SANBORN HEAD

Building Trust. Engineering Success.

Annual Report

Soil Vapor Monitoring through August 2012

Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

Prepared for IBM Corporate Environmental Affairs
File No. 2755.07
November 2012

8976 Wellington Road
Manassas, VA 20109

November 16, 2012

Alex Czuhanich
Engineering Geologist
New York State Department of Environmental Conservation
Division of Environmental Remediation Bureau E
625 Broadway, 12th Floor
Albany, NY 12233-7017

Re: Transmittal of Annual Report – Soil Vapor Monitoring Through August 2012
Comprehensive Operations, Maintenance and Monitoring Program
Order on Consent Index # A7-0502-0104, Site # 704014

Dear Mr. Czuhanich:

Enclosed with this transmittal letter please find our Annual Soil Vapor Monitoring Report, that 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) 257-2587.

Sincerely,

M. E. Meyers

Mitchell E. Meyers
Program Manager

cc: K. Lynch, NYSDEC Region 7
D. Tuohy, NYSDEC - Albany
K. Anders, NYSDOH – Troy
C. Edwards, Broome County Health Department
C. Pelto, EIT

SANBORN HEAD

Building Trust. Engineering Success.

Mr. Mitchell E. Meyers
IBM Corporate Environmental Affairs
8976 Wellington Road
Manassas, Virginia 20109

November 16, 2012
File No. 2755.07

Re: Annual Report
Soil Vapor Monitoring through August 2012
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 August 2012. 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.
Vice President
95 High Street
Portland, Maine 04101

Erica M. Bradstreet, P.G.
Project Manager
1715 W 13th Street
Houston, Texas 77008

EMB/DBC: emb

S:\PORDATA\2700s\2755.00\Source Files\November 2012 Annual Report\20121116_SH cover letter.docx

TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Background 1
1.1.1 Remedial Actions Since 2003 2
1.2 Scope of Work 2
1.3 Climatic and Groundwater Conditions during the Monitoring Period 3
1.3.1 Climatic Conditions 3
1.3.2 Groundwater Level Conditions 4
1.4 Quality Assurance/Quality Control (QA/QC) for the Monitoring Period 4

2.0 DATA AND FINDINGS 5
2.1 TCE in Groundwater and Soil Vapor Samples 5
2.3 Graphical Comparison of TCE Vapor Concentrations 2004 and 2012 7
2.4 Review of Tabular and Graphical Summaries for Other Compounds 7
2.4.1 PCE 8
2.4.2 cDCE 8
2.4.3 TCA 8

3.0 CONCLUSIONS AND RECOMMENDATIONS 9

TABLES

Table 1 Summary of Soil Vapor Monitoring Installations
Table 2 Statistical Summary of VOCs Found in Soil Vapor Monitoring

EXHIBITS

Exhibit 1 TCE in Water Table- and Foundation-Depth Soil Vapor

FIGURES

Figure 1 Location Plan
Figure 2 Summary of Precipitation Records
Figure 3 Comparisons of TCE Soil Vapor Data 2004 and 2012
Figure 4 TCE in Groundwater and Water Table-Depth Soil Vapor

APPENDICES:

Appendix A Limitations

Appendix B Field Sampling and Laboratory Analysis

Appendix B.1 Climatologic Data
Appendix B.2 Time Series Plots – Figures B.1 through B.38
Appendix B.3 Plan View Graphics – PCE, cDCE, TCA

Appendix C Analytical Results and Laboratory Data (Compact Disc)

Appendix C.1 Table C.1- Summary of Analytical Laboratory Data August 2010 to September 2012
Appendix C.2 Analytical Laboratory Reports

1.0 INTRODUCTION

This Annual Report for the Endicott Soil Vapor Monitoring Program (Annual Report) summarizes the findings of routine soil vapor monitoring program completed through August 2012 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). The submittal of this report is roughly 10 years after the initial installation and sampling of soil vapor implants at this site.

Sanborn Head & Associates, Inc. (Sanborn Head) 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. Sanborn Head'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 limits of properties offered ventilation systems, or the geographic limits of ventilation, are shown on Figure 1. Work related to vapor intrusion potential began about 10 years ago in May of 2002, with the installation and sampling of fixed soil vapor monitoring points. The data from that initial work led to a program of structure sampling and mitigation or ventilation that was referred to as the Endicott Groundwater Vapor Project (GVP). The structure sampling began in January 2003.

Under an Agency approved action plan, the ventilation limits were established based on a program of concurrent sampling of indoor air, substructure soil vapor, and ambient air at representative properties. The findings of sampling in the first four months of 2003 largely established the present limits of ventilation, which was confirmed through sampling conducted during two subsequent heating seasons. The post-investigation soil vapor monitoring program began in August 2004.

Trichloroethylene (TCE) is the primary VOC found in soil vapor within the largest contiguous ventilation area. Other compounds including the chlorinated ethane 1,1,1-Trichloroethane (TCA), tetrachloroethylene (PCE), and their biochemical breakdown products were also found in this area, but at lower frequencies of detection and generally at lower concentrations. The target compounds that were included in sampling under the GVP included those chlorinated ethene and ethane parent products, biochemical breakdown products, plus chlorofluorocarbon 113 (Freon 113) and methylene chloride.

1.1.1 Remedial Actions Since 2003

Since initiation of the GVP, IBM has placed considerable efforts and resources towards groundwater remediation and addressing sources of VOCs in groundwater. Since July 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 levels and water quality, especially beneath the largest ventilation area shown on Figure 1. Enhancement of groundwater extraction and treatment began in July 2004 with the initiation of pumping from the location of well EN-284T. In November 2008, IBM initiated re-injection of treated groundwater at EN-510T, located west and upgradient of the largest contiguous ventilation area along Monroe Avenue.

To date, groundwater remediation enhancements within the largest ventilation area, referred to as OU#3/MA-A, which covers roughly 100 acres included: (1) addition of nine new extraction wells, for a total of 17 extraction points 2) installation of eight new clean water injection wells, including six presently active and two backup wells; (3) expansions and upgrades to three Groundwater Treatment Facilities (GTFs) to support treatment of greater volumes of extracted groundwater and reinjection of some of that treated water; (4) construction of over two miles of doubled-walled conveyance piping from the extraction wells to the three GTFs; and (5) construction of about one mile of single-walled conveyance piping to transmit clean water from the three GTFs to the injection locations.

About 1.2 billion gallons (BG) of groundwater have been withdrawn and treated between the startup of enhanced OU#3/MA-A plume reduction activities in July 2004 and the recent annual groundwater monitoring round. About 490 million gallons (MG) of clean water have been introduced back into the subsurface between the startup of injection operations in November 2008.

1.2 Scope of Work

Soil vapor samples are collected from permanent installations, referred to as "implants" which are located within and along the periphery of the ventilation areas. The samples are submitted for laboratory analysis for the principal VOCs present in groundwater IBM is remediating. The implant locations are shown on Figure 1, relative to the ventilation areas and the nearby monitoring, extraction, and injection wells.

Since the submittal of the last annual report[1], routine sampling has been conducted in February and August 2012, in accordance with the program outlined in that report. A letter report[2] submitted in April 2012 reported data from February 2012. This report is intended to put into larger context sampling results from 2012 monitoring.

[1] Sanborn, Head & Associates, Inc. November 9, 2011, Annual Report – Soil Vapor Monitoring through August 2011.

[2] Sanborn, Head & Associates, Inc. April 25, 2012, Semiannual Data Report – Soil Vapor Monitoring through February 2012.

Certain additional monitoring was conducted at the discretion of IBM as outlined in the table below. The monitoring was focused in areas of increased groundwater injection, and or increased depth to groundwater.

Sampling Round	Locations Included in Routine Monitoring	Locations where Voluntary Non-Routine Monitoring was Conducted	Rationale
February 2012	8	3	■ **EN04-2:** Groundwater Injection Monitoring ■ **EN10-17D:** Secondary water table-depth implant installed after significant water level drop ■ **EN10-41**: OU#4 Vapor Monitoring
August 2012	36	1	■ **EN10-17D:** Secondary water table-depth implant installed after significant water level drop ■ **EN10-41:** OU#4 Vapor Monitoring
September 2012	0	5	■ Results from August 2012 monitoring were above or below typical concentrations.

We also attempted sampling of implants EN10-11D and EN10-17D. In both February and August 2012, water was drawn into the sample tubing during purging or sampling at EN10-11D and sampling could not be completed. Five implants[3] were re-sampled at IBM's discretion in September 2012 after unusually high or low TCE data were returned from the August 2012 sampling. The data from both sampling events are presented and reported in graphical and tabular data summaries.

All of the data were tabulated and reviewed and used to prepare graphical summaries depicting groundwater and soil vapor data for TCE as presented in Appendix B.2. A tabular summary of soil vapor data recorded during the last 24 months is provided on compact disc in Appendix C.

1.3 Climatic and Groundwater Conditions during the Monitoring Period

The 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 Climatic Conditions

Figure 2 depicts the deviation from average monthly precipitation as a context for the soil vapor monitoring program acknowledging that subsurface vapor transport is influenced by soil moisture conditions which are in turn influenced by infiltration and precipitation. As shown by the plot below average precipitation was recorded for several years prior to the start of the Groundwater Vapor Project in 2002. Wetter than average conditions were recorded starting in late 2003 and have generally persisted since that time. For much of

[4] EN04-3, EN04-4, EN04-10, EN04/10-11, EN10-17D, EN04-30, EN04-31, and EN04-32

2007 through early 2011, precipitation has tracked nearer the 53 year average. Wetter than average conditions were recorded for 12 of the 19 months between February 2011 and August 2012. The climatologic data are included as Appendix B.1.

1.3.2 Groundwater Level Conditions

Table 1 provides the construction details for the monitoring implants along with groundwater level conditions at the time of their installation and at the time of the August 2012 monitoring event. The table lists the calculated separation between the water table-depth implant and the water levels. Table 1 was last updated in August 2008, a time of lower groundwater levels before clean water injection was initiated. We indicated that at approximately 60% of implant locations the water levels in August 2008 were lower than the conditions recorded at the time of installation by as much seven feet.

Although water levels have substantially rebounded with clean water injection, water levels are still lower than the conditions at the time of installation at 75% of the locations by tenths of a foot to about 4 feet in the area of Tracy Street and Grant Avenue. At eight locations[4] generally near injection points, the water levels are higher by as much as four feet.

1.4 Quality Assurance/Quality Control (QA/QC) for the Monitoring Period

QA/QC measures include field screening of soil vapor samples, and laboratory measures for quality assurance samples including duplicates, equipment blanks, and laboratory control samples. A brief analysis of field duplicate relative percent difference (RPD) and average reporting limit (RL) is presented in the table below. Data collected during the period were considered usable and generally met the project data quality objectives.

	February 2012	August 2012
Range of RPD (%)	0 to 2.7%	0 to 175%
Location RPD >30%	N/A	EN04-22S EN04-32S (re-sampled in September 2012)
Average RL	4.3 µg/m^3	5.1 µg/m^3

As part of routine ongoing QA/QC the analytical results were reviewed after each sampling round for anomalies. As noted above, data for several sampling locations exhibited TCE results outside the historical range for samples collected in August 2012, so these implants were re-sampled in September.

[4] EN04-3, EN04-4, EN04-10, EN04/10-11, EN10-17D, EN04-30, EN04-31, and EN04-32

2.0 DATA AND FINDINGS

Overall, the data from sampling of soil vapor monitoring points continue to support the geographic limits of ventilation as conservative and protective.

2.1 TCE in Groundwater and Soil Vapor Samples

Figure 4 depicts paired groundwater and soil vapor data for the recent sampling and the initial sampling in August 2004. The overall pattern of paired data for TCE in 2004 (blue symbols) was indicative of increasing soil vapor concentrations with higher concentrations in groundwater. This pattern was described as generally consistent with linear equilibrium partitioning between dissolved and vapor phase, but with a low statistical correlation (R^2 values of 0.40 or less).

The data from 2012 shown by red symbols is even less well correlated and continues to support that there is not a simple linear relationship between groundwater and vapor concentrations. The deviation from theoretical partitioning reflects steep concentration gradients across the capillary fringe, the influence of mass in the vadose zone, and to some degree differences between implant and water table depths.

Notably all TCE groundwater concentrations are below 100 µg/L. Two-thirds of the locations are now below 10 µg/L, with approximately 60% below the 5 µg/L ambient groundwater quality standard (AGWQS) for TCE established by the State of New York.

Figure 4 is annotated with lines connecting the observations at the beginning of the soil vapor monitoring program and the latest sampling for a few representative monitoring points. The slope of these lines or "progress vectors" can be considered relative to what might be expected based on theoretical equilibrium partitioning as shown by the green line.

Assuming steady vapor transport under consistent moisture conditions and assuming no influence of sorbed and aqueous VOC mass in the vadose zone, the vectors would track parallel to the green line. However, most observations do not and can be generally divided into four notable categories:

- Locations where soil vapor concentrations have generally improved out of proportion to improvements in groundwater (EN04-12 through EN04-16, EN04-29). These monitoring points are generally off of the center of the plume where less VOC mass may have been present in the vadose zone and where groundwater flow directions may have changed with pumping and injection. EN04-13D is also present in a large grassy area where greater infiltration is expected.

- Locations where soil vapor concentrations have not improved at the same rate as groundwater concentrations. (e.g.: EN04-1, EN04-11, EN04-30 and EN04-32). These locations are typically along the axis of the historical plume near groundwater injection points and may represent areas where more VOC mass may have been present in the vadose zone.

- Locations where soil vapor concentrations have slightly increased despite a decrease in groundwater concentrations (EN04-3, EN04-7). These implants are located on the periphery of the largest ventilation area and concentrations could be explained by natural variation in soil moisture.

- Finally, at a small number of locations, the trace of progress is generally parallel to theoretical partitioning. (e.g.: EN04-2, EN04-9, EN04-10, and EN04-18).

As shown by Exhibit 1 there also is no simple linear relationship between TCE concentrations found at water table and foundation depth.

Exhibit 1 - TCE in Water Table- and Foundation-Depth Soil Vapor. Typical analytical laboratory reporting limits for TCE are shown in yellow.

The data indicate reductions in concentration from water table to foundation-depth--or attenuation-- of up to about 3 orders of magnitude, with most observations within 2 orders of magnitude or less.

At six locations labeled on the Exhibit, TCE concentrations recorded for foundation-depth equal or exceed the values recorded for samples from near water table-depth in 2012, compared to two locations in 2004. Some of the locations are near the axis of the plume where there may be more mass in the vadose zone, and some reflect locations where concentrations from greater depth have declined out of proportion to groundwater quality.

It should be noted that where the concentrations are similar, modest concentration gradients are present to drive vapor transport by gas phase diffusion and may reflect reduced vapor intrusion potential and more modest rates of diffusive flux as a mechanism for removal of mass from the vadose zone.

2.3 Graphical Comparison of TCE Vapor Concentrations 2004 and 2012

Plan view graphics prepared to aid in communicating TCE soil vapor concentrations are included as Figure 3. Views 3A and 3B were generated based on data recorded during the first three months of sampling after vapor implants were installed in August 2004. Views 3C and 3D represent data recorded about 8 years later through September 2012.

The images support an overall lower concentration presence of TCE in vapor both at foundation and water table depth since establishment of the limits of ventilation. The observed conditions are believed to be attributable to both natural processes and groundwater remediation activities, as described in previous sections. A review of the images provided as Figure 3 indicates:

- Substantially lower TCE concentrations, with most locations now below 1,000 $\mu g/m^3$, after declines of approximately 0.5 to over 1 order of magnitude; and
- TCE was not detected at foundation-depth at 11 locations, compared to eight locations in 2004.

A comparison of this Figure 3 with the Annual Reporting in 2011 indicates that at some locations, TCE vapor concentrations recorded in August are marginally higher than those recorded a year earlier, especially at water table depth.

PCE data recorded in sampling of two soil vapor implants in the OU#4 Area are summarized on Figure B.38 in Appendix B.2. PCE concentrations recorded in sampling of EN10-41 continue to be several orders of magnitude below the concentrations recorded at a similar location (EN08-39S) prior to full scale application of thermal treatment. The data continue to support more than a 99% reduction in PCE concentrations consistent with the findings of post-treatment soil sampling.

2.4 Review of Tabular and Graphical Summaries for Other Compounds

Chlorinated ethenes PCE and cDCE and the chlorinated ethane TCA drove a very small proportion of the decisions to mitigate structures. As shown on Table 2, TCA and PCE were the only other compounds detected in more than 10% of the foundation-depth soil vapor samples collected in the last two years of monitoring. CDCE was detected in about 9% of the samples from foundation-depth and 40% from near water table depth.

The other seven analytes were only detected in 3 to 7% of the samples from foundation-depth and generally at concentrations below current threshold values established by USEPA as benchmarks for assessing vapor intrusion potential. As such, it could be argued that continued monitoring for these parameters is not necessary.

The following subsections discuss data and observations derived from plan view graphics developed for PCE, cDCE, and TCA, presented in Appendix B.3.

2.4.1 PCE

In the last two years, PCE was detected in 28% of the samples from foundation-depth and 48% of the samples from water table depth. All of the foundation-depth values and over 90% of the values for water table depth are below the USEPA screening threshold.

The graphic included as Figure B.3.1 reflect substantially reduced presence of PCE in subsurface vapor with most of the points indicating vapor concentrations in the tens of $\mu g/m^3$ that could be explained by equilibrium with only traces in soil moisture (<1 μg/L).

Higher concentrations remain beneath the northeast corner of the largest ventilation area where PCE is found in groundwater; the vicinity of the former Ideal Cleaners site to the east; and in the vicinity of non-IBM source identified at 1904 East Main Street which is reflected in the data along Adams Avenue south of East Main Street (Locations EN05-33 and EN04-16).

PCE continues to be detected in samples from foundation-depth at EN04-7 located near the southwest corner of the largest ventilation area. PCE has not been detected at greater depth at this location and the presence of PCE suggests a localized source unrelated to the plume that IBM has been remediating.

2.4.2 cDCE

A biochemical breakdown product of PCE and TCE, cis-1,2 dichloroethylene (cDCE) is still found in at least trace (0.1 to 1.0 μg/L) concentrations in groundwater beneath much of the ventilation area; mostly at concentrations below the AGWQS. As shown on Figure B.3.2, cDCE vapors are not detected in subsurface gas samples from the majority of locations either at foundation or water table depth. Most of the detections are near the reporting limit for this compound.

2.4.3 TCA

Much like cDCE, TCA is still detected in at least trace concentrations in groundwater beneath much of the ventilation area below the AGWQS. As shown on Figure B.3.3, unlike cDCE, TCA vapors are detected in soil gas samples from both depths at a larger number of locations. The majority of detections are below concentrations that would be likely to result in indoor air concentrations that could be discerned from a background condition resulting from use and storage of consumer products. The relative persistence of TCA compared with cDCE probably reflects that cDCE is known to biochemically degrade under aerobic conditions found in the vadose zone while TCA is not.

3.0 CONCLUSIONS AND RECOMMENDATIONS

IBM has successfully implemented a program of soil vapor monitoring for over eight years since substantial establishment of the limits of ventilation, and about 10 years since the beginning of the Groundwater Vapor Project. At the time of this report, about a decade after beginning the Groundwater Vapor Project, we highlight the following observations and conclusions based on the years of work at this site.

The data continue to support the limits of ventilation as conservative. We believe that under present conditions substantially fewer properties would require mitigation of vapor intrusion potential. Overall, the data continue to indicate reduced vapor intrusion potential that we believe is attributable to both natural processes and IBM's remediation efforts.

The natural processes include suppression of subsurface vapor migration through increased soil moisture conditions and biochemical degradation. IBM's remediation efforts have included groundwater extraction, treatment and reinjection on a very large geographic scale.

From 2005 through 2009[5] we reported that concentrations of TCE--the compound that drove most of the ventilation decisions--declined in soil vapor out of proportion to improvements in groundwater quality. These conditions were largely believed to be indicative of suppression of subsurface vapor transport by natural processes associated with infiltration and phase transfer mechanisms in the vadose zone.

In the nearly four years since beginning reinjection of clean water, groundwater source concentrations have been reduced more substantially beneath the largest ventilation area and the improvements in groundwater concentrations have now met or out-paced the observed improvements in subsurface vapor conditions for TCE at many locations.

The data from combined groundwater and soil vapor monitoring indicate no simple predictable relationship among groundwater and soil vapor concentrations observed at near water table depth nor is there a simple predictable relationship among soil vapor concentrations at different depths. A simple constant linear relationship cannot be supported. This concept was discussed in the report presenting the first quarter of soil vapor monitoring dated December 2004[6] and is supported by the findings of eight years of later monitoring through September 2012.

What we observe in groundwater and soil vapor data are complex interactions of many processes including, but not limited to, phase partitioning, biochemical degradation, diffusion, and advection, all of which vary spatially and temporally with differing geologic,

[5] Sanborn Head & Associates, Inc., June 12, 2009, Annual Report of Soil Vapor Monitoring Through April 2009. Endicott, New York.

[6] Sanborn Head & Associates, Inc., December 1, 2004, First Quarterly Report, Soil Vapor Monitoring. Groundwater Vapor Project, Endicott, New York.

sourcing, and climatic conditions. The following highlight some observations derived from the nearly ten years of work at this site most of which were discussed in prior reports:

The observed seasonal fluctuations in vapor concentrations of about an order of magnitude could be explained by physical and chemical mechanisms. This assertion is supported by a quantitative assessment founded on soil texture and moisture profiling at multiple locations at the site[7]. Subsurface moisture conditions influence vapor transport by diffusion. The diffusive flux, or rate of VOC mass transfer by diffusion that drives vapor intrusion, may vary over three to four orders of magnitude for a given location with different soil moisture conditions. Even thin silt-rich soil horizons at higher moisture content can greatly limit vapor transport. Given likely soil moisture residence times in the vadose zone, the vapor conditions observed at a given time may be influenced by infiltration over several preceding years.

Where improvements in soil vapor conditions are observed to lag improvements in groundwater concentrations it can likely be explained by partitioning from VOC mass already present in the vadose zone in aqueous and sorbed phases.

We recommend that soil vapor monitoring continue at the schedule implemented in 2012.

[7] Sanborn Head & Associates, Inc, March 30, 2006, Semi-Annual Report, Soil Vapor Monitoring through February 2006.

TABLES

TABLE 1
Summary of Soil Vapor Monitoring Implants Installations
Annual Report - Soil Vapor Monitoring Through August 2012
Endicott, New York

Location Designation[1]	Installation Date	Implant Type[2]		Subsurface Conditions at Installation				Completion Details	Groundwater Conditions At Installation			August 2012 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		Vadose Zone Between Shallow and Deep Implants[6] (ft)	Distance Above Water Table[5] (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 1-6.8 Bentonite Seal 6.8-8.5' Sand Filter Pack 8-8.5' Screened Interval	13.5	5.5	10.5	6.3	9.7	-0.8
EN04-1D	Jul-04					23	Sand	0-1' Concrete Surface Seal 1-22' Bentonite Seal 22-23' Glass Bead Filter Pack 22.5-23' Screened Interval						
EN04-2S	Jul-04	X		EN-450	8/5/04 25.17	8	Fill	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	11	5.2	4.8	4.7	5.3	0.5
EN04-2D	Jul-04					20	Sand & Gravel	0-1' Concrete Surface Seal 1-19' Bentonite Seal 19-20' Glass Bead Filter Pack 19.5-20' Screened Interval						
EN04-3S	Jul-04		X	EN-203	7/26/04 24.86	8	Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	10	5.9	10.1	5.2	10.8	0.7
EN04-3D	Jul-04					19	Sand	0-1' Concrete Surface Seal 1-18' Bentonite Seal 18-19' Glass Bead Filter Pack 18.5-19' Screened Interval						
EN04-4S	Jul-04		X	EN-022	8/5/04 22.98	8	Fill	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	8	6	0	5.6	0.4	0.4
EN04-4D	Jul-04					17	Gravel	0-1' Concrete Surface Seal 1-16' Bentonite Seal 16-17' Glass Bead Filter Pack 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 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	25	5	10	8.9	6.1	-3.9
EN04-5D	Jul-04					34	Sand	0-1' Concrete Surface Seal 1-33' Bentonite Seal 33-34' Glass Bead Filter Pack 33.5-34' Screened Interval						
EN04-6S	Jul-04		X	EN-310	7/29/04 <28	8	Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	18	1	0	1	0	0
EN04-6D	Jul-04					27	Sand & Gravel	0-1' Concrete Surface Seal 1-26' Bentonite Seal 26-27' Glass Bead Filter Pack 26.5-27' Screened Interval						

TABLE 1
Summary of Soil Vapor Monitoring Implants Installations
Annual Report - Soil Vapor Monitoring Through August 2012
Endicott, New York

Location Designation[1]	Installation Date	Implant Type[2]		Subsurface Conditions at Installation				Completion Details	Groundwater Conditions At Installation			August 2012 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		Vadose Zone Between Shallow and Deep Implants[6] (ft)	Distance Above Water Table[5] (ft)	Saturated Screened Interval[7] (ft)	Distance Above Water Table[5] (ft)	Saturated Screened Interval[7] (ft)	Difference[8] (ft)
EN04-7S	Jul-04	X		EN-311	7/28/04 43.7	8	Sand Over Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	25	9.7	1.3	10.2	0.8	-0.5
EN04-7D	Jul-04					34	Poorly Sorted Sand	0-1' Concrete Surface Seal 1-33' Bentonite Seal 33-34' Glass Bead Filter Pack 33.5-34' Screened Interval						
EN04-9S	Jul/Aug-02	X		EN-279	11/3/03 26.23	8	Well Sorted Sand	0-2' Concrete Surface Seal 2-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	11	6	2.1	>8.1	0.0	<-2.1
EN04-9D	Jul/Aug-02					20	Well Sorted Sand	0-2' Concrete Surface Seal 2-19' Bentonite Seal 19-20' Glass Bead Filter Pack 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 2-6.5' Bentonite Seal 6.5-7.5' Glass Bead Filter Pack 7-7.5' Screened Interval	11.2	6.3	1.3	5.8	1.8	0.5
EN04-10D	Jul/Aug-02					20	Well Sorted Sand	0-2' Concrete Surface Seal 2-18.7' Bentonite Seal 18.7-19.7' Glass Bead Filter Pack 19.2-19.7' Screened Interval						
EN04-11S	Jul-04	X		EN-215A	7/29/04 28.17	8	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8.5' Sand Filter Pack 8-8.5' Screened Interval	11.5	7.2	7.2	5.1	9.3	2.1
EN04-11D	Jul-04					21	Well Sorted Sand	0-1' Concrete Surface Seal 1-20' Bentonite Seal 20-21' Glass Bead Filter Pack 20.5-21' Screened Interval						
EN10-11D	May-10			EN-215	5/12/10 34	30	Sand & Gravel	0-1' Concrete Surface Seal 1-3' Sand 3-5' Bentonite Chips 5-10' Sand 10-18' Grout 18-25.6' Sand 25.6-29 Powdered Bentonite 29-30' Glass Bead Filter Pack 29.5-30' Screened Interval	22	4	15.2	NA	19.5	4.3
EN04-12S	Jul-04	X		EN-214A	7/30/04 25.18	8	Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	10	6.2	11.8	6.57	11.4	-0.4
EN04-12D	Jul-04					19	Sand & Gravel	0-1' Concrete Surface Seal 1-18' Bentonite Seal 18-19' Glass Bead Filter Pack 18.5-19' Screened Interval						

TABLE 1
Summary of Soil Vapor Monitoring Implants Installations
Annual Report - Soil Vapor Monitoring Through August 2012
Endicott, New York

Location Designation[1]	Installation Date	Implant Type[2]		Subsurface Conditions at Installation				Completion Details	Groundwater Conditions At Installation			August 2012 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		Vadose Zone Between Shallow and Deep Implants[6] (ft)	Distance Above Water Table[5] (ft)	Saturated Screened Interval[7] (ft)	Distance Above Water Table[5] (ft)	Saturated Screened Interval[7] (ft)	Difference[8] (ft)
EN04-13S	Jul-04	X		EN-449	7/29/04 36.05	8	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	21	6	13.5	6.2	13.3	-0.2
EN04-13D	Jul-04					30	Sand & Gravel	0-1' Concrete Surface Seal 1-29' Bentonite Seal 29-30' Glass Bead Filter Pack 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 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	25	5	4	5.5	3.5	-0.5
EN04-14D	Jul-04					34	Poorly Sorted Sand	0-1' Concrete Surface Seal 1-33' Bentonite Seal 33-34' Glass Bead Filter Pack 33.5-34' Screened Interval						
EN04-15S	Jul-04		X	EN-162	7/29/04 35.33	8	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	21	5.3	6.2	5.4	6.1	-0.1
EN04-15D	Jul-04					30	Sand & Gravel	0-1' Concrete Surface Seal 1-29' Bentonite Seal 29-30' Glass Bead Filter Pack 29.5-30' Screened Interval						
EN04-16S	Jul-04	X		EN-206	7/27/04 39.54	8	Fill	0-1' Concrete Surface Seal 1-7.3' Bentonite Seal 7.3-8.5' Sand Filter Pack 8-8.5' Screened Interval	24.5	5.5	10.5	5.7	10.3	-0.2
EN04-16D	Jul-04					34	Sand & Gravel	0-1' Concrete Surface Seal 1-33' Bentonite Seal 33-34' Glass Bead Filter Pack 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 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	19	7.5	3.5	8.3	2.7	-0.8
EN04-17D	Jul-04					28	Sand & Gravel	0-1' Concrete Surface Seal 1-27' Bentonite Seal 27-28' Glass Bead Filter Pack 27.5-28' Screened Interval						
EN10-17D	May-10				5/13/10 38	34	Sand & Gravel	0-1' Concrete Surface Seal 1-3' Sand 3-5' Bentonite Chips 5-10' Sand 10-25' Grout 25-30' Sand 30-33' Powdered Bentonite 33-34' Glass Bead Filter Pack 33.5-34' Screened Interval	26	4	1	NA	2.7	1.7

TABLE 1
Summary of Soil Vapor Monitoring Implants Installations
Annual Report - Soil Vapor Monitoring Through August 2012
Endicott, New York

Location Designation[1]	Installation Date	Implant Type[2]		Subsurface Conditions at Installation				Completion Details	Groundwater Conditions At Installation			August 2012 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		Vadose Zone Between Shallow and Deep Implants[6] (ft)	Distance Above Water Table[5] (ft)	Saturated Screened Interval[7] (ft)	Distance Above Water Table[5] (ft)	Saturated Screened Interval[7] (ft)	Difference[8] (ft)
EN04-18S	Jul-04		X	EN-217A	7/29/04 36.69	8	Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	22	5.9	5.3	6.1	5.1	-0.2
EN04-18D	Jul-04					31	Sand & Gravel	0-1' Concrete Surface Seal 1-30' Bentonite Seal 30-31' Glass Bead Filter Pack 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 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	20.5	5.9	4.6	9.3	1.3	-3.4
EN04-19D	Jul-04					29.5	Sand & Gravel	0-1' Concrete Surface Seal 1-28.5' Bentonite Seal 28.5-29.5' Glass Bead Filter Pack 29-29.5' Screened Interval						
EN04-20S	Jul-04		X	EN-207	7/27/04 43.2	8	Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	25.5	7.7	4.3	8.0	4.0	-0.3
EN04-20I	Jul-04					24	Gravel	0-1' Concrete Surface Seal 1-23' Bentonite Seal 23-24' Glass Bead Filter Pack 23.5-24' Screened Interval	9.5					
EN04-20D	Jul-04					36	Sand	0-1' Concrete Surface Seal 1-20' Formation Material 20-33.5' Bentonite Seal 33.5-35.5' Glass Bead Filter Pack 35-35.5' Screened Interval						
EN04-21S	Jul-04		X	EN-468	10/14/04 34.43	7.5	Sand & Gravel	0-1' Concrete Surface Seal 1-6.5' Bentonite Seal 6.5-7.5' Glass Bead Filter Pack 7-7.5' Screened Interval	14.5	12	4	13.7	2.3	-1.7
EN04-21D	Jul-04					23	Sand & Gravel	0-1' Concrete Surface Seal 1-12' Formation Material 12-22' Bentonite Seal 22-23' Glass Bead Filter Pack 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 2-7.1' Bentonite Seal 7.1-7.5' Glass Bead Filter Pack 7.5-8' Screened Interval	7	2.8	6	3.1	5.7	-0.3
EN04-22D	Jul/Aug-02					16	Well Sorted Sand	0-2' Concrete Surface Seal 2-15' Bentonite Seal 15-16' Glass Bead Filter Pack 15.5-16' Screened Interval						

TABLE 1
Summary of Soil Vapor Monitoring Implants Installations
Annual Report - Soil Vapor Monitoring Through August 2012
Endicott, New York

Location Designation[1]	Installation Date	Implant Type[2]		Subsurface Conditions at Installation				Completion Details	Groundwater Conditions At Installation			August 2012 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		Vadose Zone Between Shallow and Deep Implants[6] (ft)	Distance Above Water Table[5] (ft)	Saturated Screened Interval[7] (ft)	Distance Above Water Table[5] (ft)	Saturated Screened Interval[7] (ft)	Difference[8] (ft)
EN04-23S	Jul-04		X	EN-174	7/30/04 26.48	8	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	14	3.5	4.5	6.1	1.9	-2.6
EN04-23I	Jul-04					15	Well Sorted Sand	0-1' Concrete Surface Seal 1-14' Bentonite Seal 14-15' Glass Bead Filter Pack 14.5-15' Screened Interval	7					
EN04-23D	Jul-04					23	Well Sorted Sand	0-1' Concrete Surface Seal 1-22' Bentonite Seal 22-23' Glass Bead Filter Pack 22.5-23' Screened Interval						
EN04-24S	Jul-04		X	EN-65	7/29/04 22.89	8	Fill	0-1' Concrete Surface Seal 1-6.5' Bentonite Seal 6.5-8.5' Sand Filter Pack 8-8.5' Screened Interval	9.5	3.9	17.8	6.4	15.3	-2.5
EN04-24D	Jul-04					19	Poorly Sorted Sand	0-1' Concrete Surface Seal 1-18' Bentonite Seal 18-19' Glass Bead Filter Pack 18.5-19' Screened Interval						
EN04-25S	Aug-04		X	EN-395	7/29/04 18.88	8	Fill	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	8.5	1.4	5	2.7	3.7	-1.3
EN04-25D	Aug-04					17.5	Sand & Gravel	0-1' Concrete Surface Seal 1-16.5' Bentonite Seal 16.5-17.5' Glass Bead Filter Pack 17-17.5' Screened Interval						
EN04-26S	Jul-04	X		EN-304	7/30/04 17.39	8	Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	5	3.4	6.6	3.9	6.1	-0.5
EN04-26D	Jul-04					14	Sand & Gravel	0-1' Concrete Surface Seal 1-13' Bentonite Seal 13-14' Glass Bead Filter Pack 13.5-14' Screened Interval						
EN04-27S	Jul-04		X	EN-417A	7/29/04 8.91	8	Fill	0-1' Concrete Surface Seal 1-6' Bentonite Seal 6-7' Glass Bead Filter Pack 6.5-7' Screened Interval	-	0.9	14	NM	NM	NM
EN07-28S	Jun-07		X	EN-387A	6/5/2007 22	7	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	11	3	9.5	5.8	6.7	-2.8
EN07-28I	Jun-07					10	Sand & Gravel	0-1' Concrete Surface Seal 1-9' Bentonite Seal 9-10' Glass Bead Filter Pack 9.5-10' Screened Interval						
EN07-28D	Jun-07					19	Well Sorted Sand	0-1' Concrete Surface Seal 1-18' Bentonite Seal 18-19' Glass Bead Filter Pack 18.5-19' Screened Interval						

TABLE 1
Summary of Soil Vapor Monitoring Implants Installations
Annual Report - Soil Vapor Monitoring Through August 2012
Endicott, New York

Location Designation[1]	Installation Date	Implant Type[2]		Subsurface Conditions at Installation				Completion Details	Groundwater Conditions At Installation			August 2012 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		Vadose Zone Between Shallow and Deep Implants[6] (ft)	Distance Above Water Table[5] (ft)	Saturated Screened Interval[7] (ft)	Distance Above Water Table[5] (ft)	Saturated Screened Interval[7] (ft)	Difference[8] (ft)
EN05-29S	4/18/2005	X		EN-437	8/5/04 23.87	7.5	Well Sorted Sand	0-1' Concrete Surface Seal 1-5.5' Bentonite Seal 5.5-7.5' Glass Bead Filter Pack 7-7.5' Screened Interval	11	3.9	11.1	6.5	8.5	-2.6
EN05-29I	4/18/2005					12.5	Well Sorted Sand	0-1' Concrete Surface Seal 1-11' Bentonite Seal 11-12.5' Glass Bead Filter Pack 12-12.5' Screened Interval						
EN04-29D	Jul-04					20	Well Sorted Sand	0-1' Concrete Surface Seal 1-19' Bentonite Seal 19-20' Glass Bead Filter Pack 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 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	11	6	8	3.2	10.8	2.8
EN04-30D	Jul-04					20	Well Sorted Sand	0-1' Concrete Surface Seal 1-19' Bentonite Seal 19-20' Glass Bead Filter Pack 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 1-9' Bentonite Seal 9-10 Glass Bead Filter Pack 9.5-10' Screened Interval	8	0.5	12	0.3	12.2	0.2
EN04-31D	Aug-04					19	Well Sorted Sand	0-1' Concrete Surface Seal 1-18' Bentonite Seal 18-19' Glass Bead Filter Pack 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 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	9	3.4	5	2.9	5.5	0.5
EN04-32D	Aug-04					18	Sand	0-1' Concrete Surface Seal 1-17' Bentonite Seal 17-18' Glass Bead Filter Pack 17.5-18' Screened Interval						
EN05-33S	Apr-05	X		EN-162	4/19/04 34.36	7.5	Well Sorted Sand	0-1' Concrete Surface Seal 1-5.8' Bentonite Seal 5.8-7.5' Glass Bead Filter Pack 7-7.5' Screened Interval	22.5	2.3	6.2	3.3	5.2	-1.0
EN05-33I21	Apr-05					21.5	Well Sorted Sand	0-1' Concrete Surface Seal 1-19' Bentonite Seal 19-21.5' Glass Bead Filter Pack 21-21.5' Screened Interval						
EN05-33I29	Apr-05					29	Poorly Sorted Sand and Gravel	0-1' Concrete Surface Seal 1-27.7' Bentonite Seal 27.7-29' Glass Bead Filter Pack 28.5-29' Screened Interval						
EN05-33D	Apr-05					32	Well Sorted Sand	0-1' Concrete Surface Seal 1-30' Bentonite Seal 30-32' Glass Bead Filter Pack 31.5-32' Screened Interval						

TABLE 1
Summary of Soil Vapor Monitoring Implants Installations
Annual Report - Soil Vapor Monitoring Through August 2012
Endicott, New York

Location Designation[1]	Installation Date	Implant Type[2]		Subsurface Conditions at Installation				Completion Details	Groundwater Conditions At Installation			August 2012 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		Vadose Zone Between Shallow and Deep Implants[6] (ft)	Distance Above Water Table[5] (ft)	Saturated Screened Interval[7] (ft)	Distance Above Water Table[5] (ft)	Saturated Screened Interval[7] (ft)	Difference[8] (ft)
EN05-34S	Apr-05	X		EN-304	4/18/2004 16.67	8	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	4	3.2	6.6	NM	NM	NM
EN05-34I	Apr-05					11	Well Sorted Sand	0-1' Concrete Surface Seal 1-10' Bentonite Seal 10-11' Glass Bead Filter Pack 10.5-11' Screened Interval						
EN05-34D	Apr-05					13.5	Well Sorted Sand	0-1' Concrete Surface Seal 1-12' Bentonite Seal 12-13.5' Glass Bead Filter Pack 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 1-7.2' Bentonite Seal 7.2-8.5' Glass Bead Filter Pack 7.5-8' Screened Interval	25.3	6.2	10	10.0	6.2	-3.8
EN06-35I16	Jan-06					16	Poorly Sorted Sand and Gravel	8.5-14.7' Bentonite Seal 14.7-16.6' Glass Bead Filter Pack 15.5-16' Screened Interval						
EN06-35I24	Jan-06					24	Well Sorted Sand	16.6-22.3' Bentonite Seal 22.3-24.3' Glass Bead Filter Pack 23.5-24' Screened Interval						
EN06-35D	Jan-06					34	Poorly Sorted Sand and Gravel	24.3-33.3' Bentonite Seal 33.3-34.3' Glass Bead Filter Pack 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 1-6.9' Bentonite Seal 6.9-8.6' Sand Filter Pack 7.5-8.0' Screened Interval	23.8	7	10	10.9	6.1	-3.9
EN06-36I12	Jan-06					12	Poorly Sorted Sand and Gravel	8.6-10.5 Bentonite Seal 10.5-11.5' Glass Bead Filter Pack 11.5-12.' Screened Interval						
EN06-36I22	Jan-06					22	Well Sorted Sand	12.5-20.9' Bentonite Seal 20.9-22.5' Glass Bead Filter Pack 21.5-22.' Screened Interval						
EN06-36D	Jan-06					33	Poorly Sorted Sand and Gravel	22.5-31.8' Bentonite Seal 31.8-34' Glass Bead Filter Pack 32.5-33' Screened Interval						

TABLE 1
Summary of Soil Vapor Monitoring Implants Installations
Annual Report - Soil Vapor Monitoring Through August 2012
Endicott, New York

Location Designation[1]	Installation Date	Implant Type[2]		Subsurface Conditions at Installation				Completion Details	Groundwater Conditions At Installation			August 2012 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		Vadose Zone Between Shallow and Deep Implants[6] (ft)	Distance Above Water Table[5] (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 22.3	8	Well Sorted Sand	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval	12	1.3	3.2	2.0	2.5	-0.7
EN06-37I	Jan-06					12	Well Sorted Sand	0-1' Concrete Surface Seal 1-11' Bentonite Seal 11-12' Glass Bead Filter Pack 11.5-12' Screened Interval						
EN06-37D	Jan-06					21	Well Sorted Sand	0-1' Concrete Surface Seal 1-20' Bentonite Seal 20-21' Glass Bead Filter Pack 20.5-21' Screened Interval						

Notes:

1. This table is intended to summarize implant depths, subsurface conditions , completion details, and quarterly sampling schedule for routine monitoring of soil vapor 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 Sanborn Head 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 in May 2008. 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 May 2008. 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 August 2012. 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

TABLE 2
Statistical Summary of VOCs Found in Soil Vapor Monitoring
Annual Report - Soil Vapor Monitoring through August 2012
Endicott, New York

Analyte	Foundation Depth Statistics ($\mu g/m^3$)							Water Table-Depth Statistics ($\mu g/m^3$)							Typical Laboratory Reporting Limit ($\mu g/m^3$)	USEPA Target Soil Gas Value ($\mu g/m^3$, α = 0.1)
	Percent Detected	Minimum	25th Percentile	Median	75th Percentile	90th Percentile	Maximum	Percent Detected	Minimum	25th Percentile	Median	75th Percentile	90th Percentile	Maximum		
Tetrachloroethene	28%	5.3	12	32	160	434	820	48%	4.6	15	33	235	814	5,700	3.5	940
Trichloroethene	69%	4.1	16	140	490	1,800	73,000	91%	4.5	150	485	1,500	5,300	51,000	2.7	43
cis-1,2-Dichloroethene	9%	3.8	22	78	4,350	6,300	12,000	40%	3.5	6.6	21	96	640	12,000	2.0	-
trans-1,2-Dichloroethene	3%	5.4	8.2	11	21	41	45	7%	3.7	6.5	14	30	92	100	8.1	630
Vinyl chloride	0%	-	-	-	-	-	-	1%	2.3	-	3.5	-	-	150	2.0	16
1,1,1-Trichloroethane	41%	4.5	9.2	16	60.5	288	9,400	72%	4.7	17	44	145	344	9,900	1.3	52,000
1,1-Dichloroethene	4%	15	240	280	520	748	1,000	8%	4.6	20	230	480	704	1,000	2.8	2,100
1,1-Dichloroethane	7%	3.6	9.3	190	2,100	2,940	4,600	11%	3.2	6.1	25	325	2,050	4,200	2.1	1,500
Chloroethane	0%	-	-	-	-	-	-	1%	3.0	-	-	-	-	47	1.3	100,000
Methylene chloride	3%	3.7	5.4	40	81	158	270	4%	2.5	3.1	6	83	582	1,600	1.8	9,600
Trifluorotrichloroethane (Freon 113)	4%	6	8	10	10	17	130	8%	6.2	8.7	12	17	83	120	3.9	310,000

Notes:

1. This table presents a statistical summary of analytes for water table and foundation-depth vapor samples collected during 2010 through 2012 soil vapor monitoring as part of the Comprehensive Operations, Maintenance, and Monitoring Program in Endicott, New York .

2. Residential subsurface vapor screening values are based on the USEPA Regional Screening Level Risk-Based Concentration Table (April 2012 update) using residential indoor air screening levels at an excess lifetime cancer risk of 10^{-5} (if compound is carcinogenic) and a subsurface vapor-to-indoor air attenuation factor (α) of 0.1.

FIGURES

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 Sanborn Head 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 Sanborn Head in September 2003. The locations of groundwater monitoring and recovery wells are based on an AutoCAD drawing by GSC submitted to Sanborn Head 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 Sanborn Head on 09/21/2004. Well locations installed since that time are based on drawings provided by GSC.

3. 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
- EN09-1 Proposed Soil Gas Monitoring Implant
- EN-430 Upper Aquifer Monitoring Well
- EN-428 Upper Aquifer Interceptor Extraction Well
- EN-510T Upper Aquifer Injection Well

SANBORN HEAD

GRAPHICAL SCALE
150' 75' 0 150' 300'

NO.	DATE	DESCRIPTION	BY

Drawn By: E. Wright
Designed By: E. Bradstreet
Reviewed By: D. Carr
Project Mgr: E. Bradstreet
Pic: D. Carr
Date: November 2012

Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance & Monitoring Program
Endicott, New York

Soil Vapor Implant Location Plan

Project Number: 2755.07

Figure Number: 1

Figure 2
Historical Precipitation Records
Annual Report - Soil Vapor Monitoring through August 2012
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.

© 2012 SANBORN, HEAD & ASSOCIATES, INC.

Figure 3

Comparisons of TCE Soil Vapor Concentrations Non Heating Seasons

Annual Report - Soil Vapor Monitoring Through August 2012

IBM

Endicott, New York

Drawn By:	S. Warner
Designed By:	E. Bradstreet
Reviewed By:	D. Carr
Project No:	2755.06
Date:	November 2012

Figure Narrative

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 2004 compared to August 2012 monitoring.

The images were created using uniform and consistent spatial statistical algorithms as outlined in more detail in previous reports 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.

Legend

340 — 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

N W E S

400 200 0 400 800 Feet

SANBORN HEAD

FILE: \\porserv1\datashare\data\pordata\2700s\2755.00\arcfiles\arcfiles\figures\2009 semiannual\20091027_nonheating 04 vs 09.mxd
FILE: \\porserv1\datashare\DATA\PORDATA\2700s\2755.00\Graphics Files\Adobe Illustrator\Source Files\2012 Annual Report\20121017_Nonheating 04 vs 12.ai

Figure 4
TCE in Groundwater and Water Table-Depth Soil Vapor
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

APPENDIX A

LIMITATIONS

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 Sanborn Head has reviewed that data available to us at the time the report was prepared and information as stated in this report, any of Sanborn Head's interpretations and conclusions that have relied on that information will be contingent on its validity. Sanborn Head 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 Sanborn Head 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, Sanborn Head has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.

S:\PORDATA\2700s\2755.00\Source Files\November 2012 Annual Report\App A Limitations.docx

APPENDIX B

FIELD SAMPLING & LABORATORY ANALYSIS

APPENDIX B.1

CLIMATOLOGIC DATA

SEPTEMBER 2011
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

BINGHAMTON, NY
GREATER BINGHAMTON/E A LINK FIELD AP (KBGM)
Lat:42° 12'N Long: 75° 58'W Elev (Ground) 1595 Feet
Time Zone : EASTERN WBAN: 04725 ISSN#: 0198-3563

Date	Temperature °F MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	Deg Days BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0700 LST DEPTH	1300 LST WATER-EQUIV	PRECIPITATION ON GND(IN) 2400 LST SNOW-FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 3-SEC SPEED	DIR	2-MIN 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
01	76	59	68	5	58	61	0	3		0		0.0	0.00	28.42	30.13	6.4	17	6.6	23	19	16	18	01
02	73	60	67	4	61	63	0	2	BR	0		0.0	0.00	28.35	30.05	7.2	17	7.7	31	33	13	18	02
03	85*	64	75	12	67	69	0	10	BR HZ	0		0.0	0.00	28.25	29.94	5.4	21	5.7			9	22	03
04	84	66	75*	13			0	10	TS TSRA RA BR HZ VCTS	0		0.0	0.24	28.17		5.5	21	6.9	22	31	16	21	04
05	68	57	63	1	60	60	2	0	RA BR	0		0.0	0.55	28.13	29.85	1.9	31	5.9	20	34	14	36	05
06	61	55	58	-4	55	56	7	0	RA BR	0		0.0	0.39	28.32	30.08	5.4	05	6.3	21	12	16	12	06
07	61	56	59	-3	57	57	6	0	RA BR	0		0.0	7.49	28.37	30.10	9.4	08	10.0	26	06	18	10	07
08	68	60	64	3	61	62	1	0	RA BR	0		0.0	1.41	28.32	30.04	4.9	06	6.7	28	10	21	10	08
09	74	58	66	5			0	1	BR	0		0.0	0.00	28.22		3.6	33	5.6	21	34	13	24	09
10	72	55	64	3	53	57	1	0	BR	0		0.0	0.00	28.27	30.00	3.7	01	4.7	29	21	10	01	10
11	68	49	59	-1	57	59	6	0	RA BR	0		0.0	0.96	28.34	30.06	3.4	19	4.6	26	25	10	28	11
12	74	58	66	6	59	61	0	1	BR	0		0.0	0.00	28.30	30.01	5.7	23	6.2	16	25	12	25	12
13	78	60	69	9	60	63	0	4	BR	0		0.0	0.00	28.20	29.90	9.0	22	9.1	24	22	17	21	13
14	72	59	66	7	57	60	0	1	RA BR	0		0.0	T	28.22	29.95	4.0	36	4.9	20	06	10	27	14
15	59	44	52	-7	45	48	13	0	RA BR	0		0.0	0.47	28.28	30.05	7.9	33	8.3	24	36	18	33	15
16	57	39*	48*	-11	39	44	17	0		0		0.0	0.00	28.54	30.34	5.4	33	6.5	21	27	15	35	16
17	59	40	50	-8	39	44	15	0	BR	0		0.0	0.00	28.66	30.44	3.1	12	4.3	14	14	10	13	17
18	63	42	53	-5	42	47	12	0		0		0.0	0.00	28.66	30.42	3.3	11	4.2	15	11	10	11	18
19	64	43	54	-4	45	49	11	0	RA BR	0		0.0	0.04	28.48	30.21	8.2	17	8.9	25	19	16	16	19
20	68	53	61	4	56	57	4	0	RA BR	0		0.0	0.16	28.35	30.10	3.3	22	4.5	20	17	12	19	20
21	69	54	62	5			3	0	BR	0		0.0	0.00	28.45		6.2	17	6.5	18	20	13	17	21
22	73	61	67	10	63	64	0	2	RA BR	0		0.0	0.06	28.38	30.10	2.6	19	5.2	18	31	12	33	22
23	68	56	62	5			3	0	RA BR	0		0.0	0.38	28.35		5.9	12	6.5	18	13	14	13	23
24	70	59	65	8			0	0	RA FG+ BR	0		0.0	0.01	28.33		1.7	31	4.5	17	33	14	27	24
25	79	57	68	12			0	3	BR HZ	0		0.0	0.00	28.40		1.1	12	1.7	9	20	7	16	25
26	77	58	68	13			0	3	BR	0		0.0	0.00	28.29		3.2	15	3.9	14	14	10	16	26
27	73	61	67	12	63	64	0	2	TS TSRA RA BR	0		0.0	2.37	28.25	29.96	6.1	14	6.9	23	26	20	26	27
28	71	61	66	11	63	63	0	1	RA BR	0		0.0	0.38	28.20	29.90	11.0	14	11.2	25	12	20	12	28
29	66	52	59	5			6	0	RA BR VCTS	0		0.0	1.66	28.01		4.2	23	5.4	31*	24	23*	26	29
30	63	49	56	2	48	51	9	0	RA	0		0.0	0.01	27.96	29.67	8.2	22	8.5	25	22	17	24	30
	69.8	54.8	62.3	¤			3.9	1.4	< MONTHLY AVERAGES | TOTALS >			0.0	16.58	28.32	30.04	1.9	17	6.3	< MONTHLY AVERAGES				
	2.0	4.9	3.5		<---------- DEPARTURE FROM NORMAL ---------->								12.99	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING :	116	-86	138	-129
COOLING :	43	11	525	131

GREATEST 24-HR PRECIPITATION : 8.70 DATE : 07-08
GREATEST 24-HR SNOWFALL : 0.0 DATE :
GREATEST SNOW DEPTH : 0 DATE :

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM :	30.49	18	0947
MIMIMUM :	29.62	30	0453

NUMBER OF DAYS WITH ->

MAXIMUM TEMP >= 90 :	0	MINIMUM TEMP <= 32 :	0	PRECIPITATION >= 0.01 INCH:	16
MAXIMUM TEMP <= 32 :	0	MINIMUM TEMP <= 0 :	0	PRECIPITATION >= 0.10 INCH:	12
THUNDERSTORMS :	2	HEAVY FOG :	1	SNOWFALL >= 1.0 INCH :	0

SEPTEMBER 2011
BINGHAMTON, NY

OCTOBER 2011
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

BINGHAMTON, NY
GREATER BINGHAMTON/E A LINK FIELD AP (KBGM)
Lat:42° 12'N Long: 75° 58'W Elev (Ground) 1595 Feet
Time Zone : EASTERN WBAN: 04725 ISSN#: 0198-3563

Date	Temperature °F MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	Deg Days BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0700 LST DEPTH	1300 LST WATER-EQUIV	PRECIPITATION ON GND(IN) 2400 LST SNOW-FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 3-SEC SPEED	DIR	2-MIN 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
01	51	40	46	-8	43	44	19	0	RA BR	0		0.0	0.08	28.06	29.80	12.1	35	12.4	28	35	23	35	01
02	58	39	49	-4	43	45	16	0	RA BR	0		0.0	0.50	28.09	29.84	3.7	03	6.2	28	02	21	01	02
03	50	41	46	-7			19	0	RA BR	0		0.0	T	28.25		2.7	13	4.6	17	33	13	13	03
04	56	45	51	-1	47	49	14	0	RA BR	0		0.0	0.03	28.35	30.11	6.9	33	7.0	21	35	16	36	04
05	62	43	53	1	42	47	12	0		0		0.0	0.00	28.44	30.22	10.0	33	10.3	26	35	21	35	05
06	62	35	49	-3	33	42	16	0		0		0.0	0.00	28.61	30.38	3.9	32	4.8	14	34	10	34	06
07	67	37	52	1	36	45	13	0		0		0.0	0.00	28.69	30.46	2.2	25	2.8	30	22	10	27	07
08	75	46	61	10	44	53	4	0		0		0.0	0.00	28.72	30.48	4.4	23	4.4			8	23	08
09	78*	51	65*	14	50	56	0	0		0		0.0	0.00	28.69	30.42	3.2	26	4.2	14	27	12	27	09
10	76	51	64	14	52	57	1	0		0		0.0	0.00	28.56	30.29	3.8	31	4.8	14	30	10	36	10
11	72	53	63	13	54	58	2	0		0		0.0	0.00	28.46	30.19	1.4	14	1.9	15	14	10	13	11
12	61	49	55	6	48	51	10	0	RA BR	0		0.0	0.29	28.35	30.06	8.5	13	8.9	22	14	18	14	12
13	64	50	57	8	56	56	8	0	RA BR VCTS	0		0.0	0.43	28.07	29.76	9.6	13	9.8	24	15	17	15	13
14	68	48	58	9	55	56	7	0	RA BR	0		0.0	0.73	27.76	29.45	7.2	20	11.0	30	28	21	26	14
15	51	45	48	0	39	44	17	0	RA BR	0		0.0	0.02	27.82	29.57	14.3	24	14.9	41*	25	30*	27	15
16	56	45	51	3	41	45	14	0	RA BR	0		0.0	0.31	28.02	29.75	9.7	24	10.3	33	27	23	25	16
17	59	42	51	3	33	43	14	0	RA BR	0		0.0	T	27.96	29.71	11.1	24	11.4	32	24	23	25	17
18	55	45	50	3	33	42	15	0		0		0.0	0.00	28.10	29.85	4.3	23	6.4	18	24	14	24	18
19	61	47	54	7	47	50	11	0	RA BR	0		0.0	0.23	27.97	29.65	12.2	09	12.4	31	10	23	12	19
20	59	45	52	5	45	48	13	0	RA BR	0		0.0	0.54	27.68	29.41	9.7	20	12.2	30	21	22	13	20
21	48	43	46	0	38	42	19	0	RA	0		0.0	T	28.09	29.87	9.8	24	10.1	24	22	18	22	21
22	48	40	44	-2	38	41	21	0	RA	0		0.0	0.03	28.31	30.08	3.9	28	4.4	16	31	14	30	22
23	54	38	46	0	36	42	19	0		0		0.0	0.00	28.35	30.11	2.8	22	4.0	15	26	12	27	23
24	59	41	50	5	41	45	15	0	RA BR	0		0.0	0.05	28.26	30.01	6.4	21	8.2	26	22	18	28	24
25	55	41	48	3	36	42	17	0	RA	0		0.0	T	28.31	30.07	7.7	31	8.9	28	31	18	31	25
26	53	42	48	3	44	46	17	0	RA BR	0		0.0	0.12	28.13	29.84	2.6	21	4.6	14	36	12	35	26
27	46	32	39	-5	36	37	26	0	RA SN BR	0		1.9	0.63	28.03	29.82	9.2	35	9.6	23	36	18	35	27
28	42	28	35	-9	28	32	30	0	BR	1		0.0	0.00	28.40	30.21	1.3	30	4.5	16	35	12	36	28
29	35	30	33*	-11			32	0	SN BR	0		0.7	0.10	28.35		3.9	04	5.8	17	02	12	03	29
30	45	27*	36	-7	26	32	29	0		T		0.0	0.00	28.40	30.22	5.7	32	6.3	23	34	17	35	30
31	46	28	37	-6	27	33	28	0		0		0.0	0.00	28.53	30.32	7.2	17	7.4	22	19	16	19	31
	57.2	41.5	49.4	¤	41.1	45.6	15.4	0.0	< MONTHLY AVERAGES | TOTALS >			2.6	4.09	28.25	29.99	2.0	25	7.6	< MONTHLY AVERAGES				
	0.5	1.9	1.3		<---------- DEPARTURE FROM NORMAL ---------->								1.07	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING :	478	-36	616	-165
COOLING :	0	-2	525	129

GREATEST 24-HR PRECIPITATION :	0.97	DATE :	13-14
GREATEST 24-HR SNOWFALL :	1.9	DATE :	27
GREATEST SNOW DEPTH :	1	DATE :	28

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM :	30.54	08	1008
MIMIMUM :	29.22	20	0506

NUMBER OF -> DAYS WITH					
MAXIMUM TEMP >= 90 :	0	MINIMUM TEMP <= 32 :	5	PRECIPITATION >= 0.01 INCH:	15
MAXIMUM TEMP <= 32 :	0	MINIMUM TEMP <= 0 :	0	PRECIPITATION >= 0.10 INCH:	10
THUNDERSTORMS :	0	HEAVY FOG :	0	SNOWFALL >= 1.0 INCH :	1

OCTOBER 2011
BINGHAMTON, NY

NOVEMBER 2011
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

BINGHAMTON, NY
GREATER BINGHAMTON/E A LINK FIELD AP (KBGM)
Lat:42° 12'N Long: 75° 58'W Elev (Ground) 1595 Feet
Time Zone : EASTERN WBAN: 04725 ISSN#: 0198-3563

Date	Temperature °F MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	Deg Days BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0700 LST DEPTH	1300 LST WATER-EQUIV	PRECIPITATION ON GND(IN) 2400 LST SNOW-FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 3-SEC SPEED	DIR	2-MIN 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
01	53	35	44	1	31	38	21	0		0		0.0	0.00	28.54	30.33	2.3	17	3.5	12	20	9	21	01
02	57	34	46	3	34	41	19	0		0		0.0	0.00	28.54	30.30	6.2	20	6.5	17	23	13	23	02
03	58	40	49	6	38	43	16	0	BR	0		0.0	0.00	28.30	30.04	3.2	25	6.5	21	01	15	35	03
04	45	29	37	-5	26	33	28	0		0		0.0	0.00	28.37	30.18	11.7	36	12.1	33	35	26	35	04
05	47	25	36	-5	18	29	29	0		0		0.0	0.00	28.64	30.45	1.3	10	3.8	10	17	8	17	05
06	52	31	42	1	24	34	23	0		0		0.0	0.00	28.64	30.42	7.5	19	7.9	22	22	16	22	06
07	62	36	49	8	40	45	16	0		0		0.0	0.00	28.53	30.30	6.4	22	6.8	20	26	15	25	07
08	66*	53	60*	20	45	51	5	0		0		0.0	0.00	28.48	30.23	4.8	21	5.0	15	19	12	23	08
09	64	44	54	14	38	46	11	0		0		0.0	0.00	28.33	30.05	9.1	17	9.3	25	15	17	16	09
10	52	37	45	5	41	43	20	0	RA BR	0		0.0	0.13	28.12	29.85	2.2	25	6.0	23	18	16	17	10
11	41	30	36	-3	27	32	29	0	SN	0		T	T	28.01	29.78	11.7	28	12.0	32	30	23	28	11
12	51	31	41	2	27	36	24	0		0		0.0	0.00	28.22	30.00	9.0	22	9.4	30	22	22	22	12
13	58	41	50	11	30	41	15	0		0		0.0	0.00	28.21	29.94	9.4	19	9.7	28	22	21	20	13
14	56	50	53	15	42	47	12	0	RA BR VCTS	0		0.0	0.31	28.05	29.78	8.2	19	9.5	33	32	22	24	14
15	54	47	51	13	48	50	14	0	RA	0		0.0	0.09	28.09	29.85	4.5	23	5.5	18	18	13	17	15
16	51	38	45	8	44	46	20	0	RA BR HZ	0		0.0	0.13	28.12	29.85	2.4	24	5.9	26	32	18	32	16
17	38	28	33	-4	24	30	32	0	SN BR	0		0.2	T	28.16	29.95	7.2	29	7.5	22	28	15	27	17
18	39	24*	32*	-4	19	27	33	0		T		0.0	0.00	28.46	30.29	8.1	25	10.0	25	28	18	28	18
19	50	33	42	6	18	32	23	0		0		0.0	0.00	28.47	30.24	9.4	18	9.7	23	21	16	22	19
20	61	41	51	15	37	44	14	0	RA	0		0.0	0.01	28.33	30.09	7.9	24	12.2	26	23	18	24	20
21	42	28	35	-1	27	33	30	0		0		0.0	0.00	28.51	30.31	5.5	35	6.3	18	35	14	35	21
22	40	25	33	-2	29	32	32	0	RA BR	0		0.0	0.94	28.48	30.23	7.5	11	8.8	35*	12	29*	13	22
23	42	33	38	3	35	37	27	0	RA SN BR	0		T	0.57	28.05	29.83	5.0	35	12.8	30	35	24	34	23
24	50	27	39	5	31	35	26	0	BR	0		0.0	0.00	28.37	30.16	6.8	25	7.2	17	25	13	26	24
25	57	36	47	13	32	39	18	0		0		0.0	0.00	28.37	30.14	9.6	23	9.8	20	25	15	24	25
26	60	44	52	18	31	42	13	0		0		0.0	0.00	28.40	30.17	6.4	22	6.9	15	25	12	23	26
27	59	42	51	18	37	45	14	0		0		0.0	0.00	28.32	30.05	7.4	18	7.7	28	18	17	20	27
28	59	52	56	23	48	51	9	0		0		0.0	0.00	28.30	30.05	5.2	19	6.2	23	16	14	19	28
29	63	46	55	22	52	54	10	0	RA BR	0		0.0	0.84	28.10	29.78	9.8	15	10.6	30	16	24	15	29
30	46	29	38	6	31	34	27	0	RA SN BR UP	0		T	0.06	27.91	29.71	8.6	25	12.1	32	31	23	30	30
	52.4	36.3	44.4	¤	33.5	39.7	20.3	0.0	< MONTHLY AVERAGES | TOTALS >			0.2	3.08	28.32	30.07	4.0	22	8.2	< MONTHLY AVERAGES				
	8.1	5.4	6.8		<---------- DEPARTURE FROM NORMAL ---------->								-0.24	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING :	610	-202	1226	-367
COOLING :	0	0	525	129

GREATEST 24-HR PRECIPITATION :	1.51	DATE :	22-23
GREATEST 24-HR SNOWFALL :	0.2	DATE :	17
GREATEST SNOW DEPTH :	T	DATE :	18

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM :	30.50	06	0753
MIMIMUM :	29.50	30	0153

NUMBER OF -> DAYS WITH					
MAXIMUM TEMP >= 90 :	0	MINIMUM TEMP <= 32 :	11	PRECIPITATION >= 0.01 INCH:	9
MAXIMUM TEMP <= 32 :	0	MINIMUM TEMP <= 0 :	0	PRECIPITATION >= 0.10 INCH:	6
THUNDERSTORMS :	0	HEAVY FOG :	0	SNOWFALL >= 1.0 INCH :	0

NOVEMBER 2011
BINGHAMTON, NY

DECEMBER 2011
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

BINGHAMTON, NY
GREATER BINGHAMTON/E A LINK FIELD AP (KBGM)
Lat:42° 12'N Long: 75° 58'W Elev (Ground) 1595 Feet
Time Zone : EASTERN WBAN: 04725 ISSN#: 0198-3563

Date	Temperature °F MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	Deg Days BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0700 LST DEPTH	1300 LST WATER-EQUIV	PRECIPITATION ON GND(IN) 2400 LST SNOW-FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 3-SEC SPEED	DIR	2-MIN 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
01	44	27	36	4	26	31	29	0		0		0.0	0.00	28.43	30.24	4.0	31	5.8	21	34	15	34	01
02	40	29	35	4	26	30	30	0	SN BR	0		T	0.02	28.53	30.36	5.4	26	7.1	18	22	14	24	02
03	41	25	33	2	23	29	32	0		0		0.0	0.00	28.77	30.59	4.7	17	5.4	18	16	12	18	03
04	49	32	41	10	31	37	24	0		0		0.0	0.00	28.61	30.39	9.6	18	9.7	26	17	18	19	04
05	52	41	47*	16	38	43	18	0	HZ	0		0.0	0.00	28.48	30.24	6.5	18	6.7	20	22	14	20	05
06	53*	36	45	14			20	0	RA BR	0		0.0	0.28	28.27		3.3	28	6.1	20	19	14	18	06
07	37	30	34	4			31	0	RA SN BR	0		3.8	0.70	28.09		7.2	34	7.7	29	32	20	33	07
08	34	25	30	1	23	27	35	0	SN BR UP	3		0.1	T	28.22	30.07	8.5	27	10.3	29	31	21	31	08
09	36	27	32	3	25	29	33	0	BR	2		0.0	0.00	28.44	30.24	5.6	21	6.2	18	21	13	21	09
10	33	20	27	-2	16	23	38	0	SN	1		T	T	28.51	30.35	6.9	31	8.0	22	31	16	31	10
11	32	16	24	-4	12	21	41	0		1		0.0	0.00	28.72	30.57	4.6	21	4.8	17	23	13	23	11
12	37	21	29	1	14	24	36	0		1		0.0	0.00	28.69	30.50	4.3	20	4.9	13	18	9	20	12
13	42	22	32	4	22	28	33	0	HZ	1		0.0	0.00	28.61	30.42	3.0	29	3.4	12	34	9	35	13
14	44	31	38	11	30	34	27	0	RA BR HZ	T		0.0	T	28.56	30.33	5.2	19	5.9	24	20	16	18	14
15	49	39	44	17	38	41	21	0	RA BR	T		0.0	0.11	28.17	29.88	10.3	19	11.3	30	21	20	22	15
16	46	30	38	11	24	31	27	0	RA SN	0		T	T	28.25	30.06	11.4	29	12.0	51*	29	32*	29	16
17	31	14	23	-3	17	22	42	0	SN BR	T		0.7	0.04	28.35	30.16	7.2	32	8.1	23	35	17	35	17
18	26	12	19	-7	10	17	46	0		T		0.0	0.00	28.41	30.24	0.9	24	2.6	12	19	8	19	18
19	42	23	33	7	25	31	32	0	RA BR	T		0.0	T	28.25	30.01	9.8	22	10.4	28	22	20	22	19
20	38	30	34	8	26	30	31	0	RA SN BR	T		T	0.02	28.33	30.13	1.3	30	5.4	28	31	17	32	20
21	47	35	41	16			24	0	RA BR	0		0.0	0.95	28.11		6.7	19	8.3	25	28	20	26	21
22	47	40	44	19	38	41	21	0	RA BR	0		0.0	0.19	28.23	30.01	5.0	26	5.4	26	28	21	28	22
23	40	20	30	5	27	29	35	0	RA SN BR	0		T	0.41	28.27	30.09	7.3	32	7.6	24	33	16	32	23
24	27	18	23	-2	13	18	42	0	SN BR HZ	T		T	T	28.56	30.39	2.3	35	5.4	14	35	10	35	24
25	39	20	30	6	21	27	35	0	SN BR	0		1.0	0.04	28.33	30.10	8.0	20	9.4	26	27	18	27	25
26	34	28	31	7	26	30	34	0	SN BR	1		0.3	0.02	28.35	30.16	5.6	29	7.8	23	32	15	32	26
27	43	27	35	11	29	33	30	0	RA BR	0		0.0	0.30	28.02	29.70	9.3	17	11.8	28	21	21	25	27
28	39	15	27	3	20	24	38	0	RA SN BR UP	T		0.8	0.01	27.81	29.63	14.6	29	15.0	33	28	25	28	28
29	27	10*	19*	-5	12	18	46	0	SN BR	1		0.4	0.02	28.14	29.96	4.3	23	6.9	22	30	14	29	29
30	42	27	35	12	29	33	30	0	RA SN BR	1		T	T	28.15	29.93	7.0	17	7.3	22	17	15	16	30
31	46	36	41	18	34	38	24	0	RA	0		0.0	T	28.10	29.89	3.0	23	5.8	22	17	13	26	31
	39.9	26.0	33.0	¤	24.1	29.3	31.8	0.0	< MONTHLY AVERAGES | TOTALS >			7.1	3.11	28.35	30.13	3.6	24	7.5	< MONTHLY AVERAGES				
	6.5	5.2	5.9		<---------- DEPARTURE FROM NORMAL ---------->								0.08	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING :	985	-176	2211	-543
COOLING :	0	0	525	129

GREATEST 24-HR PRECIPITATION :	0.95	DATE :	21
GREATEST 24-HR SNOWFALL :	3.8	DATE :	07
GREATEST SNOW DEPTH :	3	DATE :	08

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM :	30.66	03	1031
MIMIMUM :	29.29	27	2053

NUMBER OF DAYS WITH ->

MAXIMUM TEMP >= 90 :	0	MINIMUM TEMP <= 32 :	25	PRECIPITATION >= 0.01 INCH:	14
MAXIMUM TEMP <= 32 :	5	MINIMUM TEMP <= 0 :	0	PRECIPITATION >= 0.10 INCH:	7
THUNDERSTORMS :	0	HEAVY FOG :	0	SNOWFALL >= 1.0 INCH :	2

DECEMBER 2011
BINGHAMTON, NY

JANUARY 2012
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

BINGHAMTON, NY
GREATER BINGHAMTON/E A LINK FIELD AP (KBGM)
Lat:42° 12'N Long: 75° 58'W Elev (Ground) 1595 Feet
Time Zone : EASTERN WBAN: 04725 ISSN#: 0198-3563

Date	Temperature °F MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	Deg Days BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0700 LST DEPTH	1300 LST WATER-EQUIV	PRECIPITATION ON GND(IN) 2400 LST SNOW-FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 3-SEC SPEED	DIR	2-MIN 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
01	47	36	42	19	34	38	23	0	RA	0		0.0	0.02	28.12	29.85	7.8	21	10.2	38	26	31	26	01
02	36	21	29	6	19	25	36	0	SN BR	T		1.6	0.05	27.93	29.72	11.8	27	12.6	40	27	31	27	02
03	21	1	11	-12	2	8	54	0	SN BR UP HZ	1		0.7	0.02	28.17	30.03	11.0	32	11.6	28	32	21	32	03
04	20	-1	10	-13	2	9	55	0		1		0.0	0.00	28.25	30.07	6.7	22	7.5	17	21	12	22	04
05	29	20	25	2	19	24	40	0	SN	1		0.2	0.01	28.09	29.89	5.7	25	6.7	23	29	17	29	05
06	49	27	38	15	25	33	27	0		1		0.0	0.00	28.00	29.76	8.6	21	8.9	22	23	16	21	06
07	50	35	43*	21	28	36	22	0		0		0.0	0.00	28.02	29.80	7.5	26	9.2	25	33	20	25	07
08	36	20	28	6	20	25	37	0	SN BR	0		0.2	0.01	28.40	30.22	6.5	32	7.0	29	30	20	30	08
09	37	20	29	7	17	24	36	0		T		0.0	0.00	28.38	30.15	6.3	20	6.4	18	20	14	20	09
10	37	29	33	11	23	29	32	0	SN	0		T	T	28.13	29.92	5.8	27	7.4	29	32	20	30	10
11	43	27	35	13	25	31	30	0	RA SN BR	0		T	0.20	28.19	29.94	7.7	16	9.3	28	13	21	13	11
12	39	34	37	15	35	36	28	0	RA BR	0		0.0	0.38	27.79	29.51	11.0	14	11.5	29	11	23	12	12
13	38	18	28	6			37	0	RA SN BR HZ	1		5.5	0.39	27.66		13.1	25	17.0	39	26	29	26	13
14	21	7	14	-8	11	15	51	0	SN BR UP HZ	5		1.7	0.02	28.10	29.96	9.8	29	9.8	29	26	24	26	14
15	12	-3*	5*	-17	0	4	60	0	SN BR HZ	4		T	T	28.51	30.42	5.5	33	6.1	26	34	18	33	15
16	29	1	15	-7	8	15	50	0	SN	4		T	0.02	28.52	30.32	9.5	17	9.8	29	18	21	18	16
17	46	29	38	16	33	35	27	0	RA BR	2		0.0	0.20	27.99	29.71	8.5	20	10.3	48*	27	33	28	17
18	39	11	25	3	12	18	40	0	SN HZ	T		0.3	0.01	28.15	29.99	10.3	31	11.1	46	28	33*	28	18
19	24	7	16	-6	9	15	49	0	SN BR	T		1.0	0.03	28.22	30.03	8.5	18	9.2	31	17	22	20	19
20	22	9	16	-6	4	12	49	0	SN BR HZ	1		0.1	T	28.33	30.19	3.8	32	6.9	30	32	20	31	20
21	22	11	17	-5			48	0	SN BR	4		3.1	0.41	28.33		3.7	05	6.7	17	36	14	36	21
22	29	4	17	-5	11	16	48	0	SN	4		T	T	28.56	30.40	7.8	15	9.2	22	15	17	15	22
23	46	29	38	16	36	37	27	0	RA BR	3		0.0	0.10	28.27	30.01	12.5	17	12.9	29	16	21	16	23
24	42	29	36	14	31	34	29	0	RA SN GS PL BR	T		T	0.01	28.20	30.00	8.6	26	10.1	26	28	20	28	24
25	30	27	29	7	22	26	36	0	SN	T		T	T	28.47	30.28	5.6	32	5.9	31	31	20	29	25
26	36	26	31	9	28	30	34	0	RA FZRA SN BR	T		0.4	0.38	28.29	30.03	6.6	15	7.5	23	17	17	16	26
27	50	33	42	20			23	0	RA SN BR UP	0		0.1	0.66	27.81		6.2	25	13.0	37	31	25	28	27
28	41	28	35	13	22	29	30	0	RA SN BR UP	T		0.3	0.02	28.13	29.92	8.7	25	11.6	37	28	26	28	28
29	38	23	31	9	15	25	34	0	SN HZ	T		1.1	0.03	28.22	30.01	11.2	23	12.1	39	26	29	26	29
30	29	20	25	3	14	22	40	0	SN BR	2		0.9	0.07	28.35	30.18	6.5	26	8.8	29	34	22	34	30
31	54*	29	42	19	24	35	23	0		1		0.0	0.00	28.27	30.02	10.2	22	10.6	28	25	22	25	31
	35.2	19.6	27.4	¤	18.9	24.5	37.3	0.0	< MONTHLY AVERAGES | TOTALS >			17.2	3.04	28.19	30.01	4.7	23	9.6	< MONTHLY AVERAGES				
	6.5	3.9	5.2		<---------- DEPARTURE FROM NORMAL ---------->								0.59	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING :	1155	-172	3366	-719
COOLING :	0	0	0	0

GREATEST 24-HR PRECIPITATION : 0.99 DATE : 26-27
GREATEST 24-HR SNOWFALL : 5.5 DATE : 13
GREATEST SNOW DEPTH : 5 DATE : 14

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM :	30.59	15	2253
MIMIMUM :	29.17	13	0453

NUMBER OF DAYS WITH ->

MAXIMUM TEMP >= 90 :	0	MINIMUM TEMP <= 32 :	27	PRECIPITATION >= 0.01 INCH:	21
MAXIMUM TEMP <= 32 :	12	MINIMUM TEMP <= 0 :	2	PRECIPITATION >= 0.10 INCH:	8
THUNDERSTORMS :	0	HEAVY FOG :	0	SNOWFALL >= 1.0 INCH :	6

FEBRUARY 2012
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

BINGHAMTON, NY
GREATER BINGHAMTON/E A LINK FIELD AP (KBGM)
Lat:42° 12'N Long: 75° 58'W Elev (Ground) 1595 Feet
Time Zone : EASTERN WBAN: 04725 ISSN#: 0198-3563

Date	Temperature °F MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	Deg Days BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0700 LST DEPTH	1300 LST WATER-EQUIV	PRECIPITATION ON GND(IN) 2400 LST SNOW-FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 3-SEC SPEED	DIR	2-MIN 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
01	55*	36	46*	23	34	40	19	0	RA	0		0.0	0.03	28.17	29.93	8.4	26	11.5	35	27	24	26	01
02	36	26	31	8	24	28	34	0	SN	0		T	T	28.33	30.14	8.8	33	9.0	26	34	18	34	02
03	36	25	31	8	20	27	34	0	SN	0		T	T	28.59	30.41	6.3	31	7.1	22	33	16	32	03
04	37	26	32	9	22	28	33	0		0		0.0	0.00	28.46	30.24	5.5	33	6.2	16	34	12	01	04
05	33	20	27	4	16	23	38	0	SN	0		T	T	28.36	30.17	4.0	34	6.0	14	30	10	33	05
06	50	23	37	14	21	30	28	0		0		0.0	0.00	28.27	30.04	8.0	24	8.4	23	25	16	25	06
07	35	25	30	7	24	29	35	0	SN BR UP	0		T	T	28.32	30.13	7.3	31	8.0	24	32	16	31	07
08	31	22	27	3	17	23	38	0	SN	0		T	T	28.43	30.21	1.5	27	3.2	10	35	8	26	08
09	41	18	30	6	15	25	35	0		0		0.0	0.00	28.32	30.12	5.9	26	6.5	16	27	13	26	09
10	33	21	27	3	18	25	38	0	SN BR	0		0.2	0.02	28.25	30.02	6.2	24	6.7	18	24	14	24	10
11	33	11	22	-2	18	22	43	0	SN BR	T		0.9	0.05	27.99	29.79	6.8	33	8.1	35	33	25	34	11
12	22	11*	17*	-7			48	0	SN BR UP	1		2.4	0.06	28.06		10.1	29	11.0	40	32	25	33	12
13	39	21	30	6	12	23	35	0		2		0.0	0.00	28.15	29.96	12.6	27	12.8	28	26	22	26	13
14	34	26	30	5	22	28	35	0	SN BR HZ	T		0.1	0.02	28.22	30.02	5.3	19	6.1	15	22	10	20	14
15	35	29	32	7	28	31	33	0	RA FZRA SN BR	T		T	T	28.37	30.18	1.8	29	4.0	13	33	9	33	15
16	35	26	31	6			34	0	RA FZRA SN BR	T		1.0	0.28	28.35		6.2	17	6.7	17	21	12	17	16
17	40	30	35	10	24	31	30	0	SN BR	T		T	T	28.22	30.01	9.1	29	9.7	28	32	22	28	17
18	38	24	31	6	22	27	34	0	SN BR	T		0.4	0.04	28.20	29.99	6.8	25	8.9	32	26	25	27	18
19	31	25	28	2	20	25	37	0	SN	T		T	T	28.29	30.09	6.6	35	7.4	22	01	17	01	19
20	33	23	28	2	13	23	37	0		T		0.0	0.00	28.41	30.25	8.6	35	8.8	23	33	18	35	20
21	39	18	29	3	17	26	36	0	SN	T		0.1	T	28.32	30.06	9.8	18	10.4	36	19	23	21	21
22	48	35	42	16	28	36	23	0	RA SN	0		T	T	27.89	29.60	10.8	22	11.8	31	25	22	27	22
23	42	31	37	11	27	32	28	0	RA SN BR	T		0.4	0.03	27.80	29.58	3.7	31	6.6	22	27	17	28	23
24	37	30	34	7	30	32	31	0	RA FZRA SN BR	2		1.9	0.33	27.77	29.48	7.4	18	13.5	44*	25	31	26	24
25	33	22	28	1			37	0	RA FZRA SN UP	T		2.5	0.12	27.83		17.2	28	18.1	43	29	32*	27	25
26	32	20	26	-1	13	22	39	0	RA FZRA SN UP	2		T	T	28.51	30.36	5.4	31	8.5	32	31	22	29	26
27	47	24	36	9	20	30	29	0		1		0.0	0.00	28.41	30.20	6.7	22	10.3	36	32	25	30	27
28	33	26	30	2	18	26	35	0	SN HZ	T		T	T	28.58	30.38	7.9	32	9.6	32	30	24	33	28
29	32	27	30	2			35	0	RA FZRA SN BR UP	0		1.7	0.27	28.30		10.3	13	11.2	25	13	21	14	29
	36.9	24.2	30.6	¤			34.2	0.0	< MONTHLY AVERAGES | TOTALS >			11.6	1.25	28.25	30.03	4.3	27	8.8	< MONTHLY AVERAGES				
	4.8	6.8	5.9		<---------- DEPARTURE FROM NORMAL ---------->								-1.06	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING :	991	-136	4357	-884
COOLING :	0	0	0	0

GREATEST 24-HR PRECIPITATION : 0.33 DATE : 24
GREATEST 24-HR SNOWFALL : 2.5 DATE : 25
GREATEST SNOW DEPTH : 2 DATE : 26+

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM :	30.49	03	0853
MIMIMUM :	29.35	24	1953

NUMBER OF -> DAYS WITH

MAXIMUM TEMP >= 90 :	0	MINIMUM TEMP <= 32 :	27	PRECIPITATION >= 0.01 INCH:	11
MAXIMUM TEMP <= 32 :	5	MINIMUM TEMP <= 0 :	0	PRECIPITATION >= 0.10 INCH:	4
THUNDERSTORMS :	0	HEAVY FOG :	0	SNOWFALL >= 1.0 INCH :	5

MARCH 2012
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

BINGHAMTON, NY
GREATER BINGHAMTON/E A LINK FIELD AP (KBGM)
Lat:42° 12'N Long: 75° 58'W Elev (Ground) 1595 Feet
Time Zone : EASTERN WBAN: 04725 ISSN#: 0198-3563

Date	Temperature °F MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	Deg Days BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0700 LST DEPTH	1300 LST WATER-EQUIV	PRECIPITATION ON GND(IN) 2400 LST SNOW-FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 3-SEC SPEED	DIR	2-MIN 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
01	36	32	34	6	31	33	31	0	RA FZRA SN BR UP VCTS	1		0.5	0.55	27.96	29.76	3.1	16	5.5	21	15	15	12	01
02	38	32	35	7	30	32	30	0	RA SN BR UP	T		0.2	0.15	28.15	29.90	10.1	17	11.0	32	17	23	14	02
03	49	31	40	11	27	35	25	0	RA BR	T		0.0	T	27.78	29.52	12.0	25	16.9	41*	24	32*	24	03
04	36	19	28	-1	18	25	37	0	SN BR	0		1.8	0.08	27.91	29.66	8.6	28	9.4	28	29	21	30	04
05	25	14	20*	-9	8	16	45	0	SN	1		T	T	28.22	30.10	9.2	31	9.4	24	31	16	31	05
06	37	13*	25	-4	11	22	40	0		T		0.0	0.00	28.66	30.50	5.2	21	7.3	21	18	14	18	06
07	61	30	46	16	22	36	19	0		0		0.0	0.00	28.56	30.33	9.6	20	10.4	26	22	21	22	07
08	58	32	45	15	41	47	20	0	RA SN BR	0		0.6	0.52	28.27	29.99	10.9	22	13.8	36	33	29	33	08
09	35	22	29	-1	20	26	36	0	SN BR	1		0.7	0.06	28.32	30.13	10.8	29	11.8	37	27	26	26	09
10	30	17	24	-7	12	21	41	0	SN BR HZ	1		0.3	T	28.63	30.47	4.4	28	7.8	25	30	20	29	10
11	60	29	45	14	18	35	20	0		0		0.0	0.00	28.58	30.36	9.7	22	10.1	25	24	17	24	11
12	63	40	52	21	28	42	13	0	RA	0		0.0	T	28.48	30.20	5.9	20	6.9	18	20	13	20	12
13	69	51	60	28	44	51	5	0		0		0.0	0.00	28.22	29.96	5.9	25	9.1	31	24	24	25	13
14	60	40	50	18	27	40	15	0		0		0.0	0.00	28.38	30.15	5.3	32	6.7	25	28	17	27	14
15	71	37	54	22	33	44	11	0		0		0.0	0.00	28.43	30.17	7.1	14	8.4	21	15	17	15	15
16	65	42	54	21	46	49	11	0	RA BR HZ	0		0.0	0.07	28.38	30.14	0.9	20	7.6	18	35	14	15	16
17	71	43	57	24			8	0	BR	0		0.0	0.00	28.51		2.3	17	3.8	13	19	10	22	17
18	74	48	61	28	46	53	4	0	BR HZ	0		0.0	0.00	28.49	30.22	6.3	20	6.9	18	18	13	20	18
19	73	53	63	29	51	55	2	0	RA BR HZ VCTS	0		0.0	0.02	28.45	30.18	3.0	18	3.7	23	18	16	18	19
20	72	51	62	28	50	55	3	0	BR	0		0.0	0.00	28.51	30.26	4.3	18	5.2	28	32	13	22	20
21	74	51	63	28	51	55	2	0		0		0.0	0.00	28.56	30.29	5.4	17	5.9	18	14	13	11	21
22	76*	50	63*	28	51	56	2	0	BR HZ	0		0.0	0.00	28.46	30.18	1.5	25	4.8	15	22	12	25	22
23	71	53	62	27	46	53	3	0		0		0.0	0.00	28.38	30.10	5.2	06	5.8	15	07	12	04	23
24	61	45	53	17	34	45	12	0	RA	0		0.0	0.01	28.27	29.99	7.1	13	8.5	22	14	17	14	24
25	56	41	49	13	41	44	16	0	RA BR	0		0.0	0.01	28.12	29.85	2.4	25	4.9	20	19	15	18	25
26	47	25	36	-1	17	28	29	0	RA SN BR	0		T	T	28.22	30.03	17.5	34	17.9	38	32	29	34	26
27	44	18	31	-6	4	24	34	0		0		0.0	0.00	28.47	30.25	4.5	34	8.0	28	35	22	35	27
28	69	39	54	17	31	42	11	0	RA BR VCTS	0		0.0	0.03	28.02	29.72	7.0	26	11.7	32	35	24	34	28
29	43	32	38	0	30	34	27	0	RA SN BR	0		T	0.03	28.11	29.91	11.1	32	11.4	29	30	21	33	29
30	48	28	38	0	20	32	27	0	RA SN BR	0		T	0.02	28.25	30.02	2.4	03	6.5	21	35	15	35	30
31	39	34	37	-2	34	35	28	0	RA SN BR	0		T	0.13	28.12	29.88	5.0	10	6.5	20	11	16	11	31
	55.2	35.2	45.2	¤	30.7	38.8	19.6	0.0	< MONTHLY AVERAGES | TOTALS >			4.1	1.68	28.32	30.08	2.7	24	8.5	< MONTHLY AVERAGES				
	14.1	10.6	12.4		<---------- DEPARTURE FROM NORMAL ---------->								-1.31	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING :	607	-390	4964	-1274
COOLING :	0	0	0	-1

GREATEST 24-HR PRECIPITATION : 0.55 DATE : 01
GREATEST 24-HR SNOWFALL : 1.8 DATE : 04
GREATEST SNOW DEPTH : 1 DATE : 10+

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM :	30.60	06	1033
MIMIMUM :	29.44	03	1453

NUMBER OF DAYS WITH ->

MAXIMUM TEMP >= 90 :	0	MINIMUM TEMP <= 32 :	15	PRECIPITATION >= 0.01 INCH:	13
MAXIMUM TEMP <= 32 :	2	MINIMUM TEMP <= 0 :	0	PRECIPITATION >= 0.10 INCH:	4
THUNDERSTORMS :	0	HEAVY FOG :	0	SNOWFALL >= 1.0 INCH :	1

MARCH 2012
BINGHAMTON, NY

APRIL 2012
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

BINGHAMTON, NY
GREATER BINGHAMTON/E A LINK FIELD AP (KBGM)
Lat:42° 12'N Long: 75° 58'W Elev (Ground) 1595 Feet
Time Zone : EASTERN WBAN: 04725 ISSN#: 0198-3563

Date	Temperature °F MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	Deg Days BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0700 LST DEPTH	1300 LST WATER-EQUIV	PRECIPITATION ON GND(IN) 2400 LST SNOW-FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 3-SEC SPEED	DIR	2-MIN 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
01	41	34	38	-1	34	36	27	0	RA SN BR UP	0		T	0.42	28.04	29.77	3.2	30	5.6	17	34	14	27	01
02	48	32	40	1	22	32	25	0	RA SN BR	0		T	T	28.09	29.87	11.8	34	12.2	35	36	23	31	02
03	54	29	42	2	18	33	23	0	RA	0		0.0	T	28.18	29.92	6.0	32	6.9	23	34	20	35	03
04	56	34	45	5	24	36	20	0		0		0.0	0.00	28.00	29.74	9.8	32	10.4	43	34	31*	34	04
05	41	30	36	-5	23	30	29	0		0		0.0	0.00	28.13	29.92	9.2	34	9.4	24	35	18	35	05
06	47	28	38	-3	18	30	27	0	SN	0		T	T	28.27	30.06	9.1	34	9.5	29	33	24	35	06
07	51	30	41	-1	15	31	24	0		0		0.0	0.00	28.35	30.12	9.6	32	10.0	35	31	25	33	07
08	58	33	46	4	21	36	19	0		0		0.0	0.00	28.14	29.86	12.8	30	13.2	43*	28	30	28	08
09	54	36	45	3	20	35	20	0		0		0.0	0.00	27.95	29.69	14.2	29	14.6	37	31	28	28	09
10	52	35	44	1	24	35	21	0	RA SN	0		T	T	27.96	29.71	9.1	28	9.9	31	26	22	29	10
11	44	33	39	-4	30	34	26	0	RA SN BR	0		T	0.08	28.12	29.91	8.1	33	9.2	25	34	20	35	11
12	50	34	42	-2	29	36	23	0	RA	0		0.0	T	28.32	30.11	9.0	33	9.2	26	33	21	35	12
13	57	34	46	2	25	37	19	0		0		0.0	0.00	28.43	30.20	6.1	32	6.6	21	31	15	30	13
14	66	39	53	8	30	43	12	0	RA	0		0.0	0.01	28.36	30.11	8.5	23	8.8	30	22	22	23	14
15	64	50	57	12	52	54	8	0	RA BR	0		0.0	0.06	28.26	29.99	6.2	20	6.8	17	21	14	21	15
16	83*	59	71*	26	51	60	0	6	RA	0		0.0	T	28.22	29.93	9.2	21	10.6	33	23	22	22	16
17	64	37	51	5	34	44	14	0		0		0.0	0.00	28.43	30.19	8.6	32	9.4	28	07	16	01	17
18	55	31	43	-3	26	36	22	0		0		0.0	0.00	28.48	30.23	1.6	35	4.3	17	21	9	03	18
19	70	39	55	8	35	46	10	0		0		0.0	0.00	28.30	30.03	5.5	22	6.5	20	23	14	22	19
20	74	51	63	16	41	52	2	0		0		0.0	0.00	28.17	29.87	8.9	19	9.2	29	16	21	15	20
21	64	37	51	4	44	47	14	0	RA BR	0		0.0	0.37	28.04	29.77	4.4	32	10.0	23	36	18	35	21
22	41	34	38	-10	36	37	27	0	RA SN BR	0		T	0.77	28.07	29.79	10.6	36	11.2	31	01	22	02	22
23	39	32	36	-12	33	34	29	0	RA SN BR UP	T		0.4	0.72	27.59	29.30	6.9	32	10.6	28	01	20	01	23
24	45	32	39	-10	30	34	26	0	RA SN BR	0		T	0.02	27.68	29.46	12.2	23	12.6	36	24	24	24	24
25	52	33	43	-6	27	36	22	0		0		0.0	0.00	28.04	29.81	5.3	28	8.3	30	28	20	27	25
26	55	31	43	-6	36	40	22	0	RA BR	0		0.0	0.10	28.02	29.75	4.4	16	10.4	26	29	20	32	26
27	40	30	35*	-15	25	30	30	0	RA SN BR UP	T		0.3	0.10	28.19	30.02	11.1	31	11.3	31	31	22	31	27
28	50	26*	38	-12	20	32	27	0		0		0.0	0.00	28.42	30.21	6.0	33	6.8	17	33	14	28	28
29	53	29	41	-9	15	32	24	0		0		0.0	0.00	28.43	30.23	8.5	32	9.1	33	34	26	34	29
30	62	29	46	-5	22	38	19	0	RA	0		0.0	T	28.46	30.21	5.5	17	6.3	31	20	21	19	30
	54.3	34.7	44.5	¤	28.7	37.9	20.4	0.2	< MONTHLY AVERAGES | TOTALS >			0.7	2.65	28.17	29.93	5.2	30	9.3	< MONTHLY AVERAGES				
	0.1	-1.2	-0.6		<---------- DEPARTURE FROM NORMAL ---------->								-0.78	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING :	611	8	5575	-1280
COOLING :	6	2	6	1

GREATEST 24-HR PRECIPITATION : 1.46 DATE : 22-23
GREATEST 24-HR SNOWFALL : 0.4 DATE : 23
GREATEST SNOW DEPTH : T DATE : 27+

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM :	30.34	30	0653
MIMIMUM :	29.23	23	1141

NUMBER OF DAYS WITH ->

MAXIMUM TEMP >= 90 :	0	MINIMUM TEMP <= 32 :	13	PRECIPITATION >= 0.01 INCH:	10
MAXIMUM TEMP <= 32 :	0	MINIMUM TEMP <= 0 :	0	PRECIPITATION >= 0.10 INCH:	6
THUNDERSTORMS :	0	HEAVY FOG :	0	SNOWFALL >= 1.0 INCH :	0

APRIL 2012
BINGHAMTON, NY

MAY 2012
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

BINGHAMTON, NY
GREATER BINGHAMTON/E A LINK FIELD AP (KBGM)
Lat:42° 12'N Long: 75° 58'W Elev (Ground) 1595 Feet
Time Zone : EASTERN WBAN: 04725 ISSN#: 0198-3563

Date	Temperature °F MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	Deg Days BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0700 LST DEPTH	1300 LST WATER-EQUIV	PRECIPITATION ON GND(IN) 2400 LST SNOW-FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 3-SEC SPEED	DIR	2-MIN 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
01	63	48	56	5	49	51	9	0	RA BR	0		0.0	0.20	28.27	30.02	2.0	27	6.4	21	21	15	21	01
02	60	49	55	4	51	53	10	0	TSRA RA BR	0		0.0	0.17	28.33	30.06	7.2	15	8.4	20	18	15	15	02
03	79	50	65	13			0	0	TS TSRA RA BR HZ VCTS	0		0.0	0.50	28.32		4.4	18	5.8	33*	30	21	29	03
04	78	59	69	17	58	61	0	4	TS TSRA RA BR VCTS	0		0.0	0.42	28.24	29.94	4.8	30	7.8	26	30	18	31	04
05	65	49	57	5			8	0	BR	0		0.0	0.00	28.27		7.9	34	8.1	18	34	14	35	05
06	69	43	56	3	40	48	9	0		0		0.0	0.00	28.33	30.07	3.9	36	5.9	18	36	14	35	06
07	61	47	54	1	46	49	11	0	RA BR HZ	0		0.0	0.47	28.32	30.04	7.2	16	8.3	26	17	17	19	07
08	58	49	54	1	52	53	11	0	RA BR	0		0.0	0.61	28.12	29.84	7.7	19	7.9	26	19	17	20	08
09	67	49	58	4			7	0	RA BR HZ	0		0.0	T	28.02		4.9	29	5.4	23	31	15	31	09
10	52	42	47*	-7	36	42	18	0	RA	0		0.0	T	27.94	29.70	10.4	31	11.2	31	32	23	31	10
11	62	37*	50	-4	30	42	15	0		0		0.0	0.00	28.25	30.03	9.0	29	9.9	32	29	25*	35	11
12	76	43	60	5	39	50	5	0		0		0.0	0.00	28.45	30.19	4.2	27	6.4	21	27	15	26	12
13	74	55	65	10	44	54	0	0	RA HZ	0		0.0	T	28.43	30.15	2.6	26	4.4	17	27	14	23	13
14	62	53	58	3	54	55	7	0	RA BR	0		0.0	0.76	28.38	30.10	4.6	17	5.5	16	17	13	18	14
15	67	57	62	6	57	58	3	0	RA BR	0		0.0	0.56	28.27	29.98	4.2	16	4.3	14	17	10	16	15
16	79	45	62	6			3	0	RA BR	0		0.0	T	28.17		5.0	29	8.5	32	28	22	34	16
17	62	40	51	-5	34	43	14	0		0		0.0	0.00	28.39	30.15	5.7	36	6.9	20	01	16	35	17
18	72	40	56	-1	35	47	9	0		0		0.0	0.00	28.46	30.20	0.2	09	1.8	14	36	9	34	18
19	80	49	65	8	42	53	0	0		0		0.0	0.00	28.45	30.17	2.2	04	3.8	16	01	12	34	19
20	82	53	68	11	48	57	0	3		0		0.0	0.00	28.48	30.21	3.9	14	5.3	20	16	14	15	20
21	69	54	62	5	52	57	3	0	RA	0		0.0	0.01	28.40	30.10	8.8	13	9.0	23	14	20	15	21
22	74	59	67	9	58	61	0	2	RA BR	0		0.0	0.08	28.19	29.90	2.2	07	4.4	15	35	12	36	22
23	74	57	66	8			0	1	BR	0		0.0	0.00	28.23		1.8	04	4.1	13	35	10	35	23
24	75	61	68	10	60	62	0	3	RA BR	0		0.0	0.01	28.36	30.10	9.4	15	9.4	25	13	18	15	24
25	78	61	70	11	61	64	0	5	RA HZ	0		0.0	0.01	28.40	30.11	8.8	18	9.3	25	19	17	20	25
26	79	63	71	12	55	61	0	6	BR	0		0.0	0.00	28.43	30.15	2.4	35	5.3	17	35	14	35	26
27	80	59	70	11	55	61	0	5		0		0.0	0.00	28.41	30.11	0.7	21	2.4	14	27	10	25	27
28	87*	63	75	16	65	69	0	10	BR	0		0.0	0.00	28.27	29.95	5.1	22	6.3	18	22	14	22	28
29	86	63	75*	15	65	67	0	10	TS TSRA RA BR HZ VCTS	0		0.0	0.33	28.09	29.78	6.0	23	7.7	32	32	23	31	29
30	74	57	66	6	57	61	0	1	RA BR	0		0.0	0.06	28.07	29.77	2.0	30	5.4	20	35	15	23	30
31	67	51	59	-1	45	52	6	0		0		0.0	0.00	28.18	29.92	5.9	34	7.4	23	28	16	33	31
	71.3	51.8	61.6	¤			4.8	1.6	< MONTHLY AVERAGES | TOTALS >			0.0	4.19	28.28	30.01	1.2	23	6.5	< MONTHLY AVERAGES				
	5.8	5.7	5.8		<---------- DEPARTURE FROM NORMAL ---------->								0.62	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING :	148	-157	5723	-1424
COOLING :	50	31	56	28

GREATEST 24-HR PRECIPITATION : 1.12 DATE : 14-15
GREATEST 24-HR SNOWFALL : 0.0 DATE :
GREATEST SNOW DEPTH : 0 DATE :

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM :	30.26	20	0924
MIMIMUM :	29.58	10	0448

NUMBER OF DAYS WITH ->

MAXIMUM TEMP >= 90 :	0	MINIMUM TEMP <= 32 :	0	PRECIPITATION >= 0.01 INCH:	14
MAXIMUM TEMP <= 32 :	0	MINIMUM TEMP <= 0 :	0	PRECIPITATION >= 0.10 INCH:	9
THUNDERSTORMS :	4	HEAVY FOG :	0	SNOWFALL >= 1.0 INCH :	0

MAY 2012
BINGHAMTON, NY

JUNE 2012
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

BINGHAMTON, NY
GREATER BINGHAMTON/E A LINK FIELD AP (KBGM)
Lat:42° 12'N Long: 75° 58'W Elev (Ground) 1595 Feet
Time Zone : EASTERN WBAN: 04725 ISSN#: 0198-3563

Date	Temperature °F MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	Deg Days BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0700 LST DEPTH	1300 LST WATER-EQUIV	PRECIPITATION ON GND(IN) 2400 LST SNOW-FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 3-SEC SPEED	DIR	2-MIN 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
01	65	46	56	-5	49	53	9	0	RA BR	0		0.0	0.61	28.18	29.88	12.1	13	13.3	43*	13	29*	14	01
02	64	52	58	-3	47	52	7	0	RA BR	0		0.0	0.10	28.02	29.75	6.0	24	7.4	23	13	17	11	02
03	61	50	56	-5	49	51	9	0	RA BR	0		0.0	0.33	28.02	29.72	6.4	25	7.6	29	27	21	25	03
04	56	47	52*	-10	49	50	13	0	RA BR	0		0.0	0.47	27.99	29.74	4.2	36	6.4	20	06	14	06	04
05	62	45	54	-8	46	49	11	0	RA BR	0		0.0	0.39	28.19	29.94	5.1	34	6.4	29	24	16	35	05
06	66	45*	56	-6			9	0	TS TSRA RA GS BR HZ VCTS	0		T	0.37	28.25		1.4	22	3.8			18	01	06
07	67	46	57	-5	50	54	8	0	TS BR	0		0.0	0.00	28.27	29.99	0.9	26	3.2			10	05	07
08	78	51	65	2	50	56	0	0	RA	0		0.0	T	28.22	29.92	6.6	27	7.5	28	22	18	28	08
09	72	57	65	2	55	59	0	0	RA	0		0.0	0.03	28.22	29.95	4.9	26	5.4	21	28	16	28	09
10	85	61	73	10	60	65	0	8	RA	0		0.0	T	28.35	30.08	1.4	23	4.4	14	35	9	14	10
11	82	63	73	9	62	65	0	8	BR HZ	0		0.0	0.00	28.42	30.12	10.6	15	10.7	29	16	18	15	11
12	65	61	63	-1	61	62	2	0	RA BR	0		0.0	0.69	28.25	29.95	7.4	17	9.4	26	14	17	33	12
13	68	51	60	-4	49	53	5	0		0		0.0	0.00	28.33	30.08	10.2	34	10.7	28	34	20	34	13
14	75	50	63	-1	50	55	2	0		0		0.0	0.00	28.49	30.24	5.6	06	6.6	17	08	13	07	14
15	78	52	65	0	53	58	0	0		0		0.0	0.00	28.54	30.28	1.1	12	2.9	17	14	12	14	15
16	78	56	67	2	55	60	0	2		0		0.0	0.00	28.53	30.26	4.3	17	4.6	13	15	9	14	16
17	75	56	66	1	53	58	0	1		0		0.0	0.00	28.40	30.11	8.1	18	8.1	24	19	20	18	17
18	66	57	62	-3	55	57	3	0	RA	0		0.0	T	28.34	30.07	8.8	17	9.0	21	18	15	17	18
19	83	60	72	6	64	66	0	7	RA BR VCTS	0		0.0	0.21	28.38	30.09	6.6	22	7.3	18	23	14	25	19
20	90	69	80*	14	67	71	0	15	BR	0		0.0	0.00	28.37	30.06	5.3	27	6.3	15	28	10	27	20
21	89	68	79	13	65	70	0	14		0		0.0	0.00	28.25	29.92	6.1	26	6.5	21	27	16	28	21
22	77	65	71	5	59	64	0	6	RA	0		0.0	T	28.17	29.87	6.7	34	7.5	21	32	16	36	22
23	77	59	68	2	51	58	0	3		0		0.0	0.00	28.25	29.97	7.0	32	7.4	24	35	20	36	23
24	77	56	67	0	54	59	0	2	RA	0		0.0	0.01	28.30	29.99	3.3	25	5.2	14	23	10	22	24
25	68	52	60	-7	51	55	5	0	TS TSRA RA BR VCTS	0		0.0	0.52	28.10	29.81	7.9	32	10.1	30	35	21	34	25
26	68	48	58	-9	45	52	7	0		0		0.0	0.00	28.09	29.80	10.3	32	11.0	35	36	23	34	26
27	76	53	65	-2	48	56	0	0		0		0.0	0.00	28.11	29.83	9.9	30	10.4	33	34	23	31	27
28	83	55	69	2	56	62	0	4		0		0.0	0.00	28.12	29.80	5.6	24	6.1	16	23	13	25	28
29	90*	68	79	12	59	66	0	14		0		0.0	0.00	28.04	29.72	7.0	29	8.0	25	28	18	27	29
30	85	63	74	6	58	64	0	9		0		0.0	0.00	28.09	29.78	7.5	25	7.8	23	27	17	25	30
	74.2	55.4	64.8	¤	54.1	58.6	3.0	3.1	< MONTHLY AVERAGES | TOTALS >			T	3.73	28.24	29.96	2.4	26	7.4	< MONTHLY AVERAGES				
	0.5	0.2	0.4		<---------- DEPARTURE FROM NORMAL ---------->								-0.58	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING :	90	-1	5813	-1382
COOLING :	93	19	149	52

GREATEST 24-HR PRECIPITATION : 0.76 DATE : 05-06
GREATEST 24-HR SNOWFALL : T DATE : 06
GREATEST SNOW DEPTH : 0 DATE :

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM :	30.34	16	0811
MIMIMUM :	29.64	04	0353

NUMBER OF DAYS WITH ->

MAXIMUM TEMP >= 90 :	2	MINIMUM TEMP <= 32 :	0	PRECIPITATION >= 0.01 INCH:	11
MAXIMUM TEMP <= 32 :	0	MINIMUM TEMP <= 0 :	0	PRECIPITATION >= 0.10 INCH:	9
THUNDERSTORMS :	3	HEAVY FOG :	0	SNOWFALL >= 1.0 INCH :	0

JUNE 2012
BINGHAMTON, NY

JULY 2012
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

BINGHAMTON, NY
GREATER BINGHAMTON/E A LINK FIELD AP (KBGM)
Lat:42° 12'N Long: 75° 58'W Elev (Ground) 1595 Feet
Time Zone : EASTERN WBAN: 04725 ISSN#: 0198-3563

Date	Temperature °F MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	Deg Days BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0700 LST DEPTH	1300 LST WATER-EQUIV	PRECIPITATION ON GND(IN) 2400 LST SNOW-FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 3-SEC SPEED	DIR	2-MIN 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
01	85	65	75	7	55	63	0	10		0		0.0	0.00	28.17	29.88	5.8	30	7.4	29	27	22	27	01
02	81	62	72	4	54	61	0	7		0		0.0	0.00	28.27	29.97	6.8	33	7.2	25	33	18	35	02
03	85	58	72	4	57	63	0	7	RA BR	0		0.0	0.05	28.24	29.93	4.1	26	4.7	21	24	17	25	03
04	87	65	76	8	66	69	0	11	TS RA BR VCTS	0		0.0	0.23	28.15	29.83	5.6	26	6.1	22	26	16	27	04
05	84	65	75	7	56	63	0	10		0		0.0	0.00	28.17	29.87	7.7	33	8.0	23	34	16	36	05
06	90	55	73	5	59	65	0	8		0		0.0	0.00	28.24	29.94	2.6	29	4.0	21	21	12	28	06
07	80	65	73	5	64	67	0	8	TS TSRA RA BR VCTS	0		0.0	0.45	28.20	29.90	3.9	29	5.3	21	34	16	34	07
08	82	62	72	3	59	64	0	7	BR	0		0.0	0.00	28.22	29.93	5.8	34	6.8	20	34	16	36	08
09	77	56	67	-2	51	58	0	2		0		0.0	0.00	28.28	30.00	4.4	35	5.5	18	01	14	35	09
10	80	55*	68	-1	52	59	0	3	RA	0		0.0	0.11	28.34	30.07	0.2	14	2.9	26	28	17	28	10
11	84	57	71	2	53	61	0	6		0		0.0	0.00	28.44	30.16	0.9	08	3.2	15	29	12	28	11
12	87	63	75	6	58	65	0	10		0		0.0	0.00	28.46	30.17	3.6	21	4.7	15	25	10	26	12
13	87	69	78	9	59	65	0	13	RA	0		0.0	T	28.48	30.19	6.3	23	6.4	25	11	13	22	13
14	85	67	76	7	60	65	0	11	RA	0		0.0	T	28.47	30.17	4.9	21	6.4	25	04	13	22	14
15	81	67	74	5	67	68	0	9	TS TSRA RA BR HZ VCTS	0		0.0	0.70	28.35	30.05	3.6	23	5.0	29	34	22	33	15
16	84	66	75	6			0	10	BR	0		0.0	0.00	28.23		6.0	29	6.7	24	29	15	35	16
17	91*	68	80*	11	62	68	0	15	RA	0		0.0	T	28.14	29.82	9.2	25	9.4	29	25	21	26	17
18	84	68	76	7	63	67	0	11		0		0.0	0.00	28.17	29.88	5.0	32	6.8	22	33	16	36	18
19	82	62	72	3	56	62	0	7	RA	0		0.0	0.05	28.26	29.97	3.3	03	4.3	15	02	13	36	19
20	66	57	62*	-7	58	60	3	0	RA BR	0		0.0	0.48	28.30	30.03	4.4	09	5.0	13	10	10	07	20
21	76	58	67	-2	57	61	0	2	BR	0		0.0	0.00	28.36	30.09	2.2	23	3.1	13	24	9	24	21
22	79	59	69	0	60	63	0	4	TS RA VCTS	0		0.0	0.01	28.40	30.11	4.8	21	5.7			12	25	22
23	87	67	77	8	65	68	0	12	TS TSRA RA BR VCTS	0		0.0	0.20	28.26	29.93	6.4	20	8.2	25	23	18	23	23
24	82	62	72	3	59	65	0	7	RA	0		0.0	T	28.06	29.76	8.7	32	11.3	35	35	24	34	24
25	79	57	68	-1	51	59	0	3	RA	0		0.0	0.01	28.19	29.89	2.9	32	5.5	29	22	14	34	25
26	83	62	73	4	64	66	0	8	TS TSRA RA BR VCTS	0		0.0	0.85	28.00	29.69	6.9	23	8.9	37*	35	29*	36	26
27	79	67	73	4	63	66	0	8	RA BR	0		0.0	0.01	28.10	29.81	3.9	31	6.5	31	28	15	32	27
28	79	63	71	2	62	65	0	6	RA	0		0.0	T	28.23	29.94	4.9	02	6.3	17	02	15	35	28
29	82	64	73	4	59	64	0	8	RA	0		0.0	0.01	28.30	30.02	5.8	36	6.8	17	33	13	36	29
30	82	57	70	1	58	63	0	5	BR	0		0.0	0.00	28.35	30.06	3.6	18	4.6	20	19	15	19	30
31	79	63	71	2	63	65	0	6	TS RA BR VCTS	0		0.0	0.34	28.27	29.97	5.6	17	7.0	22	29	15	30	31
	82.2	62.3	72.3	¤	59.0	63.9	0.1	7.5	< MONTHLY AVERAGES | TOTALS >			0.0	3.50	28.26	29.97	2.4	28	6.1	< MONTHLY AVERAGES				
	4.4	2.7	3.6		<---------- DEPARTURE FROM NORMAL ---------->								-0.20	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING :	3	-21	3	-21
COOLING :	234	96	383	148

GREATEST 24-HR PRECIPITATION : 0.86 DATE : 25-26
GREATEST 24-HR SNOWFALL : 0.0 DATE :
GREATEST SNOW DEPTH : 0 DATE :

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM :	30.23	14	0819
MIMIMUM :	29.64	26	1353

NUMBER OF DAYS WITH ->

MAXIMUM TEMP >= 90 :	2	MINIMUM TEMP <= 32 :	0	PRECIPITATION >= 0.01 INCH:	14
MAXIMUM TEMP <= 32 :	0	MINIMUM TEMP <= 0 :	0	PRECIPITATION >= 0.10 INCH:	8
THUNDERSTORMS :	7	HEAVY FOG :	0	SNOWFALL >= 1.0 INCH :	0

AUGUST 2012
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

BINGHAMTON, NY
GREATER BINGHAMTON/E A LINK FIELD AP (KBGM)
Lat:42° 12'N Long: 75° 58'W Elev (Ground) 1595 Feet
Time Zone : EASTERN WBAN: 04725 ISSN#: 0198-3563

Date	Temperature °F MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	Deg Days BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0700 LST DEPTH	1300 LST WATER-EQUIV	PRECIPITATION ON GND(IN) 2400 LST SNOW-FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 3-SEC SPEED	DIR	2-MIN 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
01	78	62	70	1	63	65	0	5	TS RA BR VCTS	0		0.0	0.01	28.17	29.87	3.1	23	4.6			16	26	01
02	84	60	72	3	60	65	0	7	BR	0		0.0	0.00	28.20	29.90	3.6	24	4.2	16	26	12	28	02
03	90*	67	79*	10	60	67	0	14		0		0.0	0.00	28.30	30.02	3.8	23	5.4	13	34	10	26	03
04	87	67	77	8	66	69	0	12	BR	0		0.0	0.00	28.43	30.14	7.9	16	8.4	24	22	17	17	04
05	80	69	75	6	69	70	0	10	RA BR	0		0.0	0.48	28.32	30.01	8.3	21	9.9	32*	23	24*	25	05
06	75	62	69	0	55	60	0	4		0		0.0	0.00	28.34	30.06	5.8	32	6.8	17	29	14	27	06
07	82	52	67	-2	54		0	2	BR	0		0.0	0.00			3.2	23	4.3	20	22	14	26	07
08	87	60	74	6	58	64	0	9		0		0.0	0.00	28.26	29.96	4.4	21	5.2	17	26	13	24	08
09	88	65	77	9	62	66	0	12	TS TSRA RA VCTS	0		0.0	0.02	28.20	29.89	4.2	21	5.9	20	20	14	24	09
10	72	64	68	0	65	66	0	3	TS TSRA RA BR VCTS	0		0.0	1.43	28.10	29.80	5.7	14	6.5	22	26	15	28	10
11	80	62	71	3	60	64	0	6	BR	0		0.0	0.00	28.12	29.84	6.0	22	7.1	25	23	18	22	11
12	76	58	67	-1	57	60	0	2		0		0.0	0.00	28.22	29.94	5.2	24	6.2	16	26	13	26	12
13	78	58	68	0	56	61	0	3		0		0.0	0.00	28.28	30.00	3.3	26	4.0	18	29	12	33	13
14	75	60	68	0	60	62	0	3	TS TSRA RA BR VCTS	0		0.0	1.54	28.22	29.92	3.8	16	5.0	24	36	20	36	14
15	74	60	67	-1			0	2	TS TSRA RA BR VCTS	0		0.0	0.41	28.21		2.2	33	4.2	16	15	12	26	15
16	78	56	67	-1	55	60	0	2		0		0.0	0.00	28.23	29.94	2.2	29	4.0	22	27	13	27	16
17	73	58	66	-2	59	61	0	1	RA FG+ BR	0		0.0	0.26	28.15	29.85	4.4	23	5.7	18	35	15	34	17
18	70	55	63	-5	49	55	2	0	BR	0		0.0	0.00	28.22	29.95	4.9	34	6.0	26	01	13	32	18
19	73	49	61*	-6	49	55	4	0		0		0.0	0.00	28.24	29.97	1.5	21	2.2	15	22	12	23	19
20	68	55	62	-5	56	58	3	0	RA BR	0		0.0	0.10	28.20	29.92	1.3	21	3.7	16	36	13	35	20
21	74	50	62	-5			3	0	BR	0		0.0	0.00	28.33		0.6	28	2.1	16	28	10	29	21
22	78	51	65	-2	55	59	0	0	BR VCTS	0		0.0	0.00	28.40	30.13	2.3	21	3.3	16	23	10	20	22
23	80	59	70	3	54	61	0	5		0		0.0	0.00	28.43	30.16	3.3	25	4.1	16	28	12	26	23
24	81	56	69	2			0	4	BR	0		0.0	0.00	28.46		1.7	15	2.3	12	16	8	18	24
25	79	62	71	5			0	6		0		0.0	0.00	28.53		5.1	15	5.7	16	14	13	15	25
26	80	61	71	5	57	63	0	6		0		0.0	0.00	28.54	30.25	6.7	15	7.3	21	15	14	13	26
27	79	62	71	5	63	65	0	6	RA FG BR	0		0.0	0.77	28.37	30.06	5.5	19	6.6	24	28	18	28	27
28	76	59	68	2	59	62	0	3	RA BR	0		0.0	1.06	28.21	29.92	6.8	32	7.8	29	33	15	33	28
29	71	53	62	-3	48	54	3	0		0		0.0	0.00	28.30	30.03	3.6	34	5.0	21	21	12	28	29
30	75	48*	62	-3	52		3	0		0		0.0	0.00			5.6	24	6.3	17	26	12	22	30
31	85	60	73	8	56	62	0	8		0		0.0	0.00	28.30	29.99	8.4	25	9.3	26	28	20	26	31
	78.3	58.7	68.5	¤			0.6	4.4	< MONTHLY AVERAGES | TOTALS >			0.0	6.08	28.28	29.98	2.5	22	5.5	< MONTHLY AVERAGES				
	1.8	0.4	1.1		<---------- DEPARTURE FROM NORMAL ---------->								2.63	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING :	18	-21	21	-42
COOLING :	135	22	518	170

GREATEST 24-HR PRECIPITATION : 1.95 **DATE :** 14-15
GREATEST 24-HR SNOWFALL : 0.0 **DATE :**
GREATEST SNOW DEPTH : 0 **DATE :**

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM :	30.31	26	1017
MIMIMUM :	29.74	10	1759

NUMBER OF DAYS WITH ->

MAXIMUM TEMP >= 90 :	1	MINIMUM TEMP <= 32 :	0	PRECIPITATION >= 0.01 INCH:	10
MAXIMUM TEMP <= 32 :	0	MINIMUM TEMP <= 0 :	0	PRECIPITATION >= 0.10 INCH:	8
THUNDERSTORMS :	5	HEAVY FOG :	1	SNOWFALL >= 1.0 INCH :	0

AUGUST 2012
BINGHAMTON, NY

APPENDIX B.2

TIME SERIES PLOTS – FIGURES B.1 THROUGH B.38

Figure B.1
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.2
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.3
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.4
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.5
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.6
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.7
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.8
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.9
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.10
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.11
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.12
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.13
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.14
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.15
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.16
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.17
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.18
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.19
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.20
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.21
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.22
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.23
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.24
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.25
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.26
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.27
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.28
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.29
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.30
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.31
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.32
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.33
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.34
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.35
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.36
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.37
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

Figure B.38
PCE in Soil Vapor
Annual Report - Soil Vapor Monitoring through August 2012
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

APPENDIX B.3

PLAN VIEW GRAPHICS - PCE, cDCE, TCA

© 2012 SANBORN, HEAD & ASSOCIATES, INC.

Figure B.3.1

Comparisons of PCE Soil Vapor Concentrations Non Heating Seasons

Annual Report - Soil Vapor Monitoring Through August 2012

IBM

Endicott, New York

Drawn By:	S. Warner
Designed By:	E. Bradstreet
Reviewed By:	D. Carr
Project No:	2755.06
Date:	November 2012

Figure Narrative

These figures depict PCE 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 2004 compared to August 2012 monitoring.

The images were created using uniform and consistent spatial statistical algorithms as outlined in more detail in previous reports 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.

Legend

340 — Soil Vapor Implant Location - PCE 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

N W E S

400 200 0 400 800 Feet

SANBORN HEAD

FILE: \\porserv1\datashare\data\pordata\2709\s\2755.00\arcfiles\arcfiles\figures\2009 semiannual\20091027_nonheating 04 vs 09.mxd
FILE: \\porserv1\datashare\DATA\PORDATA\2709\s\2755.00\Graphics Files\Adobe Illustrator\Source Files\2012 Annual Report\20121017_Nonheating 04 vs 12.ai

© 2012 SANBORN, HEAD & ASSOCIATES, INC.

Figure B.3.2

Comparisons of DCE (cis-1,2) Soil Vapor Concentrations Non Heating Seasons

Annual Report - Soil Vapor Monitoring Through August 2012

IBM

Endicott, New York

Drawn By:	S. Warner
Designed By:	E. Bradstreet
Reviewed By:	D. Carr
Project No:	2755.06
Date:	November 2012

Figure Narrative

These figures depict DCE (cis-1,2) 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 2004 compared to August 2012 monitoring.

The images were created using uniform and consistent spatial statistical algorithms as outlined in more detail in previous reports 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.

Legend

340 — Soil Vapor Implant Location - DCE (cis-1,2) 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

N W E S

400 200 0 400 800 Feet

SANBORN HEAD

FILE: \\porserv1\datashare\data\pordata\2709\s\2755.00\arcfiles\arcfiles\figures\2009 semiannual\20091027_nonheating 04 vs 09.mxd

FILE: \\porserv1\datashare\DATA\PORDATA\2709\s\2755.00\Graphics Files\Adobe Illustrator\Source Files\2012 Annual Report\20121017_Nonheating 04 vs 12.ai

© 2012 SANBORN, HEAD & ASSOCIATES, INC.

Figure B.3.3

Comparisons of TCA (1,1,1) Soil Vapor Concentrations Non Heating Seasons

Annual Report - Soil Vapor Monitoring Through August 2012

IBM

Endicott, New York

Drawn By:	S. Warner
Designed By:	E. Bradstreet
Reviewed By:	D. Carr
Project No:	2755.06
Date:	November 2012

Figure Narrative

These figures depict TCA (1,1,1) 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 2004 compared to August 2012 monitoring.

The images were created using uniform and consistent spatial statistical algorithms as outlined in more detail in previous reports 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.

Legend

340 — Soil Vapor Implant Location - TCA (1,1,1) 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

N W E S

400 200 0 400 800 Feet

SANBORN HEAD

FILE: \\porserv1\datashare\data\pordata\2709\s\2755.00\arcfiles\arcfiles\figures\2009 semiannual\20091027_nonheating 04 vs 09.mxd

FILE: \\porserv1\datashare\DATA\PORDATA\2709\s\2755.00\Graphics Files\Adobe Illustrator\Source Files\2012 Annual Report\20121017_Nonheating 04 vs 12.ai

APPENDIX C

ANALYTICAL RESULTS AND LABORATORY DATA (Select Copies Only)

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual 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?	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	Trifluorotrichloroethane (Freon 113)
Designation	**EN04-1**	EN04-1S	8	8/23/2010	EN041S082310	Summa Canister	21.0	0.1	0.0	1.71	No	No	ug/m3	< 5.8 U	- 16 -	< 3.4 U	< 3.4 U	< 2.2 U	< 4.7 U	< 3.4 U	< 3.5 U	< 2.2 U	- 3.7 -	< 6.6 U
Monitoring Well	**EN-094**	EN04-1S	8	2/8/2011	EN041S020811	Summa Canister	21.3	0.3	0.0	1.57	No	No	ug/m3	< 5.3 U	- 6.6 -	< 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
		EN04-1S	8	8/2/2011	EN041S080211	Summa Canister	20	0.6	0.0	1.61	No	No	ug/m3	< 5.5 U	- 10 -	< 3.2 U	< 3.2 U	< 2.0 U	< 4.4 U	< 3.2 U	< 3.2 U	< 8.5 U	< 2.8 U	< 6.2 U
		EN04-1S	8	2/15/2012	EN041S021512	Summa Canister	21.2	0.2	0.0	1.41	No	No	ug/m3	< 4.8 U	- 4.1 -	< 2.8 U	< 2.8 U	< 1.8 U	< 3.8 U	< 2.8 U	< 2.8 U	< 7.4 U	- 26 -	< 5.4 U
		EN04-1S	8	8/15/2012	EN041S081512	Summa Canister	20.3	0.6	0.0	1.79	No	No	ug/m3	< 6.1 U	- 12 -	< 3.5 U	< 3.5 U	< 2.3 U	< 4.9 U	< 3.5 U	< 3.6 U	< 9.4 U	< 31 U	< 6.8 U
		EN04-1D	23	8/23/2010	EN041D082310	Summa Canister	21.1	0.0	0.0	1.61	No	No	ug/m3	< 5.5 U	- 160 -	< 3.2 U	< 3.2 U	< 2.0 U	- 24 -	< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.2 U
		EN04-1D	23	2/8/2011	EN041D020811	Summa Canister	21.3	0.4	0.0	1.56	No	No	ug/m3	< 5.3 U	- 150 -	< 3.1 U	< 3.1 U	< 2.0 U	- 17 -	< 3.1 U	< 3.2 U	< 2.0 U	< 2.7 U	< 6.0 U
		EN04-1D	23	8/2/2011	EN041D080211	Summa Canister	20	0.3	0.0	1.69	No	No	ug/m3	< 5.7 U	- 100 -	< 3.4 U	< 3.4 U	< 2.2 U	- 12 -	< 3.4 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.5 U
		EN04-1D	23	2/15/2012	EN041D021512	Summa Canister	21.1	0.3	0.0	1.52	No	No	ug/m3	< 5.2 U	- 120 -	< 3.0 U	< 3.0 U	< 1.9 U	- 53 -	- 7.8 -	< 3.1 U	< 8.0 U	< 26 U	< 5.8 U
		EN04-1D	23	8/15/2012	EN041D081512	Summa Canister	20.3	0.3	0.1	1.75	No	No	ug/m3	< 5.9 U	- 120 -	< 3.5 U	< 3.5 U	< 2.2 U	- 34 -	< 3.5 U	< 3.5 U	< 9.2 U	< 30 U	< 6.7 U
Designation	**EN04-2**	EN04-2S	8	8/23/2010	EN042S082310	Summa Canister	20.5	0.5	0.0	1.58	No	No	ug/m3	< 5.4 U	- 11 -	< 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-450;EN-091A**	EN04-2S	8	12/8/2010	EN042S120810	Summa Canister	20.2	0.2	0.0	1.62	No	No	ug/m3	< 5.5 U	< 4.4 U	< 3.2 U	< 3.2 U	< 2.1 U	< 4.4 U	< 3.2 U	< 3.3 U	< 2.1 U	< 2.8 U	< 6.2 U
		EN04-2S	8	2/8/2011	EN042S020811	Summa Canister	20.9	0.2	0.0	1.55	No	No	ug/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
		EN04-2S	8	6/8/2011	EN042S060811	Summa Canister	20.3	0.5	0.0	1.68	No	No	ug/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	< 8.9 U	< 2.9 U	< 6.4 U
		EN04-2S	8	8/2/2011	EN042S080211	Summa Canister	20.6	0.3	0.0	1.65	No	No	ug/m3	< 5.6 U	- 16 -	< 3.3 U	< 3.3 U	< 2.1 U	< 4.5 U	< 3.3 U	< 3.3 U	< 8.7 U	< 2.9 U	< 6.3 U
		EN04-2S	8	8/14/2012	EN042S081412	Summa Canister	20.6	0.5	0.0	3.13	No	No	ug/m3	< 11 U	- 18 -	< 6.2 U	< 6.2 U	< 4.0 U	< 8.5 U	< 6.2 U	< 6.3 U	< 16 U	< 54 U	< 12 U
		EN04-2D	20	8/23/2010	EN042D082310	Summa Canister	20.7	0.3	0.0	1.58	No	No	ug/m3	- 25 -	- 110 -	< 3.1 U	< 3.1 U	< 2.0 U	- 19 -	< 3.1 U	< 3.2 U	< 2.1 U	< 2.7 U	< 6.0 U
		EN04-2D	20	12/8/2010	EN042D120810	Summa Canister	20.6	0.1	0.0	1.61	No	No	ug/m3	- 28 -	- 140 -	< 3.2 U	< 3.2 U	< 2.0 U	- 18 -	< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.2 U
		EN04-2D	20	12/8/2010	EN042D120810-tube	Summa Canister	-	-	-	1.00	No	No	ug/m3	- 40 -	- 180 -	< 20 U	< 20 U	< 13 U	- 28 -	< 20 U	< 20 U	- - -	< 100 U	< 38 U
		EN04-2D	20	2/8/2011	EN042D020811	Summa Canister	20.9	0.3	0.0	1.70	No	No	ug/m3	- 17 -	- 99 -	< 3.4 U	< 3.4 U	< 2.2 U	- 13 -	< 3.4 U	< 3.4 U	< 2.2 U	< 3.0 U	< 6.5 U
		EN04-2D	20	6/8/2011	EN042D060811	Summa Canister	20.4	0.2	0.0	1.71	No	No	ug/m3	- 19 -	- 86 -	< 3.4 U	< 3.4 U	< 2.2 U	- 11 -	< 3.4 U	< 3.5 U	< 9.0 U	< 3.0 U	< 6.6 U
		EN04-2D	20	8/2/2011	EN042D080211	Summa Canister	20.8	0.2	0.0	1.64	No	No	ug/m3	- 22 -	- 110 -	< 3.2 U	< 3.2 U	< 2.1 U	- 17 -	< 3.2 U	< 3.3 U	< 8.6 U	< 2.8 U	< 6.3 U
		EN04-2D	20	2/15/2012	EN042D021512	Summa Canister	21.1	0.3	0.0	1.61	No	No	ug/m3	- 18 -	- 94 -	< 3.2 U	< 3.2 U	< 2.0 U	- 11 -	< 3.2 U	< 3.2 U	< 8.5 U	< 28 U	< 6.2 U
		EN04-2D	20	8/14/2012	EN042D081412	Summa Canister	20.8	0.3	0.0	1.83	No	No	ug/m3	- 7.8 -	- 150 -	- 30 -	< 3.6 U	< 2.3 U	< 5.0 U	< 3.6 U	- 4.5 -	< 9.6 U	< 32 U	< 7.0 U
Designation	**EN04-3**	EN04-3S	8	8/23/2010	EN043S082310	Summa Canister	21.2	0.0	0.0	1.58	No	No	ug/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
Monitoring Well	**EN-203**	EN04-3S	8	8/2/2011	EN043S080211	Summa Canister	20.3	0.3	0.0	1.55	No	No	ug/m3	< 5.2 U	- 4.4 -	< 3.1 U	< 3.1 U	< 2.0 U	< 4.2 U	< 3.1 U	< 3.1 U	< 8.2 U	< 2.7 U	< 5.9 U
		EN04-3S	8	8/14/2012	EN043S081412	Summa Canister	20.6	0.4	0.0	1.87	No	No	ug/m3	< 6.3 U	< 5.0 U	< 3.7 U	< 3.7 U	< 2.4 U	< 5.1 U	< 3.7 U	< 3.8 U	< 9.9 U	< 32 U	< 7.2 U
		EN04-3D	19	8/23/2010	EN043D082310	Summa Canister	21.2	0.0	0.0	1.58	No	No	ug/m3	< 5.4 U	- 21 -	< 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
		EN04-3D	19	8/2/2011	EN043D080211	Summa Canister	20	0.2	0.0	1.68	No	No	ug/m3	- 14 -	- 28 -	< 3.3 U	< 3.3 U	< 2.1 U	< 4.6 U	< 3.3 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.4 U
		EN04-3D	19	8/14/2012	EN043D081412	Summa Canister	20	0.6	0.0	1.83	No	No	ug/m3	< 6.2 U	- 41 -	< 3.6 U	< 3.6 U	< 2.3 U	- 5.7 -	< 3.6 U	< 3.7 U	< 9.6 U	< 32 U	< 7.0 U

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual 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?	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	Trifluorotrichloroethane (Freon 113)
Designation **EN04-4**	EN04-4S	8	8/24/2010	EN044S082410	Summa Canister	19.0	1.8	0.0	1.68	No	No	ug/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-022**	EN04-4S	8	8/2/2011	EN044S080211	Summa Canister	18.2	1.8	0.0	1.65	No	No	ug/m3	< 5.6 U	< 4.4 U	< 3.3 U	< 3.3 U	< 2.1 U	< 4.5 U	< 3.3 U	< 3.3 U	< 8.7 U	< 2.9 U	< 6.3 U
	EN04-4S	8	8/15/2012	EN044S081512	Summa Canister	19.6	1.4	0.0	1.71	No	No	ug/m3	< 5.8 U	- 5.4 -	< 3.4 U	< 3.4 U	< 2.2 U	< 4.7 U	< 3.4 U	< 3.5 U	< 9.0 U	< 30 U	< 6.6 U
	EN04-4D	17	8/24/2010	EN044D082410	Summa Canister	19.0	1.8	0.0	1.79	Yes	Yes	ug/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	8/2/2011	EN044D080211	Summa Canister	18.5	1.2	0.0	1.68	No	No	ug/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	< 8.9 U	< 2.9 U	< 6.4 U
	EN04-4D	17	8/15/2012	EN044D081512	Summa Canister	19.1	1.6	0.0	1.71	No	No	ug/m3	< 5.8 U	- 5.0 -	< 3.4 U	< 3.4 U	< 2.2 U	< 4.7 U	< 3.4 U	< 3.5 U	< 9.0 U	< 30 U	< 6.6 U
Designation **EN04-5**	EN04-5S	8	8/23/2010	EN045S082310	Summa Canister	18.9	2.5	0.0	1.68	No	No	ug/m3	< 5.7 U	- 300 -	< 3.3 U	< 3.3 U	< 2.1 U	- 13 -	< 3.3 U	< 3.4 U	< 2.2 U	< 2.9 U	< 6.4 U
Monitoring Well **EN-459A**	EN04-5S	8	2/8/2011	EN045S020811	Summa Canister	20.2	1.1	0.0	1.49	No	No	ug/m3	< 5.0 U	- 76 -	< 3.0 U	< 3.0 U	< 1.9 U	- 7.9 -	< 3.0 U	< 3.0 U	< 2.0 U	< 2.6 U	< 5.7 U
	EN04-5S	8	8/3/2011	EN045S080311	Summa Canister	19	2.7	0.0	1.58	No	No	ug/m3	< 5.4 U	- 190 -	< 3.1 U	< 3.1 U	< 2.0 U	- 8.1 -	< 3.1 U	< 3.2 U	< 8.3 U	< 2.7 U	< 6.0 U
	EN04-5S	8	2/15/2012	EN045S021512	Summa Canister	21.2	0.8	0.0	1.55	No	No	ug/m3	< 5.2 U	- 59 -	< 3.1 U	< 3.1 U	< 2.0 U	- 5.5 -	< 3.1 U	< 3.1 U	< 8.2 U	- 81 -	< 5.9 U
	EN04-5S	8	8/15/2012	EN045S081512	Summa Canister	18.6	2.4	0.0	1.79	No	No	ug/m3	- 8.0 -	- 240 -	< 3.5 U	< 3.5 U	< 2.3 U	- 12 -	< 3.5 U	< 3.6 U	< 9.4 U	< 31 U	< 6.8 U
	EN04-5D	34	8/23/2010	EN045D082310	Summa Canister	19.8	1.2	0.0	1.55	No	No	ug/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
	EN04-5D Dup	34	8/23/2010	DU3353082310	Summa Canister	19.8	1.2	0.0	2.62	No	No	ug/m3	< 8.9 U	- 2200 -	< 5.2 U	< 5.2 U	< 3.3 U	- 86 -	< 5.2 U	< 5.3 U	< 3.4 U	< 4.6 U	< 10 U
	EN04-5D	34	2/8/2011	EN045D020811	Summa Canister	20	1.8	0.0	2.48	No	No	ug/m3	< 8.4 U	- 2500 -	< 4.9 U	< 4.9 U	< 3.2 U	- 95 -	< 4.9 U	< 5.0 U	< 3.3 U	< 4.3 U	< 9.5 U
	EN04-5D	34	8/3/2011	EN045D080311	Summa Canister	19.9	1	0.0	2.33	No	No	ug/m3	< 7.9 U	- 1600 -	< 4.6 U	< 4.6 U	< 3.0 U	- 52 -	< 4.6 U	< 4.7 U	< 12 U	< 4.0 U	< 8.9 U
	EN04-5D Dup	34	8/3/2011	DU3463080311	Summa Canister	19.9	1	0.0	2.19	No	No	ug/m3	< 7.4 U	- 2100 -	< 4.3 U	< 4.3 U	< 2.8 U	- 81 -	< 4.3 U	< 4.4 U	< 12 U	< 3.8 U	< 8.4 U
	EN04-5D	34	2/15/2012	EN045D021512	Summa Canister	20.8	1.1	0.0	1.61	No	No	ug/m3	< 5.5 U	- 400 -	< 3.2 U	< 3.2 U	< 2.0 U	- 75 -	< 3.2 U	< 3.2 U	< 8.5 U	< 28 U	< 6.2 U
	EN04-5D	34	8/15/2012	EN045D081512	Summa Canister	19.9	0.8	0.0	1.75	No	No	ug/m3	< 5.9 U	- 400 -	< 3.5 U	< 3.5 U	< 2.2 U	- 62 -	< 3.5 U	< 3.5 U	< 9.2 U	< 30 U	< 6.7 U
Designation **EN04-6**	EN04-6S	8	8/23/2010	EN046S082310	Summa Canister	19.7	1.5	0.0	1.61	No	No	ug/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
Monitoring Well **EN-310**	EN04-6S	8	8/3/2011	EN046S080311	Summa Canister	19.8	0.4	0.0	1.61	No	No	ug/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	< 8.5 U	< 2.8 U	< 6.2 U
	EN04-6S	8	8/15/2012	EN046S081512	Summa Canister	19.7	1.7	0.0	1.68	No	No	ug/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	< 8.9 U	< 29 U	< 6.4 U
	EN04-6D	27	8/23/2010	EN046D082310	Summa Canister	19.0	1.9	0.0	1.64	No	No	ug/m3	- 33 -	< 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	8/3/2011	EN046D080311	Summa Canister	19.5	1.6	0.0	1.68	No	No	ug/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	< 8.9 U	< 2.9 U	< 6.4 U
	EN04-6D	27	8/15/2012	EN046D081512	Summa Canister	20.6	0.3	0.0	1.75	No	No	ug/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	< 9.2 U	< 30 U	< 6.7 U

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual 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?	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	Trifluorotrichloroethane (Freon 113)
Designation **EN04-7**	EN04-7S	8	8/23/2010	EN047S082310	Summa Canister	19.8	1.1	0.0	1.61	No	No	ug/m3	- 32 -	- 12 -	< 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
Monitoring Well **EN-311**	EN04-7S	8	12/7/2010	EN047S120710	Summa Canister	20.7	0.5	0.0	1.55	No	No	ug/m3	- 9.7 -	- 5.5 -	< 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
	EN04-7S	8	2/8/2011	EN047S020811	Summa Canister	20.1	0.3	0.0	2.00	No	No	ug/m3	< 6.8 U	< 5.4 U	< 4.0 U	< 4.0 U	< 2.6 U	< 5.4 U	< 4.0 U	< 4.0 U	< 2.6 U	< 3.5 U	< 7.7 U
	EN04-7S	8	6/6/2011	EN047S060611	Summa Canister	19.7	0.2	0.0	1.71	No	No	ug/m3	- 7.8 -	< 4.6 U	< 3.4 U	< 3.4 U	< 2.2 U	< 4.7 U	< 3.4 U	< 3.5 U	< 9.0 U	< 3.0 U	< 6.6 U
	EN04-7S	8	8/3/2011	EN047S080311	Summa Canister	19.9	1.1	0.0	1.68	No	No	ug/m3	- 27 -	- 6.5 -	< 3.3 U	< 3.3 U	< 2.1 U	< 4.6 U	< 3.3 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.4 U
	EN04-7S Dup	8	8/3/2011	DU3361080311	Summa Canister	19.9	1.1	0.0	1.75	No	No	ug/m3	- 34 -	- 11 -	< 3.5 U	< 3.5 U	< 2.2 U	< 4.8 U	< 3.5 U	< 3.5 U	< 9.2 U	< 3.0 U	< 6.7 U
	EN04-7S	8	12/7/2011	EN047S120711	Summa Canister	20.7	0.5	0.0	2.01	No	No	ug/m3	- 6.9 -	< 5.4 U	< 4.0 U	< 4.0 U	< 2.6 U	< 5.5 U	< 4.0 U	< 4.1 U	< 11 U	< 3.5 U	< 7.7 U
	EN04-7S	8	2/15/2012	EN047S021512	Summa Canister	21.5	0.3	0.0	1.61	No	No	ug/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	< 8.5 U	< 28 U	< 6.2 U
	EN04-7S	8	8/15/2012	EN047S081512	Summa Canister	19.1	1.1	0.0	1.71	No	No	ug/m3	- 35 -	- 10 -	< 3.4 U	< 3.4 U	< 2.2 U	< 4.7 U	< 3.4 U	< 3.5 U	< 9.0 U	< 30 U	< 6.6 U
	EN04-7D	34	8/23/2010	EN047D082310	Summa Canister	19.7	1.1	0.0	4.29	No	No	ug/m3	- 18 -	- 4400 -	- 31 -	< 8.5 U	< 5.5 U	- 190 -	< 8.5 U	< 8.7 U	< 5.7 U	< 7.4 U	< 16 U
	EN04-7D	34	12/7/2010	EN047D120710	Summa Canister	19.6	1.7	0.0	6.08	No	No	ug/m3	< 21 U	- 5400 -	- 30 -	< 12 U	< 7.8 U	- 200 -	< 12 U	< 12 U	< 8.0 U	< 10 U	< 23 U
	EN04-7D	34	12/7/2010	EN047D120710-tube	Summa Canister	-	-	-	1.00	No	No	ug/m3	- 75 -	- 4900 -	- 50 -	< 40 U	< 26 U	- 270 -	< 40 U	< 40 U	- - -	< 210 U	< 77 U
	EN04-7D	34	2/8/2011	EN047D020811	Summa Canister	19.8	1.7	0.0	6.11	No	No	ug/m3	< 21 U	- 5100 -	- 26 -	< 12 U	< 7.8 U	- 200 -	< 12 U	< 12 U	< 8.1 U	< 11 U	< 23 U
	EN04-7D Dup	34	2/8/2011	DU3328020811	Summa Canister	19.8	1.7	0.0	5.27	No	No	ug/m3	< 18 U	- 4600 -	- 28 -	< 10 U	< 6.7 U	- 190 -	< 10 U	< 11 U	< 7.0 U	< 9.2 U	< 20 U
	EN04-7D	34	6/6/2011	EN047D060611	Summa Canister	20	1	0.0	5.70	No	No	ug/m3	< 19 U	- 4400 -	- 24 -	< 11 U	< 7.3 U	< 16 U	< 11 U	< 12 U	< 30 U	< 9.9 U	< 22 U
	EN04-7D	34	8/3/2011	EN047D080311	Summa Canister	20.3	0.7	0.0	4.75	No	No	ug/m3	< 16 U	- 3700 -	- 21 -	< 9.4 U	< 6.1 U	- 160 -	< 9.4 U	< 9.6 U	< 25 U	< 8.2 U	< 18 U
	EN04-7D Dup	34	8/3/2011	DU3338080311	Summa Canister	20.3	0.7	0.0	3.73	No	No	ug/m3	< 13 U	- 3600 -	- 23 -	< 7.4 U	< 4.8 U	- 180 -	< 7.4 U	< 7.5 U	< 20 U	< 6.5 U	< 14 U
	EN04-7D	34	12/7/2011	EN047D120711	Summa Canister	19.5	1.4	0.0	4.31	No	No	ug/m3	< 15 U	- 4200 -	- 11 -	< 8.5 U	< 5.5 U	- 130 -	< 8.5 U	< 8.7 U	< 23 U	< 7.5 U	< 16 U
	EN04-7D	34	2/15/2012	EN047D021512	Summa Canister	20.5	1.5	0.0	6.75	No	No	ug/m3	< 23 U	- 3700 -	- 21 -	< 13 U	< 8.6 U	- 180 -	< 13 U	< 14 U	< 36 U	< 120 U	< 26 U
	EN04-7D Dup	34	2/15/2012	DU3363021512	Summa Canister	20.5	1.5	0.0	6.73	No	No	ug/m3	< 23 U	- 3800 -	- 24 -	< 13 U	< 8.6 U	- 170 -	< 13 U	< 14 U	< 36 U	< 120 U	< 26 U
	EN04-7D	34	8/15/2012	EN047D081512	Summa Canister	19.9	0.9	0.0	5.83	No	No	ug/m3	< 20 U	- 4000 -	- 17 -	< 12 U	< 7.4 U	- 160 -	< 12 U	< 12 U	< 31 U	< 100 U	< 22 U
Designation **EN04-9**	EN04-9S	8	8/24/2010	EN049S082410	Summa Canister	18.7	1.2	0.0	8.40	No	No	ug/m3	- 440 -	- 8200 -	- 23 -	< 17 U	< 11 U	- 380 -	< 17 U	- 20 -	< 11 U	< 14 U	< 32 U
Monitoring Well **EN-278;EN-279**	EN04-9S	8	2/8/2011	EN049S020811	Summa Canister	21.3	0.2	0.0	1.60	No	No	ug/m3	- 19 -	- 900 -	- 4.0 -	< 3.2 U	< 2.0 U	- 34 -	< 3.2 U	- 5.2 -	< 2.1 U	< 2.8 U	< 6.1 U
	EN04-9S	8	8/2/2011	EN049S080211	Summa Canister	19.5	0.5	0.0	5.27	No	No	ug/m3	- 77 -	- 2700 -	< 10 U	< 10 U	< 6.7 U	- 110 -	< 10 U	< 11 U	< 28 U	< 9.2 U	< 20 U
	EN04-9S	8	2/14/2012	EN049S021412	Summa Canister	21	0.3	0.1	1.49	No	No	ug/m3	- 20 -	- 690 -	- 3.9 -	< 3.0 U	< 1.9 U	- 44 -	< 3.0 U	- 3.6 -	< 7.9 U	< 26 U	< 5.7 U
	EN04-9S	8	8/15/2012	EN049D081512	Summa Canister	18.2	0.7	0.0	1.83	No	No	ug/m3	< 6.2 U	- 800 -	< 3.6 U	< 3.6 U	< 2.3 U	- 25 -	< 3.6 U	< 3.7 U	< 9.6 U	< 32 U	< 7.0 U
	EN04-9D	20	8/24/2010	EN049D082410	Summa Canister	17.1	1.4	0.0	17.5	No	No	ug/m3	- 1000 -	- 14000 -	- 1000 -	< 35 U	< 22 U	- 1400 -	- 600 -	- 340 -	< 23 U	< 30 U	< 67 U
	EN04-9D	20	2/8/2011	EN049D020811	Summa Canister	21.2	0.2	0.1	15.6	No	No	ug/m3	- 870 -	- 15000 -	- 760 -	< 31 U	< 20 U	- 810 -	- 250 -	- 230 -	< 20 U	< 27 U	< 60 U
	EN04-9D	20	8/2/2011	EN049D080211	Summa Canister	18.4	0.5	0.0	11.7	No	No	ug/m3	- 650 -	- 8500 -	- 360 -	< 23 U	< 15 U	- 660 -	- 160 -	- 110 -	< 62 U	< 20 U	- 120
	EN04-9D	20	2/14/2012	EN049D021412	Summa Canister	19.7	0.9	0.1	12.2	No	No	ug/m3	- 540 -	- 7000 -	- 460 -	< 24 U	< 16 U	- 620 -	- 93 -	- 130 -	< 64 U	< 210 U	< 47 U
	EN04-9D	20	8/15/2012	EN049S081512	Summa Canister	16.4	2	0.0	12.1	No	No	ug/m3	- 230 -	- 7900 -	< 24 U	< 24 U	< 15 U	- 360 -	< 24 U	< 24 U	< 64 U	< 210 U	< 46 U

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual 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?	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	Trifluorotrichloroethane (Freon 113)
Designation	**EN04-10**	EN04-10S	8	8/24/2010	EN0410S082410	Summa Canister	12.7	6.1	0.0	5.86	No	No	ug/m3	- 660 -	- 73000 -	- 12000 -	< 120 U	< 75 U	- 9400 -	- 720 -	- 4600 -	< 77 U	- 270 -	< 220 U
Monitoring Well	**EN-077**	EN04-10S	8	12/7/2010	EN0410S120710-tube	Summa Canister	-	-	-	1.00	No	No	ug/m3	- 260 -	- 19000 E	- 5800 -	- 45 -	< 26 U	- 5600 -	- 540 -	- 2300 -	- - -	< 210 U	< 77 U
		EN04-10S	8	2/8/2011	EN0410S020811	Summa Canister	20.5	0.7	0.0	15.1	No	No	ug/m3	- 110 -	- 14000 -	- 2900 -	< 30 U	< 19 U	- 3300 -	- 290 -	- 1400 -	< 20 U	< 26 U	< 58 U
		EN04-10S	8	8/2/2011	EN0410S080211	Summa Canister	16.6	2.9	0.0	79.0	No	No	ug/m3	- 410 -	- 41000 -	- 5800 -	< 160 U	< 100 U	- 5300 -	- 230 -	- 2000 -	< 420 U	< 140 U	< 300 U
		EN04-10S Dup	8	8/2/2011	DU3333080211	Summa Canister	16.6	2.9	0.0	77.5	No	No	ug/m3	- 460 -	- 44000 -	- 6400 -	< 150 U	< 99 U	- 5600 -	- 270 -	- 2100 -	< 410 U	< 130 U	< 300 U
		EN04-10S	8	2/15/2012	EN0410S021512	Summa Canister	20.9	3.2	0.0	19.4	No	No	ug/m3	- 120 -	- 12000 -	- 2100 -	< 38 U	< 25 U	- 2200 -	- 460 -	- 750 -	< 100 U	< 340 U	< 74 U
		EN04-10S	8	8/15/2012	EN0410S081512	Summa Canister	13.3	6	0.0	98.8	No	No	ug/m3	- 610 -	- 54000 -	- 5900 -	< 200 U	< 130 U	- 6900 -	- 200 -	- 2100 -	< 520 U	< 1700 U	< 380 U
		EN04-10D	20	8/24/2010	EN0410D082410	Summa Canister	13.4	5.1	0.0	6.18	No	No	ug/m3	- 630 -	- 51000 -	- 12000 -	< 120 U	< 79 U	- 8900 -	- 1000 -	- 4200 -	< 82 U	< 110 U	< 240 U
		EN04-10D	20	12/7/2010	EN0410D120710-tube	Summa Canister	-	-	-	1.00	No	No	ug/m3	- 920 -	- 31000 S	- 11000 E	- 100 -	< 26 U	- 9900 -	- 990 -	- 4000 -	- - -	< 210 U	- 87
		EN04-10D	20	2/8/2011	EN0410D020811	Summa Canister	20.5	0.7	0.0	44.0	No	No	ug/m3	- 460 -	- 35000 -	- 7400 -	< 87 U	< 56 U	- 6200 -	- 570 -	- 2700 -	< 58 U	< 76 U	< 170 U
		EN04-10D	20	8/2/2011	EN0410D080211	Summa Canister	16.5	2.3	0.0	24.4	No	No	ug/m3	- 320 -	- 25000 -	- 4600 -	< 48 U	< 31 U	- 4300 -	- 310 -	- 1500 -	< 130 U	< 42 U	< 94 U
		EN04-10D	20	2/15/2012	EN0410D021512	Summa Canister	14.8	3.8	0.0	38.8	No	No	ug/m3	- 350 -	- 21000 -	- 4300 -	< 77 U	- 150 -	- 4200 -	- 740 -	- 860 -	< 200 U	- 1600 -	< 150 U
		EN04-10D	20	8/15/2012	EN0410D081512	Summa Canister	14.6	4.4	0.0	35.0	No	No	ug/m3	- 470 -	- 33000 -	- 5400 -	< 69 U	< 45 U	- 5500 -	- 320 -	- 1600 -	< 180 U	< 610 U	< 130 U
Designation	**EN04-11**	EN04-11S	8	8/24/2010	EN0411S082410	Summa Canister	20.1	0.9	0.0	1.68	No	No	ug/m3	- 15 -	- 340 -	< 3.3 U	< 3.3 U	< 2.1 U	- 17 -	< 3.3 U	< 3.4 U	< 2.2 U	< 2.9 U	- 10
Monitoring Well	**EN-215;EN-215B**	EN04-11S	8	12/7/2010	EN0411S120710	Summa Canister	20.0	0.7	0.3	1.61	No	No	ug/m3	< 5.5 U	- 64 -	< 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
		EN04-11S	8	2/9/2011	EN0411S020911	Summa Canister	20.9	0.4	0.0	1.46	No	No	ug/m3	< 5.0 U	- 49 -	< 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
		EN04-11S	8	6/8/2011	EN0411S060811	Summa Canister	19.4	0.8	0.0	1.75	No	No	ug/m3	< 5.9 U	- 120 -	< 3.5 U	< 3.5 U	< 2.2 U	< 4.8 U	< 3.5 U	< 3.5 U	< 9.2 U	< 3.0 U	< 6.7 U
		EN04-11S	8	8/2/2011	EN0411S080211	Summa Canister	19.5	1.2	0.0	1.68	No	No	ug/m3	- 8.0 -	- 180 -	< 3.3 U	< 3.3 U	< 2.1 U	- 6.4 -	< 3.3 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.4 U
		EN04-11S	8	12/7/2011	EN0411S120711	Summa Canister	20	0.5	0.0	1.53	No	No	ug/m3	< 5.2 U	- 69 -	< 3.0 U	< 3.0 U	< 2.0 U	< 4.2 U	< 3.0 U	< 3.1 U	< 8.1 U	< 2.6 UJ	< 5.9 U
		EN04-11S	8	2/14/2012	EN0411S021412	Summa Canister	21.5	0.2	0.0	1.46	No	No	ug/m3	< 5.0 U	- 40 -	< 2.9 U	< 2.9 U	< 1.9 U	< 4.0 U	< 2.9 U	< 3.0 U	< 7.7 U	< 25 U	< 5.6 U
		EN04-11S	8	8/15/2012	EN0411S081512	Summa Canister	20.8	0.5	0.0	1.64	No	No	ug/m3	- 8.3 -	- 140 -	< 3.2 U	< 3.2 U	< 2.1 U	- 9.2 -	< 3.2 U	< 3.3 U	< 8.6 U	< 28 U	< 6.3 U
		EN04-11D	21	8/24/2010	EN0411D082410	Summa Canister	20.7	0.4	0.0	1.65	No	No	ug/m3	- 38 -	- 1300 -	- 4.5 -	< 3.3 U	< 2.1 U	- 38 -	< 3.3 U	< 3.3 U	< 2.2 U	< 2.9 U	< 6.3 U
		EN04-11D	21	12/7/2010	EN0411D120710	Summa Canister	20.5	0.6	0.0	2.07	No	No	ug/m3	- 44 -	- 1400 -	- 4.9 -	< 4.1 U	< 2.6 U	- 34 -	< 4.1 U	< 4.2 U	< 2.7 U	< 3.6 U	< 7.9 U
		EN04-11D	21	2/9/2011	EN0411D020911	Summa Canister	21	0.8	0.0	1.48	No	No	ug/m3	- 39 -	- 1300 -	- 5.4 -	< 2.9 U	< 1.9 U	- 43 -	< 2.9 U	< 3.0 U	< 2.0 U	< 2.6 U	< 5.7 U
		EN04-11D	21	6/8/2011	EN0411D060811	Summa Canister	20.1	0.2	0.0	1.79	No	No	ug/m3	- 22 -	- 820 -	< 3.5 U	< 3.5 U	< 2.3 U	- 23 -	< 3.5 U	< 3.6 U	< 9.4 U	< 3.1 U	< 6.8 U
		EN04-11D	21	8/2/2011	EN0411D080211	Summa Canister	20	0.3	0.0	1.55	No	No	ug/m3	- 32 -	- 980 -	< 3.1 U	< 3.1 U	< 2.0 U	- 31 -	< 3.1 U	< 3.1 U	< 8.2 U	- 3.5 -	< 5.9 U
		EN04-11D	21	12/7/2011	EN0411D120711	Summa Canister	20	0.5	0.0	1.50	No	No	ug/m3	- 39 -	- 1100 -	- 3.7 -	< 3.0 U	< 1.9 U	- 31 -	< 3.0 U	< 3.0 U	< 7.9 U	< 2.6 UJ	< 5.7 U
		EN04-11D	21	2/14/2012	EN0411D021412	Summa Canister	21.4	0.5	0.0	1.41	No	No	ug/m3	- 34 -	- 1000 -	- 4.7 -	< 2.8 U	< 1.8 U	- 37 -	< 2.8 U	< 2.8 U	< 7.4 U	< 24 U	< 5.4 U
		EN04-11D	21	8/15/2012	EN0411D081512	Summa Canister	20.8	0.2	0.0	1.68	No	No	ug/m3	- 35 -	- 1000 -	- 3.6 -	< 3.3 U	< 2.1 U	- 33 -	< 3.3 U	< 3.4 U	< 8.9 U	< 29 U	< 6.4 U
		EN10-11D	30	6/16/2010	EN1011D061610	Summa Canister	19.1	1.0	0.0	13.0	No	No	ug/m3	- 120 -	- 7800 -	- 150 -	< 26 U	< 17 U	- 220 -	< 26 U	< 26 U	< 17 U	< 22 U	< 50 U
		EN10-11D	30	8/24/2010	EN1011D082410	Summa Canister	19.3	1.3	0.0	13.6	No	No	ug/m3	- 230 -	- 11000 -	- 180 -	< 27 U	< 17 U	- 340 -	- 31 -	< 28 U	< 18 U	< 24 U	< 52 U

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual 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?	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	Trifluorotrichloroethane (Freon 113)
Designation **EN04-12**	EN04-12S	8	8/25/2010	EN0412S082510	Summa Canister	18.4	2.9	0.0	1.61	No	No	ug/m3	< 5.5 U	- 1000 -	< 3.2 U	< 3.2 U	< 2.0 U	- 20 -	< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.2 U
Monitoring Well **EN-214A**	EN04-12S	8	12/6/2010	EN0412S120610	Summa Canister	20.3	0.7	0.0	1.65	No	No	ug/m3	< 5.6 U	- 450 -	< 3.3 U	< 3.3 U	< 2.1 U	- 13 -	< 3.3 U	< 3.3 U	< 2.2 U	< 2.9 U	< 6.3 U
	EN04-12S	8	2/8/2011	EN0412S020811	Summa Canister	20.8	0.8	0.0	1.49	No	No	ug/m3	< 5.0 U	- 240 -	< 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
	EN04-12S	8	6/7/2011	EN0412S060711	Summa Canister	21	0.5	0.0	1.68	No	No	ug/m3	< 5.7 U	- 500 -	< 3.3 U	< 3.3 U	< 2.1 U	- 16 -	< 3.3 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.4 U
	EN04-12S	8	8/2/2011	EN0412S080211	Summa Canister	19.1	1.4	0.0	1.72	No	No	ug/m3	< 5.8 U	- 780 -	< 3.4 U	< 3.4 U	< 2.2 U	- 21 -	< 3.4 U	< 3.5 U	< 9.1 U	< 3.0 U	< 6.6 U
	EN04-12S	8	12/7/2011	EN0412S120711	Summa Canister	17.4	2.7	0.0	1.46	No	No	ug/m3	< 5.0 U	- 420 -	< 2.9 U	< 2.9 U	< 1.9 U	- 16 -	< 2.9 U	< 3.0 U	< 7.7 U	< 2.5 UJ	< 5.6 U
	EN04-12S	8	2/15/2012	EN0412S021512	Summa Canister	20.4	1.9	0.0	1.58	No	No	ug/m3	< 5.4 U	- 190 -	< 3.1 U	< 3.1 U	< 2.0 U	- 8.8 -	< 3.1 U	< 3.2 U	< 8.3 U	< 27 U	< 6.0 U
	EN04-12S	8	8/16/2012	EN0412S081612	Summa Canister	18.6	2.4	0.0	1.64	No	No	ug/m3	< 5.6 U	- 840 -	< 3.2 U	< 3.2 U	< 2.1 U	- 19 -	< 3.2 U	< 3.3 U	< 8.6 U	< 28 U	< 6.3 U
	EN04-12D	19	8/25/2010	EN0412D082510	Summa Canister	18.1	2.9	0.0	1.62	No	No	ug/m3	< 5.5 U	- 440 -	< 3.2 U	< 3.2 U	< 2.1 U	- 12 -	< 3.2 U	< 3.3 U	< 2.1 U	< 2.8 U	< 6.2 U
	EN04-12D	19	12/6/2010	EN0412D120610	Summa Canister	19.6	1.1	0.0	1.58	No	No	ug/m3	< 5.4 U	- 700 -	< 3.1 U	< 3.1 U	< 2.0 U	- 21 -	< 3.1 U	< 3.2 U	< 2.1 U	< 2.7 U	< 6.0 U
	EN04-12D	19	2/8/2011	EN0412D020811	Summa Canister	20.7	1	0.0	1.41	No	No	ug/m3	< 4.8 U	- 190 -	< 2.8 U	< 2.8 U	< 1.8 U	- 4.9 -	< 2.8 U	< 2.8 U	< 1.9 U	< 2.4 U	< 5.4 U
	EN04-12D	19	6/7/2011	EN0412D060711	Summa Canister	17.9	2.3	0.0	1.58	No	No	ug/m3	< 5.4 U	- 360 -	< 3.1 U	< 3.1 U	< 2.0 U	- 11 -	< 3.1 U	< 3.2 U	< 8.3 U	< 2.7 U	< 6.0 U
	EN04-12D	19	8/2/2011	EN0412D080211	Summa Canister	18.8	1.6	0.0	1.69	No	No	ug/m3	< 5.7 U	- 380 -	< 3.4 U	< 3.4 U	< 2.2 U	- 11 -	< 3.4 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.5 U
	EN04-12D	19	12/7/2011	EN0412D120711	Summa Canister	17.4	3	0.1	1.47	No	No	ug/m3	< 5.0 U	- 380 -	< 2.9 U	< 2.9 U	< 1.9 U	- 16 -	< 2.9 U	< 3.0 U	< 7.8 U	< 2.6 UJ	< 5.6 U
	EN04-12D	19	2/15/2012	EN0412D021512	Summa Canister	20.1	1.9	0.0	1.52	No	No	ug/m3	< 5.2 U	- 170 -	< 3.0 U	< 3.0 U	< 1.9 U	- 6.2 -	< 3.0 U	< 3.1 U	< 8.0 U	< 26 U	< 5.8 U
	EN04-12D	19	8/16/2012	EN0412D081612	Summa Canister	18.5	2.7	0.0	1.75	No	No	ug/m3	< 5.9 U	- 380 -	< 3.5 U	< 3.5 U	< 2.2 U	- 11 -	< 3.5 U	< 3.5 U	< 9.2 U	< 30 U	< 6.7 U
Designation **EN04-13**	EN04-13S	8	8/25/2010	EN0413S082510	Summa Canister	17.2	4.6	0.0	2.16	No	No	ug/m3	< 7.3 U	- 1800 -	< 4.3 U	< 4.3 U	< 2.8 U	- 190 -	< 4.3 U	< 4.4 U	< 2.8 U	< 3.8 U	< 8.3 U
Monitoring Well **EN-449**	EN04-13S	8	2/9/2011	EN0413S020911	Summa Canister	18.6	3.2	0.0	1.46	No	No	ug/m3	< 5.0 U	- 390 -	< 2.9 U	< 2.9 U	< 1.9 U	- 110 -	< 2.9 U	< 3.0 U	< 1.9 U	< 2.5 U	< 5.6 U
	EN04-13S	8	8/3/2011	EN0413S080311	Summa Canister	18.6	2.5	0.0	1.70	No	No	ug/m3	< 5.8 U	- 1600 -	< 3.4 U	< 3.4 U	< 2.2 U	- 240 -	< 3.4 U	< 3.4 U	< 9.0 U	< 3.0 U	< 6.5 U
	EN04-13S	8	2/15/2012	EN0413S021512	Summa Canister	24	1.4	0.0	1.64	No	No	ug/m3	< 5.6 U	- 420 -	< 3.2 U	< 3.2 U	< 2.1 U	- 83 -	- 15 -	< 3.3 U	< 8.6 U	< 28 U	< 6.3 U
	EN04-13S	8	8/16/2012	EN0413S081612	Summa Canister	17.5	3.8	0.0	3.05	No	No	ug/m3	< 10 U	- 1500 -	< 6.0 U	< 6.0 U	< 3.9 U	- 160 -	< 6.0 U	< 6.2 U	< 16 U	< 53 U	< 12 U
	EN04-13D	30	8/25/2010	EN0413D082510	Summa Canister	18.3	2.8	0.0	1.61	Yes	Yes	ug/m3	< 5.5 U	- 480 -	< 3.2 U	< 3.2 U	< 2.0 U	- 45 -	< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.2 U
	EN04-13D	30	2/9/2011	EN0413D020911	Summa Canister	20.3	1.7	0.0	1.34	No	No	ug/m3	- 4.6 -	- 360 -	< 2.6 U	< 2.6 U	< 1.7 U	- 65 -	< 2.6 U	< 2.7 U	< 1.8 U	< 2.3 U	< 5.1 U
	EN04-13D	30	8/3/2011	EN0413D080311	Summa Canister	19.6	1.6	0.0	1.63	No	No	ug/m3	< 5.5 U	- 170 -	< 3.2 U	< 3.2 U	< 2.1 U	- 16 -	< 3.2 U	< 3.3 U	< 8.6 U	< 2.8 U	< 6.2 U
	EN04-13D	30	2/15/2012	EN0413D021512	Summa Canister	21.4	0.5	0.0	1.68	No	No	ug/m3	- 71 -	- 120 -	< 3.3 U	< 3.3 U	< 2.1 U	- 9.4 -	< 3.3 U	< 3.4 U	< 8.9 U	< 29 U	< 6.4 U
	EN04-13D	30	8/16/2012	EN0413D081612	Summa Canister	18.1	2.6	0.0	1.91	No	No	ug/m3	< 6.5 U	- 400 -	< 3.8 U	< 3.8 U	< 2.4 U	- 45 -	< 3.8 U	< 3.9 U	< 10 U	< 33 U	< 7.3 U
	EN04-13D Dup	30	8/16/2012	DU37419081612	Summa Canister	18.1	2.6	0.0	3.59	No	No	ug/m3	< 12 U	- 400 -	< 7.1 U	< 7.1 U	< 4.6 U	- 46 -	< 7.1 U	< 7.3 U	< 19 U	< 62 U	< 14 U

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual 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?	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	Trifluorotrichloroethane (Freon 113)
Designation **EN04-14**	EN04-14S	8	8/23/2010	EN0414S082310	Summa Canister	18.9	1.8	0.0	1.62	No	No	ug/m3	< 5.5 U	- 28 -	< 3.2 U	< 3.2 U	< 2.1 U	- 9.1 -	< 3.2 U	< 3.3 U	< 2.1 U	< 2.8 U	< 6.2 U
Monitoring Well **EN-462**	EN04-14S	8	12/7/2010	EN0414S120710-tube	Summa Canister	-	-	-	1.00	No	No	ug/m3	< 6.8 U	- 16 -	< 4.0 U	< 4.0 U	< 2.6 U	- 11 -	< 4.0 U	< 4.0 U	- - -	< 21 U	< 7.7 U
	EN04-14S	8	2/8/2011	EN0414S020811	Summa Canister	20.4	1.3	0.0	1.55	No	No	ug/m3	< 5.2 U	- 9.3 -	< 3.1 U	< 3.1 U	< 2.0 U	- 5.4 -	< 3.1 U	< 3.1 U	< 2.0 U	< 2.7 U	< 5.9 U
	EN04-14S	8	8/3/2011	EN0414S080311	Summa Canister	18.9	2.1	0.0	1.66	No	No	ug/m3	< 5.6 U	- 19 -	< 3.3 U	< 3.3 U	< 2.1 U	< 4.5 U	< 3.3 U	< 3.4 U	< 8.8 U	< 2.9 U	< 6.4 U
	EN04-14S	8	2/16/2012	EN0414S021612	Summa Canister	20.4	1.4	0.0	2.67	No	No	ug/m3	< 9.0 U	- 9.6 -	< 5.3 U	< 5.3 U	< 3.4 U	< 7.3 U	< 5.3 U	< 5.4 U	< 14 U	< 46 U	< 10 U
	EN04-14S	8	8/16/2012	EN0414S081612	Summa Canister	20.1	1.1	0.0	1.68	No	No	ug/m3	< 5.7 U	- 28 -	< 3.3 U	< 3.3 U	< 2.1 U	- 8.8 -	< 3.3 U	< 3.4 U	< 8.9 U	< 29 U	< 6.4 U
	EN04-14D	34	8/23/2010	EN0414D082310	Summa Canister	20.3	0.5	0.0	1.64	No	No	ug/m3	- 9.7 -	- 1000 -	< 3.2 U	< 3.2 U	< 2.1 U	- 41 -	< 3.2 U	< 3.3 U	< 2.2 U	< 2.8 U	< 6.3 U
	EN04-14D	34	2/8/2011	EN0414D020811	Summa Canister	20.6	0.9	0.0	3.88	No	No	ug/m3	< 13 U	- 3300 -	< 7.7 U	< 7.7 U	< 5.0 U	- 110 -	< 7.7 U	< 7.8 U	< 5.1 U	< 6.7 U	< 15 U
	EN04-14D	34	8/3/2011	EN0414D080311	Summa Canister	19.7	0.7	0.0	1.68	No	No	ug/m3	< 5.7 U	- 1100 -	< 3.3 U	< 3.3 U	< 2.1 U	- 47 -	< 3.3 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.4 U
	EN04-14D	34	2/16/2012	EN0414D021612	Summa Canister	20.6	0.5	0.0	1.58	No	No	ug/m3	< 5.4 U	- 600 -	< 3.1 U	< 3.1 U	< 2.0 U	- 11 -	- 5.6 -	< 3.2 U	< 8.3 U	< 27 U	< 6.0 U
	EN04-14D	34	8/16/2012	EN0414D081612	Summa Canister	20	1	0.0	1.68	No	No	ug/m3	< 5.7 U	- 420 -	< 3.3 U	< 3.3 U	< 2.1 U	- 20 -	< 3.3 U	< 3.4 U	< 8.9 U	< 29 U	< 6.4 U
Designation **EN04-15**	EN04-15S	8	8/25/2010	EN0415S082510	Summa Canister	18.5	2.1	0.0	1.73	No	No	ug/m3	< 5.9 U	< 4.6 U	< 3.4 U	< 3.4 U	< 2.2 U	< 4.7 U	< 3.4 U	< 3.5 U	< 2.3 U	< 3.0 U	< 6.6 U
Monitoring Well **EN-162**	EN04-15S	8	8/2/2011	EN0415S080211	Summa Canister	19	1	0.0	1.69	No	No	ug/m3	< 5.7 U	< 4.5 U	< 3.4 U	< 3.4 U	< 2.2 U	< 4.6 U	< 3.4 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.5 U
	EN04-15S	8	8/16/2012	EN0415S081612	Summa Canister	18.8	2	0.1	1.75	No	No	ug/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	< 9.2 U	< 30 U	< 6.7 U
	EN04-15D	30	8/25/2010	EN0415D082510	Summa Canister	18.5	2.2	0.0	1.65	No	No	ug/m3	< 5.6 U	< 4.4 U	< 3.3 U	< 3.3 U	< 2.1 U	< 4.5 U	< 3.3 U	< 3.3 U	< 2.2 U	< 2.9 U	< 6.3 U
	EN04-15D	30	8/2/2011	EN0415D080211	Summa Canister	19.1	0.9	0.0	1.69	No	No	ug/m3	< 5.7 U	< 4.5 U	< 3.4 U	< 3.4 U	< 2.2 U	< 4.6 U	< 3.4 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.5 U
	EN04-15D	30	8/16/2012	EN0415D081612	Summa Canister	19	1.8	0.1	1.68	No	No	ug/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	< 8.9 U	< 29 U	< 6.4 U
Designation **EN04-16**	EN04-16S	8	8/25/2010	EN0416S082510	Summa Canister	18.6	2.4	0.0	1.72	No	No	ug/m3	- 12 -	- 8.7 -	< 3.4 U	< 3.4 U	< 2.2 U	< 4.7 U	< 3.4 U	< 3.5 U	< 2.3 U	< 3.0 U	< 6.6 U
Monitoring Well **EN-206**	EN04-16S	8	8/2/2011	EN0416S080211	Summa Canister	18.4	2.1	0.0	1.50	No	No	ug/m3	- 12 -	- 9.4 -	< 3.0 U	< 3.0 U	< 1.9 U	- 4.9 -	< 3.0 U	< 3.0 U	< 7.9 U	< 2.6 U	< 5.7 U
	EN04-16S	8	8/15/2012	EN0416S081512	Summa Canister	18.9	2.2	0.0	1.68	No	No	ug/m3	- 6.7 -	- 8.3 -	< 3.3 U	< 3.3 U	< 2.1 U	< 4.6 U	< 3.3 U	< 3.4 U	< 8.9 U	< 29 U	< 6.4 U
	EN04-16D	34	8/25/2010	EN0416D082510	Summa Canister	18.7	0.9	0.0	3.52	No	No	ug/m3	- 180 -	- 3100 -	- 12 -	< 7.0 U	< 4.5 U	- 150 -	< 7.0 U	< 7.1 U	< 4.6 U	< 6.1 U	< 13 U
	EN04-16D	34	12/7/2010	EN0416D120710-tube	Summa Canister	-	-	-	1.00	No	No	ug/m3	- 350 -	- 4600 -	- 45 -	< 40 U	< 26 U	- 260 -	< 40 U	< 40 U	- - -	< 210 U	< 77 U
	EN04-16D	34	8/2/2011	EN0416D080211	Summa Canister	18.9	0.6	0.0	6.03	No	No	ug/m3	- 190 -	- 2900 -	- 14 -	< 12 U	< 7.7 U	- 99 -	< 12 U	< 12 U	< 32 U	< 10 U	< 23 U
	EN04-16D	34	8/15/2012	EN0416D081512	Summa Canister	19.4	1.3	0.0	1.68	No	No	ug/m3	- 29 -	- 300 -	< 3.3 U	< 3.3 U	< 2.1 U	- 24 -	< 3.3 U	< 3.4 U	< 8.9 U	< 29 U	< 6.4 U
	EN04-16D	34	9/14/2012	EN0416D091412	Summa Canister	20.1	1.3	0.0	1.83	No	No	ug/m3	- 54 -	- 580 -	< 3.6 U	< 3.6 U	< 2.3 U	- 53 -	< 3.6 U	< 3.7 U	< 9.6 U	< 32 U	< 7.0 U

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual 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?	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	Trifluorotrichloroethane (Freon 113)
Designation **EN04-17/ EN10-17**	EN04-17S	8	8/24/2010	EN0417S082410	Summa Canister	19.6	1.2	0.0	1.62	No	No	ug/m3	< 5.5 U	- 490 -	< 3.2 U	< 3.2 U	< 2.1 U	- 9.5 -	< 3.2 U	< 3.3 U	< 2.1 U	< 2.8 U	< 6.2 U
Monitoring Well **EN-401**	EN04-17S	8	12/7/2010	EN0417S120710	Summa Canister	20.2	0.4	0.0	1.61	No	No	ug/m3	< 5.5 U	- 140 -	< 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
	EN04-17S	8	12/7/2010	EN0417S120710-tube	Summa Canister	-	-	-	1.00	No	No	ug/m3	< 34 U	- 170 -	< 20 U	< 20 U	< 13 U	< 27 U	< 20 U	< 20 U	- - -	< 100 U	< 38 U
	EN04-17S	8	2/8/2011	EN0417S020811	Summa Canister	20.9	0.3	0.0	1.58	No	No	ug/m3	< 5.4 U	- 78 -	< 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	6/7/2011	EN0417S060711	Summa Canister	20.5	0.5	0.0	1.79	No	No	ug/m3	< 6.1 U	- 240 -	< 3.5 U	< 3.5 U	< 2.3 U	< 4.9 U	< 3.5 U	< 3.6 U	< 9.4 U	< 3.1 U	< 6.8 U
	EN04-17S	8	8/3/2011	EN0417S080311	Summa Canister	19.1	1.1	0.0	1.61	No	No	ug/m3	< 5.5 U	- 360 -	< 3.2 U	< 3.2 U	< 2.0 U	- 9.8 -	< 3.2 U	< 3.2 U	< 8.5 U	< 2.8 U	< 6.2 U
	EN04-17S	8	12/7/2011	EN0417S120711	Summa Canister	19.8	0.5	0.1	1.44	No	No	ug/m3	< 4.9 U	- 140 -	< 2.8 U	< 2.8 U	< 1.8 U	< 3.9 U	< 2.8 U	< 2.9 U	< 7.6 U	< 2.5 UJ	< 5.5 U
	EN04-17S	8	2/16/2012	EN0417S021612	Summa Canister	20.8	0.3	0.0	1.55	No	No	ug/m3	< 5.2 U	- 58 -	< 3.1 U	< 3.1 U	< 2.0 U	< 4.2 U	< 3.1 U	< 3.1 U	< 8.2 U	< 27 U	< 5.9 U
	EN04-17S	8	8/16/2012	EN0417S081612	Summa Canister	20.3	0.8	0.0	1.64	No	No	ug/m3	< 5.6 U	- 320 -	< 3.2 U	< 3.2 U	< 2.1 U	- 8.1 -	< 3.2 U	< 3.3 U	< 8.6 U	< 28 U	< 6.3 U
	EN04-17D	28	8/24/2010	EN0417D082410	Summa Canister	19.3	1.3	0.0	1.71	No	No	ug/m3	< 5.8 U	- 18 -	< 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
	EN04-17D	28	12/7/2010	EN0417D120710	Summa Canister	20.5	0.2	0.0	1.55	No	No	ug/m3	< 5.2 U	- 6.9 -	< 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
	EN04-17D	28	2/8/2011	EN0417D020811	Summa Canister	21	0.2	0.0	1.55	No	No	ug/m3	- 110 -	- 18 -	< 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
	EN04-17D	28	6/7/2011	EN0417D060711	Summa Canister	20.2	1	0.0	1.71	No	No	ug/m3	< 5.8 U	- 15 -	< 3.4 U	< 3.4 U	< 2.2 U	< 4.7 U	< 3.4 U	< 3.5 U	< 9.0 U	< 3.0 U	< 6.6 U
	EN04-17D	28	8/3/2011	EN0417D080311	Summa Canister	19	1.1	0.0	1.52	No	No	ug/m3	< 5.2 U	- 20 -	< 3.0 U	< 3.0 U	< 1.9 U	< 4.1 U	< 3.0 U	< 3.1 U	< 8.0 U	< 2.6 U	< 5.8 U
	EN04-17D	28	12/7/2011	EN0417D120711	Summa Canister	19.7	0.6	0.1	1.46	No	No	ug/m3	< 5.0 U	- 23 -	< 2.9 U	< 2.9 U	< 1.9 U	< 4.0 U	< 2.9 U	< 3.0 U	< 7.7 U	< 2.5 UJ	< 5.6 U
	EN04-17D	28	2/16/2012	EN0417D021612	Summa Canister	20.8	0.3	0.0	1.58	No	No	ug/m3	< 5.4 U	- 5.5 -	< 3.1 U	< 3.1 U	< 2.0 U	< 4.3 U	< 3.1 U	< 3.2 U	< 8.3 U	- 35 -	< 6.0 U
	EN04-17D	28	8/16/2012	EN0417D081612	Summa Canister	20.5	0.5	0.1	1.64	No	No	ug/m3	< 5.6 U	- 9.9 -	< 3.2 U	< 3.2 U	< 2.1 U	< 4.5 U	< 3.2 U	< 3.3 U	< 8.6 U	< 28 U	< 6.3 U
	EN10-17D	34	8/24/2010	EN1017D082410	Summa Canister	20.5	0.3	0.0	16.1	Yes	Yes	ug/m3	< 55 U	- 16000 -	- 180 -	< 32 U	< 20 U	- 500 -	< 32 U	< 32 U	< 21 U	< 28 U	< 62 U
	EN10-17D	34	12/7/2011	EN1017D120711	Summa Canister	19.7	0.6	0.0	20.0	No	No	ug/m3	< 68 U	- 19000 -	- 96 -	< 40 U	< 26 U	- 360 -	< 40 U	< 40 U	< 100 U	< 35 U	< 77 U
	EN10-17D	34	2/16/2012	EN1017D021612	Summa Canister	20.6	0.8	0.0	10.2	No	No	ug/m3	< 34 U	- 6700 -	- 93 -	< 20 U	< 13 U	- 240 -	- 55 -	< 21 U	< 54 U	- 330 -	< 39 U
	EN10-17D	34	8/16/2012	EN1017D081612	Summa Canister	20.3	0.7	0.1	1.61	No	No	ug/m3	- 7.2 -	- 320 -	- 13 -	< 3.2 U	< 2.0 U	- 240 -	< 3.2 U	< 3.2 U	< 8.5 U	< 28 U	< 6.2 U
	EN10-17D	34	9/14/2012	EN1017D091412	Summa Canister	21.5	0.6	0.0	1.79	No	No	ug/m3	- 8.3 -	- 340 -	- 11 -	< 3.5 U	< 2.3 U	- 260 -	< 3.5 U	< 3.6 U	< 9.4 U	< 31 U	< 6.8 U
Designation **EN04-18**	EN04-18S	8	8/25/2010	EN0418S082510	Summa Canister	19.8	1.3	0.0	1.75	No	No	ug/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 Dup	8	8/25/2010	DU3301082510	Summa Canister	19.8	1.3	0.0	1.68	No	No	ug/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
	EN04-18S	8	8/2/2011	EN0418S080211	Summa Canister	19.4	1.1	0.0	1.70	No	No	ug/m3	< 5.8 U	< 4.6 U	< 3.4 U	< 3.4 U	< 2.2 U	< 4.6 U	< 3.4 U	< 3.4 U	< 9.0 U	< 3.0 U	< 6.5 U
	EN04-18S	8	8/14/2012	EN0418S081412	Summa Canister	20.4	0.4	0.0	1.75	No	No	ug/m3	< 5.9 U	- 5.8 -	< 3.5 U	< 3.5 U	< 2.2 U	< 4.8 U	< 3.5 U	< 3.5 U	< 9.2 U	< 30 U	< 6.7 U
	EN04-18D	31	8/25/2010	EN0418D082510	Summa Canister	19.7	0.8	0.0	1.63	No	No	ug/m3	- 22 -	- 930 -	- 8.5 -	< 3.2 U	< 2.1 U	- 59 -	< 3.2 U	< 3.3 U	< 2.2 U	< 2.8 U	< 6.2 U
	EN04-18D	31	8/2/2011	EN0418D080211	Summa Canister	19.9	0.4	0.0	1.78	No	No	ug/m3	- 9.4 -	- 740 -	- 5.0 -	< 3.5 U	< 2.3 U	- 46 -	< 3.5 U	< 3.6 U	< 9.4 U	< 3.1 U	< 6.8 U
	EN04-18D Dup	31	8/2/2011	DU3370080211	Summa Canister	19.9	0.4	0.0	1.73	No	No	ug/m3	- 8.3 -	- 750 -	- 5.3 -	< 3.4 U	< 2.2 U	- 55 -	< 3.4 U	< 3.5 U	< 9.1 U	< 3.0 U	< 6.6 U
	EN04-18D	31	8/14/2012	EN0418D081412	Summa Canister	20.9	0	0.1	1.71	No	No	ug/m3	- 8.4 -	- 770 -	- 4.5 -	< 3.4 U	< 2.2 U	- 45 -	< 3.4 U	< 3.5 U	< 9.0 U	< 30 U	< 6.6 U
	EN04-18D Dup	31	8/14/2012	DU3362081412	Summa Canister	20.9	0	0.1	1.83	No	No	ug/m3	- 6.7 -	- 710 -	- 5.0 -	< 3.6 U	< 2.3 U	- 35 -	- 6.0 -	< 3.7 U	< 9.6 U	< 32 U	< 7.0 U

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual 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?	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			Trifluorotrichloroethane (Freon 113)		
Designation	**EN04-19**	EN04-19S	8	8/25/2010	EN0419S082510	Summa Canister	19.2	0.9	0.0	1.61	No	No	ug/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
Monitoring Well	**EN-426**	EN04-19S	8	8/3/2011	EN0419S080311	Summa Canister	19.7	0.7	0.0	3.62	No	No	ug/m3	<	12	U	<	9.7	U	<	7.2	U	<	7.2	U	<	4.6	U	<	9.9	U	<	7.2	U	<	7.3	U	<	19	U	<	6.3	U	<	14	U
		EN04-19S	8	8/14/2012	EN0419S081412	Summa Canister	20.4	0.6	0.1	1.83	No	No	ug/m3	<	6.2	U	-	6.5	-	<	3.6	U	<	3.6	U	<	2.3	U	<	5.0	U	<	3.6	U	<	3.7	U	<	9.6	U	-	130	J	<	7.0	U
		EN04-19D	29.5	8/25/2010	EN0419D082510	Summa Canister	19.1	1.5	0.0	1.60	No	No	ug/m3	<	5.4	U	-	750	-	-	6.6	-	<	3.2	U	<	2.0	U	-	38	-	<	3.2	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.1	U
		EN04-19D	29.5	8/3/2011	EN0419D080311	Summa Canister	19.9	0.5	0.0	1.76	No	No	ug/m3	<	6.0	U	-	470	-	-	4.2	-	<	3.5	U	<	2.2	U	-	28	-	<	3.5	U	<	3.6	U	<	9.3	U	<	3.0	U	<	6.7	U
		EN04-19D	29.5	8/14/2012	EN0419D081412	Summa Canister	20.5	0.3	0.1	1.71	No	No	ug/m3	<	5.8	U	-	710	-	-	4.3	-	<	3.4	U	<	2.2	U	-	38	-	<	3.4	U	<	3.5	U	<	9.0	U	<	30	U	<	6.6	U
		EN04-19D Dup	29.5	8/14/2012	DU3352081412	Summa Canister	20.5	0.3	0.1	1.71	No	No	ug/m3	<	5.8	U	-	710	-	-	5.1	-	<	3.4	U	<	2.2	U	-	40	-	<	3.4	U	<	3.5	U	<	9.0	U	<	30	U	<	6.6	U
Designation	**EN04-20**	EN04-20S	8	8/25/2010	EN0420S082510	Summa Canister	19.3	1.7	0.0	1.61	No	No	ug/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
Monitoring Well	**EN-207**	EN04-20S Dup	8	8/25/2010	DU3351082510	Summa Canister	19.3	1.7	0.0	1.78	No	No	ug/m3	<	6.0	U	<	4.8	U	<	3.5	U	<	3.5	U	<	2.3	U	<	4.8	U	<	3.5	U	<	3.6	U	<	2.3	U	-	5.4	-	<	6.8	U
		EN04-20S	8	8/3/2011	EN0420S080311	Summa Canister	19.9	1.1	0.0	1.63	No	No	ug/m3	<	5.5	U	-	9.9	-	<	3.2	U	<	3.2	U	<	2.1	U	<	4.4	U	<	3.2	U	<	3.3	U	<	8.6	U	<	2.8	U	<	6.2	U
		EN04-20S	8	8/14/2012	EN0420S081412	Summa Canister	20	1.5	0.1	5.01	No	No	ug/m3	<	17	U	-	21	-	<	9.9	U	<	9.9	U	<	6.4	U	<	14	U	<	9.9	U	<	10	U	<	26	U	<	87	U	<	19	U
		EN04-20D	36	8/25/2010	EN0420D082510	Summa Canister	20.5	0.6	0.0	1.78	No	No	ug/m3	<	6.0	U	-	240	-	<	3.5	U	<	3.5	U	<	2.3	U	-	9.2	-	<	3.5	U	<	3.6	U	<	2.3	U	<	3.1	U	<	6.8	U
		EN04-20D Dup	36	8/25/2010	DU3320082510	Summa Canister	20.5	0.6	0.0	1.72	No	No	ug/m3	<	5.8	U	-	240	-	<	3.4	U	<	3.4	U	<	2.2	U	-	9.8	-	<	3.4	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.6	U
		EN04-20D	36	8/3/2011	EN0420D080311	Summa Canister	20.1	0.4	0.0	1.65	No	No	ug/m3	<	5.6	U	-	200	-	<	3.3	U	<	3.3	U	<	2.1	U	-	6.1	-	<	3.3	U	<	3.3	U	<	8.7	U	<	2.9	U	<	6.3	U
		EN04-20D Dup	36	8/3/2011	DU35655080311	Summa Canister	20.1	0.4	0.0	1.69	No	No	ug/m3	<	5.7	U	-	170	-	<	3.4	U	<	3.4	U	<	2.2	U	-	4.7	-	<	3.4	U	<	3.4	U	<	8.9	U	<	2.9	U	<	6.5	U
		EN04-20D	36	8/14/2012	EN0420D081412	Summa Canister	20.8	0.2	0.0	1.71	No	No	ug/m3	<	5.8	U	-	150	-	<	3.4	U	<	3.4	U	<	2.2	U	-	10	-	<	3.4	U	<	3.5	U	<	9.0	U	<	30	U	<	6.6	U
Designation	**EN04-21**	EN04-21S	7.5	8/25/2010	EN0421S082510	Summa Canister	17.7	2.6	0.0	1.63	No	No	ug/m3	<	5.5	U	-	7.3	-	<	3.2	U	<	3.2	U	<	2.1	U	<	4.4	U	<	3.2	U	<	3.3	U	<	2.2	U	<	2.8	U	<	6.2	U
Monitoring Well	**EN-468**	EN04-21S	7.5	8/3/2011	EN0421S080311	Summa Canister	19	1.7	0.0	1.69	No	No	ug/m3	-	120	-	-	7.4	-	<	3.4	U	<	3.4	U	<	2.2	U	<	4.6	U	<	3.4	U	<	3.4	U	<	8.9	U	<	2.9	U	<	6.5	U
		EN04-21S	7.5	8/14/2012	EN0421S081412	Summa Canister	20.3	0.6	0.1	3.02	No	No	ug/m3	<	10	U	<	8.1	U	<	6.0	U	<	6.0	U	<	3.8	U	<	8.2	U	<	6.0	U	<	6.1	U	<	16	U	<	52	UJ	<	12	U
		EN04-21D	23	8/25/2010	EN0421D082510	Summa Canister	19.1	1.8	0.0	2.41	No	No	ug/m3	-	9.6	-	-	220	-	<	4.8	U	<	4.8	U	<	3.1	U	-	7.0	-	<	4.8	U	<	4.9	U	<	3.2	U	<	4.2	U	<	9.2	U
		EN04-21D	23	8/3/2011	EN0421D080311	Summa Canister	19.6	1.1	0.0	1.66	No	No	ug/m3	-	7.3	-	-	140	-	<	3.3	U	<	3.3	U	<	2.1	U	<	4.5	U	<	3.3	U	<	3.4	U	<	8.8	U	<	2.9	U	<	6.4	U
		EN04-21D	23	8/14/2012	EN0421D081412	Summa Canister	20	1	0.0	1.79	No	No	ug/m3	-	13	-	-	140	-	<	3.5	U	<	3.5	U	<	2.3	U	<	4.9	U	<	3.5	U	<	3.6	U	<	9.4	U	<	31	U	<	6.8	U
Designation	**EN04-22**	EN04-22S	8	8/24/2010	EN0422S082410	Summa Canister	14.8	5.2	0.0	1.68	No	No	ug/m3	<	5.7	U	-	210	-	-	78	-	-	7.6	-	<	2.1	U	-	13	-	<	3.3	U	<	3.4	U	<	2.2	U	-	55	-	<	6.4	U
Monitoring Well	**EN-080;EN-393**	EN04-22S	8	2/8/2011	EN0422S020811	Summa Canister	20.1	0.2	0.0	1.58	No	No	ug/m3	<	5.4	U	-	120	-	-	72	-	-	10	-	<	2.0	U	-	16	-	<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	<	6.0	U
		EN04-22S	8	8/2/2011	EN0422S080211	Summa Canister	14.7	4.7	0.0	1.49	No	No	ug/m3	-	8.4	-	-	880	-	-	280	-	-	39	-	<	1.9	U	-	64	-	<	3.0	U	-	3.8	-	<	7.9	U	<	2.6	U	-	17	
		EN04-22S	8	2/14/2012	EN0422S021412	Summa Canister	19.2	1.6	0.1	1.52	No	No	ug/m3	<	5.2	U	-	100	-	-	42	-	-	8.4	-	<	1.9	U	-	16	-	<	3.0	U	<	3.1	U	<	8.0	U	<	26	U	<	5.8	U
		EN04-22S	8	8/14/2012	EN0422S081412	Summa Canister	18.4	2.4	0.0	1.75	No	No	ug/m3	-	6.1	-	-	540	-	-	85	-	-	15	-	<	2.2	U	-	35	-	<	3.5	U	<	3.5	U	<	9.2	U	<	30	U	-	10	
		EN04-22S Dup	8	8/14/2012	DU33543081412	Summa Canister	18.4	2.4	0.0	1.71	No	No	ug/m3	<	5.8	U	-	300	-	-	52	-	-	11	-	<	2.2	U	-	20	-	<	3.4	U	<	3.5	U	<	9.0	U	<	30	U	<	6.6	U
		EN04-22D	16	8/24/2010	EN0422D082410	Summa Canister	13.6	6.0	0.0	1.58	No	No	ug/m3	-	7.4	-	-	1200	-	-	1100	-	-	91	-	<	2.0	U	-	76	-	<	3.1	U	-	8.8	-	<	2.1	U	<	2.7	U	-	14	
		EN04-22D	16	2/8/2011	EN0422D020811	Summa Canister	18.5	3.6	0.0	1.49	No	No	ug/m3	<	5.0	U	-	490	-	-	390	-	-	55	-	<	1.9	U	-	42	-	<	3.0	U	-	4.6	-	-	3.0	-	<	2.6	U	-	7.6	
		EN04-22D	16	8/2/2011	EN0422D080211	Summa Canister	14.6	4.6	0.0	1.55	No	No	ug/m3	<	5.2	U	-	680	-	-	500	-	-	71	-	<	2.0	U	-	58	-	<	3.1	U	-	5.4	-	<	8.2	U	<	2.7	U	-	12	
		EN04-22D	16	2/14/2012	EN0422D021412	Summa Canister	18.4	2.4	0.0	1.58	No	No	ug/m3	<	5.4	U	-	240	-	-	120	-	-	22	-	<	2.0	U	-	30	-	<	3.1	U	<	3.2	U	<	8.3	U	<	27	U	<	6.0	U
		EN04-22D	16	8/14/2012	EN0422D081412	Summa Canister	19	2	0.0	2.79	No	No	ug/m3	<	9.5	U	-	740	-	-	230	-	-	31	-	<	3.6	U	-	56	-	<	5.5	U	<	5.6	U	<	15	U	<	48	UJ	-	12	

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual 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?	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			Trifluorotrichloroethane (Freon 113)		
Designation	**EN04-23**	EN04-23S	8	8/24/2010	EN0423S082410	Summa Canister	16.3	4.4	0.0	1.64	No	No	ug/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
Monitoring Well	**EN-174**	EN04-23S	8	8/3/2011	EN0423S080311	Summa Canister	19.5	1.3	0.0	1.68	No	No	ug/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	<	8.9	U	<	2.9	U	<	6.4	U
		EN04-23S	8	8/14/2012	EN0423S081412	Summa Canister	19.5	2	0.1	2.91	No	No	ug/m3	<	9.9	U	<	7.8	U	<	5.8	U	<	5.8	U	<	3.7	U	<	7.9	U	<	5.8	U	<	5.9	U	<	15	U	<	50	U	<	11	U
		EN04-23S Dup	8	8/14/2012	DU34085081412	Summa Canister	19.5	2	0.1	1.61	No	No	ug/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	<	8.5	U	<	28	U	<	6.2	U
		EN04-23D	23	8/24/2010	EN0423D082410	Summa Canister	19.8	1.5	0.0	1.68	No	No	ug/m3	-	19	-	-	390	-	-	120	-	-	7.0	-	<	2.1	U	<	4.6	U	<	3.3	U	-	19	-	<	2.2	U	<	2.9	U	<	6.4	U
		EN04-23D	23	8/3/2011	EN0423D080311	Summa Canister	19.9	0.8	0.0	1.69	No	No	ug/m3	-	14	-	-	400	-	-	96	-	-	8.1	-	<	2.2	U	<	4.6	U	<	3.4	U	-	16	-	<	8.9	U	<	2.9	U	<	6.5	U
		EN04-23D Dup	23	8/3/2011	DU3355080311	Summa Canister	19.9	0.8	0.0	1.68	No	No	ug/m3	-	15	-	-	390	-	-	96	-	-	8.3	-	<	2.1	U	<	4.6	U	<	3.3	U	-	16	-	<	8.9	U	<	2.9	U	<	6.4	U
		EN04-23D	23	8/14/2012	EN0423D081412	Summa Canister	19.9	1.1	0.0	4.76	No	No	ug/m3	-	540	-	-	2000	-	<	9.4	U	<	9.4	U	<	6.1	U	-	490	-	<	9.4	U	<	9.6	U	<	25	U	<	83	U	<	18	U
		EN04-23D	23	9/14/2012	EN0423D091412	Summa Canister	20.2	1.3	0.0	1.79	No	No	ug/m3	-	13	-	-	430	-	-	52	-	-	6.1	-	<	2.3	U	<	4.9	U	<	3.5	U	-	10	-	<	9.4	U	<	31	U	<	6.8	U
		EN04-23D Dup	23	9/14/2012	DU3350091412	Summa Canister	20.2	1.3	0.0	1.79	No	No	ug/m3	-	10	-	-	280	-	-	44	-	-	3.8	-	<	2.4	U	<	5.2	U	<	3.8	U	-	7.8	-	<	10	U	<	33	U	<	7.3	U
Designation	**EN04-25**	EN04-25S	8	8/25/2010	EN0425S082510	Summa Canister	13.9	5.3	0.0	1.58	Yes	Yes	ug/m3	-	7.4	-	-	6.9	-	<	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-395**	EN04-25S	8	8/4/2011	EN0425S080411	Summa Canister	19	1.4	0.0	1.68	No	No	ug/m3	-	7.5	-	<	4.5	U	<	3.3	U	<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	8.9	U	<	2.9	U	<	6.4	U
		EN04-25S	8	8/13/2012	EN0425S081312	Summa Canister	15.6	3.6	0.0	1.68	No	No	ug/m3	-	10	-	-	9.5	-	<	3.3	U	<	3.3	U	<	2.1	U	<	4.6	U	<	3.3	U	<	3.4	U	<	8.9	U	<	29	U	<	6.4	U
		EN04-25D	17.5	8/25/2010	EN0425D082510	Summa Canister	17.8	1.9	0.0	1.52	No	No	ug/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
		EN04-25D	17.5	8/4/2011	EN0425D080411	Summa Canister	19.5	0.9	0.0	1.64	No	No	ug/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	<	8.6	U	-	3.0	-	<	6.3	U
		EN04-25D	17.5	8/13/2012	EN0425D081312	Summa Canister	19.4	1.3	0.0	1.79	No	No	ug/m3	-	6.3	-	-	8.2	-	<	3.5	U	<	3.5	U	<	2.3	U	<	4.9	U	<	3.5	U	<	3.6	U	<	9.4	U	<	31	U	<	6.8	U
Designation	**EN04-26**	EN04-26S	8	8/25/2010	EN0426S082510	Summa Canister	19.4	1.4	0.0	1.75	No	No	ug/m3	<	5.9	U	-	430	-	<	3.5	U	<	3.5	U	<	2.2	U	-	32	-	<	3.5	U	<	3.5	U	<	2.3	U	<	3.0	U	<	6.7	U
Monitoring Well	**EN-304**	EN04-26S	8	12/7/2010	EN0426S120710	Summa Canister	19.5	1.2	0.0	1.58	No	No	ug/m3	<	5.4	U	-	490	-	<	3.1	U	<	3.1	U	<	2.0	U	-	41	-	<	3.1	U	<	3.2	U	<	2.1	U	<	2.7	U	-	8.1	
		EN04-26S	8	2/9/2011	EN0426S020911	Summa Canister	20.4	0.9	0.0	1.39	No	No	ug/m3	<	4.7	U	-	290	-	<	2.8	U	<	2.8	U	<	1.8	U	-	29	-	<	2.8	U	<	2.8	U	<	1.8	U	<	2.4	U	-	6.0	
		EN04-26S	8	6/7/2011	EN0426S060711	Summa Canister	20	1.2	0.0	12.9	No	No	ug/m3	<	44	U	-	740	-	<	26	U	<	26	U	<	16	U	-	57	-	<	26	U	<	26	U	<	68	U	<	22	U	<	49	U
		EN04-26S	8	8/4/2011	EN0426S080411	Summa Canister	20	1.1	0.0	1.64	No	No	ug/m3	-	18	-	-	1600	-	<	3.2	U	<	3.2	U	<	2.1	U	-	86	-	<	3.2	U	<	3.3	U	<	8.6	U	<	2.8	U	-	8.6	
		EN04-26S	8	12/7/2011	EN0426S120711	Summa Canister	19.9	0.7	0.0	1.60	No	No	ug/m3	-	7.3	-	-	460	-	<	3.2	U	<	3.2	U	<	2.0	U	-	40	-	<	3.2	U	<	3.2	U	<	8.4	U	<	2.8	UJ	-	6.3	
		EN04-26S	8	2/14/2012	EN0426S021412	Summa Canister	20.8	0.6	0.0	1.58	No	No	ug/m3	<	5.4	U	-	210	-	<	3.1	U	<	3.1	U	<	2.0	U	-	19	-	<	3.1	U	<	3.2	U	<	8.3	U	<	27	U	<	6.0	U
		EN04-26S	8	8/14/2012	EN0426S081412	Summa Canister	18.6	2.1	0.0	1.75	No	No	ug/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	<	9.2	U	<	30	U	<	6.7	U
		EN04-26S	8	9/14/2012	EN0426S091412	Summa Canister	19.6	1.9	0.0	1.75	No	No	ug/m3	-	17	-	-	1200	-	<	3.5	U	<	3.5	U	<	2.2	U	-	64	-	<	3.5	U	<	3.5	U	<	9.2	U	<	30	U	<	6.7	U
		EN04-26D	14	8/25/2010	EN0426D082510	Summa Canister	19.8	1.8	0.0	2.87	No	No	ug/m3	-	15	-	-	2000	-	<	5.7	U	<	5.7	U	<	3.7	U	-	100	-	<	5.7	U	<	5.8	U	<	3.8	U	-	6.0	-	-	14	
		EN04-26D	14	12/7/2010	EN0426D120710	Summa Canister	19.5	1.5	0.0	2.03	No	No	ug/m3	-	10	-	-	1400	-	<	4.0	U	<	4.0	U	<	2.6	U	-	63	-	<	4.0	U	<	4.1	U	<	2.7	U	<	3.5	U	-	9.5	
		EN04-26D	14	2/9/2011	EN0426D020911	Summa Canister	20	1	0.0	1.49	No	No	ug/m3	-	6.2	-	-	910	-	<	3.0	U	<	3.0	U	<	1.9	U	-	44	-	<	3.0	U	<	3.0	U	<	2.0	U	<	2.6	U	-	8.9	
		EN04-26D	14	6/7/2011	EN0426D060711	Summa Canister	19.6	1	0.0	1.71	No	No	ug/m3	-	8.2	-	-	1000	-	<	3.4	U	<	3.4	U	<	2.2	U	-	59	-	<	3.4	U	<	3.5	U	<	9.0	U	<	3.0	U	-	12	
		EN04-26D	14	8/4/2011	EN0426D080411	Summa Canister	19.9	1.2	0.0	2.24	No	No	ug/m3	-	13	-	-	2000	-	<	4.4	U	<	4.4	U	<	2.9	U	-	99	-	<	4.4	U	<	4.5	U	<	12	U	<	3.9	U	-	15	
		EN04-26D	14	12/7/2011	EN0426D120711	Summa Canister	20.1	0.8	0.0	1.63	No	No	ug/m3	-	14	-	-	1600	-	<	3.2	U	<	3.2	U	<	2.1	U	-	79	-	<	3.2	U	<	3.3	U	<	8.6	U	<	2.8	UJ	-	10	
		EN04-26D	14	2/14/2012	EN0426D021412	Summa Canister	20.5	0.7	0.0	1.58	No	No	ug/m3	-	6.4	-	-	760	-	<	3.1	U	<	3.1	U	<	2.0	U	-	44	-	<	3.1	U	<	3.2	U	<	8.3	U	<	27	U	-	6.2	
		EN04-26D	14	8/14/2012	EN0426D081412	Summa Canister	18.6	1.8	0.0	4.38	No	No	ug/m3	-	17	-	-	2300	-	<	8.7	U	<	8.7	U	<	5.6	U	-	100	-	<	8.7	U	<	8.9	U	<	23	U	<	76	U	<	17	U
Designation	**EN04-27**	EN04-27S	8	8/25/2010	EN0427S082510	Summa Canister	15.0	5.5	6.0	1.69	No	No	ug/m3	-	160	-	-	780	-	<	3.4	U	<	3.4	U	<	2.2	U	-	140	-	<	3.4	U	<	3.4	U	<	2.2	U	<	2.9	U	<	6.5	U
Monitoring Well	**EN-417A**	EN04-27S	8	2/9/2011	EN0427S020911	Summa Canister	20	1.5	0.0	1.49	No	No	ug/m3	-	18	-	-	140	-	<	3.0	U	<	3.0	U	<	1.9	U	-	30	-	<	3.0	U	<	3.0	U	<	2.0	U	<	2.6	U	<	5.7	U
		EN04-27S	8	8/3/2011	EN0427S080311	Summa Canister	13.6	6.6	0.0	1.64	No	No	ug/m3	-	180	-	-	830	-	<	3.2	U	<	3.2	U	<	2.1	U	-	160	-	<	3.2	U	<	3.3	U	<	8.6	U	<	2.8	U	<	6.3	U
		EN04-27S	8	2/14/2012	EN0427S021412	Summa Canister	20.9	1.3	0.1	1.64	No	No	ug/m3	-	18	-	-	73	-	<	3.2	U	<	3.2	U	<	2.1	U	-	15	-	<	3.2	U	<	3.3	U	<	8.6	U	<	28	U	<	6.3	U
		EN04-27S	8	8/13/2012	EN0427S081312	Summa Canister	14.8	4.6	0.0	1.83	No	No	ug/m3	-	21	-	-	1300	-	<	3.6	U	<	3.6	U	<	2.3	U	-	66	-	<	3.6	U	<	3.7	U	<	9.6	U	<	32	U	<	7.0	U

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual 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?	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	Trifluorotrichloroethane (Freon 113)
Designation **EN07-28**	EN07-28S	7	8/24/2010	EN0728S082410	Summa Canister	20.7	0.7	0.0	1.71	No	No	ug/m3	- 530 -	- 21 -	< 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
Monitoring Well **EN-387A**	EN07-28S	7	12/8/2010	EN0728S120810	Summa Canister	20.5	0.2	0.0	1.61	No	No	ug/m3	- 120 -	- 7.6 -	< 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
	EN07-28S	7	12/8/2010	EN0728S120810-tube	Summa Canister	-	-	-	1.00	No	No	ug/m3	- 190 -	- 8.9 -	< 4.0 U	< 4.0 U	< 2.6 U	< 5.4 U	< 4.0 U	< 4.0 U	- - -	< 21 U	< 7.7 U
	EN07-28S	7	2/9/2011	EN0728S020911	Summa Canister	20.3	0.2	0.0	1.45	No	No	ug/m3	- 72 -	< 3.9 U	< 2.9 U	< 2.9 U	< 1.8 U	< 4.0 U	< 2.9 U	< 2.9 U	< 1.9 U	< 2.5 U	< 5.6 U
	EN07-28S	7	6/7/2011	EN0728S060711	Summa Canister	19.7	0.3	0.0	1.68	No	No	ug/m3	- 210 -	- 9.0 -	< 3.3 U	< 3.3 U	< 2.1 U	< 4.6 U	< 3.3 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.4 U
	EN07-28S Dup	7	6/7/2011	DU3322060711	Summa Canister	19.7	0.3	0.0	1.75	No	No	ug/m3	- 210 -	- 8.2 -	< 3.5 U	< 3.5 U	< 2.2 U	< 4.8 U	< 3.5 U	< 3.5 U	< 9.2 U	< 3.0 U	< 6.7 U
	EN07-28S	7	8/3/2011	EN0728S080311	Summa Canister	20.1	0.5	0.0	1.40	No	No	ug/m3	- 170 -	- 6.5 -	< 2.8 U	< 2.8 U	< 1.8 U	< 3.8 U	< 2.8 U	< 2.8 U	< 7.4 U	< 2.4 U	< 5.4 U
	EN07-28S	7	12/7/2011	EN0728S120711	Summa Canister	20.8	0.6	0.0	1.90	No	No	ug/m3	- 120 -	< 5.1 U	< 3.8 U	< 3.8 U	< 2.4 U	< 5.2 U	< 3.8 U	< 3.8 U	< 10 U	< 3.3 U	< 7.3 U
	EN07-28S	7	2/14/2012	EN0728S021412	Summa Canister	18.9	0.3	0.1	1.52	No	No	ug/m3	- 64 -	- 15 -	< 3.0 U	< 3.0 U	< 1.9 U	< 4.1 U	< 3.0 U	< 3.1 U	< 8.0 U	< 26 U	< 5.8 U
	EN07-28S	7	8/14/2012	EN0728S081412	Summa Canister	20.3	0.8	0.0	1.79	No	No	ug/m3	- 470 -	- 17 -	< 3.5 U	< 3.5 U	< 2.3 U	< 4.9 U	< 3.5 U	< 3.6 U	< 9.4 U	< 31 U	< 6.8 U
	EN07-28D	19	8/24/2010	EN0728D082410	Summa Canister	8.9	9.0	0.0	3.73	No	No	ug/m3	- 2400 -	- 120 -	- 17 -	- 10 -	< 4.8 U	< 10 U	< 7.4 U	< 7.5 U	< 4.9 U	< 6.5 U	< 14 U
	EN07-28D	19	12/8/2010	EN0728D120810	Summa Canister	13.2	7.1	0.0	3.88	No	No	ug/m3	- 3800 -	- 170 -	- 21 -	- 15 -	< 5.0 U	< 10 U	< 7.7 U	< 7.8 U	< 5.1 U	< 6.7 U	< 15 U
	EN07-28D	19	2/9/2011	EN0728D020911	Summa Canister	9.7	9	0.0	2.87	No	No	ug/m3	- 3700 -	- 140 -	- 14 -	- 14 -	< 3.7 U	< 7.8 U	< 5.7 U	< 5.8 U	< 3.8 U	< 5.0 U	< 11 U
	EN07-28D	19	6/7/2011	EN0728D060711	Summa Canister	17.1	2.5	0.0	3.42	No	No	ug/m3	- 3800 -	- 290 -	- 90 -	- 15 -	< 4.4 U	< 9.3 U	< 6.8 U	< 6.9 U	< 18 U	< 5.9 U	< 13 U
	EN07-28D	19	8/3/2011	EN0728D080311	Summa Canister	17.5	2.2	0.0	5.52	No	No	ug/m3	- 4800 -	- 310 -	- 230 -	< 11 U	< 7.0 U	< 15 U	< 11 U	< 11 U	< 29 U	< 9.6 U	< 21 U
	EN07-28D	19	12/7/2011	EN0728D120711	Summa Canister	16.8	3.7	0.0	5.76	No	No	ug/m3	- 5700 -	- 430 -	- 91 -	< 11 U	< 7.4 U	< 16 U	< 11 U	< 12 U	< 30 U	< 10 UJ	< 22 U
	EN07-28D	19	2/14/2012	EN0728D021412	Summa Canister	18	4.2	0.1	5.07	No	No	ug/m3	- 3500 -	- 240 -	- 46 -	< 10 U	< 6.5 U	< 14 U	< 10 U	< 10 U	< 27 U	< 88 U	< 19 U
	EN07-28D	19	8/14/2012	EN0728D081412	Summa Canister	19.5	4.6	0.0	2.85	No	No	ug/m3	- 2500 -	- 140 -	- 16 -	< 5.6 U	< 3.6 U	< 7.8 U	< 5.6 U	< 5.8 U	< 15 U	< 50 U	< 11 U
Designation **EN04-29;EN05-29**	EN04-29D	20	8/24/2010	EN0429D082410	Summa Canister	18.7	1.7	0.0	1.61	No	No	ug/m3	< 5.5 U	- 910 -	< 3.2 U	< 3.2 U	< 2.0 U	- 49 -	< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.2 U
Monitoring Well **EN-437**	EN04-29D Dup	20	8/24/2010	DU31754082410	Summa Canister	18.7	1.7	0.0	1.65	Yes	Yes	ug/m3	< 5.6 U	- 700 -	< 3.3 U	< 3.3 U	< 2.1 U	- 52 -	< 3.3 U	< 3.3 U	< 2.2 U	< 2.9 U	< 6.3 U
	EN04-29D	20	12/7/2010	EN0429D120710	Summa Canister	20.0	0.6	0.0	1.63	No	No	ug/m3	< 5.5 U	- 48 -	< 3.2 U	< 3.2 U	< 2.1 U	< 4.4 U	< 3.2 U	< 3.3 U	< 2.2 U	< 2.8 U	< 6.2 U
	EN04-29D	20	2/8/2011	EN0429D020811	Summa Canister	20.8	0.6	0.0	1.55	No	No	ug/m3	< 5.2 U	- 100 -	< 3.1 U	< 3.1 U	< 2.0 U	- 6.2 -	< 3.1 U	< 3.1 U	< 2.0 U	< 2.7 U	< 5.9 U
	EN04-29D Dup	20	2/8/2011	DU3366020811	Summa Canister	20.8	0.6	0.0	1.57	No	No	ug/m3	< 5.3 U	- 120 -	< 3.1 U	< 3.1 U	< 2.0 U	- 6.0 -	< 3.1 U	< 3.2 U	< 2.1 U	< 2.7 U	< 6.0 U
	EN04-29D	20	6/8/2011	EN0429D060811	Summa Canister	18.9	1.5	0.0	1.75	No	No	ug/m3	< 5.9 U	- 170 -	< 3.5 U	< 3.5 U	< 2.2 U	- 10 -	< 3.5 U	< 3.5 U	< 9.2 U	< 3.0 U	< 6.7 U
	EN04-29D	20	8/2/2011	EN0429D080211	Summa Canister	19	1.1	0.0	1.75	No	No	ug/m3	< 5.9 U	- 390 -	< 3.5 U	< 3.5 U	< 2.2 U	- 33 -	< 3.5 U	< 3.5 U	< 9.2 U	< 3.0 U	< 6.7 U
	EN04-29D	20	12/7/2011	EN0429D120711	Summa Canister	18.7	1.3	0.0	3.46	No	No	ug/m3	< 12 U	- 1700 -	< 6.8 U	< 6.8 U	< 4.4 U	- 69 -	< 6.8 U	< 7.0 U	< 18 U	< 6.0 U	< 13 U
	EN04-29D	20	2/14/2012	EN0429D021412	Summa Canister	20.8	0.8	0.1	1.68	No	No	ug/m3	< 5.7 U	- 790 -	< 3.3 U	< 3.3 U	< 2.1 U	- 51 -	< 3.3 U	< 3.4 U	< 8.9 U	< 29 U	< 6.4 U
	EN04-29D Dup	20	2/14/2012	DU1027021412	Summa Canister	20.8	0.8	0.1	1.68	No	No	ug/m3	< 5.7 U	- 800 -	< 3.3 U	< 3.3 U	< 2.1 U	- 49 -	< 3.3 U	< 3.4 U	< 8.9 U	< 29 U	< 6.4 U
	EN04-29D	20	8/15/2012	EN0429D081512	Summa Canister	18.6	2.4	0.0	1.71	No	No	ug/m3	< 5.8 U	- 120 -	< 3.4 U	< 3.4 U	< 2.2 U	- 12 -	< 3.4 U	< 3.5 U	< 9.0 U	< 30 U	< 6.6 U
	EN05-29S	8	8/24/2010	EN0529S082410	Summa Canister	18.4	2.1	0.0	1.61	No	No	ug/m3	< 5.5 U	- 73 -	< 3.2 U	< 3.2 U	< 2.0 U	- 5.7 -	< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.2 U
	EN05-29S Dup	8	8/24/2010	DU34140082410	Summa Canister	18.4	2.1	0.0	1.65	No	No	ug/m3	< 5.6 U	- 77 -	< 3.3 U	< 3.3 U	< 2.1 U	- 6.6 -	< 3.3 U	< 3.3 U	< 2.2 U	< 2.9 U	< 6.3 U
	EN05-29S	8	12/7/2010	EN0529S120710	Summa Canister	20.2	0.4	0.0	1.55	No	No	ug/m3	< 5.2 U	- 9.0 -	< 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
	EN05-29S Dup	8	12/7/2010	DU3327120710	Summa Canister	20.2	0.4	0.0	1.58	No	No	ug/m3	< 5.4 U	- 7.5 -	< 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
	EN05-29S	8	2/8/2011	EN0529S020811	Summa Canister	21.1	0.3	0.1	1.65	No	No	ug/m3	< 5.6 U	- 11 -	< 3.3 U	< 3.3 U	< 2.1 U	< 4.5 U	< 3.3 U	< 3.3 U	< 2.2 U	< 2.9 U	< 6.3 U
	EN05-29S	8	6/8/2011	EN0529S060811	Summa Canister	18.9	1.3	0.0	1.71	No	No	ug/m3	< 5.8 U	- 250 -	< 3.4 U	< 3.4 U	< 2.2 U	- 20 -	< 3.4 U	< 3.5 U	< 9.0 U	< 3.0 U	< 6.6 U
	EN05-29S	8	8/2/2011	EN0529S080211	Summa Canister	18.9	1.2	0.0	1.81	No	No	ug/m3	< 6.1 U	- 400 -	< 3.6 U	< 3.6 U	< 2.3 U	- 29 -	< 3.6 U	< 3.7 U	< 9.6 U	< 3.1 U	< 6.9 U
	EN05-29S	8	2/14/2012	EN0529S021412	Summa Canister	20.7	0.7	0.1	1.61	No	No	ug/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	< 8.5 U	< 28 U	< 6.2 U
	EN05-29S	8	8/15/2012	EN0529S081512	Summa Canister	19.4	1.4	0.0	1.69	No	No	ug/m3	< 5.7 U	- 160 -	< 3.4 U	< 3.4 U	< 2.2 U	- 17 -	< 3.4 U	< 3.4 U	< 8.9 U	< 29 U	< 6.5 U

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual 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?	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	Trifluorotrichloroethane (Freon 113)
Designation **EN04-30**	EN04-30S	9	8/23/2010	EN0430S082310	Summa Canister	20.1	0.9	0.0	4.37	No	No	ug/m3	< 15 U	- 2900 -	< 8.7 U	< 8.7 U	< 5.6 U	- 17 -	< 8.7 U	< 8.8 U	< 5.8 U	< 7.6 U	< 17 U
Monitoring Well **EN-092A;EN-438**	EN04-30S	9	12/8/2010	EN0430S120810	Summa Canister	19.7	0.8	0.0	1.60	No	No	ug/m3	< 5.4 U	- 580 -	< 3.2 U	< 3.2 U	< 2.0 U	< 4.4 U	< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.1 U
	EN04-30S	9	2/8/2011	EN0430S020811	Summa Canister	21.4	0.3	0.0	1.64	No	No	ug/m3	< 5.6 U	- 300 -	< 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
	EN04-30S	9	6/7/2011	EN0430S060711	Summa Canister	20.9	0.3	0.0	1.79	No	No	ug/m3	< 6.1 U	- 870 -	< 3.5 U	< 3.5 U	< 2.3 U	- 6.2 -	< 3.5 U	< 3.6 U	< 9.4 U	< 3.1 U	< 6.8 U
	EN04-30S	9	8/2/2011	EN0430S080211	Summa Canister	20.1	0.4	0.0	3.28	No	No	ug/m3	< 11 U	- 2700 -	< 6.5 U	< 6.5 U	< 4.2 U	- 23 -	< 6.5 U	< 6.6 U	< 17 U	< 5.7 U	< 12 U
	EN04-30S	9	12/7/2011	EN0430S120711	Summa Canister	19.8	0.5	0.0	1.61	No	No	ug/m3	< 5.5 U	- 830 -	< 3.2 U	< 3.2 U	< 2.0 U	- 9.2 -	< 3.2 U	< 3.2 U	< 8.5 U	< 2.8 UJ	< 6.2 U
	EN04-30S Dup	9	12/7/2011	DU3457120711	Summa Canister	19.8	0.5	0.0	1.58	No	No	ug/m3	< 5.4 U	- 700 -	< 3.1 U	< 3.1 U	< 2.0 U	- 9.6 -	< 3.1 U	< 3.2 U	< 8.3 U	< 2.7 U	< 6.0 U
	EN04-30S	9	2/16/2012	EN0430S021612	Summa Canister	21.0	0.2	0.0	1.46	No	No	ug/m3	< 5.0 U	- 270 -	< 2.9 U	< 2.9 U	< 1.9 U	- 4.5 -	< 2.9 U	< 3.0 U	< 7.7 U	- 40 -	< 5.6 U
	EN04-30S	9	8/14/2012	EN0430S081412	Summa Canister	19	0.9	0.0	6.59	No	No	ug/m3	< 22 U	- 3300 -	< 13 U	< 13 U	< 8.4 U	- 36 -	< 13 U	< 13 U	< 35 U	< 110 U	< 25 U
	EN04-30D	20	8/23/2010	EN0430D082310	Summa Canister	19.7	1.0	0.0	1.68	No	No	ug/m3	- 52 -	- 1200 -	- 11 -	< 3.3 U	< 2.1 U	- 120 -	< 3.3 U	- 5.0 -	< 2.2 U	< 2.9 U	- 7.2
	EN04-30D	20	12/8/2010	EN0430D120810	Summa Canister	19.8	0.6	0.0	1.56	No	No	ug/m3	- 40 -	- 1200 -	- 6.4 -	< 3.1 U	< 2.0 U	- 58 -	< 3.1 U	< 3.2 U	< 2.0 U	< 2.7 U	< 6.0 U
	EN04-30D	20	2/8/2011	EN0430D020811	Summa Canister	21.3	0.4	0.0	1.55	No	No	ug/m3	- 26 -	- 760 -	- 4.4 -	< 3.1 U	< 2.0 U	- 38 -	< 3.1 U	< 3.1 U	< 2.0 U	< 2.7 U	< 5.9 U
	EN04-30D	20	6/7/2011	EN0430D060711	Summa Canister	20.5	0.3	0.0	1.71	No	No	ug/m3	- 26 -	- 620 -	- 5.4 -	< 3.4 U	< 2.2 U	- 53 -	< 3.4 U	< 3.5 U	< 9.0 U	< 3.0 U	< 6.6 U
	EN04-30D	20	8/2/2011	EN0430D080211	Summa Canister	19.4	0.4	0.0	1.61	No	No	ug/m3	- 42 -	- 880 -	- 6.6 -	< 3.2 U	< 2.0 U	- 90 -	< 3.2 U	- 4.0 -	< 8.5 U	< 2.8 U	- 7.5
	EN04-30D	20	12/7/2011	EN0430D120711	Summa Canister	19.7	0.6	0.1	1.45	No	No	ug/m3	- 55 -	- 1300 -	- 6.4 -	< 2.9 U	< 1.8 U	- 130 -	< 2.9 U	- 25 -	< 7.6 U	< 2.5 UJ	- 19
	EN04-30D	20	2/16/2012	EN0430D021612	Summa Canister	20.6	0.6	0.0	1.55	No	No	ug/m3	- 33 -	- 760 -	- 5.4 -	< 3.1 U	< 2.0 U	- 100 -	- 8.6 -	- 30 -	< 8.2 U	- 30 -	- 17
	EN04-30D	20	8/14/2012	EN0430D081412	Summa Canister	20	0.7	0.0	1.75	No	No	ug/m3	- 42 -	- 1100 -	- 4.2 -	< 3.5 U	< 2.2 U	- 120 -	< 3.5 U	- 10 -	< 9.2 U	< 30 U	- 8.4
Designation **EN04-31**	EN04-31S	10	8/24/2010	EN0431S082410	Summa Canister	20.6	0.1	0.0	1.64	No	No	ug/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
Monitoring Well **EN-453**	EN04-31S	10	8/2/2011	EN0431S080211	Summa Canister	20.4	0.1	0.0	1.75	No	No	ug/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	< 9.2 U	< 3.0 U	< 6.7 U
	EN04-31S	10	8/14/2012	EN0431S081412	Summa Canister	21	0.1	0.0	1.75	No	No	ug/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	< 9.2 U	< 30 U	< 6.7 U
	EN04-31D	19	8/24/2010	EN0431D082410	Summa Canister	20.6	0.1	0.0	1.64	No	No	ug/m3	< 5.6 U	- 180 -	< 3.2 U	< 3.2 U	< 2.1 U	- 7.2 -	< 3.2 U	< 3.3 U	< 2.2 U	< 2.8 U	< 6.3 U
	EN04-31D	19	8/2/2011	EN0431D080211	Summa Canister	20.2	0.1	0.0	2.17	No	No	ug/m3	< 7.4 U	- 200 -	< 4.3 U	< 4.3 U	< 2.8 U	< 5.9 U	< 4.3 U	< 4.4 U	< 11 U	< 3.8 U	< 8.3 U
	EN04-31D	19	8/14/2012	EN0431D081412	Summa Canister	20.9	0.1	0.0	1.78	No	No	ug/m3	- 6.2 -	- 1300 -	< 3.5 U	< 3.5 U	< 2.3 U	- 14 -	< 3.5 U	< 3.6 U	< 9.4 U	< 31 U	< 6.8 U
Designation **EN04-32**	EN04-32S	8	8/24/2010	EN0432S082410	Summa Canister	19.8	1.2	0.0	2.41	No	No	ug/m3	< 8.2 U	- 380 -	< 4.8 U	< 4.8 U	< 3.1 U	< 6.6 U	< 4.8 U	< 4.9 U	< 3.2 U	< 4.2 U	< 9.2 U
Monitoring Well **EN-457A;EN-457B**	EN04-32S	8	12/7/2010	EN0432S120710	Summa Canister	20.1	0.7	0.0	1.60	No	No	ug/m3	- 220 -	- 170 -	< 3.2 U	< 3.2 U	< 2.0 U	< 4.4 U	< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.1 U
	EN04-32S	8	2/9/2011	EN0432S020911	Summa Canister	21.4	0.6	0.0	1.64	No	No	ug/m3	< 5.6 U	- 74 -	< 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
	EN04-32S Dup	8	2/9/2011	DU3365020911	Summa Canister	21.4	0.6	0.0	1.49	No	No	ug/m3	< 5.0 U	- 70 -	< 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
	EN04-32S	8	6/8/2011	EN0432S060811	Summa Canister	19.5	0.5	0.0	1.75	No	No	ug/m3	< 5.9 U	- 220 -	< 3.5 U	< 3.5 U	< 2.2 U	- 4.9 -	< 3.5 U	< 3.5 U	< 9.2 U	< 3.0 U	< 6.7 U
	EN04-32S	8	8/2/2011	EN0432S080211	Summa Canister	18.7	1	0.0	1.71	No	No	ug/m3	< 5.8 U	- 490 -	< 3.4 U	< 3.4 U	< 2.2 U	- 14 -	< 3.4 U	< 3.5 U	< 9.0 U	< 3.0 U	< 6.6 U
	EN04-32S	8	2/14/2012	EN0432S021412	Summa Canister	20.6	0.6	0.1	1.71	No	No	ug/m3	< 5.8 U	- 120 -	< 3.4 U	< 3.4 U	< 2.2 U	- 6.0 -	< 3.4 U	< 3.5 U	< 9.0 U	< 30 U	< 6.6 U
	EN04-32S	8	8/15/2012	EN0432S081512	Summa Canister	19	1.2	0.0	17.5	No	No	ug/m3	- 820 -	- 12000 -	- 560 -	< 35 U	< 22 U	- 1200 -	- 270 -	- 190 -	< 92 U	< 300 U	- 130 -
	EN04-32S Dup	8	8/15/2012	DU3461081512	Summa Canister	19	1.2	0.0	1.87	No	No	ug/m3	< 6.3 U	- 810 -	< 3.7 U	< 3.7 U	< 2.4 U	- 27 -	< 3.7 U	< 3.8 U	< 9.9 U	< 32 U	< 7.2 U
	EN04-32S	8	9/14/2012	EN0432S091412	Summa Canister	19.6	1.2	0.0	1.87	No	No	ug/m3	< 6.3 U	- 880 -	< 3.7 U	< 3.7 U	< 2.4 U	- 30 -	< 3.7 U	< 3.8 U	< 9.9 U	< 32 U	- 8.2 -
	EN04-32D	18	8/24/2010	EN0432D082410	Summa Canister	19.6	1.0	0.0	2.55	No	No	ug/m3	< 8.6 U	- 890 -	< 5.0 U	< 5.0 U	< 3.2 U	- 13 -	< 5.0 U	< 5.2 U	< 3.4 U	< 4.4 U	< 9.8 U
	EN04-32D	18	12/7/2010	EN0432D120710	Summa Canister	20.2	0.8	0.0	1.55	No	No	ug/m3	< 5.2 U	- 1000 -	< 3.1 U	< 3.1 U	< 2.0 U	- 12 -	< 3.1 U	< 3.1 U	< 2.0 U	< 2.7 U	< 5.9 U
	EN04-32D Dup	18	12/7/2010	DU3461120710	Summa Canister	20.2	0.8	0.0	1.63	No	No	ug/m3	< 5.5 U	- 940 -	< 3.2 U	< 3.2 U	< 2.1 U	- 12 -	< 3.2 U	< 3.3 U	< 2.2 U	< 2.8 U	< 6.2 U
	EN04-32D	18	2/9/2011	EN0432D020911	Summa Canister	21	0.6	0.0	1.52	No	No	ug/m3	< 5.2 U	- 940 -	< 3.0 U	< 3.0 U	< 1.9 U	- 15 -	< 3.0 U	< 3.1 U	< 2.0 U	< 2.6 U	< 5.8 U
	EN04-32D	18	6/8/2011	EN0432D060811	Summa Canister	19.7	0.4	0.0	1.68	No	No	ug/m3	< 5.7 U	- 720 -	< 3.3 U	< 3.3 U	< 2.1 U	- 12 -	< 3.3 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.4 U
	EN04-32D	18	8/2/2011	EN0432D080211	Summa Canister	18.6	0.6	0.0	1.61	No	No	ug/m3	< 5.5 U	- 960 -	< 3.2 U	< 3.2 U	< 2.0 U	- 18 -	< 3.2 U	< 3.2 U	< 8.5 U	< 2.8 U	< 6.2 U
	EN04-32D	18	2/14/2012	EN0432D021412	Summa Canister	20.3	0.8	0.1	1.58	No	No	ug/m3	- 28 -	- 940 -	< 3.1 U	< 3.1 U	< 2.0 U	- 23 -	< 3.1 U	- 3.2 -	< 8.3 U	< 27 U	- 16
	EN04-32D	18	8/15/2012	EN0432D081512	Summa Canister	18.3	1.4	0.0	2.80	No	No	ug/m3	< 9.5 U	- 1500 -	< 5.6 U	< 5.6 U	< 3.6 U	- 42 -	< 5.6 U	- 6.7 -	< 15 U	< 49 U	< 11 U

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual 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?	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	Trifluorotrichloroethane (Freon 113)
Designation **EN05-33**	EN05-33S	7.5	8/25/2010	EN0533S082510	Summa Canister	19.7	0.8	0.0	1.78	No	No	ug/m3	- 21 -	- 100 -	< 3.5 U	< 3.5 U	< 2.3 U	- 9.2 -	< 3.5 U	< 3.6 U	< 2.3 U	< 3.1 U	< 6.8 U
Monitoring Well **EN-162**	EN05-33S	7.5	12/7/2010	EN0533S120710-tube	Summa Canister	-	-	-	1.00	No	No	ug/m3	< 6.8 U	- 26 -	< 4.0 U	< 4.0 U	< 2.6 U	< 5.4 U	< 4.0 U	< 4.0 U	- - -	< 21 U	< 7.7 U
	EN05-33S	7.5	2/9/2011	EN0533S020911	Summa Canister	21.5	0.5	0.0	1.58	No	No	ug/m3	< 5.4 U	- 9.5 -	< 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	8/2/2011	EN0533S080211	Summa Canister	19.3	0.4	0.0	1.71	No	No	ug/m3	- 17 -	- 72 -	< 3.4 U	< 3.4 U	< 2.2 U	- 7.8 -	< 3.4 U	< 3.5 U	< 9.0 U	< 3.0 U	< 6.6 U
	EN05-33S	7.5	2/15/2012	EN0533S021512	Summa Canister	21.4	0.2	0.0	1.64	No	No	ug/m3	< 5.6 U	- 12 -	< 3.2 U	< 3.2 U	< 2.1 U	< 4.5 U	< 3.2 U	< 3.3 U	< 8.6 U	< 28 U	< 6.3 U
	EN05-33S	7.5	8/15/2012	EN0533S081512	Summa Canister	19.8	0.9	0.0	1.71	No	No	ug/m3	- 14 -	- 46 -	< 3.4 U	< 3.4 U	< 2.2 U	- 5.6 -	< 3.4 U	< 3.5 U	< 9.0 U	< 30 U	< 6.6 U
	EN05-33D	32	8/25/2010	EN0533D082510	Summa Canister	20.0	0.6	0.0	5.63	No	No	ug/m3	- 230 -	- 4500 -	- 20 -	< 11 U	< 7.2 U	- 200 -	< 11 U	< 11 U	< 7.4 U	< 9.8 U	< 22 U
	EN05-33D	32	2/9/2011	EN0533D020911	Summa Canister	21.2	1.2	0.0	7.75	No	No	ug/m3	- 270 -	- 5700 -	- 21 -	< 15 U	< 9.9 U	- 230 -	< 15 U	< 16 U	< 10 U	< 13 U	< 30 U
	EN05-33D	32	8/2/2011	EN0533D080211	Summa Canister	19.8	0.2	0.0	6.27	No	No	ug/m3	- 240 -	- 4400 -	< 12 U	< 12 U	< 8.0 U	- 170 -	< 12 U	< 13 U	< 33 U	< 11 U	< 24 U
	EN05-33D	32	2/15/2012	EN0533D021512	Summa Canister	21	0.7	0.0	6.83	No	No	ug/m3	- 220 -	- 4000 -	- 17 -	< 14 U	< 8.7 U	- 160 -	- 25 -	< 14 U	< 36 U	< 120 U	< 26 U
	EN05-33D Dup	32	2/15/2012	DU3345021512	Summa Canister	21	0.7	0.0	6.83	No	No	ug/m3	- 220 -	- 4000 -	- 18 -	< 14 U	< 8.7 U	- 190 -	- 15 -	< 14 U	< 36 U	- 130 -	< 26 U
	EN05-33D	32	8/15/2012	EN0533D081512	Summa Canister	20.3	0.4	0.0	4.48	No	No	ug/m3	- 180 -	- 3000 -	< 8.9 U	< 8.9 U	< 5.7 U	- 95 -	< 8.9 U	< 9.1 U	< 24 U	< 78 U	< 17 U
Designation **EN05-34**	EN05-34S	8	8/25/2010	EN0534S082510	Summa Canister	19.1	1.5	0.0	1.83	No	No	ug/m3	< 6.2 U	- 17 -	< 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
Monitoring Well **EN-417A**	EN05-34S	8	2/9/2011	EN0534S020911	Summa Canister	21	0.3	0.0	1.52	No	No	ug/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
	EN05-34S	8	8/3/2011	EN0534S080311	Summa Canister	19.2	2.1	0.0	1.68	No	No	ug/m3	< 5.7 U	- 10 -	< 3.3 U	< 3.3 U	< 2.1 U	< 4.6 U	< 3.3 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.4 U
	EN05-34S	8	2/14/2012	EN0534S021412	Summa Canister	20.8	0.6	0.1	1.58	No	No	ug/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	< 8.3 U	< 27 U	< 6.0 U
	EN05-34S Dup	8	2/14/2012	DU3337021412	Summa Canister	20.8	0.6	0.1	1.55	No	No	ug/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	< 8.2 U	< 27 U	< 5.9 U
	EN05-34S	8	8/13/2012	EN0534S081312	Summa Canister	19.2	1.5	0.0	1.91	No	No	ug/m3	- 7.3 -	- 17 -	< 3.8 U	< 3.8 U	< 2.4 U	< 5.2 U	< 3.8 U	< 3.9 U	< 10 U	< 33 U	< 7.3 U
	EN05-34D	13.5	8/25/2010	EN0534D082510	Summa Canister	19.4	1.2	0.0	1.73	Yes	Yes	ug/m3	- 37 -	- 340 -	< 3.4 U	< 3.4 U	< 2.2 U	- 26 -	< 3.4 U	< 3.5 U	< 2.3 U	< 3.0 U	< 6.6 U
	EN05-34D	13.5	2/9/2011	EN0534D020911	Summa Canister	20.5	0.6	0.0	1.49	No	No	ug/m3	- 18 -	- 150 -	< 3.0 U	< 3.0 U	< 1.9 U	- 13 -	< 3.0 U	< 3.0 U	< 2.0 U	< 2.6 U	< 5.7 U
	EN05-34D Dup	13.5	2/9/2011	DU3831020911	Summa Canister	20.5	0.6	0.0	1.61	No	No	ug/m3	- 16 -	- 160 -	< 3.2 U	< 3.2 U	< 2.0 U	- 12 -	< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.2 U
	EN05-34D	13.5	8/3/2011	EN0534D080311	Summa Canister	19	0.9	0.0	1.61	No	No	ug/m3	- 25 -	- 190 -	< 3.2 U	< 3.2 U	< 2.0 U	- 13 -	< 3.2 U	< 3.2 U	< 8.5 U	< 2.8 U	< 6.2 U
	EN05-34D	13.5	2/14/2012	EN0534D021412	Summa Canister	21.2	0.3	0.1	1.55	No	No	ug/m3	- 15 -	- 110 -	< 3.1 U	< 3.1 U	< 2.0 U	- 10 -	< 3.1 U	< 3.1 U	< 8.2 U	< 27 U	< 5.9 U
	EN05-34D	13.5	8/13/2012	EN0534D081312	Summa Canister	19.1	0.9	0.0	1.87	No	No	ug/m3	- 29 -	- 230 -	< 3.7 U	< 3.7 U	< 2.4 U	- 18 -	< 3.7 U	< 3.8 U	< 9.9 U	< 32 U	< 7.2 U
Designation **EN06-35**	EN06-35S	8	8/23/2010	EN0635S082310	Summa Canister	19.8	1.4	0.0	1.64	No	No	ug/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
Monitoring Well **EN-460**	EN06-35S Dup	8	8/23/2010	DU3369082310	Summa Canister	19.8	1.4	0.0	1.61	No	No	ug/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
	EN06-35S	8	8/3/2011	EN0635S080311	Summa Canister	19.7	1.2	0.0	1.64	No	No	ug/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	< 8.6 U	< 2.8 U	< 6.3 U
	EN06-35S	8	8/15/2012	EN0635S081512	Summa Canister	20.2	1.3	0.0	1.68	No	No	ug/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	< 8.9 U	< 29 U	< 6.4 U
	EN06-35S Dup	8	8/15/2012	DU3327081512	Summa Canister	20.2	1.3	0.0	1.71	No	No	ug/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	< 9.0 U	< 30 U	< 6.6 U
	EN06-35D	34	8/23/2010	EN0635D082310	Summa Canister	19.8	1.2	0.0	1.55	No	No	ug/m3	< 5.2 U	- 130 -	< 3.1 U	< 3.1 U	< 2.0 U	- 20 -	< 3.1 U	< 3.1 U	< 2.0 U	< 2.7 U	< 5.9 U
	EN06-35D Dup	34	8/23/2010	DU3456082310	Summa Canister	19.8	1.2	0.0	1.71	No	No	ug/m3	< 5.8 U	- 140 -	< 3.4 U	< 3.4 U	< 2.2 U	- 22 -	< 3.4 U	< 3.5 U	< 2.2 U	< 3.0 U	< 6.6 U
	EN06-35D	34	12/7/2010	EN0635D120710-tube	Summa Canister	-	-	-	1.00	No	No	ug/m3	< 34 U	- 190 -	< 20 U	< 20 U	< 13 U	- 52 -	< 20 U	< 20 U	- - -	< 100 U	< 38 U
	EN06-35D	34	8/3/2011	EN0635D080311	Summa Canister	19.8	0.9	0.0	1.61	No	No	ug/m3	< 5.5 U	- 100 -	< 3.2 U	< 3.2 U	- 2.3 -	- 18 -	< 3.2 U	< 3.2 U	< 8.5 U	< 2.8 U	< 6.2 U
	EN06-35D	34	8/15/2012	EN0635D081512	Summa Canister	20.6	0.3	0.0	1.75	No	No	ug/m3	< 5.9 U	- 100 -	< 3.5 U	< 3.5 U	< 2.2 U	- 15 -	< 3.5 U	< 3.5 U	< 9.2 U	< 30 U	< 6.7 U
Designation **EN06-36**	EN06-36S	8	8/23/2010	EN0636S082310	Summa Canister	19.7	1.5	0.0	1.55	No	No	ug/m3	< 5.2 U	< 4.2 U	< 3.1 U	< 3.1 U	< 2.0 U	- 12 -	< 3.1 U	< 3.1 U	< 2.0 U	< 2.7 U	< 5.9 U
Monitoring Well **EN-459A;EN-460A**	EN06-36S	8	8/3/2011	EN0636S080311	Summa Canister	19.8	1.4	0.0	1.68	No	No	ug/m3	< 5.7 U	< 4.5 U	< 3.3 U	< 3.3 U	< 2.1 U	- 9.3 -	< 3.3 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.4 U
	EN06-36S	8	8/15/2012	EN0636S081512	Summa Canister	20	1.2	0.0	1.55	No	No	ug/m3	< 5.2 U	< 4.2 U	< 3.1 U	< 3.1 U	< 2.0 U	- 12 -	< 3.1 U	< 3.1 U	< 8.2 U	< 27 U	< 5.9 U
	EN06-36D	33	8/23/2010	EN0636D082310	Summa Canister	19.9	1.1	0.0	1.52	No	No	ug/m3	< 5.2 U	- 290 -	- 4.2 -	< 3.0 U	< 1.9 U	- 290 -	< 3.0 U	< 3.1 U	< 2.0 U	< 2.6 U	< 5.8 U
	EN06-36D	33	8/3/2011	EN0636D080311	Summa Canister	20.2	1.1	0.0	1.61	No	No	ug/m3	- 16 -	- 240 -	- 3.7 -	< 3.2 U	< 2.0 U	- 250 -	< 3.2 U	< 3.2 U	< 8.5 U	< 2.8 U	< 6.2 U
	EN06-36D	33	8/15/2012	EN0636D081512	Summa Canister	20.2	0.8	0.0	1.75	No	No	ug/m3	< 5.9 U	- 320 -	< 3.5 U	< 3.5 U	< 2.2 U	- 250 -	< 3.5 U	< 3.5 U	< 9.2 U	< 30 U	< 6.7 U

Table C.1
Summary of Analytical Laboratory Data - Soil Vapor
Annual 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?	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	Trifluorotrichloroethane (Freon 113)
Designation **EN06-37**	EN06-37S	8	8/24/2010	EN0637S082410	Summa Canister	18.8	2.1	0.0	1.64	No	No	ug/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
Monitoring Well **EN-387;EN-394**	EN06-37S	8	8/3/2011	EN0637S080311	Summa Canister	19.4	1.4	0.0	1.73	No	No	ug/m3	< 5.9 U	< 4.6 U	< 3.4 U	< 3.4 U	< 2.2 U	< 4.7 U	< 3.4 U	< 3.5 U	< 9.1 U	< 3.0 U	< 6.6 U
	EN06-37S	8	8/14/2012	EN0637S081412	Summa Canister	19.4	2.2	0.1	1.65	No	No	ug/m3	< 5.6 U	< 4.4 U	< 3.3 U	< 3.3 U	< 2.1 U	< 4.5 U	< 3.3 U	< 3.3 U	< 8.7 U	< 29 U	< 6.3 U
	EN06-37D	21	8/24/2010	EN0637D082410	Summa Canister	18.0	2.7	0.0	1.64	No	No	ug/m3	- 26 -	- 31 -	- 12 -	< 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	8/3/2011	EN0637D080311	Summa Canister	19.2	1.3	0.0	1.65	No	No	ug/m3	< 5.6 U	< 4.4 U	< 3.3 U	< 3.3 U	< 2.1 U	< 4.5 U	< 3.3 U	< 3.3 U	< 8.7 U	< 2.9 U	< 6.3 U
	EN06-37D	21	8/14/2012	EN0637D081412	Summa Canister	18	3.1	0.1	1.68	No	No	ug/m3	- 21 -	- 30 -	- 6.0 -	< 3.3 U	< 2.1 U	< 4.6 U	< 3.3 U	< 3.4 U	< 8.9 U	< 29 U	< 6.4 U
Designation **EN10-41**	EN10-41S	8	8/26/2010	EN1041S082610	Summa Canister	3.9	2.9	0.0	3.22	No	No	ug/m3	- 2600 -	- 310 -	- 86 -	- 40 -	< 4.1 U	< 8.8 U	< 6.4 U	< 6.5 U	< 4.2 U	< 5.6 U	< 12 U
	EN10-41S	8	12/8/2010	EN1041S120810	Summa Canister	1.5	1.5	0.0	1.61	No	No	ug/m3	- 440 -	- 51 -	- 19 -	< 3.2 U	< 2.0 U	< 4.4 U	< 3.2 U	< 3.2 U	< 2.1 U	< 2.8 U	< 6.2 U
	EN10-41S	8	2/9/2011	EN1041S020911	Summa Canister	2.8	1.8	0.0	1.52	No	No	ug/m3	- 160 -	- 20 -	< 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
	EN10-41S	8	6/7/2011	EN1041S060711	Summa Canister	2.0	2.1	0.0	1.68	No	No	ug/m3	- 170 -	- 17 -	< 3.3 U	< 3.3 U	< 2.1 U	< 4.6 U	< 3.3 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.4 U
	EN10-41S	8	8/4/2011	EN1041S080411	Summa Canister	14.1	1.3	0.0	1.68	No	No	ug/m3	- 280 -	- 21 -	< 3.3 U	< 3.3 U	< 2.1 U	< 4.6 U	< 3.3 U	< 3.4 U	< 8.9 U	< 2.9 U	< 6.4 U
	EN10-41S	8	12/7/2011	EN1041S120711	Summa Canister	12.6	1.4	0.0	1.60	No	No	ug/m3	- 110 -	- 9.4 -	< 3.2 U	< 3.2 U	< 2.0 U	< 4.4 U	< 3.2 U	< 3.2 U	< 8.4 U	< 2.8 UJ	< 6.1 U
	EN10-41S Dup	8	12/7/2011	DU13898120711	Summa Canister	12.6	1.4	0.0	1.57	No	No	ug/m3	- 84 -	- 6.8 -	< 3.1 U	< 3.1 U	< 2.0 U	< 4.3 U	< 3.1 U	< 3.2 U	< 8.3 U	< 2.7 UJ	< 6.0 U
	EN10-41S	8	2/14/2012	EN1041S021412	Summa Canister	8.3	1.7	0.1	1.52	No	No	ug/m3	- 55 -	- 5.3 -	< 3.0 U	< 3.0 U	< 1.9 U	< 4.1 U	< 3.0 U	< 3.1 U	< 8.0 U	< 26 U	< 5.8 U
	EN10-41S	8	8/13/2012	EN1041S081312	Summa Canister	12.2	1.5	0.0	1.70	No	No	ug/m3	- 230 -	- 17 -	< 3.4 U	< 3.4 U	< 2.2 U	< 4.6 U	< 3.4 U	< 3.4 U	< 9.0 U	< 30 U	< 6.5 U
	EN10-41D	23.5	9/24/2010	EN1041D092410	Summa Canister	0.2	1.5	0.0	2.00	No	No	ug/m3	- 1200 -	- 170 -	- 160 -	< 40 U	< 26 U	< 54 U	< 40 U	< 40 U	- 47 -	< 35 U	< 77 U
	EN10-41D	23.5	12/8/2010	EN1041D120810	Summa Canister	19.3	0.2	0.0	1.55	No	No	ug/m3	- 620 -	- 110 -	- 51 -	- 5.9 -	- 3.5 -	< 4.2 U	- 4.6 -	< 3.1 U	< 2.0 U	< 2.7 U	< 5.9 U
	EN10-41D	23.5	2/9/2011	EN1041D020911	Summa Canister	12.9	0.1	0.0	1.55	No	No	ug/m3	- 310 -	- 47 -	- 21 -	- 4.0 -	< 2.0 U	< 4.2 U	< 3.1 U	< 3.1 U	< 2.0 U	< 2.7 U	< 5.9 U
	EN10-41D	23.5	6/7/2011	EN1041D060711	Summa Canister	1.4	0.1	0.0	1.75	No	No	ug/m3	- 150 -	- 29 -	- 16 -	< 3.5 U	< 2.2 U	< 4.8 U	< 3.5 U	< 3.5 U	< 9.2 U	< 3.0 U	< 6.7 U
	EN10-41D Dup	23.5	6/7/2011	DU3331060711	Summa Canister	1.4	0.1	0.0	1.75	No	No	ug/m3	- 120 -	- 22 -	- 9.8 -	< 3.5 U	< 2.2 U	< 4.8 U	< 3.5 U	< 3.5 U	< 9.2 U	< 3.0 U	< 6.7 U
	EN10-41D	23.5	8/4/2011	EN1041D080411	Summa Canister	13.3	0.1	0.0	1.71	No	No	ug/m3	- 110 -	- 24 -	- 5.3 -	< 3.4 U	< 2.2 U	< 4.7 U	< 3.4 U	< 3.5 U	< 9.0 U	< 3.0 U	< 6.6 U
	EN10-41D	23.5	12/7/2011	EN1041D120711	Summa Canister	3.4	0.9	0.0	1.55	No	No	ug/m3	- 82 -	- 19 -	< 3.1 U	< 3.1 U	< 2.0 U	< 4.2 U	< 3.1 U	< 3.1 U	< 8.2 U	< 2.7 UJ	< 5.9 U
	EN10-41D	23.5	2/14/2012	EN1041D021412	Summa Canister	13.2	0.6	0.1	1.55	No	No	ug/m3	- 14 -	- 4.5 -	< 3.1 U	< 3.1 U	< 2.0 U	< 4.2 U	< 3.1 U	< 3.1 U	< 8.2 U	< 27 U	< 5.9 U
	EN10-41D	23.5	8/13/2012	EN1041D081312	Summa Canister	11	2	0.0	1.69	No	No	ug/m3	- 57 -	- 20 -	< 3.4 U	< 3.4 U	< 2.2 U	< 4.6 U	< 3.4 U	< 3.4 U	< 8.9 U	< 29 U	< 6.5 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 or sorbent tube sampling techniques, as noted. The samples were analyzed by Air Toxics LTD., of Folsom, California for the project-specific list of VOCs using EPA Compendium Method TO-15 or TO-17 (sorbent tubes) 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 Sanborn Head.

3. This table is an abbreviated summary of the soil vapor monitoring. Data reported were collected in routine monitoring events during the August 2010 to August 2012 period.

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. Subsequently, helium tracer gas was analyzed in the field using a helium leak detector.

eurofins | Air Toxics

9/3/2012
Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: IBM Groundwater Vapor Project -
Project #: 2755.07
Workorder #: 1208372

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 8/17/2012 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 your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1208372

Work Order Summary

CLIENT:	Ms. Erica Bradstreet Sanborn, Head & Associates 1715 W 13th Street Houston, TX 77008	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	713-869-2259	**P.O. #**	3304.00
FAX:		**PROJECT #**	2755.07 IBM Groundwater Vapor Project -
DATE RECEIVED:	08/17/2012	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/03/2012		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	DU3362081412	Modified TO-15	8.0 "Hg	5 psi
02A	EB3462081412	Modified TO-15	7.0 "Hg	5 psi
03A	EN0410D081512	Modified TO-15	7.0 "Hg	5 psi
03AA	EN0410D081512 Lab Duplicate	Modified TO-15	7.0 "Hg	5 psi
04A	EN0418S081412	Modified TO-15	7.0 "Hg	5 psi
05A	EN0419S081412	Modified TO-15	8.0 "Hg	5 psi
06A	EN0420S081412	Modified TO-15	6.2 "Hg	5 psi
07A	EN0421S081412	Modified TO-15	7.5 "Hg	5 psi
08A	EN0422D081412	Modified TO-15	5.8 "Hg	5 psi
09A	EN0423D081412	Modified TO-15	7.0 "Hg	5 psi
10A	EN0423S081412	Modified TO-15	6.4 "Hg	5 psi
11A	EN0426S081412	Modified TO-15	7.0 "Hg	5 psi
12A	EN0427S081312	Modified TO-15	8.0 "Hg	5 psi
13A	EN042D081412	Modified TO-15	8.0 "Hg	5 psi
14A	EN042S081412	Modified TO-15	8.0 "Hg	5 psi
15A	EN0430S081412	Modified TO-15	8.0 "Hg	5 psi
16A	EN0431D081412	Modified TO-15	7.4 "Hg	5 psi
17A	EN049S081512	Modified TO-15	6.5 "Hg	5 psi
17AA	EN049S081512 Lab Duplicate	Modified TO-15	6.5 "Hg	5 psi
18A	EN0529S081512	Modified TO-15	6.2 "Hg	5 psi
19A	EN0637D081412	Modified TO-15	6.0 "Hg	5 psi
20A	EN0637S081412	Modified TO-15	5.6 "Hg	5 psi
21A	EN0728S081412	Modified TO-15	7.5 "Hg	5 psi

Continued on next page

eurofins | Air Toxics

WORK ORDER #: 1208372

Work Order Summary

CLIENT:	Ms. Erica Bradstreet Sanborn, Head & Associates 1715 W 13th Street Houston, TX 77008	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	713-869-2259	**P.O. #**	3304.00
FAX:		**PROJECT #**	2755.07 IBM Groundwater Vapor Project -
DATE RECEIVED:	08/17/2012	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/03/2012		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
22A	Lab Blank	Modified TO-15	NA	NA
22B	Lab Blank	Modified TO-15	NA	NA
22C	Lab Blank	Modified TO-15	NA	NA
22D	Lab Blank	Modified TO-15	NA	NA
22E	Lab Blank	Modified TO-15	NA	NA
22F	Lab Blank	Modified TO-15	NA	NA
23A	CCV	Modified TO-15	NA	NA
23B	CCV	Modified TO-15	NA	NA
23C	CCV	Modified TO-15	NA	NA
23D	CCV	Modified TO-15	NA	NA
23E	CCV	Modified TO-15	NA	NA
23F	CCV	Modified TO-15	NA	NA
24A	LCS	Modified TO-15	NA	NA
24AA	LCSD	Modified TO-15	NA	NA
24B	LCS	Modified TO-15	NA	NA
24BB	LCSD	Modified TO-15	NA	NA
24C	LCS	Modified TO-15	NA	NA
24CC	LCSD	Modified TO-15	NA	NA
24D	LCS	Modified TO-15	NA	NA
24DD	LCSD	Modified TO-15	NA	NA
24E	LCS	Modified TO-15	NA	NA
24EE	LCSD	Modified TO-15	NA	NA
24F	LCS	Modified TO-15	NA	NA

Continued on next page

eurofins | Air Toxics

WORK ORDER #: 1208372

Work Order Summary

CLIENT:	Ms. Erica Bradstreet Sanborn, Head & Associates 1715 W 13th Street Houston, TX 77008	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	713-869-2259	**P.O. #**	3304.00
FAX:		**PROJECT #**	2755.07 IBM Groundwater Vapor Project -
DATE RECEIVED:	08/17/2012	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/03/2012		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
24FF	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 09/03/12

Certfication numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-5, UT NELAP CA009332012-3, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2011, Expiration date: 10/17/2012.
Eurofins 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 Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1208372

Twenty-one 1 Liter Summa Canister (100% Certified) samples were received on August 17, 2012. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

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.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Dilution was performed on samples EN0410D081512, EN0410D081512 Lab Duplicate, EN0430S081412, EN049S081512 and EN049S081512 Lab Duplicate due to the presence of high level target species.

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 not 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 and/or LCS.
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

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: DU3362081412

Lab ID#: 1208372-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	0.92	1.5	3.6	6.0
cis-1,2-Dichloroethene	0.92	1.2	3.6	5.0
1,1,1-Trichloroethane	0.92	6.4	5.0	35
Trichloroethene	0.92	130	4.9	710
Tetrachloroethene	0.92	0.99	6.2	6.7

Client Sample ID: EB3462081412

Lab ID#: 1208372-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	8.8	9.9	30	34

Client Sample ID: EN0410D081512

Lab ID#: 1208372-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	18	81	69	320
1,1-Dichloroethane	18	410	71	1600
cis-1,2-Dichloroethene	18	1400	69	5400
1,1,1-Trichloroethane	18	1000	95	5500
Trichloroethene	18	6100	94	33000
Tetrachloroethene	18	70	120	470

Client Sample ID: EN0410D081512 Lab Duplicate

Lab ID#: 1208372-03AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	18	83	69	330
1,1-Dichloroethane	18	400	71	1600
cis-1,2-Dichloroethene	18	1400	69	5400
1,1,1-Trichloroethane	18	1000	95	5400
Trichloroethene	18	6200	94	33000

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0410D081512 Lab Duplicate

Lab ID#: 1208372-03AA

Tetrachloroethene	18	73	120	490

Client Sample ID: EN0418S081412

Lab ID#: 1208372-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.88	1.1	4.7	5.8

Client Sample ID: EN0419S081412

Lab ID#: 1208372-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	9.2	37 J	32	130 J
Trichloroethene	0.92	1.2	4.9	6.5

Client Sample ID: EN0420S081412

Lab ID#: 1208372-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	2.5	3.9	13	21

Client Sample ID: EN0421S081412

Lab ID#: 1208372-07A

No Detections Were Found.

Client Sample ID: EN0422D081412

Lab ID#: 1208372-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	1.4	1.6	11	12
cis-1,2-Dichloroethene	1.4	58	5.5	230
1,1,1-Trichloroethane	1.4	10	7.6	56
Trichloroethene	1.4	140	7.5	740

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0422D081412

Lab ID#: 1208372-08A

trans-1,2-Dichloroethene	1.4	7.9	5.5	31

Client Sample ID: EN0423D081412

Lab ID#: 1208372-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	2.4	89	13	490
Trichloroethene	2.4	380	13	2000
Tetrachloroethene	2.4	79	16	540

Client Sample ID: EN0423S081412

Lab ID#: 1208372-10A

No Detections Were Found.

Client Sample ID: EN0426S081412

Lab ID#: 1208372-11A

No Detections Were Found.

Client Sample ID: EN0427S081312

Lab ID#: 1208372-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.92	12	5.0	66
Trichloroethene	0.92	240	4.9	1300
Tetrachloroethene	0.92	3.1	6.2	21

Client Sample ID: EN042D081412

Lab ID#: 1208372-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	0.92	1.1	3.7	4.5
cis-1,2-Dichloroethene	0.92	7.7	3.6	30
Trichloroethene	0.92	28	4.9	150

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN042D081412

Lab ID#: 1208372-13A

Tetrachloroethene	0.92	1.1	6.2	7.8

Client Sample ID: EN042S081412

Lab ID#: 1208372-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	1.6	3.3	8.4	18

Client Sample ID: EN0430S081412

Lab ID#: 1208372-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	3.3	6.6	18	36
Trichloroethene	3.3	620	18	3300

Client Sample ID: EN0431D081412

Lab ID#: 1208372-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.89	2.6	4.8	14
Trichloroethene	0.89	250	4.8	1300
Tetrachloroethene	0.89	0.91	6.0	6.2

Client Sample ID: EN049S081512

Lab ID#: 1208372-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	6.0	66	33	360
Trichloroethene	6.0	1500	32	7900
Tetrachloroethene	6.0	34	41	230

Client Sample ID: EN049S081512 Lab Duplicate

Lab ID#: 1208372-17AA

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN049S081512 Lab Duplicate

Lab ID#: 1208372-17AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	6.0	63	33	350
Trichloroethene	6.0	1500	32	8000
Tetrachloroethene	6.0	32	41	220

Client Sample ID: EN0529S081512

Lab ID#: 1208372-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	3.2	4.6	17
Trichloroethene	0.84	29	4.5	160

Client Sample ID: EN0637D081412

Lab ID#: 1208372-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.84	1.5	3.3	6.0
Trichloroethene	0.84	5.5	4.5	30
Tetrachloroethene	0.84	3.1	5.7	21

Client Sample ID: EN0637S081412

Lab ID#: 1208372-20A

No Detections Were Found.

Client Sample ID: EN0728S081412

Lab ID#: 1208372-21A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.90	3.2	4.8	17
Tetrachloroethene	0.90	69	6.1	470

eurofins | Air Toxics

Client Sample ID: DU3362081412

Lab ID#: 1208372-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6082112**	**Date of Collection:**	**8/14/12 2:45:00 PM**
Dil. Factor:	**1.83**	**Date of Analysis:**	**8/21/12 11:23 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	3.7	Not Detected	9.6	Not Detected
1,1-Dichloroethene	0.92	1.5	3.6	6.0
Freon 113	0.92	Not Detected	7.0	Not Detected
Methylene Chloride	9.2	Not Detected	32	Not Detected
1,1-Dichloroethane	0.92	Not Detected	3.7	Not Detected
cis-1,2-Dichloroethene	0.92	1.2	3.6	5.0
1,1,1-Trichloroethane	0.92	6.4	5.0	35
Trichloroethene	0.92	130	4.9	710
Tetrachloroethene	0.92	0.99	6.2	6.7
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	89	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: EB3462081412

Lab ID#: 1208372-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6082113**	**Date of Collection:**	**8/14/12 4:19:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/22/12 12:01 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	3.5	Not Detected	9.2	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	8.8	9.9	30	34
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	83	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: EN0410D081512

Lab ID#: 1208372-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082710**	**Date of Collection:**	**8/15/12 10:35:00 AM**
Dil. Factor:	**35.0**	**Date of Analysis:**	**8/27/12 12:36 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	18	Not Detected	45	Not Detected
Chloroethane	70	Not Detected	180	Not Detected
1,1-Dichloroethene	18	81	69	320
Freon 113	18	Not Detected	130	Not Detected
Methylene Chloride	180	Not Detected	610	Not Detected
1,1-Dichloroethane	18	410	71	1600
cis-1,2-Dichloroethene	18	1400	69	5400
1,1,1-Trichloroethane	18	1000	95	5500
Trichloroethene	18	6100	94	33000
Tetrachloroethene	18	70	120	470
trans-1,2-Dichloroethene	18	Not Detected	69	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: EN0410D081512 Lab Duplicate

Lab ID#: 1208372-03AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082711**	**Date of Collection:**	**8/15/12 10:35:00 AM**
Dil. Factor:	**35.0**	**Date of Analysis:**	**8/27/12 01:15 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	18	Not Detected	45	Not Detected
Chloroethane	70	Not Detected	180	Not Detected
1,1-Dichloroethene	18	83	69	330
Freon 113	18	Not Detected	130	Not Detected
Methylene Chloride	180	Not Detected	610	Not Detected
1,1-Dichloroethane	18	400	71	1600
cis-1,2-Dichloroethene	18	1400	69	5400
1,1,1-Trichloroethane	18	1000	95	5400
Trichloroethene	18	6200	94	33000
Tetrachloroethene	18	73	120	490
trans-1,2-Dichloroethene	18	Not Detected	69	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: EN0418S081412

Lab ID#: 1208372-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6082116**	**Date of Collection:**	**8/14/12 1:40:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/22/12 02:00 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	3.5	Not Detected	9.2	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	8.8	Not Detected	30	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	5.8
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	81	70-130
Toluene-d8	75	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: EN0419S081412

Lab ID#: 1208372-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6082214**	**Date of Collection:**	**8/14/12 1:51:00 PM**
Dil. Factor:	**1.83**	**Date of Analysis:**	**8/23/12 12:26 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	3.7	Not Detected	9.6	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	9.2	37 J	32	130 J
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	1.2	4.9	6.5
Tetrachloroethene	0.92	Not Detected	6.2	Not Detected
trans-1,2-Dichloroethene	0.92	Not Detected	3.6	Not Detected

J = Estimated value due to bias in the CCV.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	78	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	112	70-130

eurofins | Air Toxics

Client Sample ID: EN0420S081412

Lab ID#: 1208372-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082709**	**Date of Collection:**	**8/14/12 2:25:00 PM**
Dil. Factor:	**5.01**	**Date of Analysis:**	**8/27/12 11:52 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	10	Not Detected	26	Not Detected
1,1-Dichloroethene	2.5	Not Detected	9.9	Not Detected
Freon 113	2.5	Not Detected	19	Not Detected
Methylene Chloride	25	Not Detected	87	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	Not Detected	14	Not Detected
Trichloroethene	2.5	3.9	13	21
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	94	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: EN0421S081412

Lab ID#: 1208372-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6082216**	**Date of Collection:**	**8/14/12 2:12:00 PM**
Dil. Factor:	**3.02**	**Date of Analysis:**	**8/23/12 01:46 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.5	Not Detected	3.8	Not Detected
Chloroethane	6.0	Not Detected	16	Not Detected
1,1-Dichloroethene	1.5	Not Detected	6.0	Not Detected
Freon 113	1.5	Not Detected	12	Not Detected
Methylene Chloride	15	Not Detected UJ	52	Not Detected UJ
1,1-Dichloroethane	1.5	Not Detected	6.1	Not Detected
cis-1,2-Dichloroethene	1.5	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.5	Not Detected	8.2	Not Detected
Trichloroethene	1.5	Not Detected	8.1	Not Detected
Tetrachloroethene	1.5	Not Detected	10	Not Detected
trans-1,2-Dichloroethene	1.5	Not Detected	6.0	Not Detected

UJ = Non-detected compound associated with low bias in the CCV and/or LCS.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	82	70-130
Toluene-d8	78	70-130
4-Bromofluorobenzene	112	70-130

eurofins | Air Toxics

Client Sample ID: EN0422D081412

Lab ID#: 1208372-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6082217**	**Date of Collection:**	**8/14/12 9:56:00 AM**
Dil. Factor:	**2.79**	**Date of Analysis:**	**8/23/12 02:27 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.4	Not Detected	3.6	Not Detected
Chloroethane	5.6	Not Detected	15	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.5	Not Detected
Freon 113	1.4	1.6	11	12
Methylene Chloride	14	Not Detected UJ	48	Not Detected UJ
1,1-Dichloroethane	1.4	Not Detected	5.6	Not Detected
cis-1,2-Dichloroethene	1.4	58	5.5	230
1,1,1-Trichloroethane	1.4	10	7.6	56
Trichloroethene	1.4	140	7.5	740
Tetrachloroethene	1.4	Not Detected	9.5	Not Detected
trans-1,2-Dichloroethene	1.4	7.9	5.5	31

UJ = Non-detected compound associated with low bias in the CCV and/or LCS.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	78	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: EN0423D081412

Lab ID#: 1208372-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082313**	**Date of Collection:**	**8/14/12 11:18:00 AM**
Dil. Factor:	**4.76**	**Date of Analysis:**	**8/23/12 10:06 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.4	Not Detected	6.1	Not Detected
Chloroethane	9.5	Not Detected	25	Not Detected
1,1-Dichloroethene	2.4	Not Detected	9.4	Not Detected
Freon 113	2.4	Not Detected	18	Not Detected
Methylene Chloride	24	Not Detected	83	Not Detected
1,1-Dichloroethane	2.4	Not Detected	9.6	Not Detected
cis-1,2-Dichloroethene	2.4	Not Detected	9.4	Not Detected
1,1,1-Trichloroethane	2.4	89	13	490
Trichloroethene	2.4	380	13	2000
Tetrachloroethene	2.4	79	16	540
trans-1,2-Dichloroethene	2.4	Not Detected	9.4	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	112	70-130
4-Bromofluorobenzene	114	70-130

eurofins | Air Toxics

Client Sample ID: EN0423S081412

Lab ID#: 1208372-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082414**	**Date of Collection:**	**8/14/12 11:30:00 AM**
Dil. Factor:	**2.91**	**Date of Analysis:**	**8/24/12 06:52 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.4	Not Detected	3.7	Not Detected
Chloroethane	5.8	Not Detected	15	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.8	Not Detected
Freon 113	1.4	Not Detected	11	Not Detected
Methylene Chloride	14	Not Detected	50	Not Detected
1,1-Dichloroethane	1.4	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	1.4	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.4	Not Detected	7.9	Not Detected
Trichloroethene	1.4	Not Detected	7.8	Not Detected
Tetrachloroethene	1.4	Not Detected	9.9	Not Detected
trans-1,2-Dichloroethene	1.4	Not Detected	5.8	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	113	70-130
4-Bromofluorobenzene	118	70-130

eurofins | Air Toxics

Client Sample ID: EN0426S081412

Lab ID#: 1208372-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082311**	**Date of Collection:**	**8/14/12 9:10:00 AM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/23/12 08:52 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	3.5	Not Detected	9.2	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	8.8	Not Detected	30	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	121	70-130
Toluene-d8	122	70-130
4-Bromofluorobenzene	114	70-130

eurofins | Air Toxics

Client Sample ID: EN0427S081312

Lab ID#: 1208372-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082312**	**Date of Collection:**	**8/13/12 3:35:00 PM**
Dil. Factor:	**1.83**	**Date of Analysis:**	**8/23/12 09:29 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	3.7	Not Detected	9.6	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	9.2	Not Detected	32	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	12	5.0	66
Trichloroethene	0.92	240	4.9	1300
Tetrachloroethene	0.92	3.1	6.2	21
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	121	70-130
Toluene-d8	120	70-130
4-Bromofluorobenzene	114	70-130

eurofins | Air Toxics

Client Sample ID: EN042D081412

Lab ID#: 1208372-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082314**	**Date of Collection:**	**8/14/12 4:24:00 PM**
Dil. Factor:	**1.83**	**Date of Analysis:**	**8/23/12 10:43 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	3.7	Not Detected	9.6	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	9.2	Not Detected	32	Not Detected
1,1-Dichloroethane	0.92	1.1	3.7	4.5
cis-1,2-Dichloroethene	0.92	7.7	3.6	30
1,1,1-Trichloroethane	0.92	Not Detected	5.0	Not Detected
Trichloroethene	0.92	28	4.9	150
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	120	70-130
Toluene-d8	117	70-130
4-Bromofluorobenzene	115	70-130

eurofins | Air Toxics

Client Sample ID: EN042S081412

Lab ID#: 1208372-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082415**	**Date of Collection:**	**8/14/12 4:24:00 PM**
Dil. Factor:	**3.13**	**Date of Analysis:**	**8/24/12 07:29 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.6	Not Detected	4.0	Not Detected
Chloroethane	6.3	Not Detected	16	Not Detected
1,1-Dichloroethene	1.6	Not Detected	6.2	Not Detected
Freon 113	1.6	Not Detected	12	Not Detected
Methylene Chloride	16	Not Detected	54	Not Detected
1,1-Dichloroethane	1.6	Not Detected	6.3	Not Detected
cis-1,2-Dichloroethene	1.6	Not Detected	6.2	Not Detected
1,1,1-Trichloroethane	1.6	Not Detected	8.5	Not Detected
Trichloroethene	1.6	3.3	8.4	18
Tetrachloroethene	1.6	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.6	Not Detected	6.2	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	118	70-130

eurofins | Air Toxics

Client Sample ID: EN0430S081412

Lab ID#: 1208372-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082509**	**Date of Collection:**	**8/14/12 11:19:00 AM**
Dil. Factor:	**6.59**	**Date of Analysis:**	**8/25/12 03:38 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	13	Not Detected	35	Not Detected
1,1-Dichloroethene	3.3	Not Detected	13	Not Detected
Freon 113	3.3	Not Detected	25	Not Detected
Methylene Chloride	33	Not Detected	110	Not Detected
1,1-Dichloroethane	3.3	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	3.3	Not Detected	13	Not Detected
1,1,1-Trichloroethane	3.3	6.6	18	36
Trichloroethene	3.3	620	18	3300
Tetrachloroethene	3.3	Not Detected	22	Not Detected
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	114	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	121	70-130

eurofins | Air Toxics

Client Sample ID: EN0431D081412

Lab ID#: 1208372-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082317**	**Date of Collection:**	**8/14/12 2:27:00 PM**
Dil. Factor:	**1.78**	**Date of Analysis:**	**8/24/12 12:34 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.89	Not Detected	2.3	Not Detected
Chloroethane	3.6	Not Detected	9.4	Not Detected
1,1-Dichloroethene	0.89	Not Detected	3.5	Not Detected
Freon 113	0.89	Not Detected	6.8	Not Detected
Methylene Chloride	8.9	Not Detected	31	Not Detected
1,1-Dichloroethane	0.89	Not Detected	3.6	Not Detected
cis-1,2-Dichloroethene	0.89	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.89	2.6	4.8	14
Trichloroethene	0.89	250	4.8	1300
Tetrachloroethene	0.89	0.91	6.0	6.2
trans-1,2-Dichloroethene	0.89	Not Detected	3.5	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	129	70-130
Toluene-d8	122	70-130
4-Bromofluorobenzene	118	70-130

eurofins | Air Toxics

Client Sample ID: EN049S081512

Lab ID#: 1208372-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082707**	**Date of Collection:**	**8/15/12 9:42:00 AM**
Dil. Factor:	**12.1**	**Date of Analysis:**	**8/27/12 10:10 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	6.0	Not Detected	15	Not Detected
Chloroethane	24	Not Detected	64	Not Detected
1,1-Dichloroethene	6.0	Not Detected	24	Not Detected
Freon 113	6.0	Not Detected	46	Not Detected
Methylene Chloride	60	Not Detected	210	Not Detected
1,1-Dichloroethane	6.0	Not Detected	24	Not Detected
cis-1,2-Dichloroethene	6.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	6.0	66	33	360
Trichloroethene	6.0	1500	32	7900
Tetrachloroethene	6.0	34	41	230
trans-1,2-Dichloroethene	6.0	Not Detected	24	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	101	70-130

eurofins | Air Toxics

Client Sample ID: EN049S081512 Lab Duplicate

Lab ID#: 1208372-17AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082708**	**Date of Collection:**	**8/15/12 9:42:00 AM**
Dil. Factor:	**12.1**	**Date of Analysis:**	**8/27/12 10:50 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	6.0	Not Detected	15	Not Detected
Chloroethane	24	Not Detected	64	Not Detected
1,1-Dichloroethene	6.0	Not Detected	24	Not Detected
Freon 113	6.0	Not Detected	46	Not Detected
Methylene Chloride	60	Not Detected	210	Not Detected
1,1-Dichloroethane	6.0	Not Detected	24	Not Detected
cis-1,2-Dichloroethene	6.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	6.0	63	33	350
Trichloroethene	6.0	1500	32	8000
Tetrachloroethene	6.0	32	41	220
trans-1,2-Dichloroethene	6.0	Not Detected	24	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	101	70-130

eurofins | Air Toxics

Client Sample ID: EN0529S081512

Lab ID#: 1208372-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082410**	**Date of Collection:**	**8/15/12 10:02:00 AM**
Dil. Factor:	**1.69**	**Date of Analysis:**	**8/24/12 04:24 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.84	Not Detected	2.2	Not Detected
Chloroethane	3.4	Not Detected	8.9	Not Detected
1,1-Dichloroethene	0.84	Not Detected	3.4	Not Detected
Freon 113	0.84	Not Detected	6.5	Not Detected
Methylene Chloride	8.4	Not Detected	29	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.84	3.2	4.6	17
Trichloroethene	0.84	29	4.5	160
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
trans-1,2-Dichloroethene	0.84	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	124	70-130
4-Bromofluorobenzene	118	70-130

eurofins | Air Toxics

Client Sample ID: EN0637D081412

Lab ID#: 1208372-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082411**	**Date of Collection:**	**8/14/12 11:39:00 AM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**8/24/12 05:01 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	3.4	Not Detected	8.9	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	8.4	Not Detected	29	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	1.5	3.3	6.0
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	5.5	4.5	30
Tetrachloroethene	0.84	3.1	5.7	21
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	117	70-130
Toluene-d8	121	70-130
4-Bromofluorobenzene	118	70-130

eurofins | Air Toxics

Client Sample ID: EN0637S081412

Lab ID#: 1208372-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082412**	**Date of Collection:**	**8/14/12 10:27:00 AM**
Dil. Factor:	**1.65**	**Date of Analysis:**	**8/24/12 05:38 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	3.3	Not Detected	8.7	Not Detected
1,1-Dichloroethene	0.82	Not Detected	3.3	Not Detected
Freon 113	0.82	Not Detected	6.3	Not Detected
Methylene Chloride	8.2	Not Detected	29	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.3	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	3.3	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	113	70-130
4-Bromofluorobenzene	119	70-130

eurofins | Air Toxics

Client Sample ID: EN0728S081412

Lab ID#: 1208372-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082413**	**Date of Collection:**	**8/14/12 10:33:00 AM**
Dil. Factor:	**1.79**	**Date of Analysis:**	**8/24/12 06:15 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	3.6	Not Detected	9.4	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	9.0	Not Detected	31	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	3.2	4.8	17
Tetrachloroethene	0.90	69	6.1	470
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	113	70-130
4-Bromofluorobenzene	118	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1208372-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6082108**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/21/12 08:39 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	107	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1208372-22B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6082211**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/22/12 10:17 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	2.0	Not Detected	5.3	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	5.0	Not Detected UJ	17	Not Detected UJ
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

UJ = Non-detected compound associated with low bias in the CCV and/or LCS.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1208372-22C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082309**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/23/12 07:34 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	114	70-130
Toluene-d8	112	70-130
4-Bromofluorobenzene	115	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1208372-22D

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082409**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/24/12 03:23 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	114	70-130
4-Bromofluorobenzene	119	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1208372-22E

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082508**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/12 02:37 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	116	70-130
Toluene-d8	118	70-130
4-Bromofluorobenzene	120	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1208372-22F

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082706**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/12 09:02 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	88	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1208372-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6082106**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/21/12 07:22 PM**	

Compound	**%Recovery**
Vinyl Chloride	94
Chloroethane	95
1,1-Dichloroethene	94
Freon 113	87
Methylene Chloride	77
1,1-Dichloroethane	106
cis-1,2-Dichloroethene	104
1,1,1-Trichloroethane	88
Trichloroethene	95
Tetrachloroethene	100
trans-1,2-Dichloroethene	102

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	116	70-130
4-Bromofluorobenzene	112	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1208372-23B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6082205**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/22/12 05:44 PM**	

Compound	**%Recovery**
Vinyl Chloride	88
Chloroethane	86
1,1-Dichloroethene	77
Freon 113	75
Methylene Chloride	69 Q
1,1-Dichloroethane	92
cis-1,2-Dichloroethene	92
1,1,1-Trichloroethane	88
Trichloroethene	89
Tetrachloroethene	72
trans-1,2-Dichloroethene	90

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	83	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	116	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1208372-23C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/23/12 03:53 PM**	

Compound	**%Recovery**
Vinyl Chloride	78
Chloroethane	84
1,1-Dichloroethene	91
Freon 113	107
Methylene Chloride	75
1,1-Dichloroethane	85
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	111
Trichloroethene	102
Tetrachloroethene	108
trans-1,2-Dichloroethene	93

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	111	70-130
4-Bromofluorobenzene	119	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1208372-23D

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/24/12 11:14 AM**	

Compound	**%Recovery**
Vinyl Chloride	79
Chloroethane	89
1,1-Dichloroethene	94
Freon 113	110
Methylene Chloride	76
1,1-Dichloroethane	87
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	114
Trichloroethene	103
Tetrachloroethene	114
trans-1,2-Dichloroethene	96

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	117	70-130
4-Bromofluorobenzene	116	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1208372-23E

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/12 09:20 AM**	

Compound	**%Recovery**
Vinyl Chloride	80
Chloroethane	85
1,1-Dichloroethene	98
Freon 113	112
Methylene Chloride	76
1,1-Dichloroethane	89
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	116
Trichloroethene	112
Tetrachloroethene	124
trans-1,2-Dichloroethene	96

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	123	70-130
4-Bromofluorobenzene	115	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1208372-23F

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/12 07:11 AM**	

Compound	**%Recovery**
Vinyl Chloride	88
Chloroethane	88
1,1-Dichloroethene	91
Freon 113	102
Methylene Chloride	84
1,1-Dichloroethane	89
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	97
Trichloroethene	94
Tetrachloroethene	106
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	116	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1208372-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6082102**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/21/12 03:25 PM**	

Compound	**%Recovery**
Vinyl Chloride	74
Chloroethane	85
1,1-Dichloroethene	85
Freon 113	80
Methylene Chloride	71
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	91
1,1,1-Trichloroethane	83
Trichloroethene	85
Tetrachloroethene	79
trans-1,2-Dichloroethene	82

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1208372-24AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6082103**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/21/12 04:26 PM**	

Compound	**%Recovery**
Vinyl Chloride	95
Chloroethane	97
1,1-Dichloroethene	94
Freon 113	88
Methylene Chloride	80
1,1-Dichloroethane	106
cis-1,2-Dichloroethene	104
1,1,1-Trichloroethane	101
Trichloroethene	97
Tetrachloroethene	87
trans-1,2-Dichloroethene	110

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1208372-24B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6082203**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/22/12 04:23 PM**	

Compound	**%Recovery**
Vinyl Chloride	96
Chloroethane	93
1,1-Dichloroethene	99
Freon 113	90
Methylene Chloride	80
1,1-Dichloroethane	86
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	95
Trichloroethene	105
Tetrachloroethene	102
trans-1,2-Dichloroethene	104

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	114	70-130
4-Bromofluorobenzene	126	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1208372-24BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**6082210**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/22/12 09:38 PM**	

Compound	**%Recovery**
Vinyl Chloride	85
Chloroethane	105
1,1-Dichloroethene	103
Freon 113	93
Methylene Chloride	72
1,1-Dichloroethane	107
cis-1,2-Dichloroethene	105
1,1,1-Trichloroethane	105
Trichloroethene	101
Tetrachloroethene	94
trans-1,2-Dichloroethene	115

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	111	70-130
4-Bromofluorobenzene	119	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1208372-24C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/23/12 04:30 PM**	

Compound	**%Recovery**
Vinyl Chloride	86
Chloroethane	92
1,1-Dichloroethene	104
Freon 113	116
Methylene Chloride	81
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	102
1,1,1-Trichloroethane	120
Trichloroethene	110
Tetrachloroethene	114
trans-1,2-Dichloroethene	111

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	114	70-130
4-Bromofluorobenzene	119	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1208372-24CC

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082305**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/23/12 05:07 PM**	

Compound	**%Recovery**
Vinyl Chloride	86
Chloroethane	89
1,1-Dichloroethene	105
Freon 113	116
Methylene Chloride	80
1,1-Dichloroethane	92
cis-1,2-Dichloroethene	101
1,1,1-Trichloroethane	121
Trichloroethene	109
Tetrachloroethene	115
trans-1,2-Dichloroethene	110

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	114	70-130
4-Bromofluorobenzene	118	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1208372-24D

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/24/12 10:25 AM**	

Compound	**%Recovery**
Vinyl Chloride	84
Chloroethane	89
1,1-Dichloroethene	102
Freon 113	114
Methylene Chloride	79
1,1-Dichloroethane	91
cis-1,2-Dichloroethene	102
1,1,1-Trichloroethane	117
Trichloroethene	111
Tetrachloroethene	120
trans-1,2-Dichloroethene	110

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	126	70-130
4-Bromofluorobenzene	117	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1208372-24DD

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082405**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/24/12 11:51 AM**	

Compound	**%Recovery**
Vinyl Chloride	84
Chloroethane	91
1,1-Dichloroethene	104
Freon 113	116
Methylene Chloride	80
1,1-Dichloroethane	92
cis-1,2-Dichloroethene	101
1,1,1-Trichloroethane	120
Trichloroethene	109
Tetrachloroethene	116
trans-1,2-Dichloroethene	111

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	125	70-130
4-Bromofluorobenzene	118	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1208372-24E

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082504a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/12 11:10 AM**	

Compound	**%Recovery**
Vinyl Chloride	85
Chloroethane	76
1,1-Dichloroethene	110
Freon 113	120
Methylene Chloride	80
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	104
1,1,1-Trichloroethane	120
Trichloroethene	109
Tetrachloroethene	117
trans-1,2-Dichloroethene	113

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	113	70-130
4-Bromofluorobenzene	118	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1208372-24EE

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**o082505c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/12 12:47 PM**	

Compound	**%Recovery**
Vinyl Chloride	78
Chloroethane	84
1,1-Dichloroethene	98
Freon 113	110
Methylene Chloride	76
1,1-Dichloroethane	87
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	114
Trichloroethene	103
Tetrachloroethene	113
trans-1,2-Dichloroethene	103

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	117	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1208372-24F

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/12 07:46 AM**	

Compound	**%Recovery**
Vinyl Chloride	89
Chloroethane	84
1,1-Dichloroethene	93
Freon 113	97
Methylene Chloride	80
1,1-Dichloroethane	86
cis-1,2-Dichloroethene	89
1,1,1-Trichloroethane	92
Trichloroethene	93
Tetrachloroethene	100
trans-1,2-Dichloroethene	109

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	108	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1208372-24FF

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/12 08:05 AM**	

Compound	**%Recovery**
Vinyl Chloride	90
Chloroethane	85
1,1-Dichloroethene	95
Freon 113	98
Methylene Chloride	81
1,1-Dichloroethane	86
cis-1,2-Dichloroethene	93
1,1,1-Trichloroethane	92
Trichloroethene	93
Tetrachloroethene	106
trans-1,2-Dichloroethene	112

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	111	70-130

eurofins | Air Toxics

9/1/2012
Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: IBM Groundwater Vapor Project -
Project #: 2755.07
Workorder #: 1208373

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 8/17/2012 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 your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1208373

Work Order Summary

CLIENT:	Ms. Erica Bradstreet Sanborn, Head & Associates 1715 W 13th Street Houston, TX 77008	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	713-869-2259	**P.O. #**	3304.00
FAX:		**PROJECT #**	2755.07 IBM Groundwater Vapor Project -
DATE RECEIVED:	08/17/2012	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/01/2012		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	DU3352081412	Modified TO-15	6.5 "Hg	5 psi
02A	EB3324081312	Modified TO-15	7.0 "Hg	5 psi
03A	EN0410S081512	Modified TO-15	4.5 "Hg	5 psi
04A	EN0411D081512	Modified TO-15	6.0 "Hg	5 psi
05A	EN0411S081512	Modified TO-15	5.5 "Hg	5 psi
06A	EN0418D081412	Modified TO-15	6.5 "Hg	5 psi
07A	EN0419D081412	Modified TO-15	6.5 "Hg	5 psi
08A	EN0420D081412	Modified TO-15	6.5 "Hg	5 psi
09A	EN0421D081412	Modified TO-15	7.5 "Hg	5 psi
10A	EN0426D081412	Modified TO-15	7.0 "Hg	5 psi
10AA	EN0426D081412 Lab Duplicate	Modified TO-15	7.0 "Hg	5 psi
11A	EN0429D081512	Modified TO-15	6.5 "Hg	5 psi
12A	EN0430D081412	Modified TO-15	7.0 "Hg	5 psi
13A	EN0432D081512	Modified TO-15	6.0 "Hg	5 psi
14A	EN0432S081512	Modified TO-15	7.0 "Hg	5 psi
14AA	EN0432S081512 Lab Duplicate	Modified TO-15	7.0 "Hg	5 psi
15A	EN043D081412	Modified TO-15	8.0 "Hg	5 psi
16A	EN043S081412	Modified TO-15	8.5 "Hg	5 psi
17A	EN044D081512	Modified TO-15	6.5 "Hg	5 psi
18A	EN044S081512	Modified TO-15	6.5 "Hg	5 psi
19A	EN046S081512	Modified TO-15	6.0 "Hg	5 psi
20A	EN049D081512	Modified TO-15	8.0 "Hg	5 psi
21A	EN0635D081512	Modified TO-15	7.0 "Hg	5 psi

Continued on next page

eurofins | Air Toxics

WORK ORDER #: 1208373

Work Order Summary

CLIENT:	Ms. Erica Bradstreet Sanborn, Head & Associates 1715 W 13th Street Houston, TX 77008	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	713-869-2259	**P.O. #**	3304.00
FAX:		**PROJECT #**	2755.07 IBM Groundwater Vapor Project -
DATE RECEIVED:	08/17/2012	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/01/2012		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
22A	EN0635S081512	Modified TO-15	6.0 "Hg	5 psi
23A	EN0636S081512	Modified TO-15	4.0 "Hg	5 psi
24A	Lab Blank	Modified TO-15	NA	NA
24B	Lab Blank	Modified TO-15	NA	NA
25A	CCV	Modified TO-15	NA	NA
25B	CCV	Modified TO-15	NA	NA
26A	LCS	Modified TO-15	NA	NA
26AA	LCSD	Modified TO-15	NA	NA
26B	LCS	Modified TO-15	NA	NA
26BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 09/01/12

Certfication numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-5, UT NELAP CA009332012-3, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2011, Expiration date: 10/17/2012.
Eurofins 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 Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1208373

Twenty-three 1 Liter Summa Canister (100% Certified) samples were received on August 17, 2012. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

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.

Receiving Notes

The Chain of Custody (COC) was not relinquished properly. The year was not provided by the field sampler.

The Chain of Custody (COC) information for sample EN049D081512 did not match the information on the canister with regard to canister identification. The client was notified of the discrepancy and the information on the canister was used to process and report the sample(s).

Analytical Notes

Dilution was performed on samples EN0410S081512, EN0426D081412, EN0426D081412 Lab Duplicate, EN0432D081512, EN0432S081512 and EN0432S081512 Lab Duplicate due to the presence of high level target species.

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 not 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 and/or LCS.
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

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: DU3352081412

Lab ID#: 1208373-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.86	1.3	3.4	5.1
1,1,1-Trichloroethane	0.86	7.3	4.7	40
Trichloroethene	0.86	130	4.6	710

Client Sample ID: EB3324081312

Lab ID#: 1208373-02A

No Detections Were Found.

Client Sample ID: EN0410S081512

Lab ID#: 1208373-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	49	49	200	200
1,1-Dichloroethane	49	530	200	2100
cis-1,2-Dichloroethene	49	1500	200	5900
1,1,1-Trichloroethane	49	1300	270	6900
Trichloroethene	49	10000	260	54000
Tetrachloroethene	49	90	340	610

Client Sample ID: EN0411D081512

Lab ID#: 1208373-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.84	0.92	3.3	3.6
1,1,1-Trichloroethane	0.84	6.0	4.6	33
Trichloroethene	0.84	200	4.5	1000
Tetrachloroethene	0.84	5.1	5.7	35

Client Sample ID: EN0411S081512

Lab ID#: 1208373-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0411S081512

Lab ID#: 1208373-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.82	1.7	4.5	9.2
Trichloroethene	0.82	26	4.4	140
Tetrachloroethene	0.82	1.2	5.6	8.3

Client Sample ID: EN0418D081412

Lab ID#: 1208373-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.86	1.1	3.4	4.5
1,1,1-Trichloroethane	0.86	8.2	4.7	45
Trichloroethene	0.86	140	4.6	770
Tetrachloroethene	0.86	1.2	5.8	8.4

Client Sample ID: EN0419D081412

Lab ID#: 1208373-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.86	1.1	3.4	4.3
1,1,1-Trichloroethane	0.86	7.0	4.7	38
Trichloroethene	0.86	130	4.6	710

Client Sample ID: EN0420D081412

Lab ID#: 1208373-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.86	1.8	4.7	10
Trichloroethene	0.86	28	4.6	150

Client Sample ID: EN0421D081412

Lab ID#: 1208373-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0421D081412

Lab ID#: 1208373-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.90	27	4.8	140
Tetrachloroethene	0.90	1.9	6.1	13

Client Sample ID: EN0426D081412

Lab ID#: 1208373-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	2.2	18	12	100
Trichloroethene	2.2	430	12	2300
Tetrachloroethene	2.2	2.5	15	17

Client Sample ID: EN0426D081412 Lab Duplicate

Lab ID#: 1208373-10AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	2.2	18	12	100
Trichloroethene	2.2	430	12	2300
Tetrachloroethene	2.2	2.8	15	19

Client Sample ID: EN0429D081512

Lab ID#: 1208373-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.86	2.2	4.7	12
Trichloroethene	0.86	23	4.6	120

Client Sample ID: EN0430D081412

Lab ID#: 1208373-12A

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	2.5	3.5	10

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0430D081412

Lab ID#: 1208373-12A

cis-1,2-Dichloroethene	0.88	1.1	3.5	4.2
1,1,1-Trichloroethane	0.88	22	4.8	120
Trichloroethene	0.88	200	4.7	1100
Tetrachloroethene	0.88	6.3	5.9	42

Client Sample ID: EN0432D081512

Lab ID#: 1208373-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.4	1.6	5.7	6.7
1,1,1-Trichloroethane	1.4	7.8	7.6	42
Trichloroethene	1.4	280	7.5	1500

Client Sample ID: EN0432S081512

Lab ID#: 1208373-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	8.8	68	35	270
Freon 113	8.8	17	67	130
1,1-Dichloroethane	8.8	46	35	190
cis-1,2-Dichloroethene	8.8	140	35	560
1,1,1-Trichloroethane	8.8	230	48	1200
Trichloroethene	8.8	2200	47	12000
Tetrachloroethene	8.8	120	59	820

Client Sample ID: EN0432S081512 Lab Duplicate

Lab ID#: 1208373-14AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	8.8	55	35	220
Freon 113	8.8	15	67	110
1,1-Dichloroethane	8.8	45	35	180
cis-1,2-Dichloroethene	8.8	140	35	560
1,1,1-Trichloroethane	8.8	220	48	1200

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0432S081512 Lab Duplicate

Lab ID#: 1208373-14AA

Trichloroethene	8.8	2100	47	11000
Tetrachloroethene	8.8	120	59	790

Client Sample ID: EN043D081412

Lab ID#: 1208373-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.92	1.0	5.0	5.7
Trichloroethene	0.92	7.7	4.9	41

Client Sample ID: EN043S081412

Lab ID#: 1208373-16A

No Detections Were Found.

Client Sample ID: EN044D081512

Lab ID#: 1208373-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.86	0.92	4.6	5.0

Client Sample ID: EN044S081512

Lab ID#: 1208373-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.86	1.0	4.6	5.4

Client Sample ID: EN046S081512

Lab ID#: 1208373-19A

No Detections Were Found.

Client Sample ID: EN049D081512

Lab ID#: 1208373-20A

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN049D081512

Lab ID#: 1208373-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.92	4.7	5.0	25
Trichloroethene	0.92	150	4.9	800

Client Sample ID: EN0635D081512

Lab ID#: 1208373-21A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.88	2.7	4.8	15
Trichloroethene	0.88	19	4.7	100

Client Sample ID: EN0635S081512

Lab ID#: 1208373-22A

No Detections Were Found.

Client Sample ID: EN0636S081512

Lab ID#: 1208373-23A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.78	2.2	4.2	12

eurofins | Air Toxics

Client Sample ID: DU3352081412

Lab ID#: 1208373-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082407**	**Date of Collection:**	**8/14/12 3:14:00 PM**
Dil. Factor:	**1.71**	**Date of Analysis:**	**8/24/12 10:48 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	3.4	Not Detected	9.0	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	8.6	Not Detected	30	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	1.3	3.4	5.1
1,1,1-Trichloroethane	0.86	7.3	4.7	40
Trichloroethene	0.86	130	4.6	710
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	96	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130

eurofins | Air Toxics

Client Sample ID: EB3324081312

Lab ID#: 1208373-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082408**	**Date of Collection:**	**8/13/12 5:48:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/24/12 11:24 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	3.5	Not Detected	9.2	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	8.8	Not Detected	30	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	94	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Client Sample ID: EN0410S081512

Lab ID#: 1208373-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082409**	**Date of Collection:**	**8/15/12 9:31:00 AM**
Dil. Factor:	**98.8**	**Date of Analysis:**	**8/24/12 12:01 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	49	Not Detected	130	Not Detected
Chloroethane	200	Not Detected	520	Not Detected
1,1-Dichloroethene	49	49	200	200
Freon 113	49	Not Detected	380	Not Detected
Methylene Chloride	490	Not Detected	1700	Not Detected
1,1-Dichloroethane	49	530	200	2100
cis-1,2-Dichloroethene	49	1500	200	5900
1,1,1-Trichloroethane	49	1300	270	6900
Trichloroethene	49	10000	260	54000
Tetrachloroethene	49	90	340	610
trans-1,2-Dichloroethene	49	Not Detected	200	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	124	70-130

eurofins | Air Toxics

Client Sample ID: EN0411D081512

Lab ID#: 1208373-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082410**	**Date of Collection:**	**8/15/12 12:17:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**8/24/12 01:16 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	3.4	Not Detected	8.9	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	8.4	Not Detected	29	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	0.92	3.3	3.6
1,1,1-Trichloroethane	0.84	6.0	4.6	33
Trichloroethene	0.84	200	4.5	1000
Tetrachloroethene	0.84	5.1	5.7	35
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	96	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	110	70-130

eurofins | Air Toxics

Client Sample ID: EN0411S081512

Lab ID#: 1208373-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082413**	**Date of Collection:**	**8/15/12 12:17:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**8/24/12 02:50 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	3.3	Not Detected	8.6	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	8.2	Not Detected	28	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	1.7	4.5	9.2
Trichloroethene	0.82	26	4.4	140
Tetrachloroethene	0.82	1.2	5.6	8.3
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	97	70-130
4-Bromofluorobenzene	101	70-130

eurofins | Air Toxics

Client Sample ID: EN0418D081412

Lab ID#: 1208373-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082414**	**Date of Collection:**	**8/14/12 2:38:00 PM**
Dil. Factor:	**1.71**	**Date of Analysis:**	**8/24/12 03:34 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	3.4	Not Detected	9.0	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	8.6	Not Detected	30	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	1.1	3.4	4.5
1,1,1-Trichloroethane	0.86	8.2	4.7	45
Trichloroethene	0.86	140	4.6	770
Tetrachloroethene	0.86	1.2	5.8	8.4
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	98	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Client Sample ID: EN0419D081412

Lab ID#: 1208373-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082415**	**Date of Collection:**	**8/14/12 3:14:00 PM**
Dil. Factor:	**1.71**	**Date of Analysis:**	**8/24/12 04:31 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	3.4	Not Detected	9.0	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	8.6	Not Detected	30	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	1.1	3.4	4.3
1,1,1-Trichloroethane	0.86	7.0	4.7	38
Trichloroethene	0.86	130	4.6	710
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	95	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	105	70-130

eurofins | Air Toxics

Client Sample ID: EN0420D081412

Lab ID#: 1208373-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082416**	**Date of Collection:**	**8/14/12 2:23:00 PM**
Dil. Factor:	**1.71**	**Date of Analysis:**	**8/24/12 05:03 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	3.4	Not Detected	9.0	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	8.6	Not Detected	30	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	1.8	4.7	10
Trichloroethene	0.86	28	4.6	150
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	105	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: EN0421D081412

Lab ID#: 1208373-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082417**	**Date of Collection:**	**8/14/12 2:08:00 PM**
Dil. Factor:	**1.79**	**Date of Analysis:**	**8/24/12 05:36 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	3.6	Not Detected	9.4	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	9.0	Not Detected	31	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	27	4.8	140
Tetrachloroethene	0.90	1.9	6.1	13
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	91	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: EN0426D081412

Lab ID#: 1208373-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082411**	**Date of Collection:**	**8/14/12 9:10:00 AM**
Dil. Factor:	**4.38**	**Date of Analysis:**	**8/24/12 01:55 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.2	Not Detected	5.6	Not Detected
Chloroethane	8.8	Not Detected	23	Not Detected
1,1-Dichloroethene	2.2	Not Detected	8.7	Not Detected
Freon 113	2.2	Not Detected	17	Not Detected
Methylene Chloride	22	Not Detected	76	Not Detected
1,1-Dichloroethane	2.2	Not Detected	8.9	Not Detected
cis-1,2-Dichloroethene	2.2	Not Detected	8.7	Not Detected
1,1,1-Trichloroethane	2.2	18	12	100
Trichloroethene	2.2	430	12	2300
Tetrachloroethene	2.2	2.5	15	17
trans-1,2-Dichloroethene	2.2	Not Detected	8.7	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	108	70-130

eurofins | Air Toxics

Client Sample ID: EN0426D081412 Lab Duplicate

Lab ID#: 1208373-10AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082412**	**Date of Collection:**	**8/14/12 9:10:00 AM**
Dil. Factor:	**4.38**	**Date of Analysis:**	**8/24/12 02:27 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.2	Not Detected	5.6	Not Detected
Chloroethane	8.8	Not Detected	23	Not Detected
1,1-Dichloroethene	2.2	Not Detected	8.7	Not Detected
Freon 113	2.2	Not Detected	17	Not Detected
Methylene Chloride	22	Not Detected	76	Not Detected
1,1-Dichloroethane	2.2	Not Detected	8.9	Not Detected
cis-1,2-Dichloroethene	2.2	Not Detected	8.7	Not Detected
1,1,1-Trichloroethane	2.2	18	12	100
Trichloroethene	2.2	430	12	2300
Tetrachloroethene	2.2	2.8	15	19
trans-1,2-Dichloroethene	2.2	Not Detected	8.7	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	98	70-130

eurofins | Air Toxics

Client Sample ID: EN0429D081512

Lab ID#: 1208373-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082418**	**Date of Collection:**	**8/15/12 10:00:00 AM**
Dil. Factor:	**1.71**	**Date of Analysis:**	**8/24/12 06:09 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	3.4	Not Detected	9.0	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	8.6	Not Detected	30	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	2.2	4.7	12
Trichloroethene	0.86	23	4.6	120
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	99	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	101	70-130

eurofins | Air Toxics

Client Sample ID: EN0430D081412

Lab ID#: 1208373-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082419**	**Date of Collection:**	**8/14/12 11:21:00 AM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/24/12 06:40 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	3.5	Not Detected	9.2	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	8.8	Not Detected	30	Not Detected
1,1-Dichloroethane	0.88	2.5	3.5	10
cis-1,2-Dichloroethene	0.88	1.1	3.5	4.2
1,1,1-Trichloroethane	0.88	22	4.8	120
Trichloroethene	0.88	200	4.7	1100
Tetrachloroethene	0.88	6.3	5.9	42
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	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: EN0432D081512

Lab ID#: 1208373-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082507**	**Date of Collection:**	**8/15/12 12:30:00 PM**
Dil. Factor:	**2.80**	**Date of Analysis:**	**8/25/12 11:16 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.4	Not Detected	3.6	Not Detected
Chloroethane	5.6	Not Detected	15	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.6	Not Detected
Freon 113	1.4	Not Detected	11	Not Detected
Methylene Chloride	14	Not Detected	49	Not Detected
1,1-Dichloroethane	1.4	1.6	5.7	6.7
cis-1,2-Dichloroethene	1.4	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.4	7.8	7.6	42
Trichloroethene	1.4	280	7.5	1500
Tetrachloroethene	1.4	Not Detected	9.5	Not Detected
trans-1,2-Dichloroethene	1.4	Not Detected	5.6	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	101	70-130

eurofins | Air Toxics

Client Sample ID: EN0432S081512

Lab ID#: 1208373-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082515**	**Date of Collection:**	**8/15/12 1:28:00 PM**
Dil. Factor:	**17.5**	**Date of Analysis:**	**8/25/12 05:04 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	8.8	Not Detected	22	Not Detected
Chloroethane	35	Not Detected	92	Not Detected
1,1-Dichloroethene	8.8	68	35	270
Freon 113	8.8	17	67	130
Methylene Chloride	88	Not Detected	300	Not Detected
1,1-Dichloroethane	8.8	46	35	190
cis-1,2-Dichloroethene	8.8	140	35	560
1,1,1-Trichloroethane	8.8	230	48	1200
Trichloroethene	8.8	2200	47	12000
Tetrachloroethene	8.8	120	59	820
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	97	70-130
4-Bromofluorobenzene	98	70-130

eurofins | Air Toxics

Client Sample ID: EN0432S081512 Lab Duplicate

Lab ID#: 1208373-14AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082516**	**Date of Collection:**	**8/15/12 1:28:00 PM**
Dil. Factor:	**17.5**	**Date of Analysis:**	**8/25/12 05:42 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	8.8	Not Detected	22	Not Detected
Chloroethane	35	Not Detected	92	Not Detected
1,1-Dichloroethene	8.8	55	35	220
Freon 113	8.8	15	67	110
Methylene Chloride	88	Not Detected	300	Not Detected
1,1-Dichloroethane	8.8	45	35	180
cis-1,2-Dichloroethene	8.8	140	35	560
1,1,1-Trichloroethane	8.8	220	48	1200
Trichloroethene	8.8	2100	47	11000
Tetrachloroethene	8.8	120	59	790
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	96	70-130
4-Bromofluorobenzene	99	70-130

eurofins | Air Toxics

Client Sample ID: EN043D081412

Lab ID#: 1208373-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082420**	**Date of Collection:**	**8/14/12 11:45:00 AM**
Dil. Factor:	**1.83**	**Date of Analysis:**	**8/24/12 07:08 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	3.7	Not Detected	9.6	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	9.2	Not Detected	32	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	1.0	5.0	5.7
Trichloroethene	0.92	7.7	4.9	41
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	102	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	105	70-130

eurofins | Air Toxics

Client Sample ID: EN043S081412

Lab ID#: 1208373-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082421**	**Date of Collection:**	**8/14/12 11:43:00 AM**
Dil. Factor:	**1.87**	**Date of Analysis:**	**8/24/12 07:50 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	3.7	Not Detected	9.9	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	9.4	Not Detected	32	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	99	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: EN044D081512

Lab ID#: 1208373-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082508**	**Date of Collection:**	**8/15/12 12:46:00 PM**
Dil. Factor:	**1.71**	**Date of Analysis:**	**8/25/12 12:17 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	3.4	Not Detected	9.0	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	8.6	Not Detected	30	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	0.92	4.6	5.0
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	90	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: EN044S081512

Lab ID#: 1208373-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082509**	**Date of Collection:**	**8/15/12 12:49:00 PM**
Dil. Factor:	**1.71**	**Date of Analysis:**	**8/25/12 12:59 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	3.4	Not Detected	9.0	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	8.6	Not Detected	30	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	1.0	4.6	5.4
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	93	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: EN046S081512

Lab ID#: 1208373-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082510**	**Date of Collection:**	**8/15/12 3:33:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**8/25/12 02:01 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	3.4	Not Detected	8.9	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	8.4	Not Detected	29	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	91	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: EN049D081512

Lab ID#: 1208373-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082511**	**Date of Collection:**	**8/15/12 9:42:00 AM**
Dil. Factor:	**1.83**	**Date of Analysis:**	**8/25/12 02:38 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	3.7	Not Detected	9.6	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	9.2	Not Detected	32	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	4.7	5.0	25
Trichloroethene	0.92	150	4.9	800
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	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Client Sample ID: EN0635D081512

Lab ID#: 1208373-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082512**	**Date of Collection:**	**8/15/12 3:04:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/25/12 03:18 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	3.5	Not Detected	9.2	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	8.8	Not Detected	30	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	19	4.7	100
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	95	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Client Sample ID: EN0635S081512

Lab ID#: 1208373-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082513**	**Date of Collection:**	**8/15/12 4:21:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**8/25/12 03:51 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	3.4	Not Detected	8.9	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	8.4	Not Detected	29	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	95	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: EN0636S081512

Lab ID#: 1208373-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082514**	**Date of Collection:**	**8/15/12 3:43:00 PM**
Dil. Factor:	**1.55**	**Date of Analysis:**	**8/25/12 04:27 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	5.9	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.78	2.2	4.2	12
Trichloroethene	0.78	Not Detected	4.2	Not Detected
Tetrachloroethene	0.78	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1208373-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082406**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/24/12 10:13 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	99	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1208373-24B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082506**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/12 10:35 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	96	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1208373-25A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/24/12 08:29 AM**	

Compound	**%Recovery**
Vinyl Chloride	85
Chloroethane	83
1,1-Dichloroethene	86
Freon 113	98
Methylene Chloride	83
1,1-Dichloroethane	85
cis-1,2-Dichloroethene	92
1,1,1-Trichloroethane	98
Trichloroethene	96
Tetrachloroethene	105
trans-1,2-Dichloroethene	95

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	117	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1208373-25B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/12 08:10 AM**	

Compound	**%Recovery**
Vinyl Chloride	90
Chloroethane	88
1,1-Dichloroethene	96
Freon 113	108
Methylene Chloride	89
1,1-Dichloroethane	92
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	104
Trichloroethene	98
Tetrachloroethene	111
trans-1,2-Dichloroethene	101

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	112	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1208373-26A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/24/12 09:00 AM**	

Compound	**%Recovery**
Vinyl Chloride	91
Chloroethane	84
1,1-Dichloroethene	97
Freon 113	103
Methylene Chloride	83
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	93
1,1,1-Trichloroethane	97
Trichloroethene	95
Tetrachloroethene	108
trans-1,2-Dichloroethene	110

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	112	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1208373-26AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082404a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/24/12 09:19 AM**	

Compound	**%Recovery**
Vinyl Chloride	91
Chloroethane	86
1,1-Dichloroethene	94
Freon 113	103
Methylene Chloride	84
1,1-Dichloroethane	90
cis-1,2-Dichloroethene	92
1,1,1-Trichloroethane	97
Trichloroethene	94
Tetrachloroethene	107
trans-1,2-Dichloroethene	114

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	116	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1208373-26B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/12 08:49 AM**	

Compound	**%Recovery**
Vinyl Chloride	96
Chloroethane	90
1,1-Dichloroethene	100
Freon 113	104
Methylene Chloride	87
1,1-Dichloroethane	92
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	101
Trichloroethene	96
Tetrachloroethene	109
trans-1,2-Dichloroethene	117

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1208373-26BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/12 09:08 AM**	

Compound	**%Recovery**
Vinyl Chloride	92
Chloroethane	86
1,1-Dichloroethene	96
Freon 113	101
Methylene Chloride	84
1,1-Dichloroethane	89
cis-1,2-Dichloroethene	97
1,1,1-Trichloroethane	95
Trichloroethene	95
Tetrachloroethene	104
trans-1,2-Dichloroethene	109

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	110	70-130

eurofins | Air Toxics

9/5/2012
Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: IBM Groundwater Vapor Project-
Project #: 2755.07
Workorder #: 1208374

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 8/17/2012 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 your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1208374

Work Order Summary

CLIENT:	Ms. Erica Bradstreet Sanborn, Head & Associates 1715 W 13th Street Houston, TX 77008	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	713-869-2259	**P.O. #**	3304.00
FAX:		**PROJECT #**	2755.07 IBM Groundwater Vapor Project-
DATE RECEIVED:	08/17/2012	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/05/2012		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	DU3327081512	Modified TO-15	6.5 "Hg	5 psi
02A	DU3461081512	Modified TO-15	8.5 "Hg	5 psi
03A	EB3326081512	Modified TO-15	8.0 "Hg	5 psi
04A	EN0412D081612	Modified TO-15	7.0 "Hg	5 psi
05A	EN0412S081612	Modified TO-15	5.5 "Hg	5 psi
06A	EN0414D081612	Modified TO-15	6.0 "Hg	5 psi
07A	EN0414S081612	Modified TO-15	6.0 "Hg	5 psi
08A	EN0415D081612	Modified TO-15	6.0 "Hg	5 psi
09A	EN0415S081612	Modified TO-15	7.0 "Hg	5 psi
10A	EN0416D081512	Modified TO-15	6.0 "Hg	5 psi
11A	EN0416S081512	Modified TO-15	6.0 "Hg	5 psi
12A	EN0417D081612	Modified TO-15	5.5 "Hg	5 psi
13A	EN0417S081612	Modified TO-15	5.5 "Hg	5 psi
14A	EN045D081512	Modified TO-15	7.0 "Hg	5 psi
15A	EN045S081512	Modified TO-15	7.5 "Hg	5 psi
16A	EN046D081512	Modified TO-15	7.0 "Hg	5 psi
17A	EN047D081512	Modified TO-15	7.0 "Hg	5 psi
17AA	EN047D081512 Lab Duplicate	Modified TO-15	7.0 "Hg	5 psi
18A	EN047S081512	Modified TO-15	6.5 "Hg	5 psi
19A	EN0533D081512	Modified TO-15	7.5 "Hg	5 psi
19AA	EN0533D081512 Lab Duplicate	Modified TO-15	7.5 "Hg	5 psi
20A	EN0533S081512	Modified TO-15	6.5 "Hg	5 psi
21A	EN0636D081512	Modified TO-15	7.0 "Hg	5 psi

Continued on next page

eurofins | Air Toxics

WORK ORDER #: 1208374

Work Order Summary

CLIENT:	Ms. Erica Bradstreet Sanborn, Head & Associates 1715 W 13th Street Houston, TX 77008	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	713-869-2259	**P.O. #**	3304.00
FAX:		**PROJECT #**	2755.07 IBM Groundwater Vapor Project-
DATE RECEIVED:	08/17/2012	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/05/2012		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
22A	EN1017D081612	Modified TO-15	5.0 "Hg	5 psi
23A	Lab Blank	Modified TO-15	NA	NA
23B	Lab Blank	Modified TO-15	NA	NA
23C	Lab Blank	Modified TO-15	NA	NA
24A	CCV	Modified TO-15	NA	NA
24B	CCV	Modified TO-15	NA	NA
24C	CCV	Modified TO-15	NA	NA
25A	LCS	Modified TO-15	NA	NA
25AA	LCSD	Modified TO-15	NA	NA
25B	LCS	Modified TO-15	NA	NA
25BB	LCSD	Modified TO-15	NA	NA
25C	LCS	Modified TO-15	NA	NA
25CC	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 09/05/12

Certfication numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-5, UT NELAP CA009332012-3, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2011, Expiration date: 10/17/2012.
Eurofins 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 Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1208374

Twenty-two 1 Liter Summa Canister (100% Certified) samples were received on August 17, 2012. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

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.

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 not 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 and/or LCS.
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

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: DU3327081512

Lab ID#: 1208374-01A

No Detections Were Found.

Client Sample ID: DU3461081512

Lab ID#: 1208374-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.94	5.0	5.1	27
Trichloroethene	0.94	150	5.0	810

Client Sample ID: EB3326081512

Lab ID#: 1208374-03A

No Detections Were Found.

Client Sample ID: EN0412D081612

Lab ID#: 1208374-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.88	2.0	4.8	11
Trichloroethene	0.88	71	4.7	380

Client Sample ID: EN0412S081612

Lab ID#: 1208374-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.82	3.5	4.5	19
Trichloroethene	0.82	160	4.4	840

Client Sample ID: EN0414D081612

Lab ID#: 1208374-06A

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	79	4.5	420

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0414S081612

Lab ID#: 1208374-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	1.6	4.6	8.8
Trichloroethene	0.84	5.2	4.5	28

Client Sample ID: EN0415D081612

Lab ID#: 1208374-08A

No Detections Were Found.

Client Sample ID: EN0415S081612

Lab ID#: 1208374-09A

No Detections Were Found.

Client Sample ID: EN0416D081512

Lab ID#: 1208374-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	4.4	4.6	24
Trichloroethene	0.84	57	4.5	300
Tetrachloroethene	0.84	4.3	5.7	29

Client Sample ID: EN0416S081512

Lab ID#: 1208374-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.84	1.5	4.5	8.3
Tetrachloroethene	0.84	0.99	5.7	6.7

Client Sample ID: EN0417D081612

Lab ID#: 1208374-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.82	1.8	4.4	9.9

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0417S081612

Lab ID#: 1208374-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.82	1.5	4.5	8.1
Trichloroethene	0.82	60	4.4	320

Client Sample ID: EN045D081512

Lab ID#: 1208374-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.88	11	4.8	62
Trichloroethene	0.88	74	4.7	400

Client Sample ID: EN045S081512

Lab ID#: 1208374-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.90	2.1	4.9	12
Trichloroethene	0.90	46	4.8	240
Tetrachloroethene	0.90	1.2	6.1	8.0

Client Sample ID: EN046D081512

Lab ID#: 1208374-16A

No Detections Were Found.

Client Sample ID: EN047D081512

Lab ID#: 1208374-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	2.9	4.3	12	17
1,1,1-Trichloroethane	2.9	30	16	160
Trichloroethene	2.9	740	16	4000

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN047D081512 Lab Duplicate

Lab ID#: 1208374-17AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	2.9	5.2	12	21
1,1,1-Trichloroethane	2.9	31	16	170
Trichloroethene	2.9	740	16	4000

Client Sample ID: EN047S081512

Lab ID#: 1208374-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.86	1.9	4.6	10
Tetrachloroethene	0.86	5.1	5.8	35

Client Sample ID: EN0533D081512

Lab ID#: 1208374-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	2.2	17	12	95
Trichloroethene	2.2	550	12	3000
Tetrachloroethene	2.2	27	15	180

Client Sample ID: EN0533D081512 Lab Duplicate

Lab ID#: 1208374-19AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	2.2	17	12	94
Trichloroethene	2.2	540	12	2900
Tetrachloroethene	2.2	26	15	180

Client Sample ID: EN0533S081512

Lab ID#: 1208374-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.86	1.0	4.7	5.6

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0533S081512

Lab ID#: 1208374-20A

Trichloroethene	0.86	8.6	4.6	46
Tetrachloroethene	0.86	2.1	5.8	14

Client Sample ID: EN0636D081512

Lab ID#: 1208374-21A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.88	47	4.8	250
Trichloroethene	0.88	60	4.7	320

Client Sample ID: EN1017D081612

Lab ID#: 1208374-22A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.80	3.4	3.2	13
1,1,1-Trichloroethane	0.80	44	4.4	240
Trichloroethene	0.80	59	4.3	320
Tetrachloroethene	0.80	1.1	5.5	7.2

eurofins | Air Toxics

Client Sample ID: DU3327081512

Lab ID#: 1208374-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082113**	**Date of Collection:**	**8/15/12 4:21:00 PM**
Dil. Factor:	**1.71**	**Date of Analysis:**	**8/21/12 02:59 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	3.4	Not Detected	9.0	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	8.6	Not Detected	30	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	92	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	101	70-130

eurofins | Air Toxics

Client Sample ID: DU3461081512

Lab ID#: 1208374-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082114**	**Date of Collection:**	**8/15/12 1:28:00 PM**
Dil. Factor:	**1.87**	**Date of Analysis:**	**8/21/12 03:46 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	3.7	Not Detected	9.9	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	9.4	Not Detected	32	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	5.0	5.1	27
Trichloroethene	0.94	150	5.0	810
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	92	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: EB3326081512

Lab ID#: 1208374-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082117**	**Date of Collection:**	**8/15/12 5:36:00 PM**
Dil. Factor:	**1.83**	**Date of Analysis:**	**8/21/12 05:11 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	3.7	Not Detected	9.6	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	9.2	Not Detected	32	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	92	70-130
4-Bromofluorobenzene	108	70-130

eurofins | Air Toxics

Client Sample ID: EN0412D081612

Lab ID#: 1208374-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082118**	**Date of Collection:**	**8/16/12 9:16:00 AM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/21/12 05:53 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	3.5	Not Detected	9.2	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	8.8	Not Detected	30	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	2.0	4.8	11
Trichloroethene	0.88	71	4.7	380
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	95	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: EN0412S081612

Lab ID#: 1208374-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082119**	**Date of Collection:**	**8/16/12 9:09:00 AM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**8/21/12 06:26 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	3.3	Not Detected	8.6	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	8.2	Not Detected	28	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	3.5	4.5	19
Trichloroethene	0.82	160	4.4	840
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	92	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Client Sample ID: EN0414D081612

Lab ID#: 1208374-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082120**	**Date of Collection:**	**8/16/12 9:16:00 AM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**8/21/12 07:05 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	3.4	Not Detected	8.9	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	8.4	Not Detected	29	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	79	4.5	420
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	93	70-130
4-Bromofluorobenzene	105	70-130

eurofins | Air Toxics

Client Sample ID: EN0414S081612

Lab ID#: 1208374-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082207**	**Date of Collection:**	**8/16/12 9:16:00 AM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**8/22/12 11:37 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	3.4	Not Detected	8.9	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	8.4	Not Detected	29	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	1.6	4.6	8.8
Trichloroethene	0.84	5.2	4.5	28
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	95	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: EN0415D081612

Lab ID#: 1208374-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082208**	**Date of Collection:**	**8/16/12 9:41:00 AM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**8/22/12 12:14 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	3.4	Not Detected	8.9	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	8.4	Not Detected	29	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	94	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: EN0415S081612

Lab ID#: 1208374-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082211**	**Date of Collection:**	**8/16/12 9:38:00 AM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/22/12 02:05 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	3.5	Not Detected	9.2	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	8.8	Not Detected	30	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	93	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Client Sample ID: EN0416D081512

Lab ID#: 1208374-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082212**	**Date of Collection:**	**8/15/12 11:25:00 AM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**8/22/12 02:44 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	3.4	Not Detected	8.9	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	8.4	Not Detected	29	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	4.4	4.6	24
Trichloroethene	0.84	57	4.5	300
Tetrachloroethene	0.84	4.3	5.7	29
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	92	70-130
4-Bromofluorobenzene	107	70-130

eurofins | Air Toxics

Client Sample ID: EN0416S081512

Lab ID#: 1208374-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082213**	**Date of Collection:**	**8/15/12 11:21:00 AM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**8/22/12 03:32 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	3.4	Not Detected	8.9	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	8.4	Not Detected	29	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	1.5	4.5	8.3
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	93	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: EN0417D081612

Lab ID#: 1208374-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082214**	**Date of Collection:**	**8/16/12 9:48:00 AM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**8/22/12 04:10 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	3.3	Not Detected	8.6	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	8.2	Not Detected	28	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	1.8	4.4	9.9
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	93	70-130
4-Bromofluorobenzene	105	70-130

eurofins | Air Toxics

Client Sample ID: EN0417S081612

Lab ID#: 1208374-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082215**	**Date of Collection:**	**8/16/12 9:48:00 AM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**8/22/12 04:49 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	3.3	Not Detected	8.6	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	8.2	Not Detected	28	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	1.5	4.5	8.1
Trichloroethene	0.82	60	4.4	320
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	99	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: EN045D081512

Lab ID#: 1208374-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082216**	**Date of Collection:**	**8/15/12 4:27:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/22/12 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	3.5	Not Detected	9.2	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	8.8	Not Detected	30	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	11	4.8	62
Trichloroethene	0.88	74	4.7	400
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	95	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: EN045S081512

Lab ID#: 1208374-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082217**	**Date of Collection:**	**8/15/12 4:19:00 PM**
Dil. Factor:	**1.79**	**Date of Analysis:**	**8/22/12 05:58 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	3.6	Not Detected	9.4	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	9.0	Not Detected	31	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	2.1	4.9	12
Trichloroethene	0.90	46	4.8	240
Tetrachloroethene	0.90	1.2	6.1	8.0
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	96	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Client Sample ID: EN046D081512

Lab ID#: 1208374-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082218**	**Date of Collection:**	**8/15/12 3:34:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/22/12 06:29 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	3.5	Not Detected	9.2	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	8.8	Not Detected	30	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	101	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Client Sample ID: EN047D081512

Lab ID#: 1208374-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082115**	**Date of Collection:**	**8/15/12 4:45:00 PM**
Dil. Factor:	**5.83**	**Date of Analysis:**	**8/21/12 04:09 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.9	Not Detected	7.4	Not Detected
Chloroethane	12	Not Detected	31	Not Detected
1,1-Dichloroethene	2.9	Not Detected	12	Not Detected
Freon 113	2.9	Not Detected	22	Not Detected
Methylene Chloride	29	Not Detected	100	Not Detected
1,1-Dichloroethane	2.9	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	2.9	4.3	12	17
1,1,1-Trichloroethane	2.9	30	16	160
Trichloroethene	2.9	740	16	4000
Tetrachloroethene	2.9	Not Detected	20	Not Detected
trans-1,2-Dichloroethene	2.9	Not Detected	12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: EN047D081512 Lab Duplicate

Lab ID#: 1208374-17AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082116**	**Date of Collection:**	**8/15/12 4:45:00 PM**
Dil. Factor:	**5.83**	**Date of Analysis:**	**8/21/12 04:30 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.9	Not Detected	7.4	Not Detected
Chloroethane	12	Not Detected	31	Not Detected
1,1-Dichloroethene	2.9	Not Detected	12	Not Detected
Freon 113	2.9	Not Detected	22	Not Detected
Methylene Chloride	29	Not Detected	100	Not Detected
1,1-Dichloroethane	2.9	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	2.9	5.2	12	21
1,1,1-Trichloroethane	2.9	31	16	170
Trichloroethene	2.9	740	16	4000
Tetrachloroethene	2.9	Not Detected	20	Not Detected
trans-1,2-Dichloroethene	2.9	Not Detected	12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Client Sample ID: EN047S081512

Lab ID#: 1208374-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082219**	**Date of Collection:**	**8/15/12 4:51:00 PM**
Dil. Factor:	**1.71**	**Date of Analysis:**	**8/22/12 07:00 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	3.4	Not Detected	9.0	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	8.6	Not Detected	30	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	1.9	4.6	10
Tetrachloroethene	0.86	5.1	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	102	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: EN0533D081512

Lab ID#: 1208374-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082209**	**Date of Collection:**	**8/15/12 12:55:00 PM**
Dil. Factor:	**4.48**	**Date of Analysis:**	**8/22/12 12:48 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.2	Not Detected	5.7	Not Detected
Chloroethane	9.0	Not Detected	24	Not Detected
1,1-Dichloroethene	2.2	Not Detected	8.9	Not Detected
Freon 113	2.2	Not Detected	17	Not Detected
Methylene Chloride	22	Not Detected	78	Not Detected
1,1-Dichloroethane	2.2	Not Detected	9.1	Not Detected
cis-1,2-Dichloroethene	2.2	Not Detected	8.9	Not Detected
1,1,1-Trichloroethane	2.2	17	12	95
Trichloroethene	2.2	550	12	3000
Tetrachloroethene	2.2	27	15	180
trans-1,2-Dichloroethene	2.2	Not Detected	8.9	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: EN0533D081512 Lab Duplicate

Lab ID#: 1208374-19AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082210**	**Date of Collection:**	**8/15/12 12:55:00 PM**
Dil. Factor:	**4.48**	**Date of Analysis:**	**8/22/12 01:19 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.2	Not Detected	5.7	Not Detected
Chloroethane	9.0	Not Detected	24	Not Detected
1,1-Dichloroethene	2.2	Not Detected	8.9	Not Detected
Freon 113	2.2	Not Detected	17	Not Detected
Methylene Chloride	22	Not Detected	78	Not Detected
1,1-Dichloroethane	2.2	Not Detected	9.1	Not Detected
cis-1,2-Dichloroethene	2.2	Not Detected	8.9	Not Detected
1,1,1-Trichloroethane	2.2	17	12	94
Trichloroethene	2.2	540	12	2900
Tetrachloroethene	2.2	26	15	180
trans-1,2-Dichloroethene	2.2	Not Detected	8.9	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	105	70-130

eurofins | Air Toxics

Client Sample ID: EN0533S081512

Lab ID#: 1208374-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082220**	**Date of Collection:**	**8/15/12 12:49:00 PM**
Dil. Factor:	**1.71**	**Date of Analysis:**	**8/22/12 07:40 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	3.4	Not Detected	9.0	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	8.6	Not Detected	30	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	1.0	4.7	5.6
Trichloroethene	0.86	8.6	4.6	46
Tetrachloroethene	0.86	2.1	5.8	14
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	98	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	105	70-130

eurofins | Air Toxics

Client Sample ID: EN0636D081512

Lab ID#: 1208374-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082221**	**Date of Collection:**	**8/15/12 3:11:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/22/12 08:07 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	3.5	Not Detected	9.2	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	8.8	Not Detected	30	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	47	4.8	250
Trichloroethene	0.88	60	4.7	320
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	96	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	99	70-130

eurofins | Air Toxics

Client Sample ID: EN1017D081612

Lab ID#: 1208374-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082307**	**Date of Collection:**	**8/16/12 9:48:00 AM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**8/23/12 11:02 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	3.2	Not Detected	8.5	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	8.0	Not Detected	28	Not Detected
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.80	3.4	3.2	13
1,1,1-Trichloroethane	0.80	44	4.4	240
Trichloroethene	0.80	59	4.3	320
Tetrachloroethene	0.80	1.1	5.5	7.2
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	99	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1208374-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082106**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/21/12 10:14 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	93	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1208374-23B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082206**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/22/12 10:50 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	94	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1208374-23C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082306**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/23/12 10:27 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	96	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1208374-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082102**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/21/12 08:09 AM**	

Compound	**%Recovery**
Vinyl Chloride	87
Chloroethane	86
1,1-Dichloroethene	90
Freon 113	99
Methylene Chloride	82
1,1-Dichloroethane	89
cis-1,2-Dichloroethene	93
1,1,1-Trichloroethane	95
Trichloroethene	90
Tetrachloroethene	101
trans-1,2-Dichloroethene	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	110	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1208374-24B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082202**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/22/12 09:05 AM**	

Compound	**%Recovery**
Vinyl Chloride	84
Chloroethane	80
1,1-Dichloroethene	89
Freon 113	97
Methylene Chloride	82
1,1-Dichloroethane	85
cis-1,2-Dichloroethene	92
1,1,1-Trichloroethane	96
Trichloroethene	91
Tetrachloroethene	101
trans-1,2-Dichloroethene	97

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	115	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1208374-24C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/23/12 07:56 AM**	

Compound	**%Recovery**
Vinyl Chloride	81
Chloroethane	78
1,1-Dichloroethene	87
Freon 113	101
Methylene Chloride	83
1,1-Dichloroethane	85
cis-1,2-Dichloroethene	88
1,1,1-Trichloroethane	98
Trichloroethene	93
Tetrachloroethene	106
trans-1,2-Dichloroethene	97

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	117	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1208374-25A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082103**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/21/12 08:49 AM**	

Compound	**%Recovery**
Vinyl Chloride	88
Chloroethane	85
1,1-Dichloroethene	97
Freon 113	99
Methylene Chloride	80
1,1-Dichloroethane	87
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	92
Trichloroethene	89
Tetrachloroethene	97
trans-1,2-Dichloroethene	111

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1208374-25AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082104**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/21/12 09:08 AM**	

Compound	**%Recovery**
Vinyl Chloride	87
Chloroethane	82
1,1-Dichloroethene	96
Freon 113	96
Methylene Chloride	78
1,1-Dichloroethane	85
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	90
Trichloroethene	89
Tetrachloroethene	102
trans-1,2-Dichloroethene	109

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	112	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1208374-25B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082203**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/22/12 09:35 AM**	

Compound	**%Recovery**
Vinyl Chloride	91
Chloroethane	88
1,1-Dichloroethene	99
Freon 113	103
Methylene Chloride	83
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	98
Trichloroethene	93
Tetrachloroethene	105
trans-1,2-Dichloroethene	110

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	115	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1208374-25BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082204**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/22/12 09:55 AM**	

Compound	**%Recovery**
Vinyl Chloride	87
Chloroethane	88
1,1-Dichloroethene	97
Freon 113	99
Methylene Chloride	82
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	96
Trichloroethene	93
Tetrachloroethene	103
trans-1,2-Dichloroethene	110

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	113	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1208374-25C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082303**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/23/12 08:33 AM**	

Compound	**%Recovery**
Vinyl Chloride	93
Chloroethane	87
1,1-Dichloroethene	98
Freon 113	106
Methylene Chloride	84
1,1-Dichloroethane	91
cis-1,2-Dichloroethene	97
1,1,1-Trichloroethane	102
Trichloroethene	97
Tetrachloroethene	106
trans-1,2-Dichloroethene	114

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	112	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1208374-25CC

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/23/12 08:52 AM**	

Compound	**%Recovery**
Vinyl Chloride	90
Chloroethane	84
1,1-Dichloroethene	94
Freon 113	102
Methylene Chloride	82
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	98
Trichloroethene	97
Tetrachloroethene	107
trans-1,2-Dichloroethene	111

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	113	70-130

eurofins | Air Toxics

9/5/2012
Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: IBM Groundwater Vapor Project-
Project #: 2755.07
Workorder #: 1208375

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 8/17/2012 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 your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1208375

Work Order Summary

CLIENT:	Ms. Erica Bradstreet Sanborn, Head & Associates 1715 W 13th Street Houston, TX 77008	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	713-869-2259	**P.O. #**	3304.00
FAX:		**PROJECT #**	2755.07 IBM Groundwater Vapor Project-
DATE RECEIVED:	08/17/2012	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/05/2012		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	DU33543081412	Modified TO-15	6.5 "Hg	5 psi
02A	DU34085081412	Modified TO-15	5.0 "Hg	5 psi
03A	DU37419081612	Modified TO-15	8.5 "Hg	5 psi
04A	EB33400081612	Modified TO-15	7.5 "Hg	5 psi
05A	EN0413D081612	Modified TO-15	9.0 "Hg	5 psi
05AA	EN0413D081612 Lab Duplicate	Modified TO-15	9.0 "Hg	5 psi
06A	EN0413S081612	Modified TO-15	8.0 "Hg	5 psi
07A	EN041D081512	Modified TO-15	7.0 "Hg	5 psi
08A	EN041S081512	Modified TO-15	7.5 "Hg	5 psi
09A	EN0422S081412	Modified TO-15	7.0 "Hg	5 psi
10A	EN0425D081312	Modified TO-15	7.5 "Hg	5 psi
11A	EN0425S081312	Modified TO-15	6.0 "Hg	5 psi
12A	EN0431S081412	Modified TO-15	7.0 "Hg	5 psi
13A	EN0534D081312	Modified TO-15	8.5 "Hg	5 psi
14A	EN0534S081312	Modified TO-15	9.0 "Hg	5 psi
15A	EN0728D081412	Modified TO-15	6.5 "Hg	5 psi
15AA	EN0728D081412 Lab Duplicate	Modified TO-15	6.5 "Hg	5 psi
16A	EN1041D081312	Modified TO-15	6.2 "Hg	5 psi
17A	EN1041S081312	Modified TO-15	6.4 "Hg	5 psi
18A	Lab Blank	Modified TO-15	NA	NA
18B	Lab Blank	Modified TO-15	NA	NA
18C	Lab Blank	Modified TO-15	NA	NA
19A	CCV	Modified TO-15	NA	NA

Continued on next page

eurofins | Air Toxics

WORK ORDER #: 1208375

Work Order Summary

CLIENT:	Ms. Erica Bradstreet Sanborn, Head & Associates 1715 W 13th Street Houston, TX 77008	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	713-869-2259	**P.O. #**	3304.00
FAX:		**PROJECT #**	2755.07 IBM Groundwater Vapor Project-
DATE RECEIVED:	08/17/2012	**CONTACT:**	Ausha Scott
DATE COMPLETED:	09/05/2012		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
19B	CCV	Modified TO-15	NA	NA
19C	CCV	Modified TO-15	NA	NA
20A	LCS	Modified TO-15	NA	NA
20AA	LCSD	Modified TO-15	NA	NA
20B	LCS	Modified TO-15	NA	NA
20BB	LCSD	Modified TO-15	NA	NA
20C	LCS	Modified TO-15	NA	NA
20CC	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 09/05/12

Certfication numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-5, UT NELAP CA009332012-3, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2011, Expiration date: 10/17/2012.
Eurofins 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 Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1208375

Seventeen 1 Liter Summa Canister (100% Certified) samples were received on August 17, 2012. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

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.

Receiving Notes

The Chain of Custody (COC) information for sample DU33543081412 did not match the information on the canister with regard to canister identification. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

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 not 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 and/or LCS.
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

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: DU33543081412

Lab ID#: 1208375-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.86	13	3.4	52
1,1,1-Trichloroethane	0.86	3.7	4.7	20
Trichloroethene	0.86	56	4.6	300
trans-1,2-Dichloroethene	0.86	2.8	3.4	11

Client Sample ID: DU34085081412

Lab ID#: 1208375-02A

No Detections Were Found.

Client Sample ID: DU37419081612

Lab ID#: 1208375-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	1.8	8.5	9.8	46
Trichloroethene	1.8	75	9.6	400

Client Sample ID: EB33400081612

Lab ID#: 1208375-04A

No Detections Were Found.

Client Sample ID: EN0413D081612

Lab ID#: 1208375-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.96	8.2	5.2	45
Trichloroethene	0.96	75	5.1	400

Client Sample ID: EN0413D081612 Lab Duplicate

Lab ID#: 1208375-05AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0413D081612 Lab Duplicate

Lab ID#: 1208375-05AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	1.8	8.6	10	47
Trichloroethene	1.8	74	9.9	400

Client Sample ID: EN0413S081612

Lab ID#: 1208375-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	1.5	30	8.3	160
Trichloroethene	1.5	280	8.2	1500

Client Sample ID: EN041D081512

Lab ID#: 1208375-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.88	6.2	4.8	34
Trichloroethene	0.88	22	4.7	120

Client Sample ID: EN041S081512

Lab ID#: 1208375-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.90	2.3	4.8	12

Client Sample ID: EN0422S081412

Lab ID#: 1208375-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.88	1.3	6.7	10
cis-1,2-Dichloroethene	0.88	22	3.5	85
1,1,1-Trichloroethane	0.88	6.4	4.8	35
Trichloroethene	0.88	100	4.7	540
Tetrachloroethene	0.88	0.90	5.9	6.1

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0422S081412

Lab ID#: 1208375-09A

trans-1,2-Dichloroethene	0.88	3.8	3.5	15

Client Sample ID: EN0425D081312

Lab ID#: 1208375-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.90	1.5	4.8	8.2
Tetrachloroethene	0.90	0.94	6.1	6.3

Client Sample ID: EN0425S081312

Lab ID#: 1208375-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.84	1.8	4.5	9.5
Tetrachloroethene	0.84	1.5	5.7	10

Client Sample ID: EN0431S081412

Lab ID#: 1208375-12A

No Detections Were Found.

Client Sample ID: EN0534D081312

Lab ID#: 1208375-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.94	3.2	5.1	18
Trichloroethene	0.94	42	5.0	230
Tetrachloroethene	0.94	4.2	6.3	29

Client Sample ID: EN0534S081312

Lab ID#: 1208375-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.96	3.2	5.1	17

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0534S081312

Lab ID#: 1208375-14A

Tetrachloroethene	0.96	1.1	6.5	7.3

Client Sample ID: EN0728D081412

Lab ID#: 1208375-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	1.4	4.2	5.6	16
Trichloroethene	1.4	26	7.6	140
Tetrachloroethene	1.4	360	9.7	2500

Client Sample ID: EN0728D081412 Lab Duplicate

Lab ID#: 1208375-15AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	1.4	4.1	5.6	16
Trichloroethene	1.4	24	7.6	130
Tetrachloroethene	1.4	370	9.7	2500

Client Sample ID: EN1041D081312

Lab ID#: 1208375-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.84	3.7	4.5	20
Tetrachloroethene	0.84	8.4	5.7	57

Client Sample ID: EN1041S081312

Lab ID#: 1208375-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.85	3.2	4.6	17
Tetrachloroethene	0.85	35	5.8	230

eurofins | Air Toxics

Client Sample ID: DU33543081412

Lab ID#: 1208375-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082510**	**Date of Collection:**	**8/14/12 11:10:00 AM**
Dil. Factor:	**1.71**	**Date of Analysis:**	**8/25/12 02:45 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	3.4	Not Detected	9.0	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	8.6	Not Detected	30	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	13	3.4	52
1,1,1-Trichloroethane	0.86	3.7	4.7	20
Trichloroethene	0.86	56	4.6	300
Tetrachloroethene	0.86	Not Detected	5.8	Not Detected
trans-1,2-Dichloroethene	0.86	2.8	3.4	11

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	99	70-130

eurofins | Air Toxics

Client Sample ID: DU34085081412

Lab ID#: 1208375-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082507**	**Date of Collection:**	**8/14/12 11:30:00 AM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**8/25/12 12:32 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	3.2	Not Detected	8.5	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	8.0	Not Detected	28	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	89	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: DU37419081612

Lab ID#: 1208375-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082513**	**Date of Collection:**	**8/16/12 4:34:00 PM**
Dil. Factor:	**3.59**	**Date of Analysis:**	**8/25/12 05:11 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	7.2	Not Detected	19	Not Detected
1,1-Dichloroethene	1.8	Not Detected	7.1	Not Detected
Freon 113	1.8	Not Detected	14	Not Detected
Methylene Chloride	18	Not Detected	62	Not Detected
1,1-Dichloroethane	1.8	Not Detected	7.3	Not Detected
cis-1,2-Dichloroethene	1.8	Not Detected	7.1	Not Detected
1,1,1-Trichloroethane	1.8	8.5	9.8	46
Trichloroethene	1.8	75	9.6	400
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	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: EB33400081612

Lab ID#: 1208375-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082509**	**Date of Collection:**	**8/16/12 11:50:00 AM**
Dil. Factor:	**1.79**	**Date of Analysis:**	**8/25/12 01:58 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	3.6	Not Detected	9.4	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	9.0	Not Detected	31	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	89	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: EN0413D081612

Lab ID#: 1208375-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082511**	**Date of Collection:**	**8/16/12 4:34:00 PM**
Dil. Factor:	**1.91**	**Date of Analysis:**	**8/25/12 03:27 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	3.8	Not Detected	10	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	9.6	Not Detected	33	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	8.2	5.2	45
Trichloroethene	0.96	75	5.1	400
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	91	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130

eurofins | Air Toxics

Client Sample ID: EN0413D081612 Lab Duplicate

Lab ID#: 1208375-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082512**	**Date of Collection:**	**8/16/12 4:34:00 PM**
Dil. Factor:	**3.67**	**Date of Analysis:**	**8/25/12 04:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.8	Not Detected	4.7	Not Detected
Chloroethane	7.3	Not Detected	19	Not Detected
1,1-Dichloroethene	1.8	Not Detected	7.3	Not Detected
Freon 113	1.8	Not Detected	14	Not Detected
Methylene Chloride	18	Not Detected	64	Not Detected
1,1-Dichloroethane	1.8	Not Detected	7.4	Not Detected
cis-1,2-Dichloroethene	1.8	Not Detected	7.3	Not Detected
1,1,1-Trichloroethane	1.8	8.6	10	47
Trichloroethene	1.8	74	9.9	400
Tetrachloroethene	1.8	Not Detected	12	Not Detected
trans-1,2-Dichloroethene	1.8	Not Detected	7.3	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	94	70-130

eurofins | Air Toxics

Client Sample ID: EN0413S081612

Lab ID#: 1208375-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082514**	**Date of Collection:**	**8/16/12 3:30:00 PM**
Dil. Factor:	**3.05**	**Date of Analysis:**	**8/25/12 05:46 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.5	Not Detected	3.9	Not Detected
Chloroethane	6.1	Not Detected	16	Not Detected
1,1-Dichloroethene	1.5	Not Detected	6.0	Not Detected
Freon 113	1.5	Not Detected	12	Not Detected
Methylene Chloride	15	Not Detected	53	Not Detected
1,1-Dichloroethane	1.5	Not Detected	6.2	Not Detected
cis-1,2-Dichloroethene	1.5	Not Detected	6.0	Not Detected
1,1,1-Trichloroethane	1.5	30	8.3	160
Trichloroethene	1.5	280	8.2	1500
Tetrachloroethene	1.5	Not Detected	10	Not Detected
trans-1,2-Dichloroethene	1.5	Not Detected	6.0	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	100	70-130

eurofins | Air Toxics

Client Sample ID: EN041D081512

Lab ID#: 1208375-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082515**	**Date of Collection:**	**8/15/12 9:25:00 AM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/25/12 06:25 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	3.5	Not Detected	9.2	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	8.8	Not Detected	30	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	6.2	4.8	34
Trichloroethene	0.88	22	4.7	120
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	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: EN041S081512

Lab ID#: 1208375-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082516**	**Date of Collection:**	**8/15/12 9:13:00 AM**
Dil. Factor:	**1.79**	**Date of Analysis:**	**8/25/12 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	3.6	Not Detected	9.4	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	9.0	Not Detected	31	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	2.3	4.8	12
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	95	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	98	70-130

eurofins | Air Toxics

Client Sample ID: EN0422S081412

Lab ID#: 1208375-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082517**	**Date of Collection:**	**8/14/12 11:10:00 AM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/25/12 07:49 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	3.5	Not Detected	9.2	Not Detected
1,1-Dichloroethene	0.88	Not Detected	3.5	Not Detected
Freon 113	0.88	1.3	6.7	10
Methylene Chloride	8.8	Not Detected	30	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.88	22	3.5	85
1,1,1-Trichloroethane	0.88	6.4	4.8	35
Trichloroethene	0.88	100	4.7	540
Tetrachloroethene	0.88	0.90	5.9	6.1
trans-1,2-Dichloroethene	0.88	3.8	3.5	15

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: EN0425D081312

Lab ID#: 1208375-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082715**	**Date of Collection:**	**8/13/12 4:20:00 PM**
Dil. Factor:	**1.79**	**Date of Analysis:**	**8/27/12 03:32 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	3.6	Not Detected	9.4	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	9.0	Not Detected	31	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	1.5	4.8	8.2
Tetrachloroethene	0.90	0.94	6.1	6.3
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	93	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: EN0425S081312

Lab ID#: 1208375-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082716**	**Date of Collection:**	**8/13/12 4:20:00 PM**
Dil. Factor:	**1.68**	**Date of Analysis:**	**8/27/12 04:12 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	3.4	Not Detected	8.9	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	8.4	Not Detected	29	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	1.8	4.5	9.5
Tetrachloroethene	0.84	1.5	5.7	10
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	91	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	108	70-130

eurofins | Air Toxics

Client Sample ID: EN0431S081412

Lab ID#: 1208375-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2082713**	**Date of Collection:**	**8/14/12 2:23:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**8/27/12 09:49 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	3.5	Not Detected	9.2	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	8.8	Not Detected	30	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	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	105	70-130

eurofins | Air Toxics

Client Sample ID: EN0534D081312

Lab ID#: 1208375-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082717**	**Date of Collection:**	**8/13/12 4:27:00 PM**
Dil. Factor:	**1.87**	**Date of Analysis:**	**8/27/12 04:42 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	3.7	Not Detected	9.9	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	9.4	Not Detected	32	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	3.2	5.1	18
Trichloroethene	0.94	42	5.0	230
Tetrachloroethene	0.94	4.2	6.3	29
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	97	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130

eurofins | Air Toxics

Client Sample ID: EN0534S081312

Lab ID#: 1208375-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082718**	**Date of Collection:**	**8/13/12 4:30:00 PM**
Dil. Factor:	**1.91**	**Date of Analysis:**	**8/27/12 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	3.8	Not Detected	10	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	9.6	Not Detected	33	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	3.2	5.1	17
Tetrachloroethene	0.96	1.1	6.5	7.3
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	96	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: EN0728D081412

Lab ID#: 1208375-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082713**	**Date of Collection:**	**8/14/12 10:34:00 AM**
Dil. Factor:	**2.85**	**Date of Analysis:**	**8/27/12 02:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.4	Not Detected	3.6	Not Detected
Chloroethane	5.7	Not Detected	15	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.6	Not Detected
Freon 113	1.4	Not Detected	11	Not Detected
Methylene Chloride	14	Not Detected	50	Not Detected
1,1-Dichloroethane	1.4	Not Detected	5.8	Not Detected
cis-1,2-Dichloroethene	1.4	4.2	5.6	16
1,1,1-Trichloroethane	1.4	Not Detected	7.8	Not Detected
Trichloroethene	1.4	26	7.6	140
Tetrachloroethene	1.4	360	9.7	2500
trans-1,2-Dichloroethene	1.4	Not Detected	5.6	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: EN0728D081412 Lab Duplicate

Lab ID#: 1208375-15AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082714**	**Date of Collection:**	**8/14/12 10:34:00 AM**
Dil. Factor:	**2.85**	**Date of Analysis:**	**8/27/12 03:06 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.4	Not Detected	3.6	Not Detected
Chloroethane	5.7	Not Detected	15	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.6	Not Detected
Freon 113	1.4	Not Detected	11	Not Detected
Methylene Chloride	14	Not Detected	50	Not Detected
1,1-Dichloroethane	1.4	Not Detected	5.8	Not Detected
cis-1,2-Dichloroethene	1.4	4.1	5.6	16
1,1,1-Trichloroethane	1.4	Not Detected	7.8	Not Detected
Trichloroethene	1.4	24	7.6	130
Tetrachloroethene	1.4	370	9.7	2500
trans-1,2-Dichloroethene	1.4	Not Detected	5.6	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: EN1041D081312

Lab ID#: 1208375-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082719**	**Date of Collection:**	**8/13/12 4:45:00 PM**
Dil. Factor:	**1.69**	**Date of Analysis:**	**8/27/12 05:45 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.84	Not Detected	2.2	Not Detected
Chloroethane	3.4	Not Detected	8.9	Not Detected
1,1-Dichloroethene	0.84	Not Detected	3.4	Not Detected
Freon 113	0.84	Not Detected	6.5	Not Detected
Methylene Chloride	8.4	Not Detected	29	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	3.7	4.5	20
Tetrachloroethene	0.84	8.4	5.7	57
trans-1,2-Dichloroethene	0.84	Not Detected	3.4	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: EN1041S081312

Lab ID#: 1208375-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082720**	**Date of Collection:**	**8/13/12 4:44:00 PM**
Dil. Factor:	**1.70**	**Date of Analysis:**	**8/27/12 06:14 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.85	Not Detected	2.2	Not Detected
Chloroethane	3.4	Not Detected	9.0	Not Detected
1,1-Dichloroethene	0.85	Not Detected	3.4	Not Detected
Freon 113	0.85	Not Detected	6.5	Not Detected
Methylene Chloride	8.5	Not Detected	30	Not Detected
1,1-Dichloroethane	0.85	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.85	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.85	Not Detected	4.6	Not Detected
Trichloroethene	0.85	3.2	4.6	17
Tetrachloroethene	0.85	35	5.8	230
trans-1,2-Dichloroethene	0.85	Not Detected	3.4	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1208375-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082506**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/12 11:27 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	87	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1208375-18B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082706**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/12 09:02 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	88	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1208375-18C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2082705**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/12 02:35 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	97	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1208375-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/12 08:32 AM**	

Compound	**%Recovery**
Vinyl Chloride	85
Chloroethane	96
1,1-Dichloroethene	97
Freon 113	92
Methylene Chloride	86
1,1-Dichloroethane	96
cis-1,2-Dichloroethene	101
1,1,1-Trichloroethane	91
Trichloroethene	98
Tetrachloroethene	102
trans-1,2-Dichloroethene	105

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1208375-19B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/12 07:11 AM**	

Compound	**%Recovery**
Vinyl Chloride	88
Chloroethane	88
1,1-Dichloroethene	91
Freon 113	102
Methylene Chloride	84
1,1-Dichloroethane	89
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	97
Trichloroethene	94
Tetrachloroethene	106
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	116	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1208375-19C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2082702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/12 12:16 PM**	

Compound	**%Recovery**
Vinyl Chloride	100
Chloroethane	110
1,1-Dichloroethene	97
Freon 113	96
Methylene Chloride	100
1,1-Dichloroethane	97
cis-1,2-Dichloroethene	102
1,1,1-Trichloroethane	99
Trichloroethene	101
Tetrachloroethene	97
trans-1,2-Dichloroethene	100

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1208375-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/12 09:08 AM**	

Compound	**%Recovery**
Vinyl Chloride	87
Chloroethane	100
1,1-Dichloroethene	107
Freon 113	97
Methylene Chloride	87
1,1-Dichloroethane	99
cis-1,2-Dichloroethene	107
1,1,1-Trichloroethane	93
Trichloroethene	96
Tetrachloroethene	98
trans-1,2-Dichloroethene	117

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1208375-20AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**3082504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/25/12 10:07 AM**	

Compound	**%Recovery**
Vinyl Chloride	83
Chloroethane	98
1,1-Dichloroethene	101
Freon 113	93
Methylene Chloride	83
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	102
1,1,1-Trichloroethane	88
Trichloroethene	97
Tetrachloroethene	100
trans-1,2-Dichloroethene	114

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1208375-20B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/12 07:46 AM**	

Compound	**%Recovery**
Vinyl Chloride	89
Chloroethane	84
1,1-Dichloroethene	93
Freon 113	97
Methylene Chloride	80
1,1-Dichloroethane	86
cis-1,2-Dichloroethene	89
1,1,1-Trichloroethane	92
Trichloroethene	93
Tetrachloroethene	100
trans-1,2-Dichloroethene	109

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	108	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1208375-20BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p082704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/12 08:05 AM**	

Compound	**%Recovery**
Vinyl Chloride	90
Chloroethane	85
1,1-Dichloroethene	95
Freon 113	98
Methylene Chloride	81
1,1-Dichloroethane	86
cis-1,2-Dichloroethene	93
1,1,1-Trichloroethane	92
Trichloroethene	93
Tetrachloroethene	106
trans-1,2-Dichloroethene	112

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	111	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1208375-20C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2082703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/12 01:04 PM**	

Compound	**%Recovery**
Vinyl Chloride	100
Chloroethane	106
1,1-Dichloroethene	98
Freon 113	95
Methylene Chloride	97
1,1-Dichloroethane	95
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	97
Trichloroethene	99
Tetrachloroethene	95
trans-1,2-Dichloroethene	108

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1208375-20CC

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2082704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/27/12 01:43 PM**	

Compound	**%Recovery**
Vinyl Chloride	98
Chloroethane	106
1,1-Dichloroethene	101
Freon 113	94
Methylene Chloride	97
1,1-Dichloroethane	96
cis-1,2-Dichloroethene	100
1,1,1-Trichloroethane	98
Trichloroethene	96
Tetrachloroethene	96
trans-1,2-Dichloroethene	112

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

eurofins | Air Toxics

10/2/2012
Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name:
Project #: Endicott GVP
Workorder #: 1209339

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 9/18/2012 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 your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Ausha Scott

Project Manager

eurofins | Air Toxics

WORK ORDER #: 1209339

Work Order Summary

CLIENT:	Ms. Erica Bradstreet Sanborn, Head & Associates 1715 W 13th Street Houston, TX 77008	**BILL TO:**	Accounts Payable Sanborn, Head & Associates 20 Foundry Street Concord, NH 03301
PHONE:	713-869-2259	**P.O. #**	3304.00
FAX:		**PROJECT #**	Endicott GVP
DATE RECEIVED:	09/18/2012	**CONTACT:**	Ausha Scott
DATE COMPLETED:	10/02/2012		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	EN0426S091412	Modified TO-15	7.0 "Hg	5 psi
01AA	EN0426S091412 Lab Duplicate	Modified TO-15	7.0 "Hg	5 psi
02A	EN0432S091412	Modified TO-15	8.5 "Hg	5 psi
03A	EN0423D091412	Modified TO-15	7.5 "Hg	5 psi
04A	DU3350091412	Modified TO-15	9.0 "Hg	5 psi
05A	EN0416D091412	Modified TO-15	8.0 "Hg	5 psi
06A	EN1017D091412	Modified TO-15	7.5 "Hg	5 psi
07A	EB3302091412	Modified TO-15	5.5 "Hg	5 psi
08A	Lab Blank	Modified TO-15	NA	NA
08B	Lab Blank	Modified TO-15	NA	NA
09A	CCV	Modified TO-15	NA	NA
09B	CCV	Modified TO-15	NA	NA
10A	LCS	Modified TO-15	NA	NA
10AA	LCSD	Modified TO-15	NA	NA
10B	LCS	Modified TO-15	NA	NA
10BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Hayes

Technical Director

DATE: 10/02/12

Certfication numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-5, UT NELAP CA009332012-3, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2011, Expiration date: 10/17/2012.
Eurofins 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 Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1209339

Seven 1 Liter Summa Canister samples were received on September 18, 2012. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

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.

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 not 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 and/or LCS.
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

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0426S091412

Lab ID#: 1209339-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.88	12	4.8	64
Trichloroethene	0.88	230	4.7	1200
Tetrachloroethene	0.88	2.5	5.9	17

Client Sample ID: EN0426S091412 Lab Duplicate

Lab ID#: 1209339-01AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.88	13	4.8	69
Trichloroethene	0.88	240	4.7	1300
Tetrachloroethene	0.88	2.5	5.9	17

Client Sample ID: EN0432S091412

Lab ID#: 1209339-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.94	1.1	7.2	8.2
1,1,1-Trichloroethane	0.94	5.6	5.1	30
Trichloroethene	0.94	160	5.0	880

Client Sample ID: EN0423D091412

Lab ID#: 1209339-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	0.90	2.5	3.6	10
cis-1,2-Dichloroethene	0.90	13	3.5	52
Trichloroethene	0.90	79	4.8	430
Tetrachloroethene	0.90	1.9	6.1	13
trans-1,2-Dichloroethene	0.90	1.5	3.5	6.1

Client Sample ID: DU3350091412

Lab ID#: 1209339-04A

eurofins | Air Toxics

Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: DU3350091412

Lab ID#: 1209339-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	0.96	1.9	3.9	7.8
cis-1,2-Dichloroethene	0.96	11	3.8	44
Trichloroethene	0.96	52	5.1	280
Tetrachloroethene	0.96	1.5	6.5	10
trans-1,2-Dichloroethene	0.96	0.97	3.8	3.8

Client Sample ID: EN0416D091412

Lab ID#: 1209339-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.92	9.6	5.0	53
Trichloroethene	0.92	110	4.9	580
Tetrachloroethene	0.92	8.0	6.2	54

Client Sample ID: EN1017D091412

Lab ID#: 1209339-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.90	2.8	3.5	11
1,1,1-Trichloroethane	0.90	48	4.9	260
Trichloroethene	0.90	64	4.8	340
Tetrachloroethene	0.90	1.2	6.1	8.3

Client Sample ID: EB3302091412

Lab ID#: 1209339-07A

No Detections Were Found.

eurofins | Air Toxics

Client Sample ID: EN0426S091412

Lab ID#: 1209339-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092228**	**Date of Collection:**	**9/14/12 12:20:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**9/23/12 06:35 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	3.5	Not Detected	9.2	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	8.8	Not Detected	30	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	12	4.8	64
Trichloroethene	0.88	230	4.7	1200
Tetrachloroethene	0.88	2.5	5.9	17
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: EN0426S091412 Lab Duplicate

Lab ID#: 1209339-01AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092229**	**Date of Collection:**	**9/14/12 12:20:00 PM**
Dil. Factor:	**1.75**	**Date of Analysis:**	**9/23/12 06:59 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	3.5	Not Detected	9.2	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	8.8	Not Detected	30	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	13	4.8	69
Trichloroethene	0.88	240	4.7	1300
Tetrachloroethene	0.88	2.5	5.9	17
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: EN0432S091412

Lab ID#: 1209339-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092230**	**Date of Collection:**	**9/14/12 2:05:00 PM**
Dil. Factor:	**1.87**	**Date of Analysis:**	**9/23/12 07:22 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.94	Not Detected	2.4	Not Detected
Chloroethane	3.7	Not Detected	9.9	Not Detected
1,1-Dichloroethene	0.94	Not Detected	3.7	Not Detected
Freon 113	0.94	1.1	7.2	8.2
Methylene Chloride	9.4	Not Detected	32	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	5.6	5.1	30
Trichloroethene	0.94	160	5.0	880
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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	122	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: EN0423D091412

Lab ID#: 1209339-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092231**	**Date of Collection:**	**9/14/12 5:20:00 PM**
Dil. Factor:	**1.79**	**Date of Analysis:**	**9/23/12 07:45 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	3.6	Not Detected	9.4	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	9.0	Not Detected	31	Not Detected
1,1-Dichloroethane	0.90	2.5	3.6	10
cis-1,2-Dichloroethene	0.90	13	3.5	52
1,1,1-Trichloroethane	0.90	Not Detected	4.9	Not Detected
Trichloroethene	0.90	79	4.8	430
Tetrachloroethene	0.90	1.9	6.1	13
trans-1,2-Dichloroethene	0.90	1.5	3.5	6.1

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	93	70-130

eurofins | Air Toxics

Client Sample ID: DU3350091412

Lab ID#: 1209339-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092408**	**Date of Collection:**	**9/14/12 4:50:00 PM**
Dil. Factor:	**1.91**	**Date of Analysis:**	**9/24/12 12:46 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	3.8	Not Detected	10	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	9.6	Not Detected	33	Not Detected
1,1-Dichloroethane	0.96	1.9	3.9	7.8
cis-1,2-Dichloroethene	0.96	11	3.8	44
1,1,1-Trichloroethane	0.96	Not Detected	5.2	Not Detected
Trichloroethene	0.96	52	5.1	280
Tetrachloroethene	0.96	1.5	6.5	10
trans-1,2-Dichloroethene	0.96	0.97	3.8	3.8

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: EN0416D091412

Lab ID#: 1209339-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092409**	**Date of Collection:**	**9/14/12 4:25:00 PM**
Dil. Factor:	**1.83**	**Date of Analysis:**	**9/24/12 01:30 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	3.7	Not Detected	9.6	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	9.2	Not Detected	32	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	9.6	5.0	53
Trichloroethene	0.92	110	4.9	580
Tetrachloroethene	0.92	8.0	6.2	54
trans-1,2-Dichloroethene	0.92	Not Detected	3.6	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: EN1017D091412

Lab ID#: 1209339-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092410**	**Date of Collection:**	**9/14/12 5:43:00 PM**
Dil. Factor:	**1.79**	**Date of Analysis:**	**9/24/12 02:10 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	3.6	Not Detected	9.4	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	9.0	Not Detected	31	Not Detected
1,1-Dichloroethane	0.90	Not Detected	3.6	Not Detected
cis-1,2-Dichloroethene	0.90	2.8	3.5	11
1,1,1-Trichloroethane	0.90	48	4.9	260
Trichloroethene	0.90	64	4.8	340
Tetrachloroethene	0.90	1.2	6.1	8.3
trans-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: EB3302091412

Lab ID#: 1209339-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092411**	**Date of Collection:**	**9/14/12 6:40:00 PM**
Dil. Factor:	**1.64**	**Date of Analysis:**	**9/24/12 02:46 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	3.3	Not Detected	8.6	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	8.2	Not Detected	28	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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	96	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1209339-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092227**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/22/12 10:15 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	121	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1209339-08B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092407**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/24/12 11:34 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	2.0	Not Detected	5.3	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	5.0	Not Detected	17	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	106	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	95	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1209339-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092223**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/22/12 08:38 PM**	

Compound	**%Recovery**
Vinyl Chloride	98
Chloroethane	96
1,1-Dichloroethene	97
Freon 113	106
Methylene Chloride	105
1,1-Dichloroethane	98
cis-1,2-Dichloroethene	92
1,1,1-Trichloroethane	108
Trichloroethene	94
Tetrachloroethene	103
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	109	70-130

eurofins | Air Toxics

Client Sample ID: CCV

Lab ID#: 1209339-09B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/24/12 08:45 AM**	

Compound	**%Recovery**
Vinyl Chloride	92
Chloroethane	90
1,1-Dichloroethene	92
Freon 113	96
Methylene Chloride	96
1,1-Dichloroethane	92
cis-1,2-Dichloroethene	90
1,1,1-Trichloroethane	96
Trichloroethene	87
Tetrachloroethene	91
trans-1,2-Dichloroethene	90

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	101	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1209339-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092224**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/22/12 09:11 PM**	

Compound	**%Recovery**
Vinyl Chloride	99
Chloroethane	95
1,1-Dichloroethene	101
Freon 113	103
Methylene Chloride	103
1,1-Dichloroethane	98
cis-1,2-Dichloroethene	90
1,1,1-Trichloroethane	105
Trichloroethene	90
Tetrachloroethene	98
trans-1,2-Dichloroethene	108

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1209339-10AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092225**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/22/12 09:29 PM**	

Compound	**%Recovery**
Vinyl Chloride	96
Chloroethane	95
1,1-Dichloroethene	99
Freon 113	100
Methylene Chloride	101
1,1-Dichloroethane	94
cis-1,2-Dichloroethene	90
1,1,1-Trichloroethane	103
Trichloroethene	90
Tetrachloroethene	98
trans-1,2-Dichloroethene	102

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	103	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1209339-10B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/24/12 09:17 AM**	

Compound	**%Recovery**
Vinyl Chloride	97
Chloroethane	95
1,1-Dichloroethene	100
Freon 113	99
Methylene Chloride	99
1,1-Dichloroethane	95
cis-1,2-Dichloroethene	92
1,1,1-Trichloroethane	98
Trichloroethene	87
Tetrachloroethene	92
trans-1,2-Dichloroethene	105

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130

eurofins | Air Toxics

Client Sample ID: LCSD

Lab ID#: 1209339-10BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**p092404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/24/12 09:47 AM**	

Compound	**%Recovery**
Vinyl Chloride	100
Chloroethane	96
1,1-Dichloroethene	103
Freon 113	102
Methylene Chloride	98
1,1-Dichloroethane	96
cis-1,2-Dichloroethene	95
1,1,1-Trichloroethane	98
Trichloroethene	87
Tetrachloroethene	92
trans-1,2-Dichloroethene	105

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

www.sanbornhead.com

© Recycled
Product group from well-managed forests, controlled sources
FSC
www.fsc.org Cert no. BV-COC-080102
© 1996 Forest Stewardship Council