Trichloroethane | 0.84 | Not Detected | 4.6 | Not Detected |
| Trichloroethene | 0.84 | 41 | 4.5 | 220 |
| Tetrachloroethene | 0.84 | 330 | 5.7 | 2200 |
| trans-1,2-Dichloroethene | 0.84 | 7.6 | 3.3 | 30 |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 84 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: DU34628101608**

**Lab ID#: 0810416E-80A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102929** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **2.24** | **Date of Analysis:** | **10/30/08 01:39 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 1.1 | Not Detected | 2.9 | Not Detected |
| Chloroethane | 1.1 | 1.2 | 3.0 | 3.2 |
| 1,1-Dichloroethene | 1.1 | Not Detected | 4.4 | Not Detected |
| Freon 113 | 1.1 | Not Detected | 8.6 | Not Detected |
| Methylene Chloride | 1.1 | Not Detected | 3.9 | Not Detected |
| 1,1-Dichloroethane | 1.1 | Not Detected | 4.5 | Not Detected |
| cis-1,2-Dichloroethene | 1.1 | 44 | 4.4 | 180 |
| 1,1,1-Trichloroethane | 1.1 | Not Detected | 6.1 | Not Detected |
| Trichloroethene | 1.1 | 41 | 6.0 | 220 |
| Tetrachloroethene | 1.1 | 340 | 7.6 | 2300 |
| trans-1,2-Dichloroethene | 1.1 | 7.8 | 4.4 | 31 |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 88 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EB3332101408**

**Lab ID#: 0810416E-81A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102806** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.96** | **Date of Analysis:** | **10/28/08 12:50 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.98 | Not Detected | 2.5 | Not Detected |
| Chloroethane | 0.98 | Not Detected | 2.6 | Not Detected |
| 1,1-Dichloroethene | 0.98 | Not Detected | 3.9 | Not Detected |
| Freon 113 | 0.98 | Not Detected | 7.5 | Not Detected |
| Methylene Chloride | 0.98 | Not Detected | 3.4 | Not Detected |
| 1,1-Dichloroethane | 0.98 | Not Detected | 4.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.98 | Not Detected | 3.9 | Not Detected |
| 1,1,1-Trichloroethane | 0.98 | Not Detected | 5.3 | Not Detected |
| Trichloroethene | 0.98 | Not Detected | 5.3 | Not Detected |
| Tetrachloroethene | 0.98 | Not Detected | 6.6 | Not Detected |
| trans-1,2-Dichloroethene | 0.98 | Not Detected | 3.9 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 91 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EB3332101408 Lab Duplicate**

**Lab ID#: 0810416E-81AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102807** | **Date of Collection:** | **10/14/08** |
| **Dil. Factor:** | **1.96** | **Date of Analysis:** | **10/28/08 01:50 PM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.98 | Not Detected | 2.5 | Not Detected |
| Chloroethane | 0.98 | Not Detected | 2.6 | Not Detected |
| 1,1-Dichloroethene | 0.98 | Not Detected | 3.9 | Not Detected |
| Freon 113 | 0.98 | Not Detected | 7.5 | Not Detected |
| Methylene Chloride | 0.98 | Not Detected | 3.4 | Not Detected |
| 1,1-Dichloroethane | 0.98 | Not Detected | 4.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.98 | Not Detected | 3.9 | Not Detected |
| 1,1,1-Trichloroethane | 0.98 | Not Detected | 5.3 | Not Detected |
| Trichloroethene | 0.98 | Not Detected | 5.3 | Not Detected |
| Tetrachloroethene | 0.98 | Not Detected | 6.6 | Not Detected |
| trans-1,2-Dichloroethene | 0.98 | Not Detected | 3.9 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: EB36429101608**

**Lab ID#: 0810416E-82A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102931** | **Date of Collection:** | **10/16/08** |
| **Dil. Factor:** | **1.58** | **Date of Analysis:** | **10/30/08 03:03 AM** |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.79 | Not Detected | 2.0 | Not Detected |
| Chloroethane | 0.79 | Not Detected | 2.1 | Not Detected |
| 1,1-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| Freon 113 | 0.79 | Not Detected | 6.0 | Not Detected |
| Methylene Chloride | 0.79 | Not Detected | 2.7 | Not Detected |
| 1,1-Dichloroethane | 0.79 | Not Detected | 3.2 | Not Detected |
| cis-1,2-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |
| 1,1,1-Trichloroethane | 0.79 | Not Detected | 4.3 | Not Detected |
| Trichloroethene | 0.79 | Not Detected | 4.2 | Not Detected |
| Tetrachloroethene | 0.79 | Not Detected | 5.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.79 | Not Detected | 3.1 | Not Detected |

**Container Type: 1 Liter Summa Canister (100% Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 85 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0810416E-83A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **7102805** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 11:55 AM** | |

| **Compound** | **Rpt. Limit (ppbv)** | **Amount (ppbv)** | **Rpt. Limit (uG/m3)** | **Amount (uG/m3)** |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0810416E-83B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102905** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 08:11 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 85 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: Lab Blank**

**Lab ID#: 0810416E-83C**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **t102923** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 09:20 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|---|---|---|---|---|
| Vinyl Chloride | 0.50 | Not Detected | 1.3 | Not Detected |
| Chloroethane | 0.50 | Not Detected | 1.3 | Not Detected |
| 1,1-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| Freon 113 | 0.50 | Not Detected | 3.8 | Not Detected |
| Methylene Chloride | 0.50 | Not Detected | 1.7 | Not Detected |
| 1,1-Dichloroethane | 0.50 | Not Detected | 2.0 | Not Detected |
| cis-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |
| 1,1,1-Trichloroethane | 0.50 | Not Detected | 2.7 | Not Detected |
| Trichloroethene | 0.50 | Not Detected | 2.7 | Not Detected |
| Tetrachloroethene | 0.50 | Not Detected | 3.4 | Not Detected |
| trans-1,2-Dichloroethene | 0.50 | Not Detected | 2.0 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 89 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 104 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0810416E-84A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **7102802** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 09:12 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 80 |
| Chloroethane | 74 |
| 1,1-Dichloroethene | 79 |
| Freon 113 | 82 |
| Methylene Chloride | 87 |
| 1,1-Dichloroethane | 82 |
| cis-1,2-Dichloroethene | 81 |
| 1,1,1-Trichloroethane | 102 |
| Trichloroethene | 102 |
| Tetrachloroethene | 92 |
| trans-1,2-Dichloroethene | 80 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 108 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0810416E-84B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102902** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 05:55 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 106 |
| Chloroethane | 102 |
| 1,1-Dichloroethene | 95 |
| Freon 113 | 100 |
| Methylene Chloride | 94 |
| 1,1-Dichloroethane | 100 |
| cis-1,2-Dichloroethene | 100 |
| 1,1,1-Trichloroethane | 108 |
| Trichloroethene | 103 |
| Tetrachloroethene | 101 |
| trans-1,2-Dichloroethene | 102 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 105 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: CCV**

**Lab ID#: 0810416E-84C**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102920** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 06:46 PM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 106 |
| Chloroethane | 102 |
| 1,1-Dichloroethene | 95 |
| Freon 113 | 100 |
| Methylene Chloride | 94 |
| 1,1-Dichloroethane | 100 |
| cis-1,2-Dichloroethene | 100 |
| 1,1,1-Trichloroethane | 108 |
| Trichloroethene | 103 |
| Tetrachloroethene | 101 |
| trans-1,2-Dichloroethene | 102 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 103 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0810416E-85A**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **7102803** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 09:55 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 89 |
| Chloroethane | 84 |
| 1,1-Dichloroethene | 95 |
| Freon 113 | 99 |
| Methylene Chloride | 100 |
| 1,1-Dichloroethane | 94 |
| cis-1,2-Dichloroethene | 88 |
| 1,1,1-Trichloroethane | 103 |
| Trichloroethene | 102 |
| Tetrachloroethene | 94 |
| trans-1,2-Dichloroethene | 90 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0810416E-85AA**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **7102804** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/28/08 10:45 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 88 |
| Chloroethane | 84 |
| 1,1-Dichloroethene | 91 |
| Freon 113 | 96 |
| Methylene Chloride | 96 |
| 1,1-Dichloroethane | 92 |
| cis-1,2-Dichloroethene | 86 |
| 1,1,1-Trichloroethane | 99 |
| Trichloroethene | 100 |
| Tetrachloroethene | 93 |
| trans-1,2-Dichloroethene | 88 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0810416E-85B**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102903** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 06:41 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 108 |
| Chloroethane | 106 |
| 1,1-Dichloroethene | 112 |
| Freon 113 | 122 |
| Methylene Chloride | 109 |
| 1,1-Dichloroethane | 110 |
| cis-1,2-Dichloroethene | 108 |
| 1,1,1-Trichloroethane | 122 |
| Trichloroethene | 109 |
| Tetrachloroethene | 110 |
| trans-1,2-Dichloroethene | 108 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 106 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0810416E-85BB**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102904** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 07:19 AM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 112 |
| Chloroethane | 110 |
| 1,1-Dichloroethene | 115 |
| Freon 113 | 122 |
| Methylene Chloride | 113 |
| 1,1-Dichloroethane | 110 |
| cis-1,2-Dichloroethene | 109 |
| 1,1,1-Trichloroethane | 123 |
| Trichloroethene | 108 |
| Tetrachloroethene | 112 |
| trans-1,2-Dichloroethene | 108 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 105 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCS**

**Lab ID#: 0810416E-85C**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102921** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 07:19 PM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 105 |
| Chloroethane | 103 |
| 1,1-Dichloroethene | 112 |
| Freon 113 | 119 |
| Methylene Chloride | 107 |
| 1,1-Dichloroethane | 112 |
| cis-1,2-Dichloroethene | 110 |
| 1,1,1-Trichloroethane | 120 |
| Trichloroethene | 108 |
| Tetrachloroethene | 113 |
| trans-1,2-Dichloroethene | 109 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 102 | 70-130 |

AN ENVIRONMENTAL ANALYTICAL LABORATORY

**Client Sample ID: LCSD**

**Lab ID#: 0810416E-85CC**

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

| | | |
|---|---|---|
| **File Name:** | **t102922** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 10/29/08 07:53 PM** |

| **Compound** | **%Recovery** |
|---|---|
| Vinyl Chloride | 100 |
| Chloroethane | 98 |
| 1,1-Dichloroethene | 109 |
| Freon 113 | 114 |
| Methylene Chloride | 105 |
| 1,1-Dichloroethane | 113 |
| cis-1,2-Dichloroethene | 111 |
| 1,1,1-Trichloroethane | 118 |
| Trichloroethene | 107 |
| Tetrachloroethene | 116 |
| trans-1,2-Dichloroethene | 109 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 104 | 70-130 |
| Toluene-d8 | 95 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |