

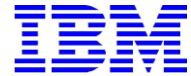


Annual Report

Soil Vapor Monitoring through August 2011

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

*Prepared for IBM Corporate Environmental Affairs
File No. 2755.06
November 2011*



8976 Wellington Road
Manassas, VA 20109

November 9, 2011

Alex Czuhanic
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 2011
Comprehensive Operations, Maintenance and Monitoring Program
Order on Consent Index # A7-0502-0104, Site # 704014

Dear Mr. Czuhanic:

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

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

November 9, 2011
File No. 2755.06

Re: Annual Report
Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, and Monitoring Program
Endicott, New York

Dear Mr. Meyers:

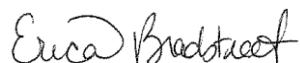
We have enclosed our report summarizing soil vapor monitoring conducted in the Village of Endicott and the Town of Union, New York, through August 2011. The monitoring is being conducted as a component of the Comprehensive Operations, Maintenance, and Monitoring Plan (COM&M Plan). The work is part of 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.
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EMB/DBC: emb

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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 2011 under IBM's Comprehensive Operations, Maintenance and Monitoring Plan (COM&M Plan). The objective of the program is to monitor for changes in the presence of certain volatile organic compounds (VOCs) that drove decisions for installation of ventilation systems to address potential for vapors to enter human occupied structures (vapor intrusion potential).

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

Trichloroethene (TCE) is the primary VOC found in soil vapor within the largest contiguous ventilation area. Other compounds including 1,1,1-Trichloroethane (TCA), tetrachloroethene (PCE) and their biochemical breakdown products are also found in this area, but at lower frequencies of detection and generally at lower concentrations.

Following the Agencies approval of the 2010 Annual Report¹, the routine monitoring was reduced to four times a year. The scope of the present sampling program is summarized in Table B.1 in Appendix B. Soil gas 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.

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

¹ Sanborn, Head & Associates, Inc., June 10, 2010, Annual Report – Soil Vapor Monitoring through April 2010.

^{2,4} Sanborn, Head & Associates, Inc., April 29, 2011, Semiannual Report, Soil Vapor Monitoring Through

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

1.2 Scope of Work

Since submittal of the last Report², routine quarterly soil vapor monitoring has been conducted in June and August 2011, in accordance with the program outlined in that report and discretionary non-routine monitoring as outlined in the table below. The sampling scope included non-routine monitoring in areas of increased groundwater injection and at OU#4 – Ideal Cleaners, as requested by the Agencies.

Sampling Round	Locations Included in Routine Monitoring	Locations where Voluntary Non-Routine Monitoring was Conducted	Rationale
June 2011	8	3	<ul style="list-style-type: none">■ EN04-2/EN04-32: Groundwater Injection Monitoring■ EN10-41: OU#4 Vapor Monitoring
August 2011	36	1	<ul style="list-style-type: none">■ EN10-41: OU#4 Vapor Monitoring

We also attempted sampling of implants EN10-11D and EN10-17D installed by others in May 2010 as part of soil profiling work. In both June and August 2011, water was drawn into the sample tubing during purging or sampling and sampling could not be completed. Samples were not able to be collected from these implants in either June or August.

The data was tabulated and reviewed and used to prepare graphical summaries depicting groundwater and soil vapor data for TCE as presented in Appendix B.2 as Figures B.1 through B.38. A tabular summary of soil vapor data recorded during the last 12 months is provided on compact disc in Appendix C.

1.3 Climatic Conditions and Groundwater Levels 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.

^{2,4} Sanborn, Head & Associates, Inc., April 29, 2011, Semiannual Report, Soil Vapor Monitoring Through February 2011.

1.3.1 Climactic Conditions

Figure 2 depicts the deviation from average monthly precipitation through August 2011 as a context for the soil vapor monitoring program. As shown by the plot of cumulative deviation from average precipitation, wetter than average conditions were recorded from late 2003, after the ventilation limits had largely been established, through the first two months of 2007. Between 2007 and 2011 cumulative precipitation has tracked nearer the 53 year average with monthly precipitation generally within a few inches above or below the average values. From February 2011 through sampling in August 2011, wetter than average conditions have been present, with the current cumulative total approximately 46 inches above average. Climatologic data used in creating Figure 2 are compiled in Appendix B.1.

1.3.2 Groundwater Levels

Since mid-2004, IBM has substantially expanded extraction and treatment of VOC-containing groundwater. In November 2008, re-injection of treated groundwater and potable water was initiated at EN-510T. Additional injection wells have come online in 2009 (EN-78T), 2010 (EN-501T, EN-161T), and 2011 (EN-529T), largely centered on the largest contiguous ventilation area north of East Main Street and south of North Street, as shown on Figure 1. The combination of extraction and injection operations has influenced groundwater levels and flow directions and induced changes in groundwater water quality within the soil vapor monitoring area.

Figure 1 depicts groundwater table elevation contours and dewatered “dry” areas as depicted by Groundwater Sciences Corporation (GSC) based on data recorded in early May 2011³. The figure depicts average rates of groundwater extraction and injection based on data reported by GSC for the month of May, indicating about 475 gallons per minute (gpm) total extraction and 323 gpm total injection for remediation wells associated with OU#2, OU#3 and OU#4 that are within or adjacent to the largest ventilation area and primary groundwater remediation area.

The pumping and injection rates for wells GSC has associated with the primary groundwater remediation area, referred to as Off-Site Capture Zone A, recorded for May 2011 are about 350 and 223 gpm, respectively, which, if sustained, would be equivalent to 184 and 170 million gallons per year (MG/yr). As reported in our April 2011 Semiannual Report⁴, GSC calculated an estimated pore volume based on August 2010 water levels of approximately 95 MG beneath the primary monitoring area. Against this volume, the May 2011 pumping and injection are equivalent to nearly 2 and 1.8 pore volume exchanges a year, respectively, assuming no other losses. The saturated aquifer volume increased in 2011 in response to increased precipitation and as such, the actual pore volume exchanges due to pumping and injection are smaller.

³ Groundwater Sciences, Inc., 2011 Semiannual Groundwater Data Summary Report – Endicott, New York. Received electronically Monday October 17, 2011

In February 2011, GSC increased injection rates at EN-529T, the most recent injection well to come on-line, to between 125 to 130 gpm and again in mid-July to approximately 140 to 150 gpm, an increase from about 80 to 110 gpm during the first few months of injection. This increased injection rate, if sustained, would be expected to further accelerate pore volume exchanges central to the groundwater IBM is remediating.

2.0 DATA AND FINDINGS

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

2.1 Overall Trends in Groundwater Quality

Groundwater quality data have been posted on graphical time-series plots prepared for IBM by Conestoga Rovers Associates (CRA), included as Appendix B.2. A visual review of these plots suggests that TCE concentrations have declined or did not materially change in groundwater proximate to 34 of the 37 monitoring locations. At the remaining three locations, the adjacent well is either dry or was not sampled.

In general, the plots indicate about one-half order of magnitude variation in TCE concentration in groundwater samples. Eight locations have exhibited about a $\frac{1}{2}$ order of magnitude decline in groundwater TCE concentrations, while at least one order of magnitude decline has been observed in data from monitoring wells proximate to 4 vapor monitoring locations⁵.

2.2 Overall Trends in Soil Vapor Concentrations

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 the arithmetic average of water table and foundation depth TCE data recorded during the first three months of sampling after vapor implants were installed in August 2004.

Views 3C and 3D represent averages recorded about 7 years later, from August 2011. 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. A review of the images provided as Figure 3 indicates:

- TCE concentrations at foundation depth are lower by an order of magnitude or more at many locations both near and away from area of increased groundwater remediation activities as compared with 2004; and

⁵ Wells near EN04-2, EN04-3, EN04-9, EN04-16, EN04-28, EN04-31, EN06-35, and EN06-36 exhibited about $\frac{1}{2}$ -order of magnitude decline in TCE concentration and wells near EN04-8, EN04-11, EN04-30, and EN04-32 exhibited at least one order of magnitude decline.

- TCE was not detected at foundation depth at 11 locations, compared to eight locations in 2004. TCE was not detected in samples from water table implants at five locations, up from two in 2004.

A comparison of this Figure 3 with that included in Semi-annual Reporting in 2010⁶ indicates that at the majority of locations and depths, TCE vapor concentrations recorded in August 2011 are incrementally lower than those recorded a year earlier by as much as $\frac{1}{2}$ order of magnitude.

Voluntary and routine monitoring at EN04-2, EN04-32, and EN04-30 continues to be performed to track the vapor response to clean water injection EN-91T, EN501T, and EN-529T, respectively. As shown on the time series plots in Appendix B.2, while groundwater concentrations in nearby monitoring wells have decreased by as much as three orders of magnitude at two of these locations, vapor concentrations have not exhibited a similar response.

At the request of the Agencies, IBM is monitoring soil vapor at Operable Unit #4 (OU#4), the former Ideal Cleaners property. PCE data recorded at the 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.

2.3 Quality Assurance/Quality Control

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. Data collected during the period were considered usable and met the project data quality objectives. As part of routine ongoing QA/QC the analytical results were reviewed after each sampling round for anomalies or outliers. Data collected during this monitoring period were generally consistent with previous sampling rounds

3.0 CONCLUSIONS AND RECOMMENDATIONS

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

Sampling will continue to be a quarterly basis, with the next samplings in December 2011, February and June 2012, with a comprehensive round in August 2012. We will report to

⁶ Sanborn, Head & Associates, Inc., November 9, 2010. Letter Report, Semiannual Report – Soil Vapor Monitoring Through August 2010.

the Agencies on a semiannual and annual basis in April and November, respectively. The April semiannual report will be a letter report transmitting the data recorded in December and February while the annual report will include plan view graphics similar to Figure 3 and a more comprehensive analysis of the data.

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FIGURES

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 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.
3. Groundwater contours, flow directions, flow divides, groundwater monitoring and extraction wells, and "dry" areas were adapted from a drawing by GSC transmitted to Sanborn Head on 9/22/2011 entitled 2007T306.dwg. The contours represent inferred groundwater elevations based on groundwater measurements from May 20, 2011.
4. The limits of ventilation shown in red encompass properties where IBM has offered to install a ventilation system. The ventilation areas were identified under the review of the New York State Departments of Environmental Conservation and Health based on results of sampling foundation level soil vapor, substructure soil vapor, indoor air, and outdoor air completed between November 2002 and March 2005.
5. Posted extraction/injection rates are based on May 2011 volumes summarized in the draft table entitled January to August 2011 Groundwater Pumping Volumes (gallons) by GSC and transmitted to Sanborn Head on 9/22/2011. Rates were calculated assuming steady withdraw throughout the month.

Legend

- I 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
830 Groundwater Elevation Contour (Feet AMSL)
Dry Inferred direction of groundwater flow
Area of unsaturated soil in the upper aquifer
Groundwater Divide
- 10 / 4.2 / -108 Extraction/Injection Rates (gpm), Injection Rates are Depicted as Negative Values

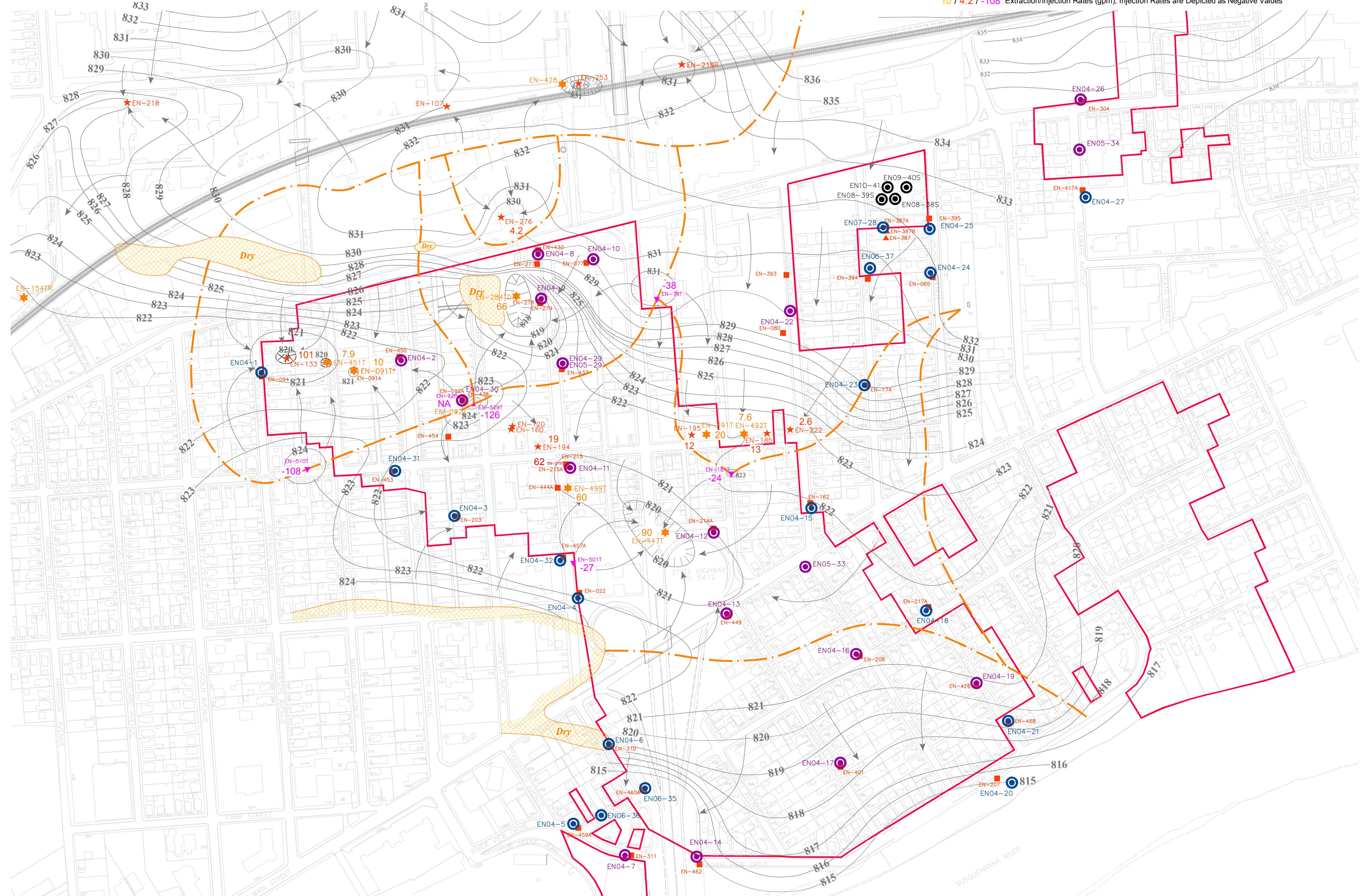


Figure 2
Historical Precipitation Records
 Annual Report - Soil Vapor Monitoring through August 2011
 Endicott, New York

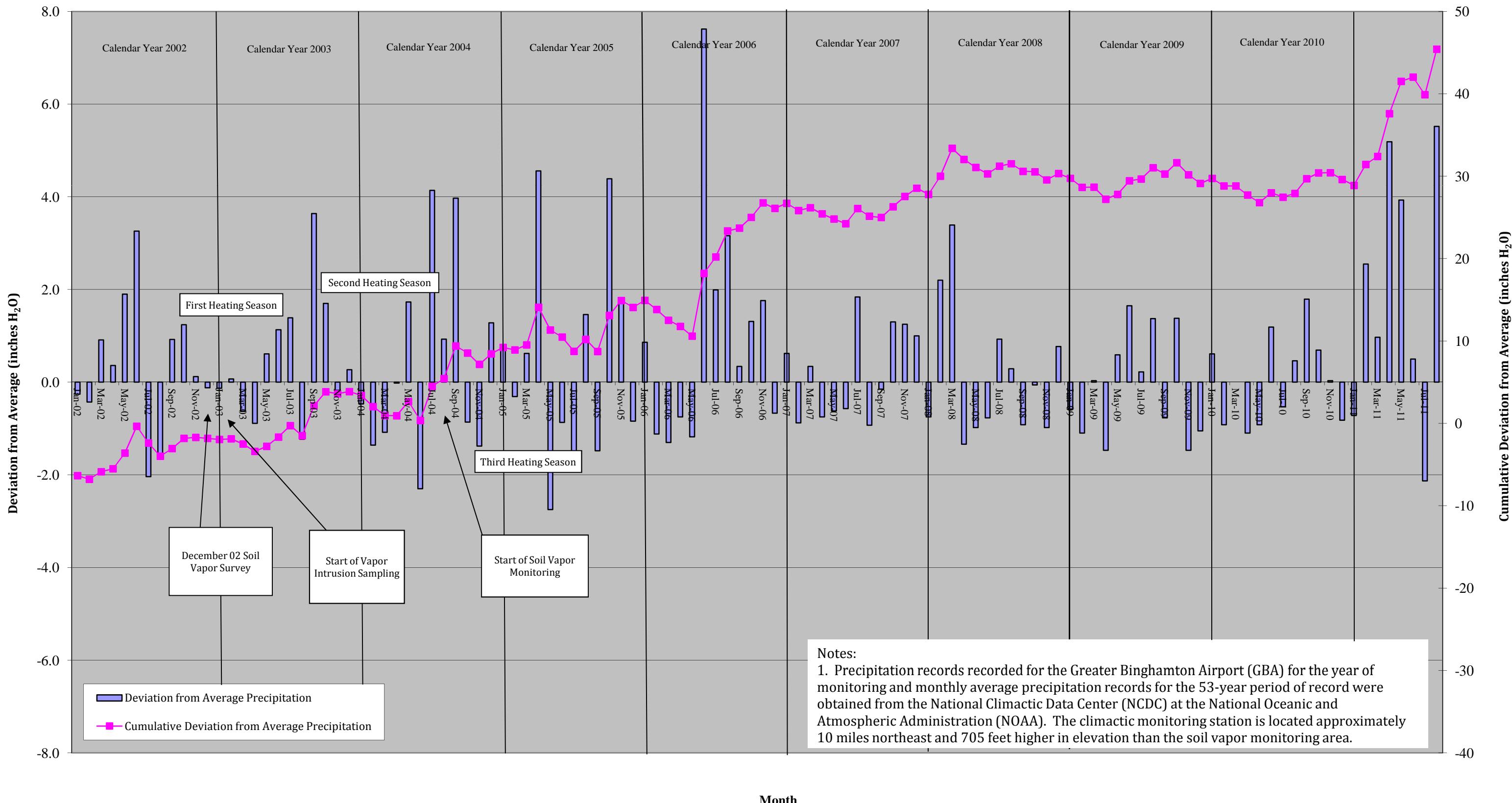


Figure 3

Comparisons of TCE Soil Vapor Concentrations Non Heating Seasons

Annual Report - Soil Vapor Monitoring Through August 2011

IBM

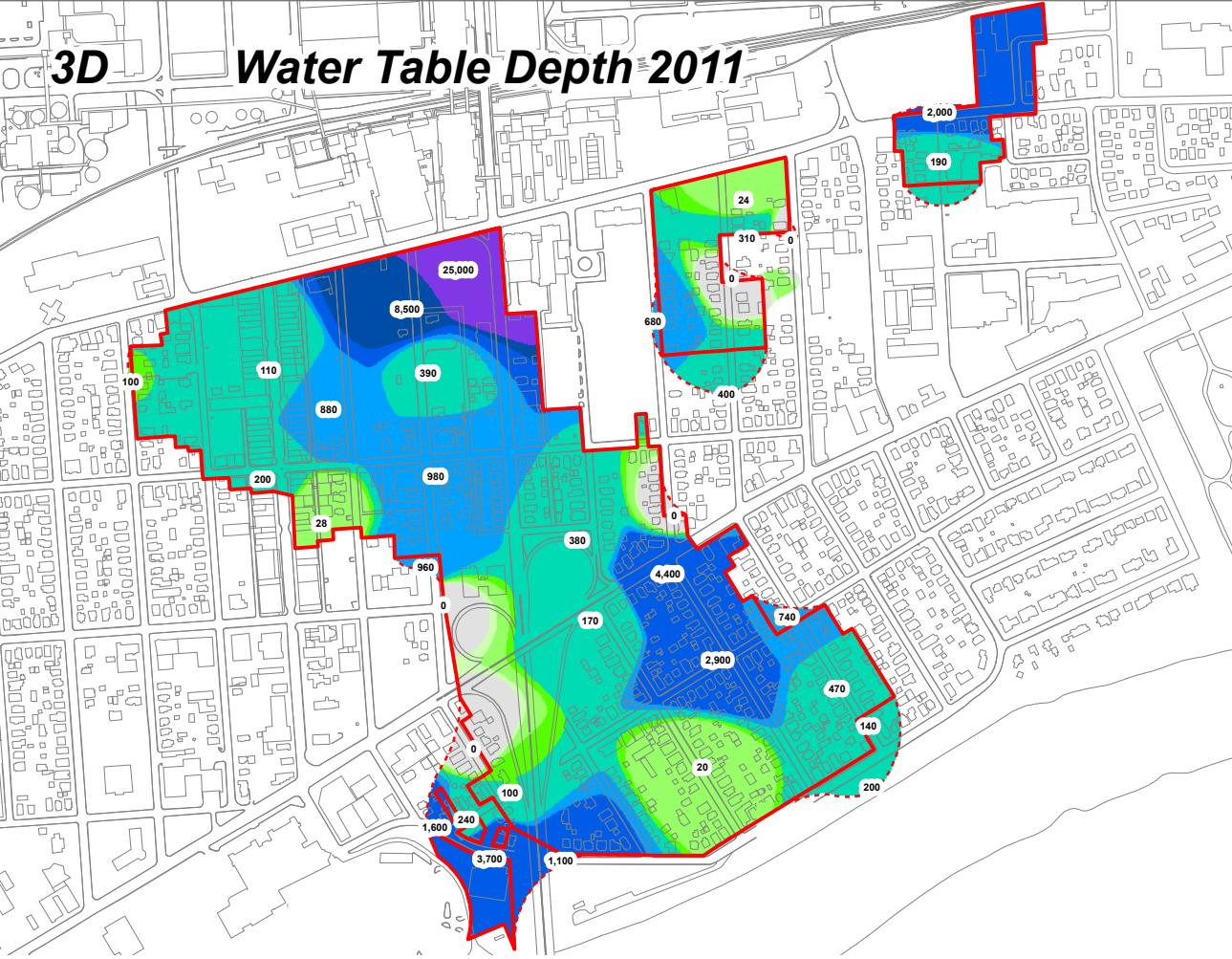
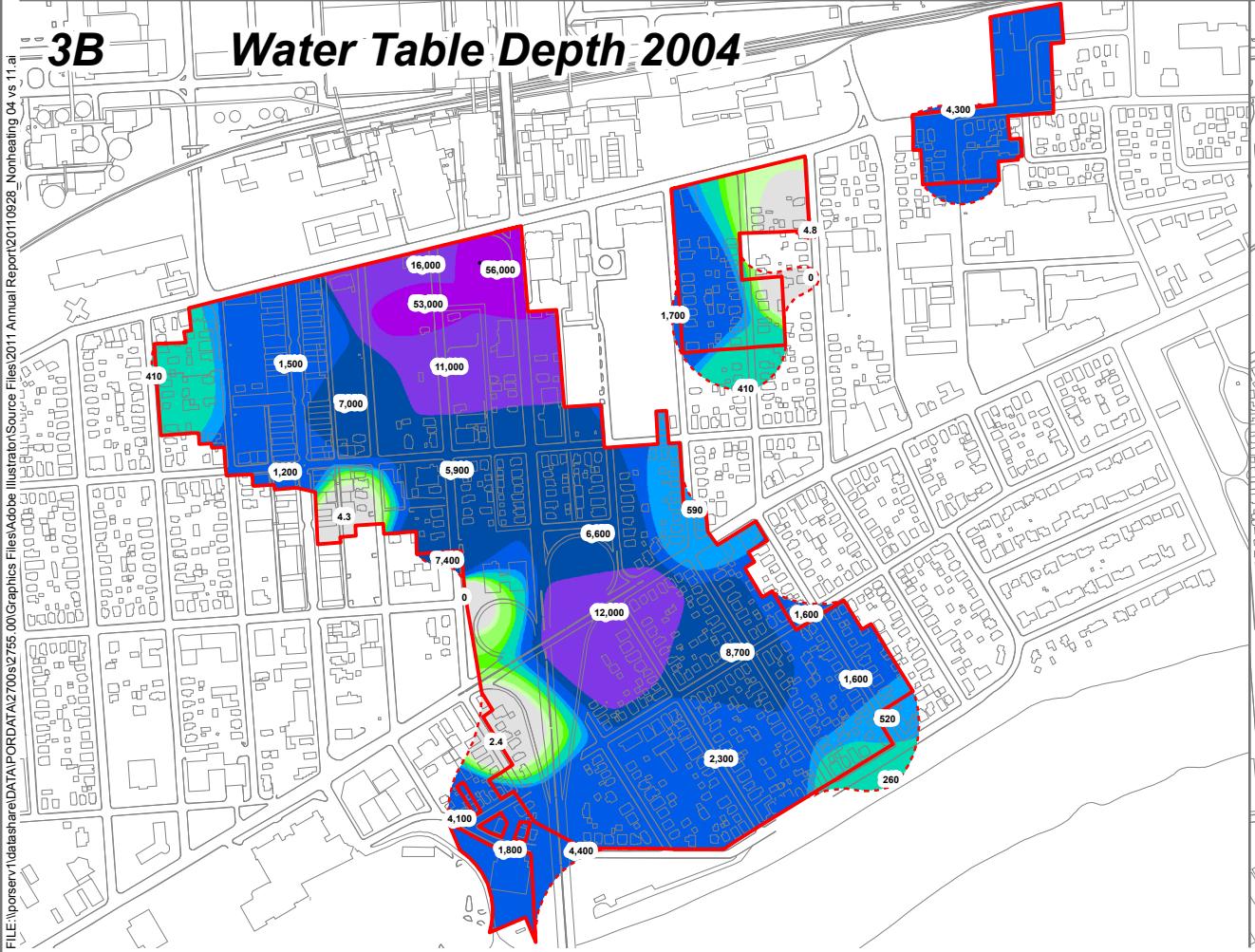
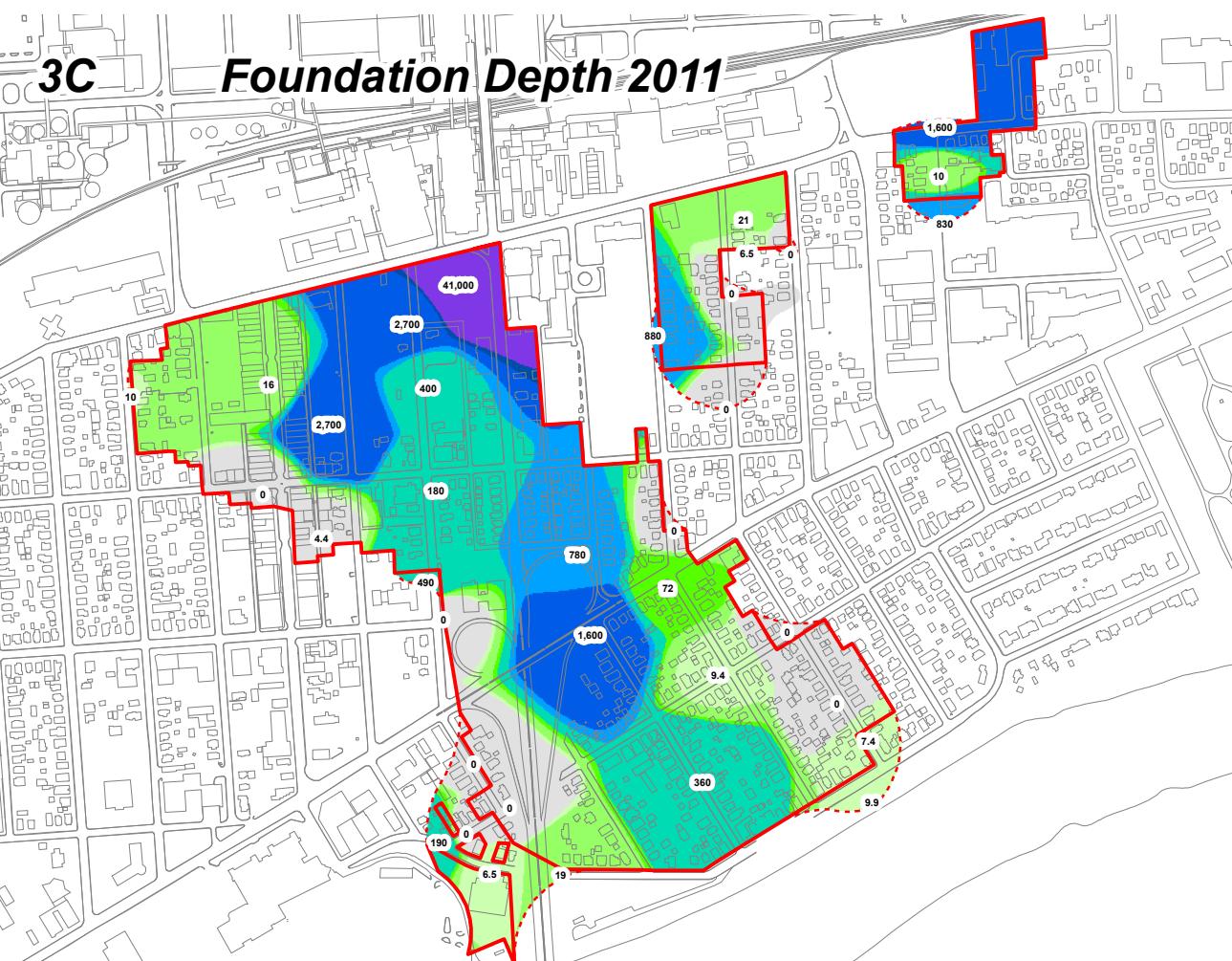
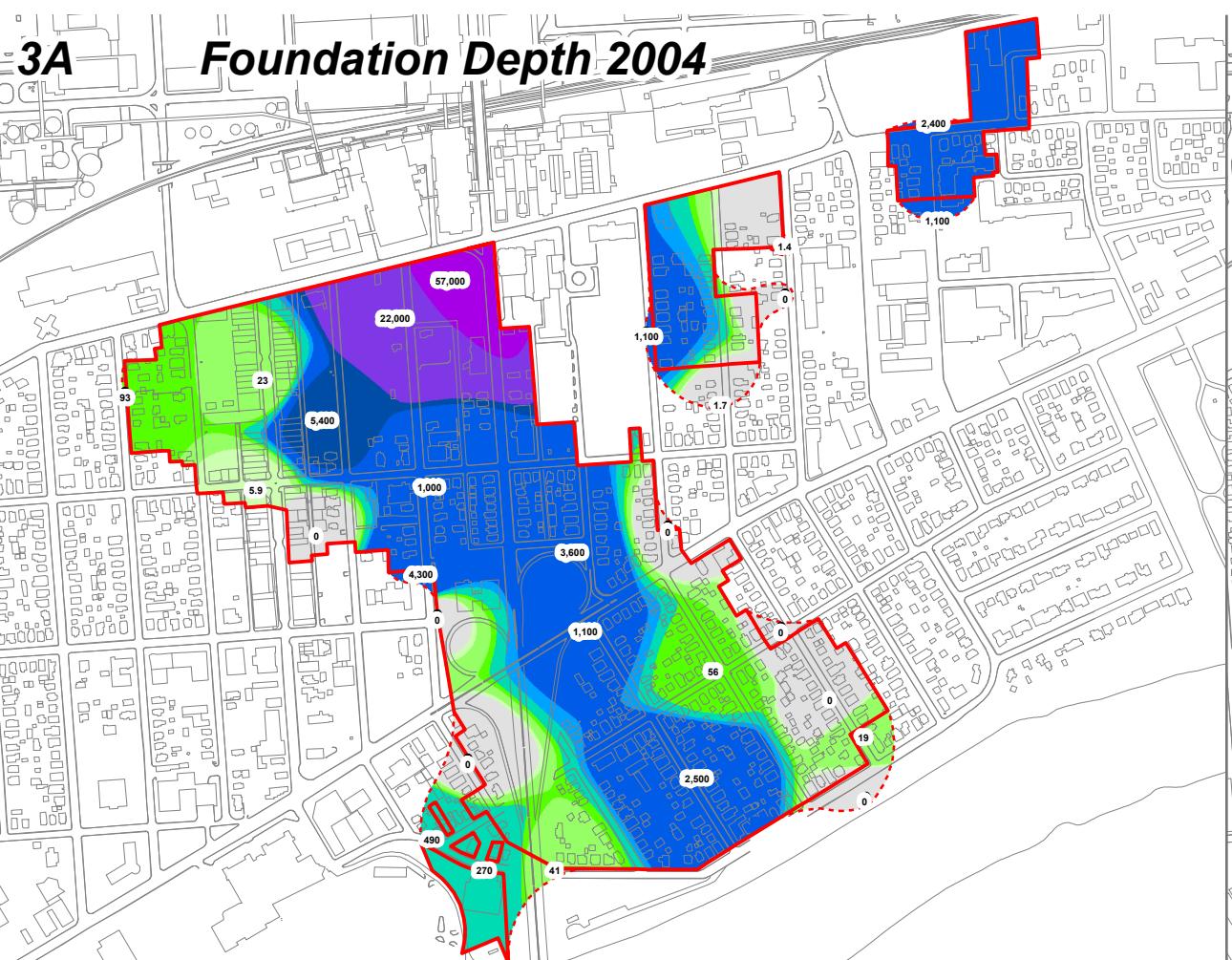
Endicott, New York

Drawn By: S. Warner/J. Pierce
Designed By: E. Bradstreet
Reviewed By: D. Carr
Project No: 2755.06
Date: November 2011

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 2011 monitoring.

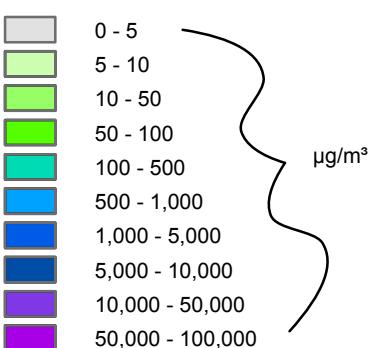
The images were created using uniform and consistent spatial statistical algorithms as outlined in more detail in previous reports and are intended not as absolute indicators of the limits of soil vapor concentrations at a given time but a basis of comparison between data from different times.



Legend

Soil Vapor Implant Location - TCE concentrations in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

Limits of Ventilation



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.

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APPENDIX B

FIELD SAMPLING & LABORATORY ANALYSIS

TABLE B.1
Summary of Soil Vapor Monitoring Implants & Sampling Schedule
Annual Report - Soil Vapor Monitoring Through August 2011
Endicott, New York

Location Designation ¹	Installation Date	Implant Type ²		Subsurface Conditions at Installation			Completion Details	Groundwater Conditions At Installation			May 2008 Groundwater Conditions		Quarterly Routine Sampling Program					
		Remediation Progress Monitoring	Ventilation Perimeter Monitoring	Nearby Monitoring Well ³	Date Recorded/ Depth to Water Table ⁴	Nominal Implant Depth (ft. bgs)		Distance Above Water Table ⁵ (ft)	Vadose Zone Between Shallow and Deep Implants ⁶ (ft)	Saturated Screened Interval ⁷ (ft)	Distance Above Water Table ⁵ (ft)	Saturated Screened Interval ⁷ (ft)	Difference ⁸ (ft)	August	December	February	June	
EN04-1S	Jul-04	X	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	5.5	13.5	10.5	6.8	9.2	-1.3	X	X		
EN04-1D	Jul-04					23	Sand							X	X			
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	5.2	11	4.8	8	2	-2.8	X			
EN04-2D	Jul-04					20	Sand & Gravel							X				
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	5.9	10	10.1	11.6	4.4	-5.7	X			
EN04-3D	Jul-04					19	Sand							X				
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	6	8	0	6	0	0	X			
EN04-4D	Jul-04					17	Gravel							X				
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	5	25	10	6.2	8.8	-1.2	X	X		
EN04-5D	Jul-04					34	Sand							X	X			
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	1	18	0	1	0	0	X			
EN04-6D	Jul-04					27	Sand & Gravel							X				
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	9.7	25	1.3	9.2	1.8	0.5	X	X	X	X
EN04-7D	Jul-04					34	Poorly Sorted Sand							X	X	X	X	

TABLE B.1
Summary of Soil Vapor Monitoring Implants & Sampling Schedule
Annual Report - Soil Vapor Monitoring Through August 2011
Endicott, New York

Location Designation ¹	Installation Date	Implant Type ²		Subsurface Conditions at Installation			Completion Details	Groundwater Conditions At Installation			May 2008 Groundwater Conditions			Quarterly Routine Sampling Program				
		Remediation Progress Monitoring	Ventilation Perimeter Monitoring	Nearby Monitoring Well ³	Date Recorded/ Depth to Water Table ⁴	Nominal Implant Depth (ft. bgs)		Distance Above Water Table ⁵ (ft)	Vadose Zone Between Shallow and Deep Implants ⁶ (ft)	Saturated Screened Interval ⁷ (ft)	Distance Above Water Table ⁵ (ft)	Saturated Screened Interval ⁷ (ft)	Difference ⁸ (ft)	August	December	February	June	
EN04-8S	Jul/Aug-02	X		EN-430	4/16/04 20.84	8	Sand & Gravel	0-2' Concrete Surface Seal 2-6.75' Bentonite Seal 6.75-7.75' Glass Bead Filter Pack 7.25-7.75' Screened Interval	8	2.8	2.2	NM	NM	NM				
EN04-8D	Jul/Aug-02					12	Sand & Gravel	0-2' Concrete Surface Seal 2-10.5' Bentonite Seal 10.5-11.7' Glass Bead Filter Pack 11.2-11.7' 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	6	11	8	9.5	4.5	-3.5	X		X	
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							X	X		
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	6.3	11.2	1.3	6.4	1.2	-0.1	X		X	
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							X	X		
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	7.2	11.5	7.2	14.4	0	-7.2	X	X	X	X
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							X	X	X	X
EN10-11D	May-10					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	4	22	15.2	NA	NA	NA	X	X	X	X
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	6.2	10	11.8	11.6	6.4	-5.4	X	X	X	X
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							X	X	X	X
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	6	21	13.5	10.8	8.7	-4.8	X		X	
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							X		X	

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		Remediation Progress Monitoring	Ventilation Perimeter Monitoring	Nearby Monitoring Well ³	Date Recorded/ Depth to Water Table ⁴	Nominal Implant Depth (ft. bgs)		Distance Above Water Table ⁵ (ft)	Vadose Zone Between Shallow and Deep Implants ⁶ (ft)	Saturated Screened Interval ⁷ (ft)	Distance Above Water Table ⁵ (ft)	Saturated Screened Interval ⁷ (ft)	Difference ⁸ (ft)	August	December	February	June	
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	5	25	4	5.1	3.9	-0.1	X		X	
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							X		X	
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	5.3	21	6.2	6.9	4.6	-1.6	X			
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							X			
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	5.5	24.5	10.5	8.4	7.6	-2.9	X			
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							X			
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	7.5	19	3.5	9.2	1.8	-1.7	X	X	X	X
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							X	X	X	X
EN04-17D	May-10	X		EN-217A	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	4	26	1	NA	NA	NA	X	X	X	X
EN04-18S	Jul-04					8	Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval							X			
EN04-18D	Jul-04	X		EN-426	7/26/04 35.39	31	Sand & Gravel	0-1' Concrete Surface Seal 1-30' Bentonite Seal 30-31' Glass Bead Filter Pack 30.5-31' Screened Interval	5.9	22	5.3	8.5	2.7	-2.6	X			
EN04-19S	Jul-04					8	Sand & Gravel	0-1' Concrete Surface Seal 1-7' Bentonite Seal 7-8' Glass Bead Filter Pack 7.5-8' Screened Interval							X			
EN04-19D	Jul-04	X		EN-426	7/26/04 35.39	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	5.9	20.5	4.6	7.2	3.3	-1.3	X			

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		Remediation Progress Monitoring	Ventilation Perimeter Monitoring	Nearby Monitoring Well ³	Date Recorded/ Depth to Water Table ⁴	Nominal Implant Depth (ft. bgs)		Distance Above Water Table ⁵ (ft)	Vadose Zone Between Shallow and Deep Implants ⁶ (ft)	Saturated Screened Interval ⁷ (ft)	Distance Above Water Table ⁵ (ft)	Saturated Screened Interval ⁷ (ft)	Difference ⁸ (ft)	August	December	February	June
EN04-20S	Jul-04	X	X	EN-207	7/27/04 43.2	8	Gravel	25.5	9.5	4.3	8.1	3.9	-0.4	X			
EN04-20I	Jul-04					24	Gravel										
EN04-20D	Jul-04					36	Sand							X			
EN04-21S	Jul-04	X	X	EN-468	10/14/04 34.43	7.5	Sand & Gravel	14.5	4	14.2	1.8	-2.2	X				
EN04-21D	Jul-04					23	Sand & Gravel						X				
EN04-22S	Jul/Aug-02			EN-80* and EN-393*	7/27/04 18.75	8	Well Sorted Sand	6	2.5	6.3	0.3	X	X				
EN04-22D	Jul/Aug-02	X	X			16	Well Sorted Sand							X	X		
EN04-23S	Jul-04					8	Well Sorted Sand	14	7	4.5	5.4	2.6	-1.9				
EN04-23I	Jul-04	X	X	EN-174	7/30/04 26.48	15	Well Sorted Sand										
EN04-23D	Jul-04					23	Well Sorted Sand							X			
EN04-24S	Jul-04	X	X	EN-65	7/29/04 22.89	8	Fill	9.5	17.8	5.6	16.1	-1.7					
EN04-24D	Jul-04					19	Poorly Sorted Sand										
EN04-25S	Aug-04	X	X	EN-395	7/29/04 18.88	8	Fill	8.5	5	1.7	4.7	-0.3	X				
EN04-25D	Aug-04					17.5	Sand & Gravel						X				

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		Remediation Progress Monitoring	Ventilation Perimeter Monitoring	Nearby Monitoring Well ³	Date Recorded/ Depth to Water Table ⁴	Nominal Implant Depth (ft. bgs)		Distance Above Water Table ⁵ (ft)	Vadose Zone Between Shallow and Deep Implants ⁶ (ft)	Saturated Screened Interval ⁷ (ft)	Distance Above Water Table ⁵ (ft)	Saturated Screened Interval ⁷ (ft)	Difference ⁸ (ft)	August	December	February	June	
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	3.4	5	6.6	4.1	5.9	-0.7	X	X	X	X
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							X	X	X	X
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	X		X	
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	3	11	9.5	4.9	7.6	-1.9	X	X	X	X
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							X	X	X	X
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	3.9	11	11.1	10	5	-6.1	X	X	X	X
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							X	X	X	
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	6	11	8	5.7	8.3	0.3	X	X	X	X
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							X	X	X	X
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	0.5	8	12	5.1	7.4	-4.6	X			
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							X			

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		Remediation Progress Monitoring	Ventilation Perimeter Monitoring	Nearby Monitoring Well ³	Date Recorded/ Depth to Water Table ⁴	Nominal Implant Depth (ft. bgs)		Distance Above Water Table ⁵ (ft)	Vadose Zone Between Shallow and Deep Implants ⁶ (ft)	Saturated Screened Interval ⁷ (ft)	Distance Above Water Table ⁵ (ft)	Saturated Screened Interval ⁷ (ft)	Difference ⁸ (ft)	August	December	February	June
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	3.4	9	5	8.4	0	-5	X	X		
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							X	X		
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	2.3	22.5	6.2	4.9	3.6	-2.6	X	X		
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							X	X		
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	3.2	4	6.6	4.6	5.2	-1.4	X	X		
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							X	X		
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	6.2	25.3	10	6.8	9.4	-0.6	X			
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							X			

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		Remediation Progress Monitoring	Ventilation Perimeter Monitoring	Nearby Monitoring Well ³	Date Recorded/ Depth to Water Table ⁴	Nominal Implant Depth (ft. bgs)		Distance Above Water Table ⁵ (ft)	Vadose Zone Between Shallow and Deep Implants ⁶ (ft)	Saturated Screened Interval ⁷ (ft)	Distance Above Water Table ⁵ (ft)	Saturated Screened Interval ⁷ (ft)	Difference ⁸ (ft)	August	December	February	June
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	7	23.8	10	8.2	8.8	-1.2	X			
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							X			
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	1.3	12	3.2	1.5	3.0	-0.2	X			
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							X			

Notes:

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

APPENDIX B.1

CLIMATOLOGIC DATA

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 04/2011

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

Lat. 42.208 Lon. -75.981

Elevation(Ground): 1595 ft. above sea level

D a t e	Temperature (Fahrenheit)							Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground(In)		Precipitation (In)		Pressure(inches of Hg)		Wind: Speed=mph Dir=tens of degrees						D a t e	
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg. Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	Dir	max 2-minute Speed	Dir		
												Water Equiv	Snow Fall	Water Equiv	Water Equiv											
												Depth	Water Equiv	Snow Fall	Water Equiv											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
01	36	32	34	-4	M	M	31	0	0547	1829	SN BR UP	T	M	0.9	0.16	27.76	M	7.5	32	8.3	25	300	18	320	01	
02	48	28	38	-1	23	32	27	0	0545	1830	RA	T	M	T	T	27.81	29.58	10.6	29	11.2	35	350	25	340	02	
03	49	32	41	2	24	34	24	0	0544	1832	RA SN BR	0	M	T	0.06	28.14	29.92	6.3	30	8.4	30	280	23	280	03	
04	58	33	46	6	41	43	19	0	0542	1833	RA BR	0	M	0.1	0.58	27.91	29.56	11.3	17	12.4	30	160	22	150	04	
05	55	30	43	3	M	M	22	0	0540	1834	RA SN BR	0	M	0.9	0.56	27.71	M	11.0	29	12.6	31	270	23	280	05	
06	41	27*	34*	-6	M	M	31	0	0539	1835	SN BR	0	M	0.7	0.19	28.15	M	6.4	25	6.6	28	250	21	250	06	
07	49	32	41	0	30	35	24	0	0537	1836	BR	0	M	0.0	0.00	28.32	30.13	2.9	03	4.9	15	350	12	330	07	
08	51	30	41	0	26	34	24	0	0535	1837		0	M	0.0	0.00	28.40	30.17	4.0	15	4.6	14	150	12	140	08	
09	55	35	45	4	36	41	20	0	0534	1838	BR HZ	0	M	0.0	0.00	28.37	30.14	3.9	22	4.6	29	310	13	230	09	
10	60	44	52	10	43	47	13	0	0532	1839	BR HZ	0	M	0.0	0.00	28.27	30.00	8.2	19	8.5	26	190	18	190	10	
11	75	53	64	22	52	56	1	0	0530	1841	RA BR HZ VCTS	0	M	0.0	T	27.94	29.64	8.9	23	12.2	37	280	23	290	11	
12	55	41	48	5	33	42	17	0	0529	1842	RA BR	0	M	0.0	0.04	28.14	29.91	8.0	03	10.1	28	340	21	340	12	
13	46	41	44	1	40	42	21	0	0527	1843	RA BR	0	M	0.0	0.82	28.17	29.92	2.4	08	7.1	28	120	22	130	13	
14	59	37	48	5	35	41	17	0	0525	1844	BR HZ	0	M	0.0	0.00	28.32	30.11	8.2	33	9.2	24	360	20	360	14	
15	52	29	41	-3	26	35	24	0	0524	1845		0	M	0.0	0.00	28.58	30.36	5.6	11	8.7	26	160	18	160	15	
16	47	35	41	-3	34	37	24	0	0522	1846	RA BR	0	M	0.0	1.09	28.20	29.91	19.2	14	20.0	48	130	37	130	16	
17	50	34	42	-3	31	37	23	0	0521	1847	RA BR	0	M	T	0.12	27.86	29.64	11.9	26	13.5	51	230	33	250	17	
18	46	32	39	-6	29	35	26	0	0519	1848	RA BR	0	M	T	0.10	28.17	29.95	4.6	27	8.0	29	250	22	270	18	
19	42	34	38	-7	M	M	27	0	0518	1849	RA BR	0	M	0.0	0.22	28.30	M	6.4	07	8.4	20	130	15	130	19	
20	69	42	56	10	44	48	9	0	0516	1851	BR HZ	0	M	0.0	0.04	28.07	29.81	8.1	22	14.0	37	260	29	240	20	
21	42	32	37	-9	26	33	28	0	0514	1852	RA SN BR HZ	0	M	T	0.01	28.40	30.22	12.5	31	13.8	41	290	25	300	21	
22	45	29	37	-10	25	32	28	0	0513	1853	RA BR	0	M	T	0.07	28.60	30.38	7.6	15	8.7	32	060	20	150	22	
23	56	34	45	-2	43	44	20	0	0511	1854	RA BR HZ	0	M	T	0.65	28.27	29.98	9.8	17	10.5	31	150	23	150	23	
24	56	48	52	4	46	48	13	0	0510	1855	RA FG+ BR	0	M	0.0	0.11	28.27	30.03	1.9	31	3.2	20	350	15	350	24	
25	59	47	53	5	M	M	12	0	0508	1856	RA BR HZ	0	M	0.0	0.95	28.30	M	3.6	08	4.8	23	300	18	310	25	
26	81*	54	68*	20	58	61	0	3	0507	1857	RA BR HZ	0	M	0.0	1.14	28.15	29.87	7.9	19	9.0	30	190	22	260	26	
27	76	57	67	18	59	62	0	2	0506	1858	RA BR HZ VCTS	0	M	0.0	0.45	28.12	29.82	9.5	18	10.1	33	240	23	210	27	
28	72	44	58	8	48	55	7	0	0504	1860	RA BR HZ VCTS	0	M	0.0	1.09	27.91	29.60	10.1	22	14.0	38	210	26	240	28	
29	52	40	46	-4	38	42	19	0	0503	1901	RA BR	0	M	0.0	0.10	28.04	29.80	5.2	28	7.5	25	270	21	270	29	
30	61	40	51	1	35	43	14	0	0501	1901	BR	0	M	0.0	0.00	28.36	30.15	7.4	35	8.4	26	010	17	330	30	
	54.8	37.5	46.2		M	M	18.8	0.2	<----Monthly Averages		Totals----->	M	2.6	8.55	28.17	29.92	2.4	23	9.4	<Monthly Average						

Degree Days				Monthly	Season to Date	Greatest 24-hr Precipitation: 1.66 Date: 25-26				Sea Level	Pressure	Date	Time		
				Total	Departure	Total	Departure	Greatest 24-hr Snowfall: 0.9 Date: 05+				Maximum	30.47	22	0713
Heating:				565	-52	6867	12	Greatest Snow Depth: T Date: 02+				Minimum	29.26	05	0253
Cooling:				5	1	5	0								

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 05/2011

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

Lat. 42.208 Lon. -75.981

Elevation(Ground): 1595 ft. above sea level

Date	Temperature (Fahrenheit)							Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground (In)	Precipitation (In)	Pressure (inches of Hg)	Wind: Speed=mph Dir=tens of degrees					Data				
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST	1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	Dir	max 2-minute Speed	Dir		
	1	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20	21	22	23	24	25	
01	67	42	55	5	36	46	10	0	0500	1902	0	M	0.0	0.00	28.48	30.23	5.9	18	7.8	21	150	16	220	01	
02	63	50	57	7	48	51	8	0	0459	1903	RA BR HZ	0	M	0.0	0.07	28.38	30.14	4.1	19	7.6	22	150	14	350	02
03	60	41	51	0	48	50	14	0	0457	1904	RA BR HZ	0	M	0.0	1.89	28.31	30.04	1.8	35	5.9	22	260	17	260	03
04	44	38	41*	-10	37	39	24	0	0456	1905	RA BR	0	M	0.0	0.38	28.30	30.07	9.9	32	10.1	24	360	18	350	04
05	54	36*	45	-7	28	38	20	0	0455	1906		0	M	0.0	0.02	28.27	30.02	10.2	31	10.9	37	320	26	320	05
06	63	39	51	-1	30	43	14	0	0454	1907		0	M	0.0	0.00	28.15	29.88	7.9	24	8.9	23	240	18	260	06
07	62	45	54	1	40	46	11	0	0452	1908	RA VCTS	0	M	0.0	T	28.14	29.88	4.3	25	4.7	24	220	18	270	07
08	61	41	51	-2	39	46	14	0	0451	1909	BR	0	M	0.0	0.00	28.22	29.97	5.2	34	6.0	21	340	15	350	08
09	63	45	54	1	36	45	11	0	0450	1911		0	M	0.0	0.00	28.30	30.05	10.9	36	11.4	29	360	21	360	09
10	69	43	56	2	32	45	9	0	0449	1912		0	M	0.0	0.00	28.31	30.05	4.7	02	6.3	21	030	13	350	10
11	72	47	60	6	41	50	5	0	0448	1913		0	M	0.0	0.00	28.35	30.08	5.0	08	5.8	21	020	14	040	11
12	75	49	62	7	43	53	3	0	0447	1914		0	M	0.0	0.00	28.28	30.00	2.0	15	3.1	12	110	9	250	12
13	68	54	61	5	52	56	4	0	0445	1915	BR HZ	0	M	0.0	T	28.14	29.84	9.4	17	9.9	21	160	15	150	13
14	59	56	58	2	55	56	7	0	0444	1916	RA BR	0	M	0.0	T	28.04	29.74	7.4	17	7.9	18	150	13	160	14
15	61	48	55	-1	M	M	10	0	0443	1917	RA FG+ BR	0	M	0.0	0.41	27.89	M	2.1	15	5.5	14	150	10	280	15
16	52	47	50	-7	M	M	15	0	0442	1918	RA FG+ BR	0	M	0.0	0.11	28.00	M	4.5	31	4.8	13	290	10	280	16
17	60	48	54	-3	M	M	11	0	0441	1919	RA BR	0	M	0.0	0.17	28.18	M	8.8	10	9.8	24	130	20	120	17
18	66	55	61	4	56	57	4	0	0441	1920	RA BR	0	M	0.0	0.71	28.23	29.96	10.2	11	10.9	25	100	20	110	18
19	64	53	59	2	55	56	6	0	0440	1921	RA BR	0	M	0.0	0.73	28.26	M	3.6	13	4.7	24	250	17	240	19
20	69	50	60	2	M	M	5	0	0439	1922	TSRA RA BR VCTS	0	M	0.0	0.24	28.25	M	4.0	36	5.7	24	010	18	130	20
21	75	51	63	5	56	59	2	0	0438	1923	BR HZ	0	M	0.0	0.00	28.27	30.01	3.5	36	4.8	16	010	13	010	21
22	69	54	62	4	56	58	3	0	0437	1924	RA BR HZ	0	M	0.0	T	28.32	30.05	8.4	15	9.1	21	150	15	170	22
23	68	55	62	3	M	M	3	0	0436	1925	RA BR HZ	0	M	0.0	0.02	28.18	M	9.0	17	9.1	23	190	16	170	23
24	73	54	64	5	57	60	1	0	0435	1926	RA BR	0	M	0.0	0.11	28.06	29.80	5.9	27	8.8	24	260	18	260	24
25	74	50	62	3	52	56	3	0	0435	1927	BR HZ	0	M	0.0	0.00	28.22	29.94	0.8	12	3.8	21	190	14	180	25
26	83	59	71	12	62	65	0	6	0434	1928	TSRA RA BR HZ VCTS	0	M	0.0	0.68	28.13	29.84	8.4	20	9.4	59	230	39	250	26
27	76	60	68	8	60	62	0	3	0433	1928	TSRA RA BR HZ VCTS	0	M	0.0	1.62	28.22	29.95	4.6	22	6.6	30	210	21	220	27
28	76	60	68	8	60	63	0	3	0433	1929	RA BR	0	M	0.0	T	28.26	29.97	8.1	19	8.7	28	220	20	210	28
29	83	65	74	14	64	67	0	9	0432	1930	RA BR HZ VCTS	0	M	0.0	0.00	28.33	30.03	7.7	20	8.0	22	230	16	230	29
30	80	63	72	12	64	67	0	7	0432	1931	TSRA RA BR HZ	0	M	0.0	0.32	28.40	30.14	3.8	30	5.2	21	340	15	330	30
31	87*	62	75*	15	66	70	0	10	0431	1932	BR HZ	0	M	0.0	0.00	28.48	30.18	2.1	22	3.6	13	260	10	260	31
	67.6	50.3	59.0		M	M	7.0	1.2	<----Monthly Averages Totals---->					M	0.0	7.48	M	M	1.3	20	7.3	<Monthly Average			
	2.0	4.1	3.1		<-----Departure From Normal----->							3.93													
Degree Days			Monthly	Season to Date																					
Total	Heating:	217	-75	7084	-63													Greatest 24-hr Precipitation: 2.26 Date: 03-04	Sea Level	Pressure	Date	Time (LST)			
Cooling:		38	15	43	15													Greatest 24-hr Snowfall: 0.0 Date: M	Maximum	30.28	01	0653			
																		Greatest Snow Depth: 0 Date: M	Minimum	29.53	15	1453			

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 06/2011

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

Lat. 42.208 Lon. -75.981

Elevation(Ground): 1595 ft. above sea level

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 07/2011

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

Lat. 42.208 Lon. -75.981

Elevation(Ground): 1595 ft. above sea level

Date	Temperature (Fahrenheit)						Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground (In)	Precipitation (In)	Pressure (inches of Hg)	Wind: Speed=mph Dir=tens of degrees					Data												
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	Dir	max 2-minute Speed	Dir								
	1	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26							
01	77	51*	64*	-3	52	58	1	0	0431	1944		0	M	0.0	0.00	28.33	30.07	4.1	33	5.2	21	350	15	350	01							
02	82	56	69	1	55	61	0	4	0432	1944	BR	0	M	0.0	0.00	28.34	30.04	2.9	22	4.1	15	240	12	250	02							
03	83	67	75	7	62	66	0	10	0432	1944	BR	0	M	0.0	T	28.19	29.88	5.1	28	6.4	22	300	17	300	03							
04	81	61	71	3	53	60	0	6	0433	1944		0	M	0.0	0.00	28.20	29.90	5.6	29	6.2	20	340	14	320	04							
05	81	57	69	1	52	60	0	4	0434	1943		0	M	0.0	0.00	28.25	29.97	3.7	28	4.3	15	300	10	310	05							
06	86	63	75	7	58	64	0	10	0434	1943	RA BR	0	M	0.0	0.09	28.24	29.93	5.4	26	7.1	31	010	23	360	06							
07	80	62	71	3	58	63	0	6	0435	1943	BR	0	M	0.0	T	28.27	29.97	2.3	36	4.1	16	350	10	360	07							
08	78	60	69	0	62	64	0	4	0436	1942	RA BR VCTS	0	M	0.0	T	28.17	29.86	2.8	12	4.8	14	100	10	130	08							
09	78	60	69	0	54	60	0	4	0436	1942	BR	0	M	0.0	0.00	28.22	29.96	8.0	34	8.4	24	350	17	360	09							
10	84	56	70	1	54	61	0	5	0437	1942		0	M	0.0	0.00	28.35	30.06	2.3	22	3.0	16	240	13	210	10							
11	86	68	77	8	64	69	0	12	0438	1941	HZ	0	M	0.0	T	28.20	M	7.5	22	8.0	20	270	15	220	11							
12	87	69	78	9	61	67	0	13	0438	1941		0	M	0.0	0.00	28.07	29.77	8.9	30	9.6	25	330	18	280	12							
13	79	59	69	0	55	60	0	4	0439	1940	RA	0	M	0.0	0.02	28.15	29.87	7.9	33	8.6	31	010	23	350	13							
14	78	56	67	-2	51	58	0	2	0440	1940		0	M	0.0	0.00	28.33	30.06	6.5	36	7.4	22	020	16	010	14							
15	82	57	70	1	51	59	0	5	0441	1939		0	M	0.0	0.00	28.38	30.10	1.4	06	2.8	29	300	13	360	15							
16	85	59	72	3	52	61	0	7	0442	1938		0	M	0.0	T	28.43	30.14	5.0	22	5.6	17	220	13	210	16							
17	89	65	77	8	56	64	0	12	0442	1938		0	M	0.0	0.00	28.42	30.11	5.1	23	5.8	17	270	13	270	17							
18	85	65	75	6	65	68	0	10	0443	1937	TSRA RA BR HZ VCTS	0	M	0.0	0.72	28.27	29.95	3.8	25	5.6	68	020	47	020	18							
19	85	65	75	6	64	68	0	10	0444	1936	TSRA RA BR	0	M	0.0	0.07	28.19	29.88	2.1	01	3.8	14	040	12	260	19							
20	90	65	78	9	66	70	0	13	0445	1936	BR	0	M	0.0	0.00	28.19	29.87	4.1	21	5.0	26	320	13	250	20							
21	95*	72	84	15	70	74	0	19	0446	1935	BR HZ	0	M	0.0	0.00	28.10	29.78	7.1	23	8.1	25	260	18	250	21							
22	93	77	85*	16	63	70	0	20	0447	1934		0	M	0.0	0.00	28.20	29.90	2.3	32	6.0	18	320	12	260	22							
23	91	72	82	13	65	70	0	17	0448	1933	RA	0	M	0.0	0.00	28.26	29.95	5.1	29	5.8	20	270	16	270	23							
24	85	67	76	7	65	69	0	11	0449	1932	BR	0	M	0.0	0.16	28.27	29.97	4.8	34	6.9	18	350	15	360	24							
25	75	64	70	1	63	65	0	5	0450	1931	RA BR	0	M	0.0	0.14	28.17	29.85	3.1	20	5.1	M	M	10	260	25							
26	82	61	72	3	60	64	0	7	0451	1930	BR	0	M	0.0	0.14	28.06	29.76	5.3	28	7.5	30	250	24	250	26							
27	79	59	69	0	56	61	0	4	0452	1930		0	M	0.0	0.00	28.23	29.96	5.1	31	5.9	26	290	14	330	27							
28	75	60	68	-1	60	63	0	3	0453	1929		0	M	0.0	T	28.33	30.04	4.0	19	4.4	15	220	12	230	28							
29	84	65	75	6	67	69	0	10	0454	1928	RA BR	0	M	0.0	0.06	28.22	29.91	5.7	26	7.6	35	280	24	270	29							
30	84	64	74	5	58	64	0	9	0455	1926		0	M	0.0	0.00	28.30	30.02	7.3	33	8.2	25	360	18	360	30							
31	84	58	71	2	59	64	0	6	0456	1925		M	M	M	T	28.36	30.06	4.9	25	5.6	26	230	15	230	31							
	84.6	64.5	74.6		59.1	64.3	0.0	8.1	<----Monthly Averages Totals---->					M	M	0.20s	28.25	29.95	3.0	28	6.0	<Monthly Average										
	6.5	5.3	5.9		<-----Departure From Normal----->					-3.29																						
Degree Days				Monthly	Season to Date											Greatest 24-hr Precipitation: 0.14s Date: 26		Sea Level Pressure Date (LST)														
				Total	Departure	Total	Departure											Greatest 24-hr Snowfall: M Date: M		Maximum 30.18 16 1015												
				Heating:	1	-21	1	-21											Greatest Snow Depth: M Date: M		Minimum 29.68 26 1239											
				Cooling:	252	99	378	124																								

**QUALITY CONTROLLED LOCAL
CLIMATOLOGICAL DATA**
(may be updated)

Month: 08/2011

The author would like to thank the anonymous reviewers for their valuable comments and suggestions.

Month: 08/2011

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

Lat. 42.208 Lon. -75.981

Elevation(Ground): 1595 ft. above sea level

D a t e	Temperature (Fahrenheit)						Degree Days Base 65 Degrees		Sun		Significant Weather	Snow/Ice on Ground(ln)		Precipitation (In)		Pressure(inches of Hg)				Wind: Speed=mph Dir=tens of degrees				D a t e	
	Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Heating	Cooling	Sunrise LST	Sunset LST		1200 UTC	1800 UTC	2400 LST	2400 LST	Avg. Station	Avg. Sea Level	Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	Dir	max 2-minute Speed	Dir	
	1	2	3	4	5	6	7	8	9	10	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
01	88*	64	76*	7	63	67	0	11	0457	1924	TS BR VCTS	M	M	M	0.28	28.22	29.91	5.0	28	7.2	25	350	16	350	01
02	83	62	73	4	54	61	0	8	0458	1923		M	M	M	0.00	28.12	29.80	6.5	31	8.1	28	290	20	290	02
03	73	61	67	-1	60	63	0	2	0459	1922	RA BR	M	M	M	0.86	28.04	29.74	3.5	14	4.6	20	140	15	140	03
04	75	63	69	1	63	65	0	4	0460	1921	RA BR	M	M	M	0.12	28.21	29.95	2.8	13	5.2	31s	200	10	120	04
05	81	59	70	2	M	M	0	5	0501	1920	BR	M	M	M	0.00	28.36	M	3.5	21	4.2	17	230	14	240	05
06	70	65	68	0	65	66	0	3	0502	1918	RA BR	M	M	M	0.33	28.27	29.95	6.0	17	6.3	20	170	14	150	06
07	80	67	74	6	69	70	0	9	0503	1917	RA BR HZ	M	M	M	1.74	28.02	29.70	3.5	21	5.0	31s	180	18	180	07
08	78	66	72	4	65	67	0	7	0504	1916	RA BR HZ	M	M	M	T	27.97	29.67	5.9	33	6.9	24	340	17	330	08
09	75	63	69	1	64	65	0	4	0505	1915	TS RA BR VCTS	M	M	M	1.27	27.91	29.59	4.3	18	6.3	32	250	23	260	09
10	77	60	69	1	59	62	0	4	0506	1913	BR	M	M	M	0.08	27.94	29.66	6.8	27	8.1	30	300	24	270	10
11	72	54	63	-5	50	56	2	0	0507	1912		M	M	M	0.00	28.15	29.88	6.1	29	6.6	24	290	20	270	11
12	78	52	65	-2	53	58	0	0	0508	1911		M	M	M	0.00	28.32	30.04	3.9	26	4.9	21	090	14	240	12
13	77	58	68	1	59	62	0	3	0509	1909		M	M	M	0.00	28.33	30.03	5.8	16	6.0	21	160	16	140	13
14	70	64	67	0	64	65	0	2	0510	1908	RA BR	M	M	M	0.32	28.17	29.86	4.8	13	5.4	17	130	14	130	14
15	66	62	64	-3	62	63	1	0	0511	1906	RA BR	M	M	M	0.34	28.06	29.76	6.1	36	6.7	20	340	15	360	15
16	78	61	70	3	58	62	0	5	0512	1905	RA BR	M	M	M	0.18	28.19	29.91	7.9	34	8.5	22	010	18	350	16
17	82	57	70	3	56	61	0	5	0513	1903		M	M	M	0.00	28.40	30.12	5.4	22	5.9	18	250	13	240	17
18	81	61	71	4	58	63	0	6	0514	1902		M	M	M	0.00	28.30	29.99	4.0	24	4.9	15	260	12	260	18
19	80	59	70	4	59	62	0	5	0515	1859	RA BR	M	M	M	0.21	28.22	29.93	2.4	23	4.5	29	270	21	270	19
20	81	54	68	2	M	M	0	3	0516	1857	BR	M	M	M	0.00	28.28	M	2.1	22	3.0	14	190	9	250	20
21	77	58	68	2	62	64	0	3	0517	1856	RA BR HZ	M	M	M	0.23	28.17	29.87	5.0	23	6.6	29	300	20	320	21
22	70	53	62	-4	50	55	3	0	0518	1854		M	M	M	T	28.17	29.92	8.2	30	8.8	28	350	21	340	22
23	74	51	63	-2	51	56	2	0	0519	1853		M	M	M	0.00	28.31	30.04	4.2	26	5.3	17	270	13	270	23
24	76	59	68	3	55	60	0	3	0520	1851		M	M	M	0.00	28.25	29.94	12.1	19	12.2	31	180	21	200	24
25	73	64	69	4	63	65	0	4	0522	1850	RA BR VCTS	M	M	M	0.22	28.15	29.86	4.9	21	7.1	22	190	17	180	25
26	78	61	70	5	61	63	0	5	0523	1848		M	M	M	0.00	28.31	30.02	1.3	01	2.8	12	070	8	340	26
27	78	59	69	4	M	M	0	4	0524	1846	RA BR	M	M	M	0.01	28.19	M	M	4.7	22	170	13	060	27	
28	67	53	60	-5	58	59	5	0	0525	1845	RA BR	M	M	M	2.71	27.80	29.50	13.6	35	17.1	45	360	32	010	28
29	69	48*	59*	-5	48	53	6	0	0526	1843		M	M	M	0.00	28.23	29.99	3.7	31	4.9	25	230	15	310	29
30	76	49	63	-1	51	56	2	0	0527	1842		M	M	M	0.00	28.41	30.15	2.0	26	3.2	23	180	12	320	30
31	76	55	66	2	55	60	0	1	0528	1840		M	M	M	0.00	28.48	30.21	2.7	19	3.0	13	220	10	220	31
	76.1	58.8	77.5		58.4	61.8	0.7	2.4			Monthly Average + Totals	M	M	M	8.01	28.19	29.89	2.1	26	6.2	23	Monthly Average			

Degree Days Monthly Season to Date

Greatest 24-hr Precipitation: 2.72 Date: 27-28

Time

Total Departure Total Departure

Greatest 24-hr Snowfall: M Date: M

(LSI)

Heating: 21 -22 22 -43

Greatest Snow Depth: M Date: M

Maximum 30.26 31 0955

Cooling: 106 -2 484 122

Minimum 29.26 28 1031

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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 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

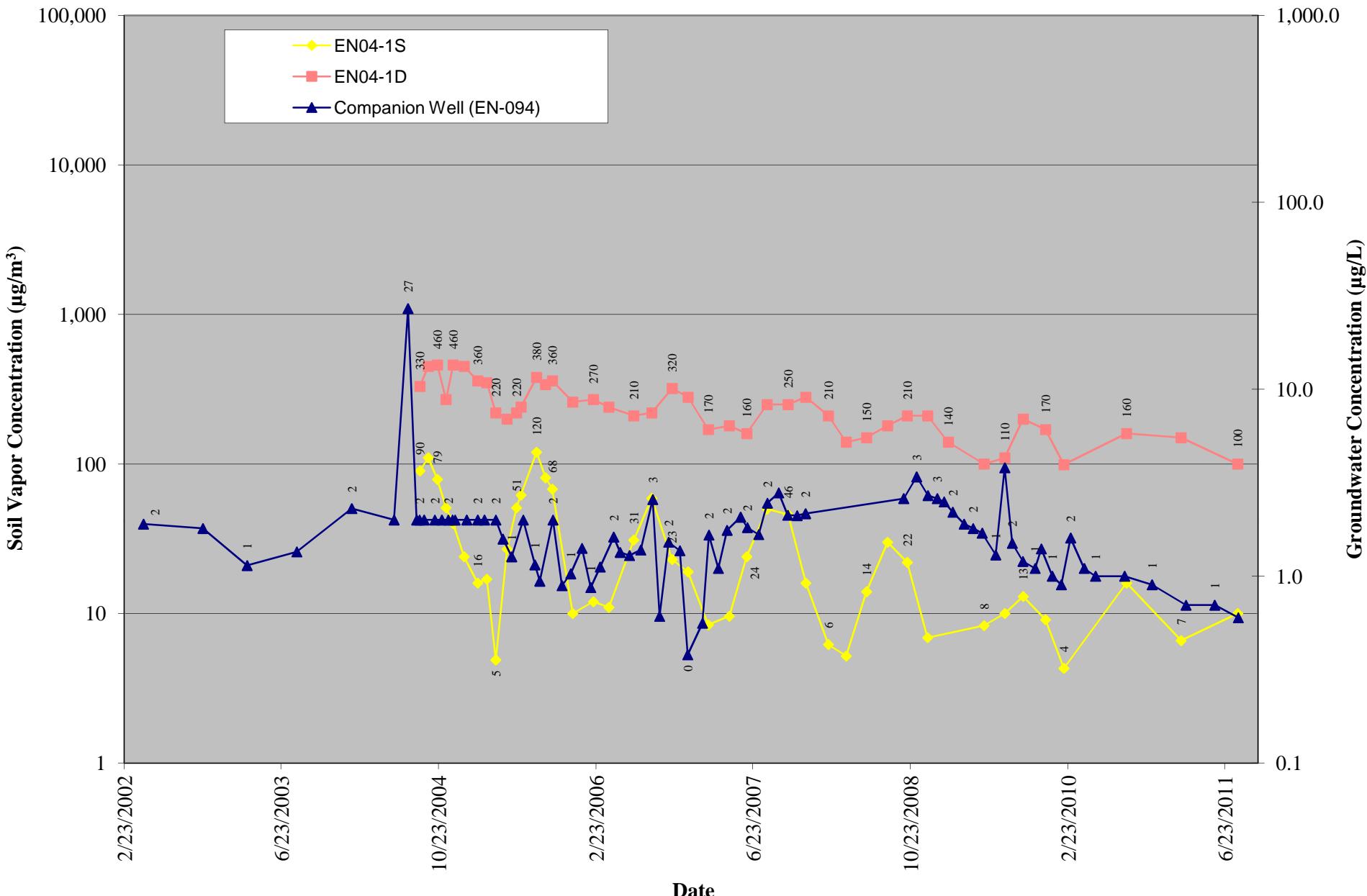


Figure B.2
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

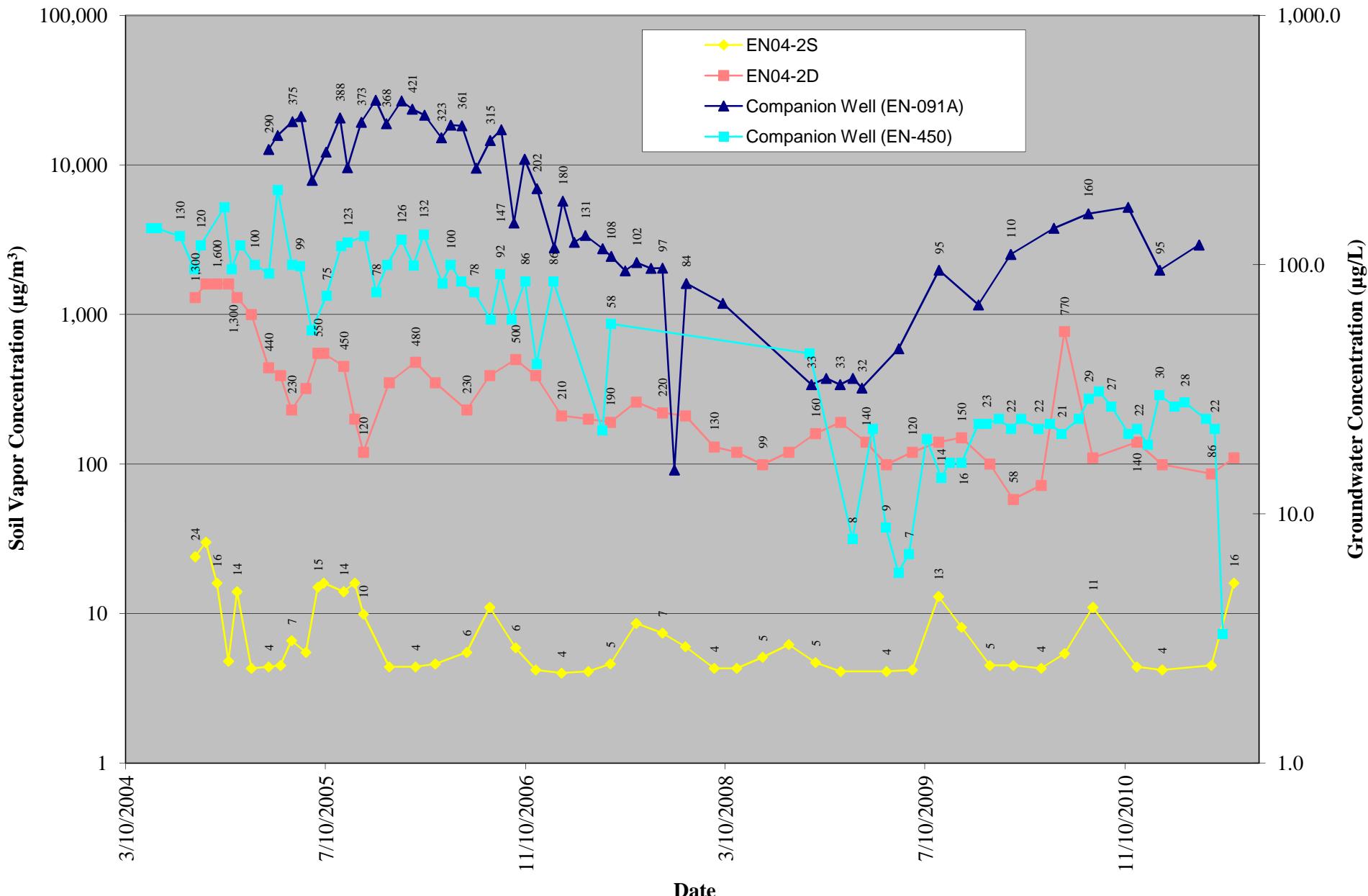


Figure B.3
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

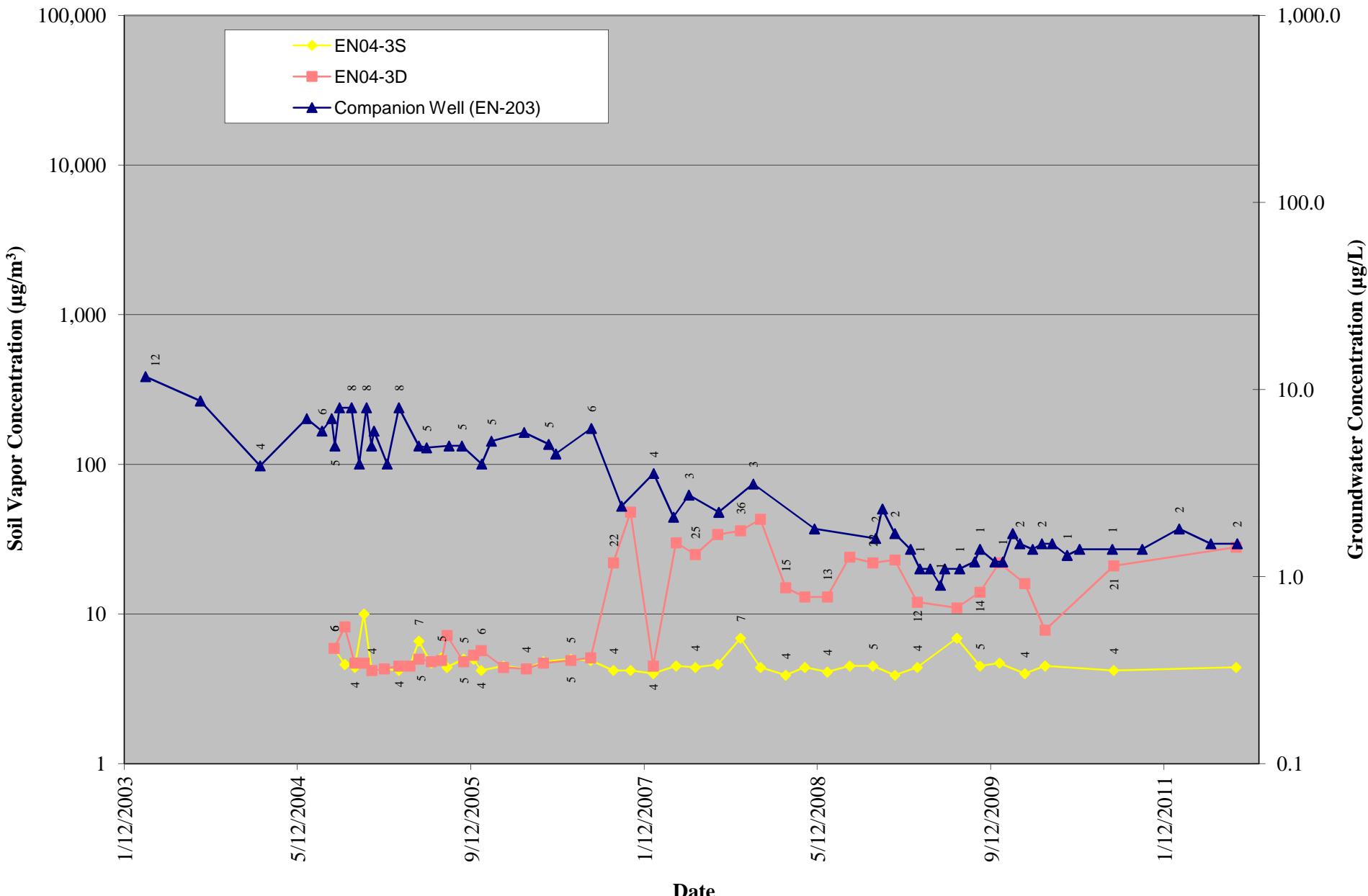


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TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

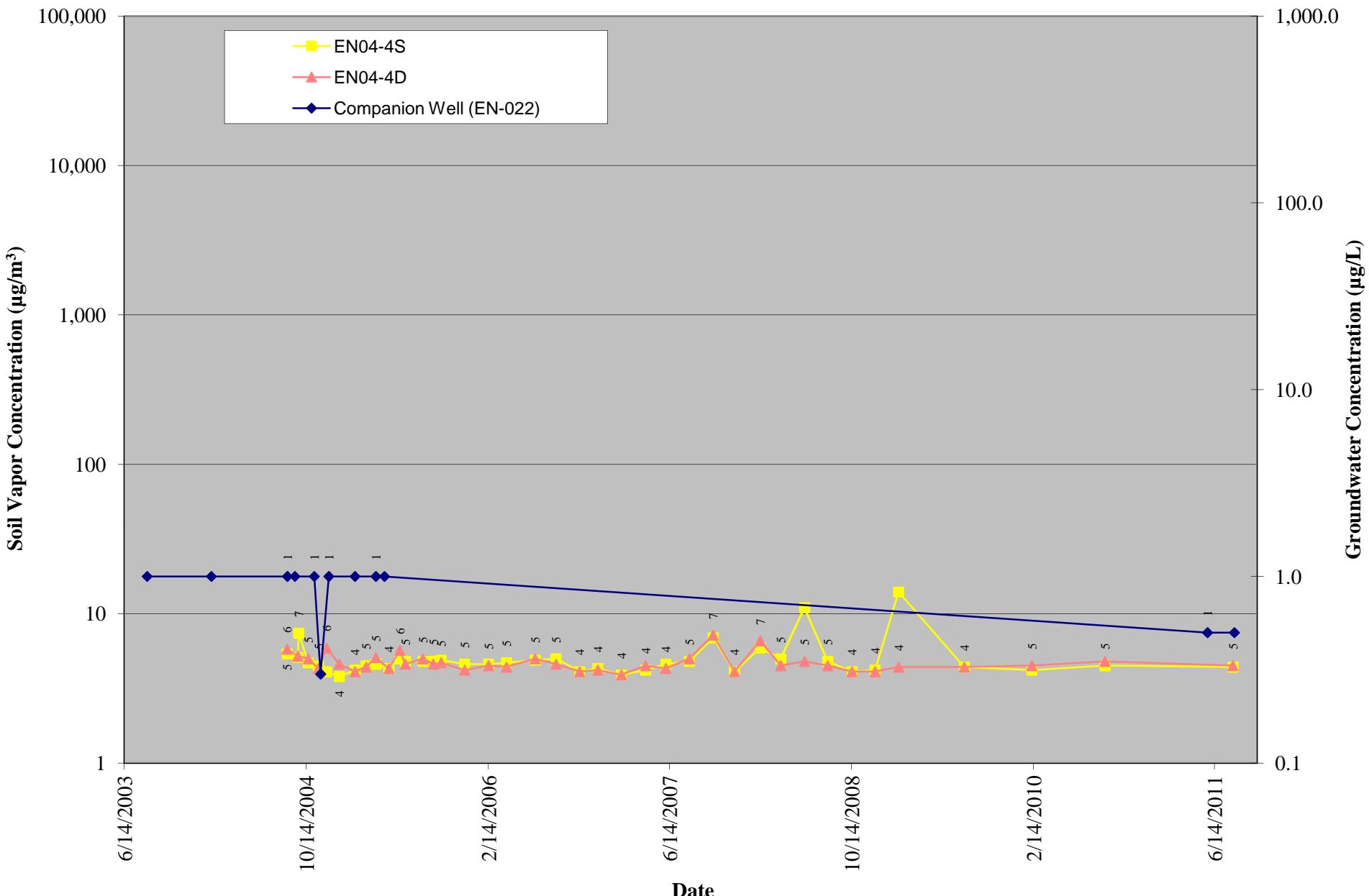


Figure B.5
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

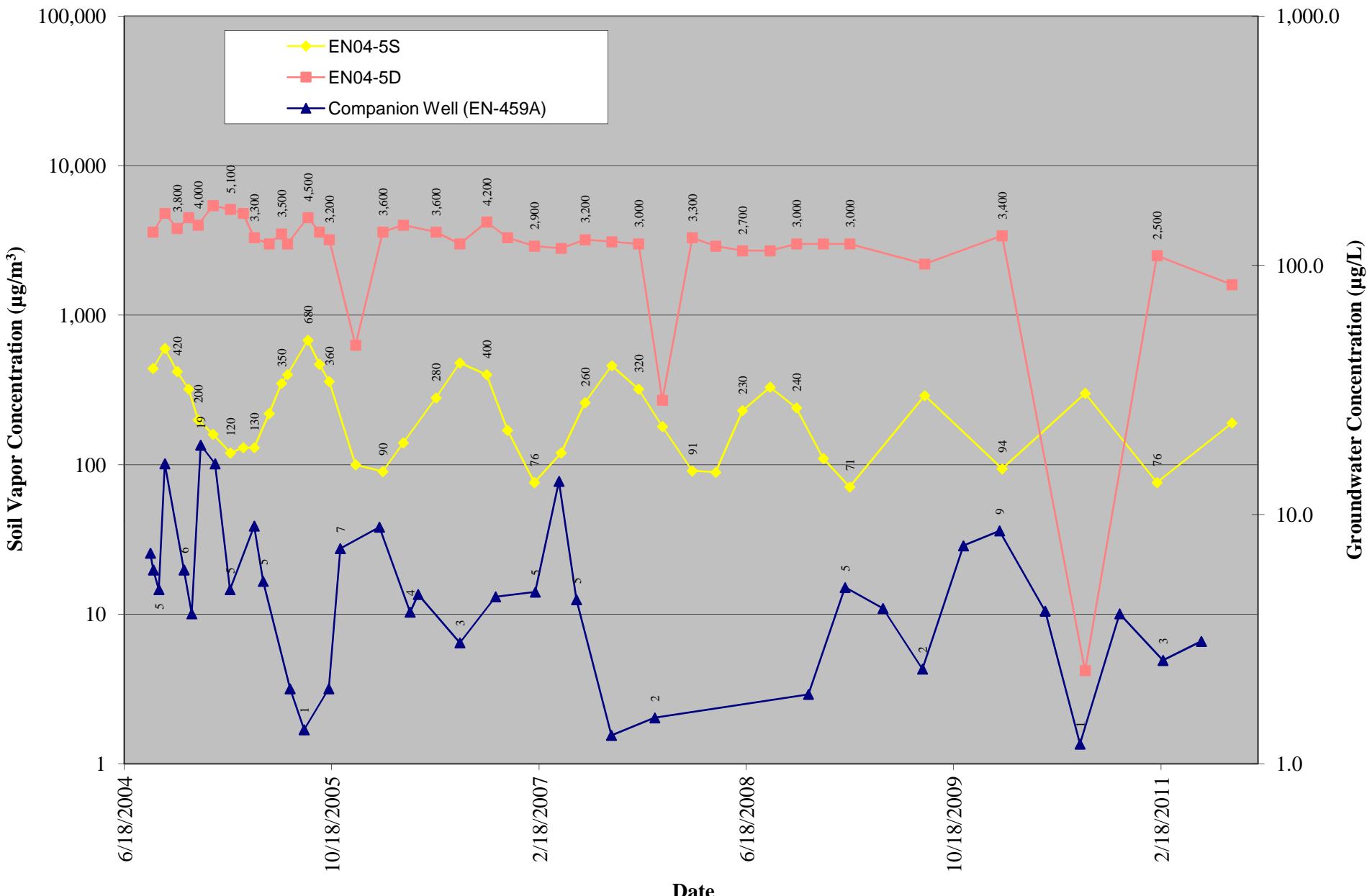


Figure B.6
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

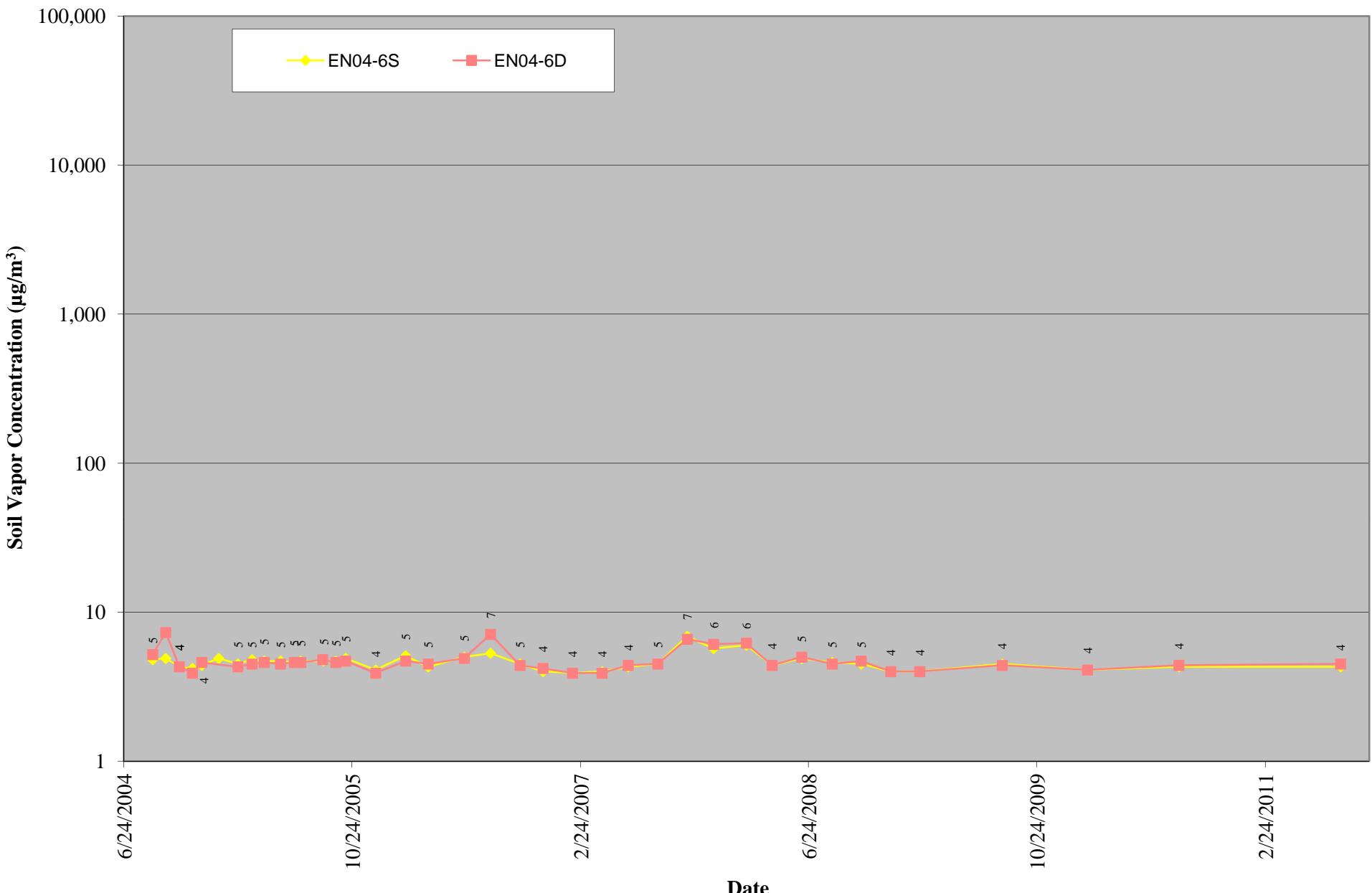


Figure B.7
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

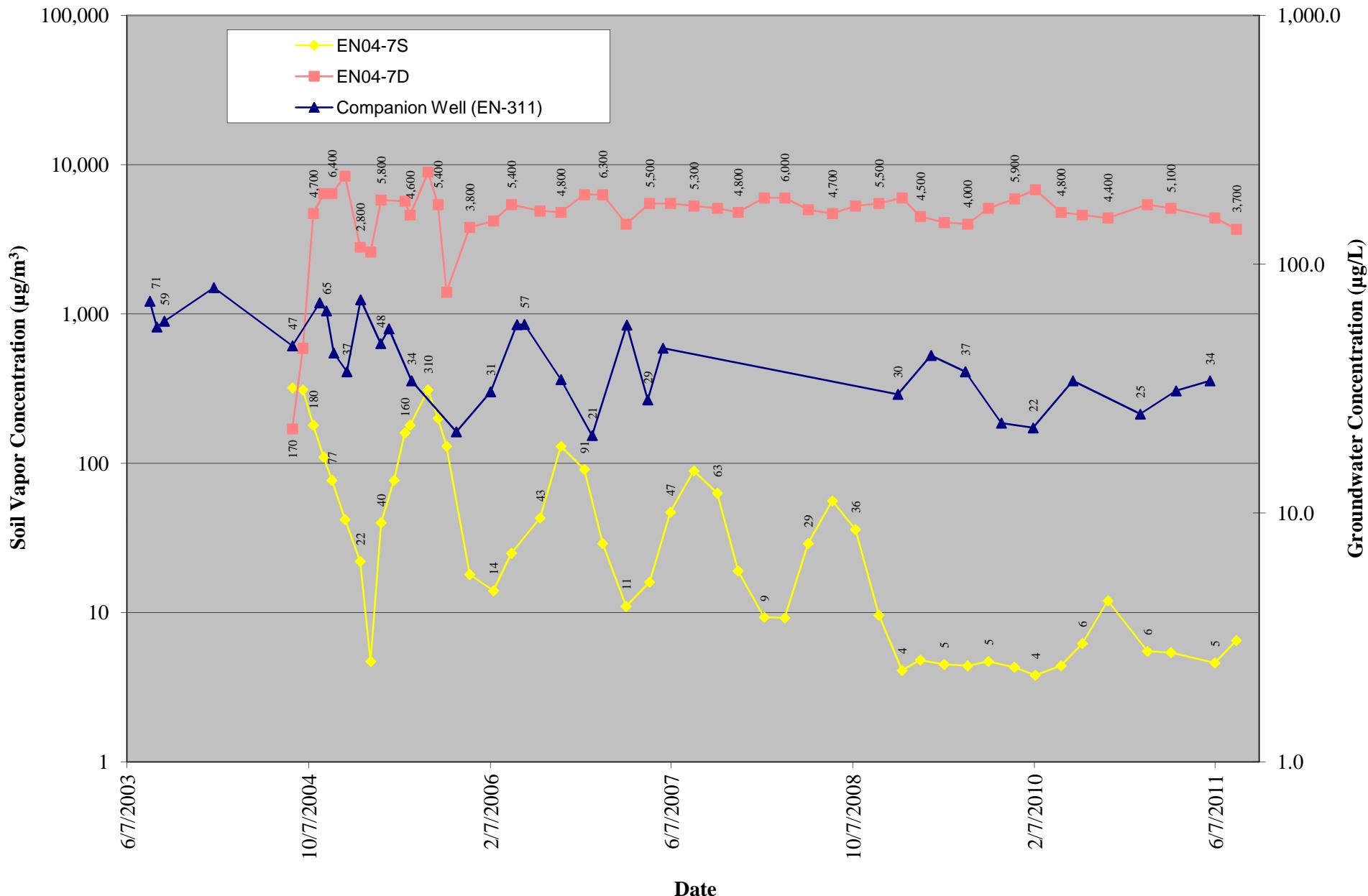


Figure B.8
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

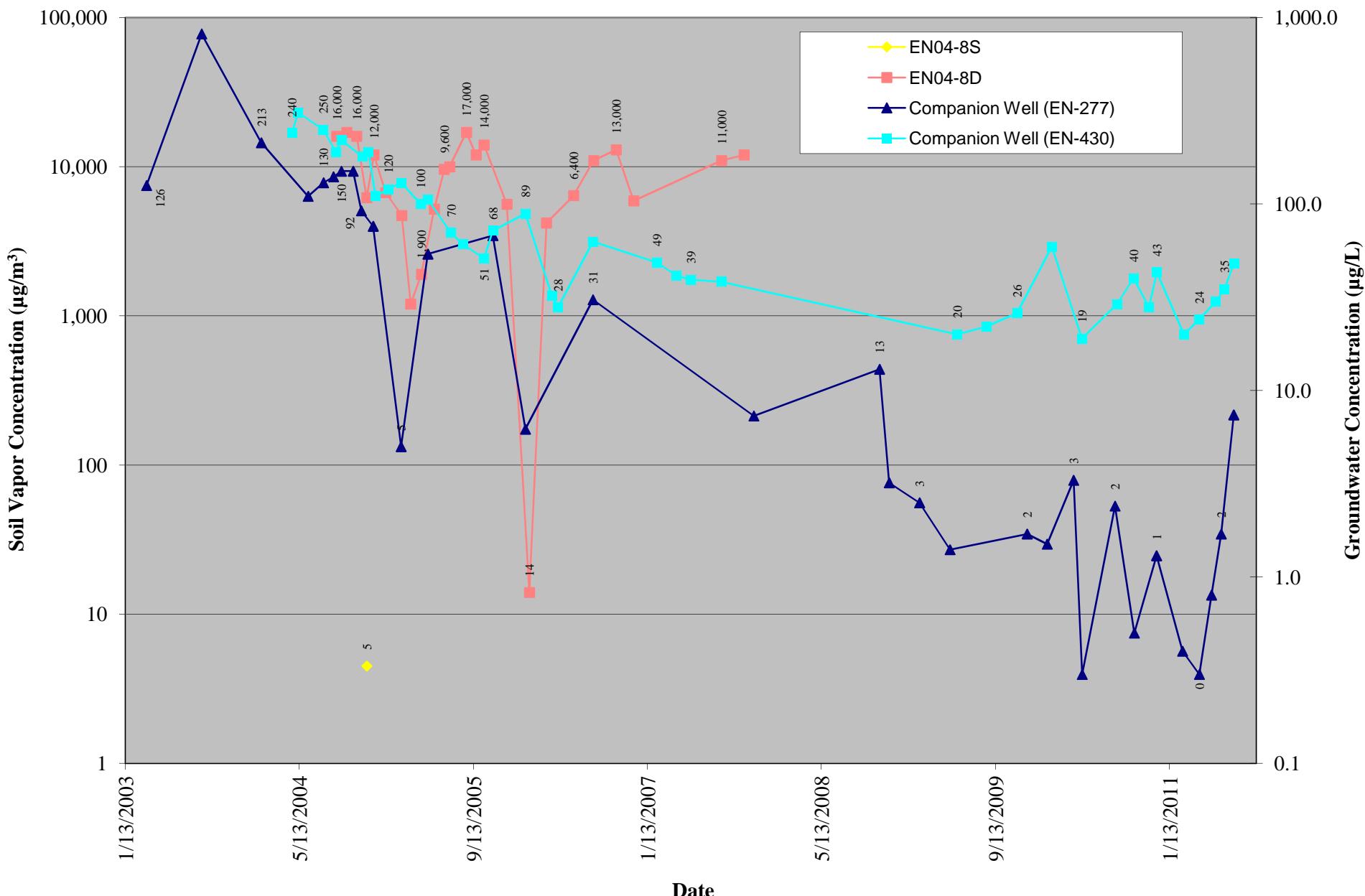


Figure B.9
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

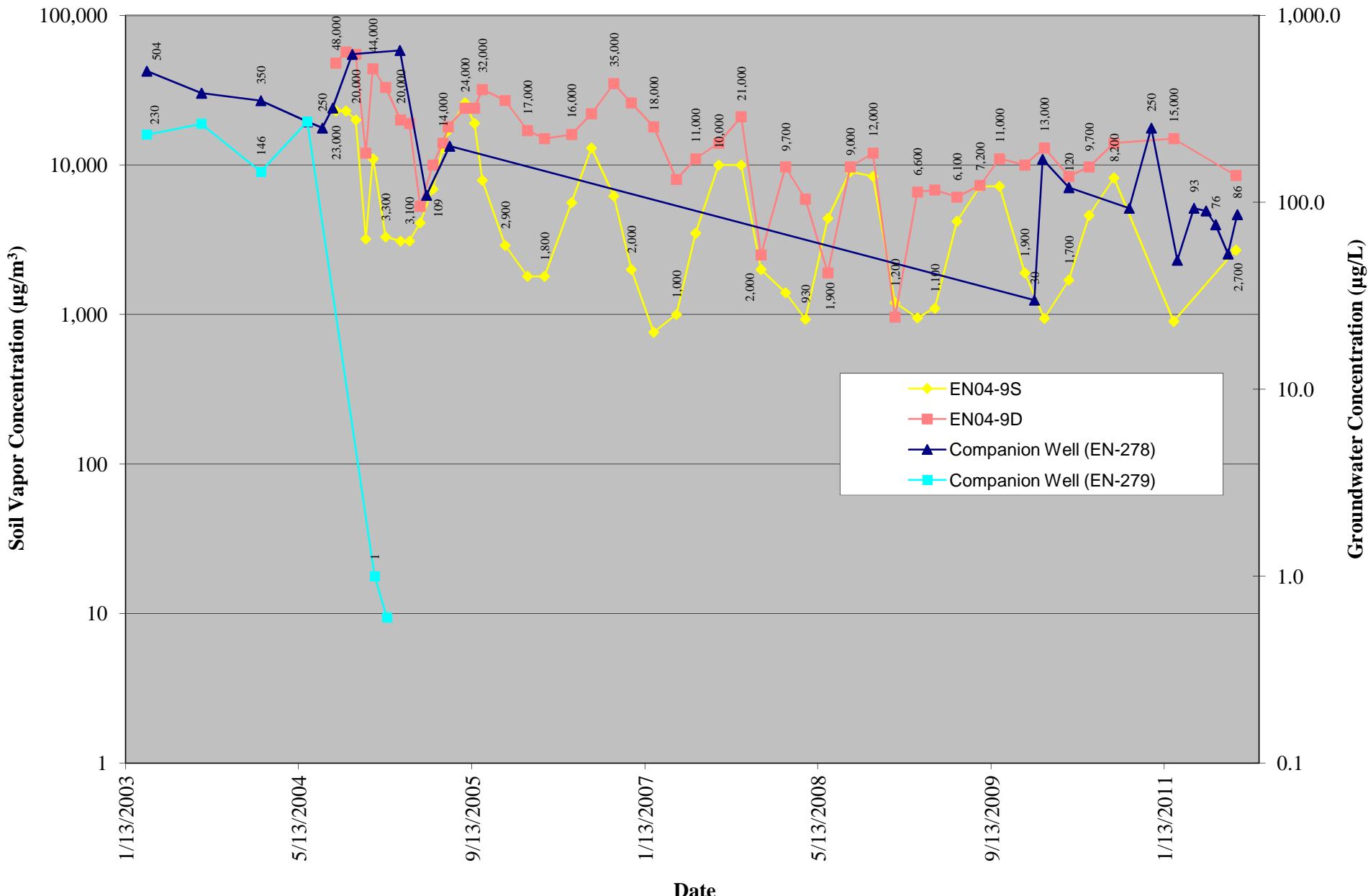


Figure B.10
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

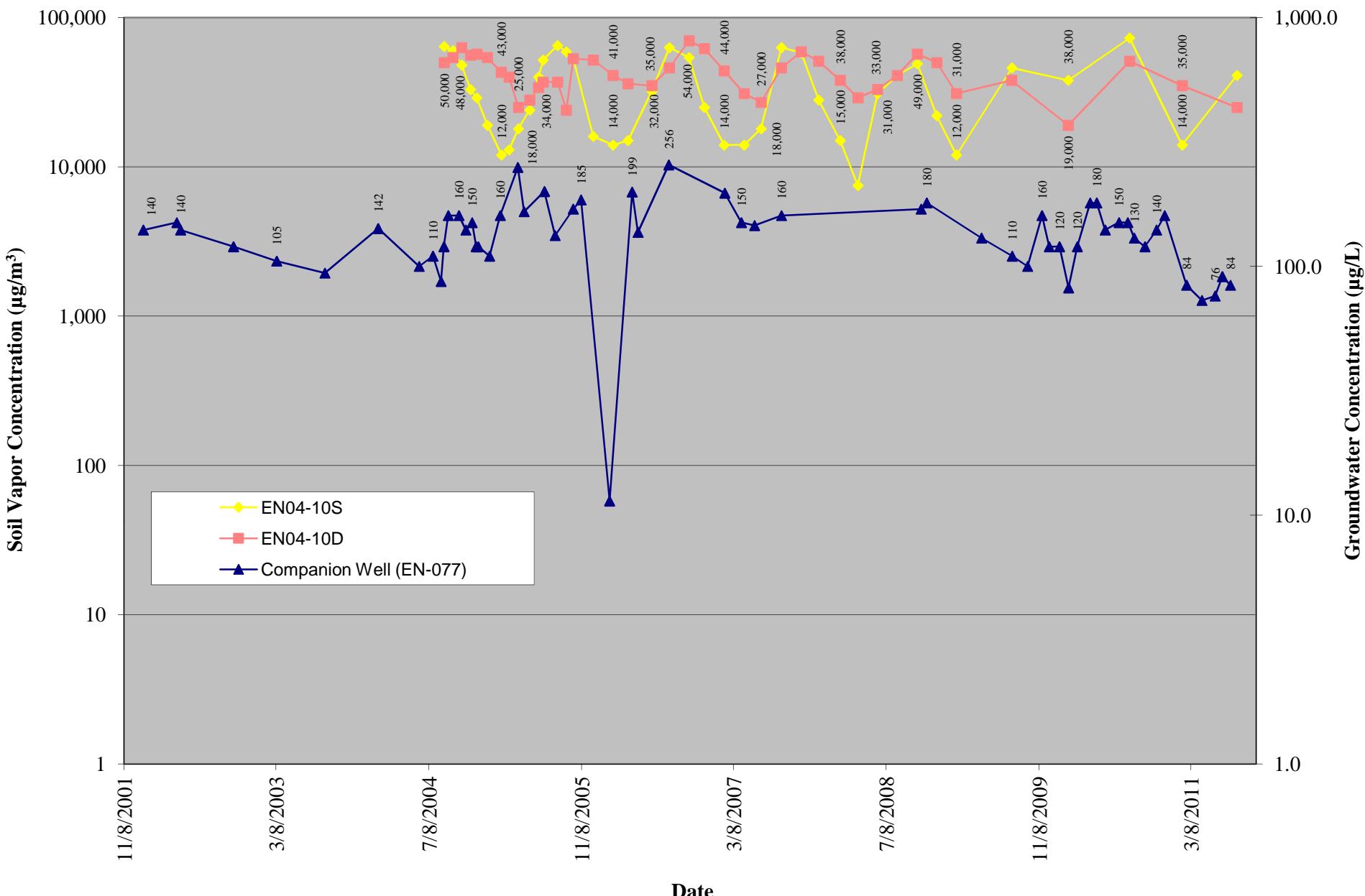


Figure B.11
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

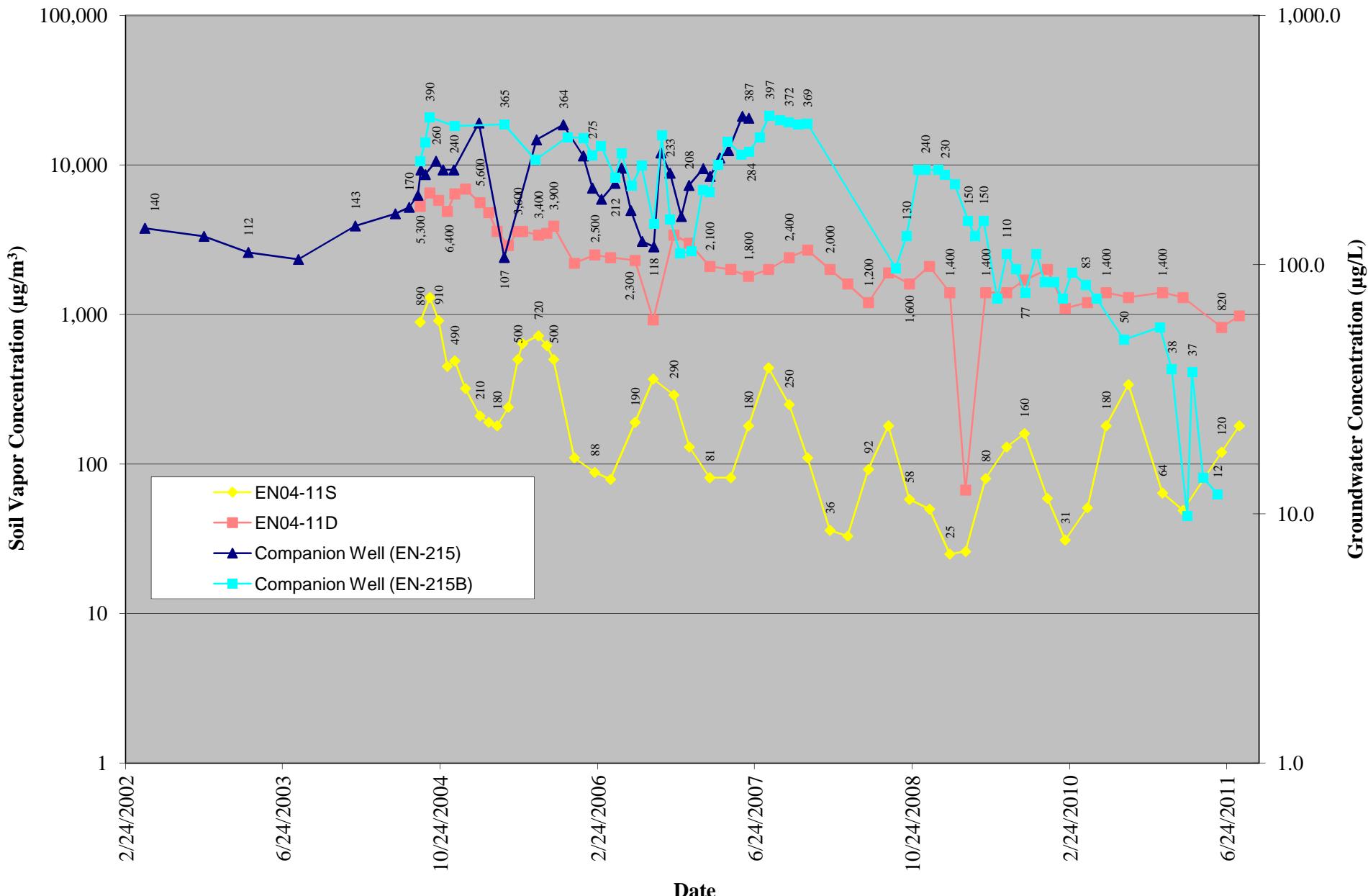


Figure B.12
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

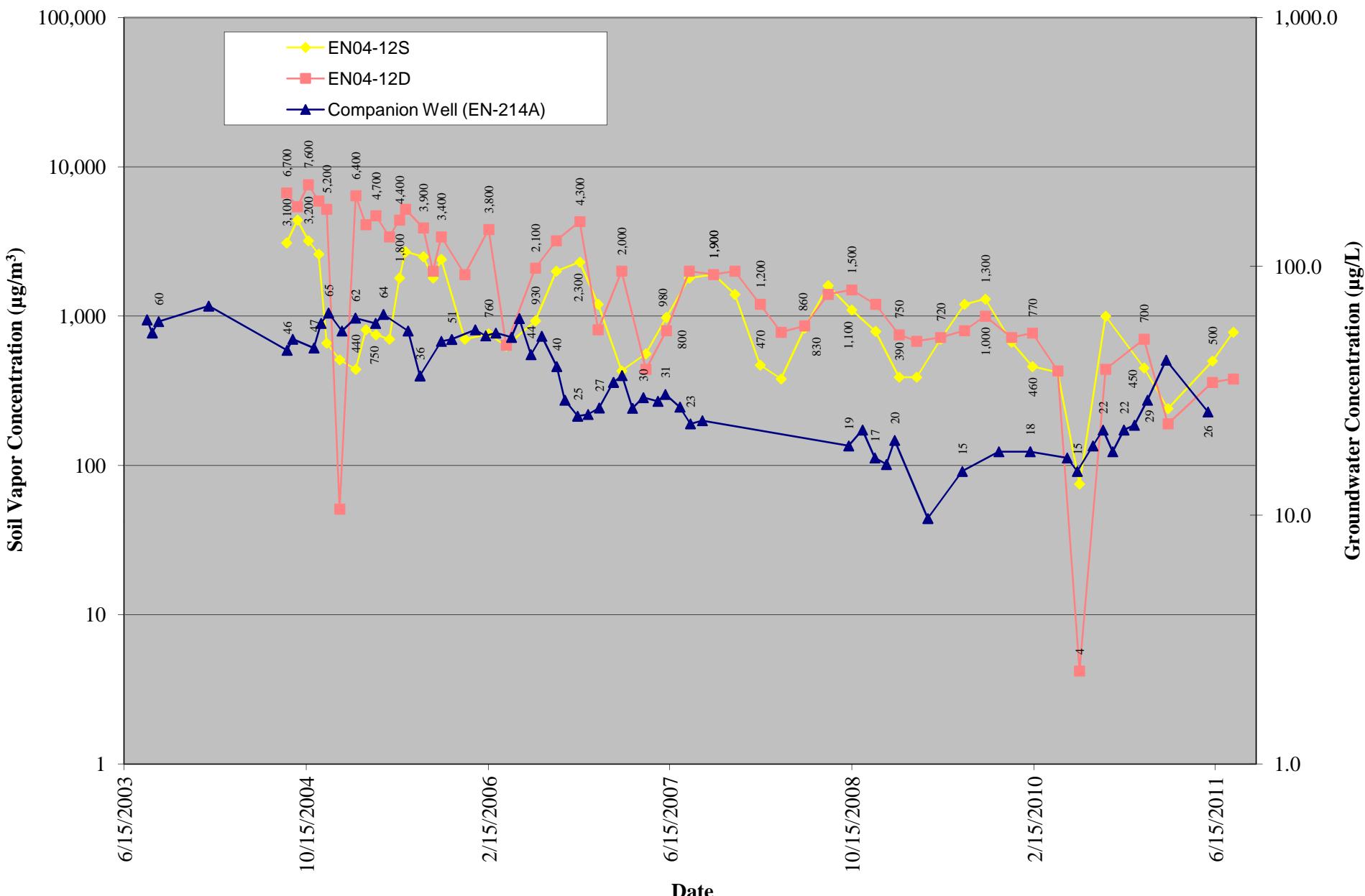


Figure B.13
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

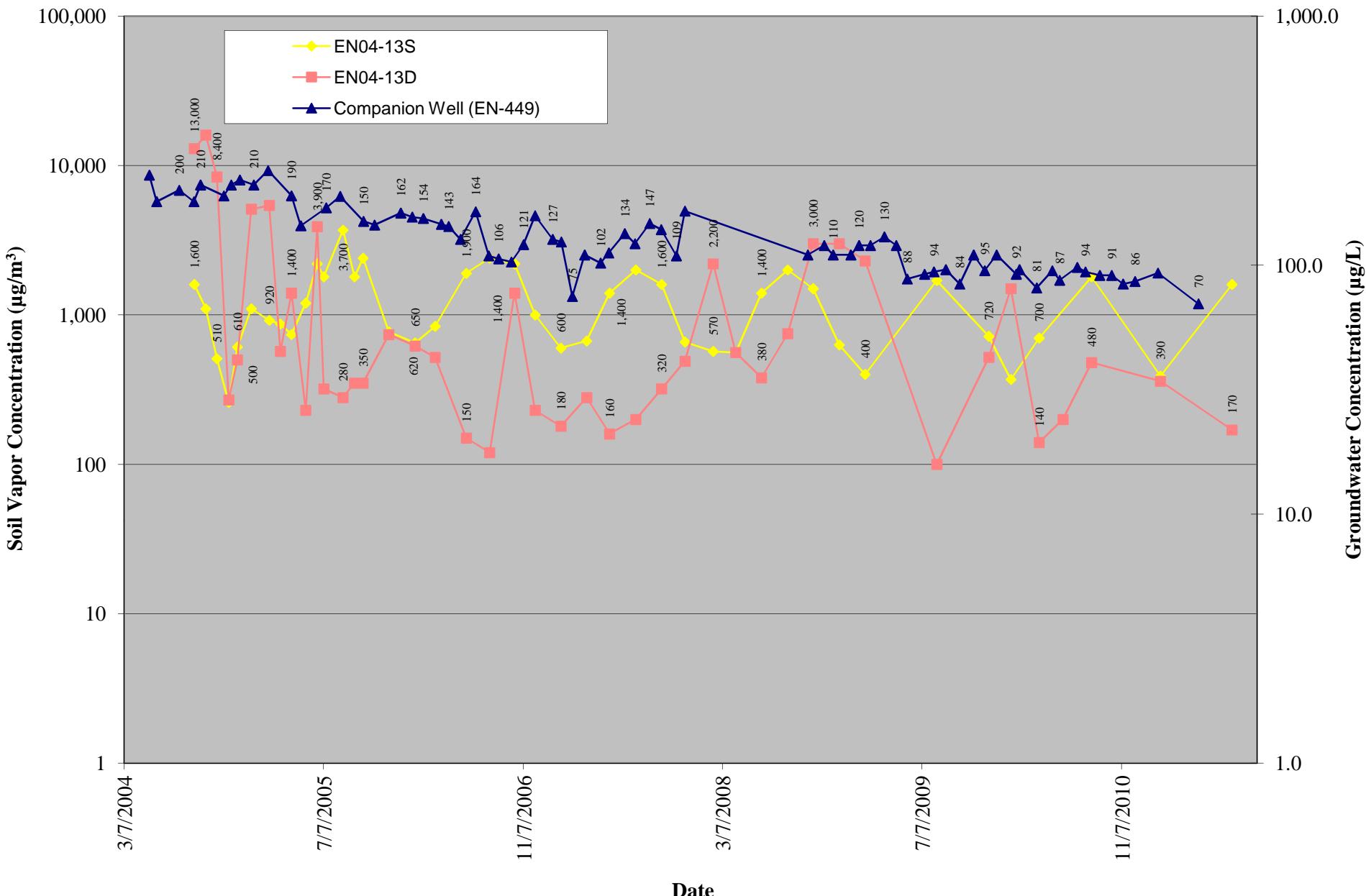


Figure B.14
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

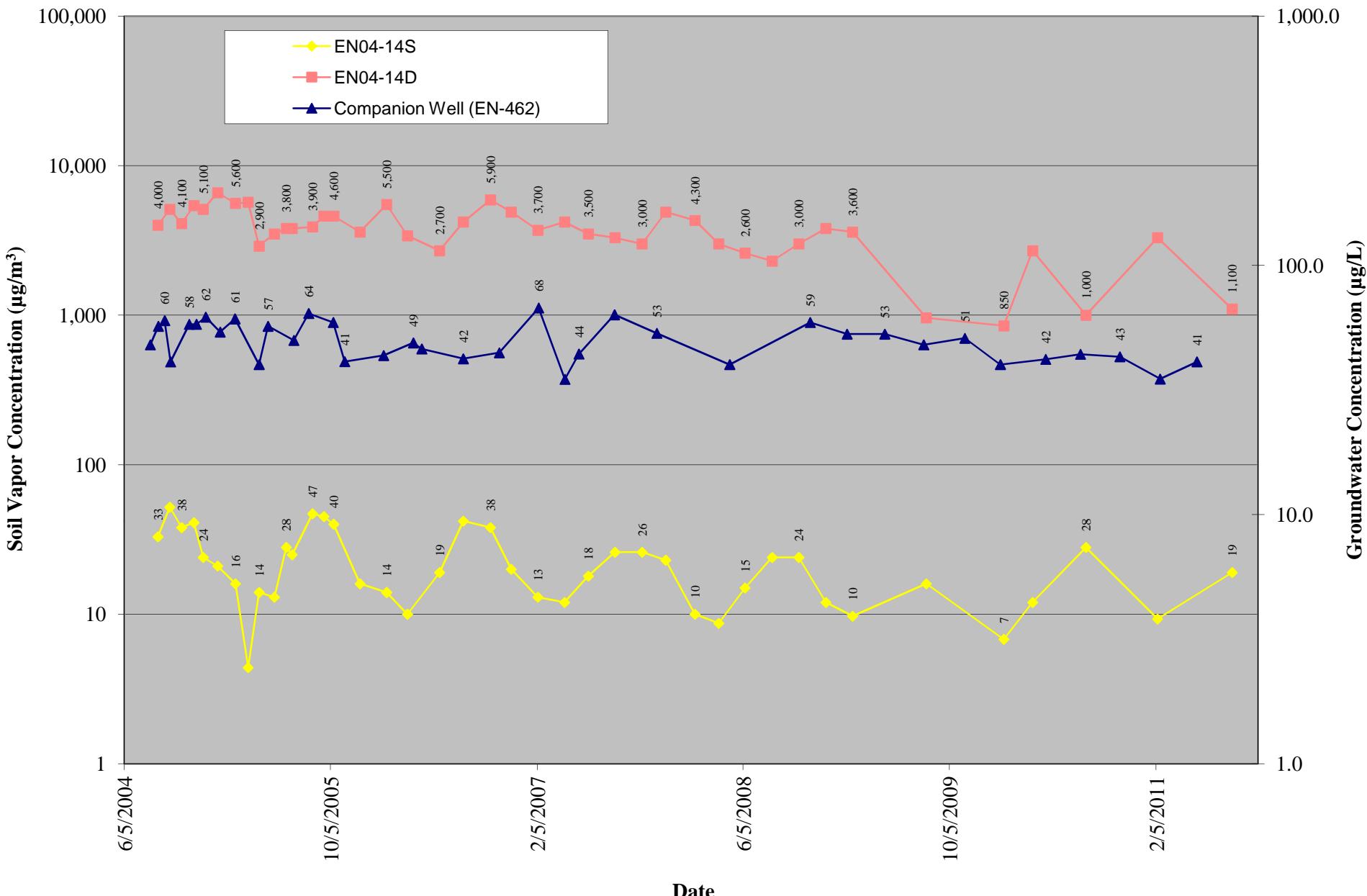


Figure B.15
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

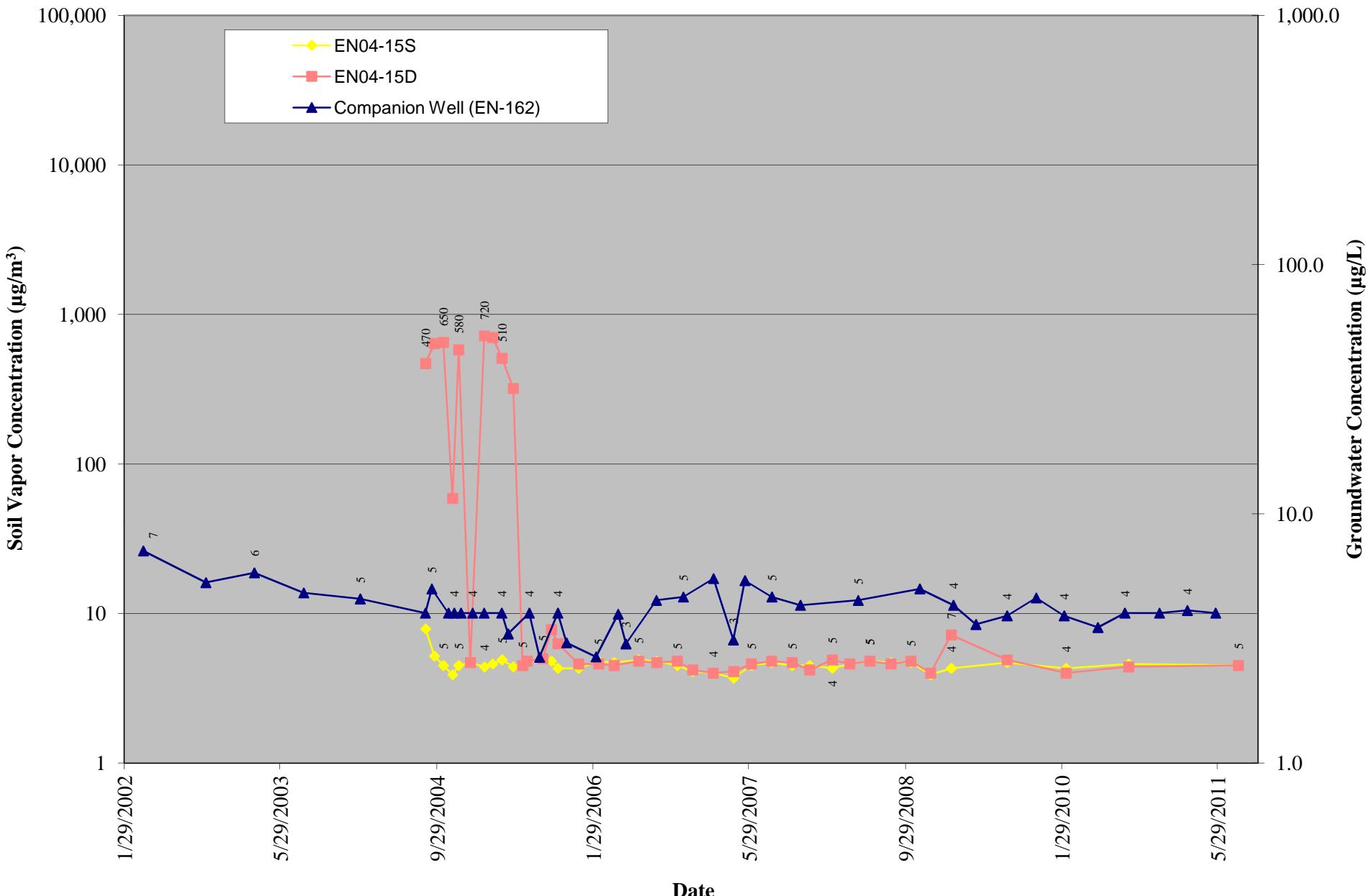


Figure B.16
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

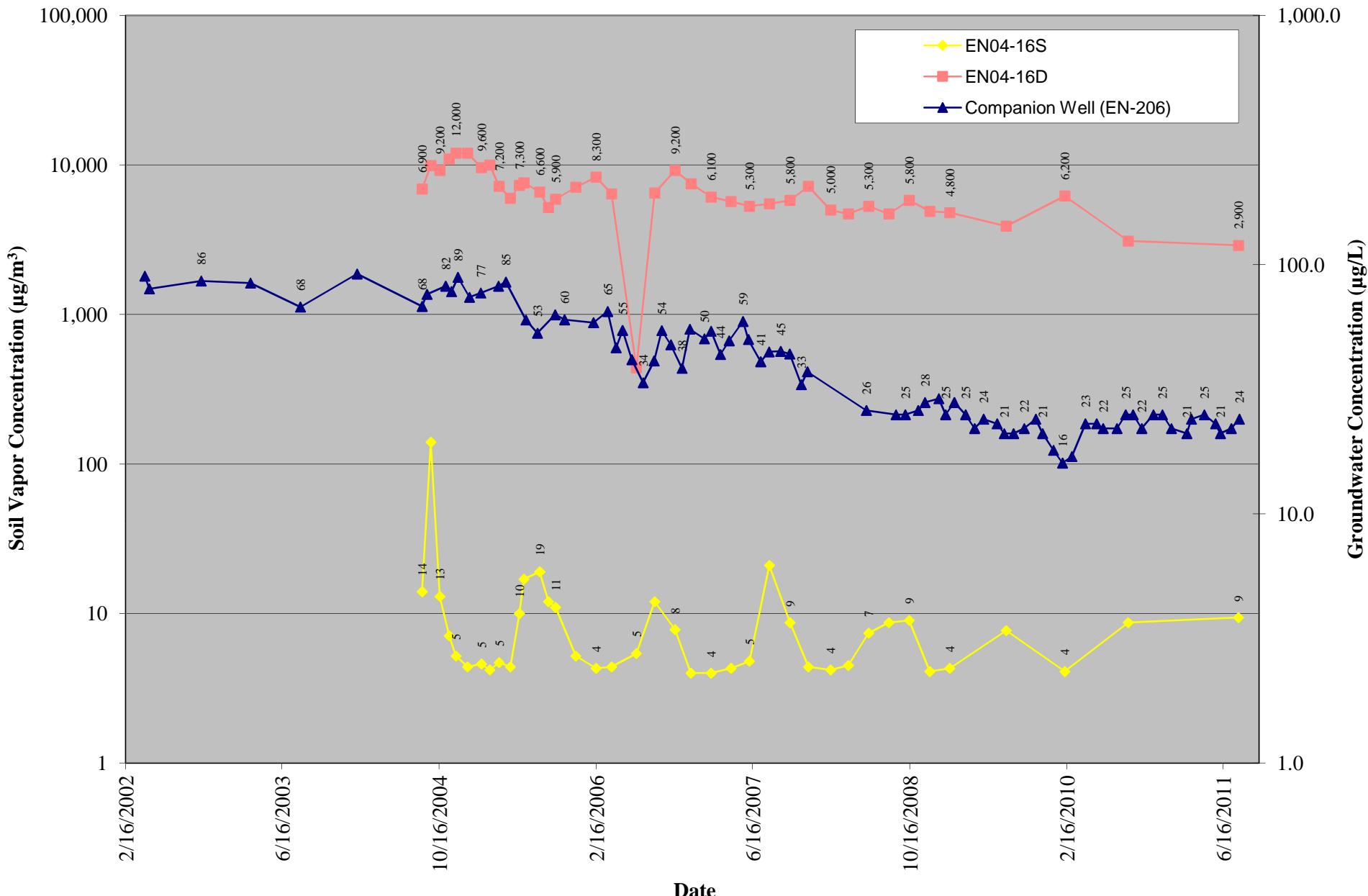


Figure B.17
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

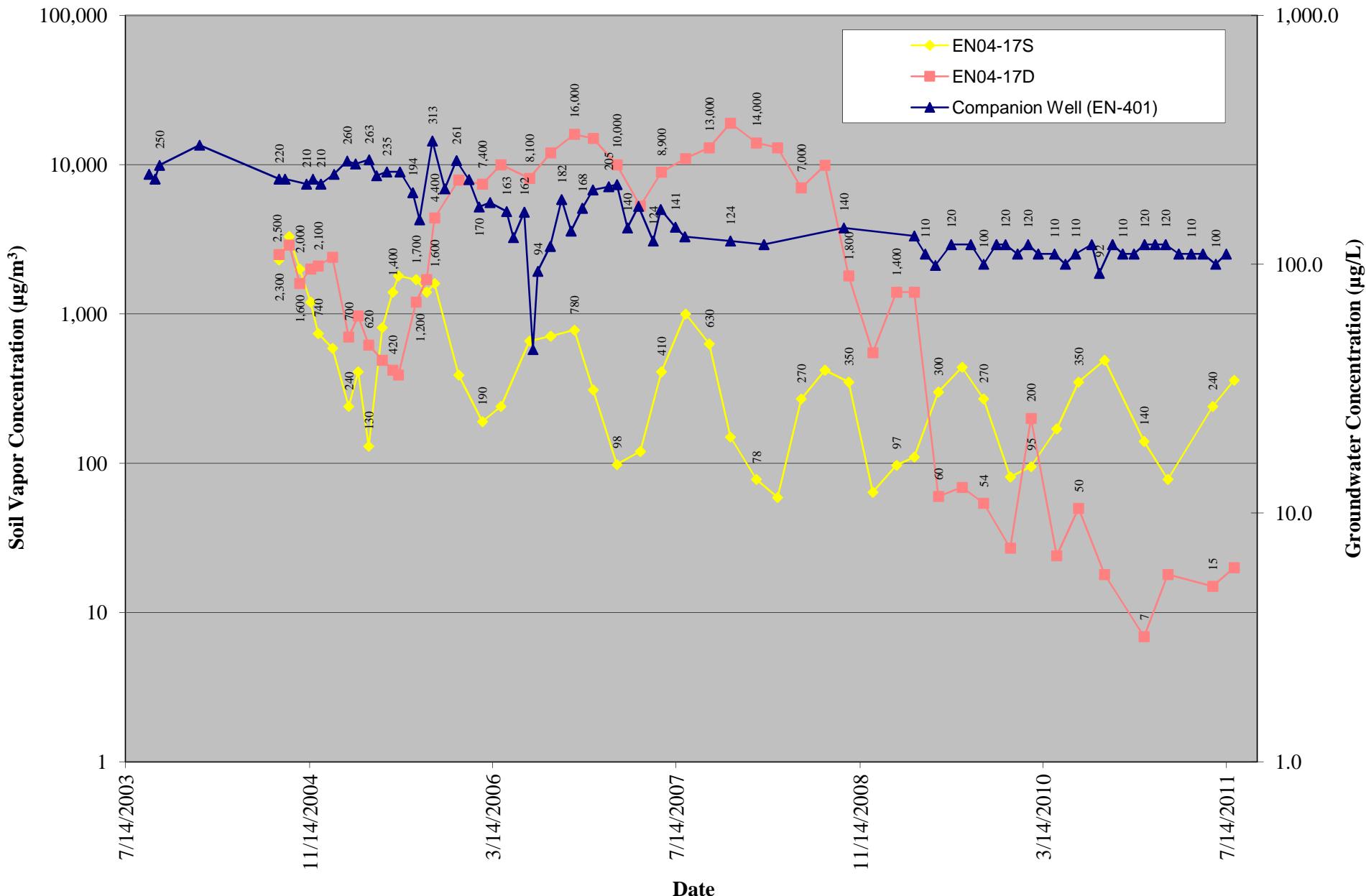


Figure B.18
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

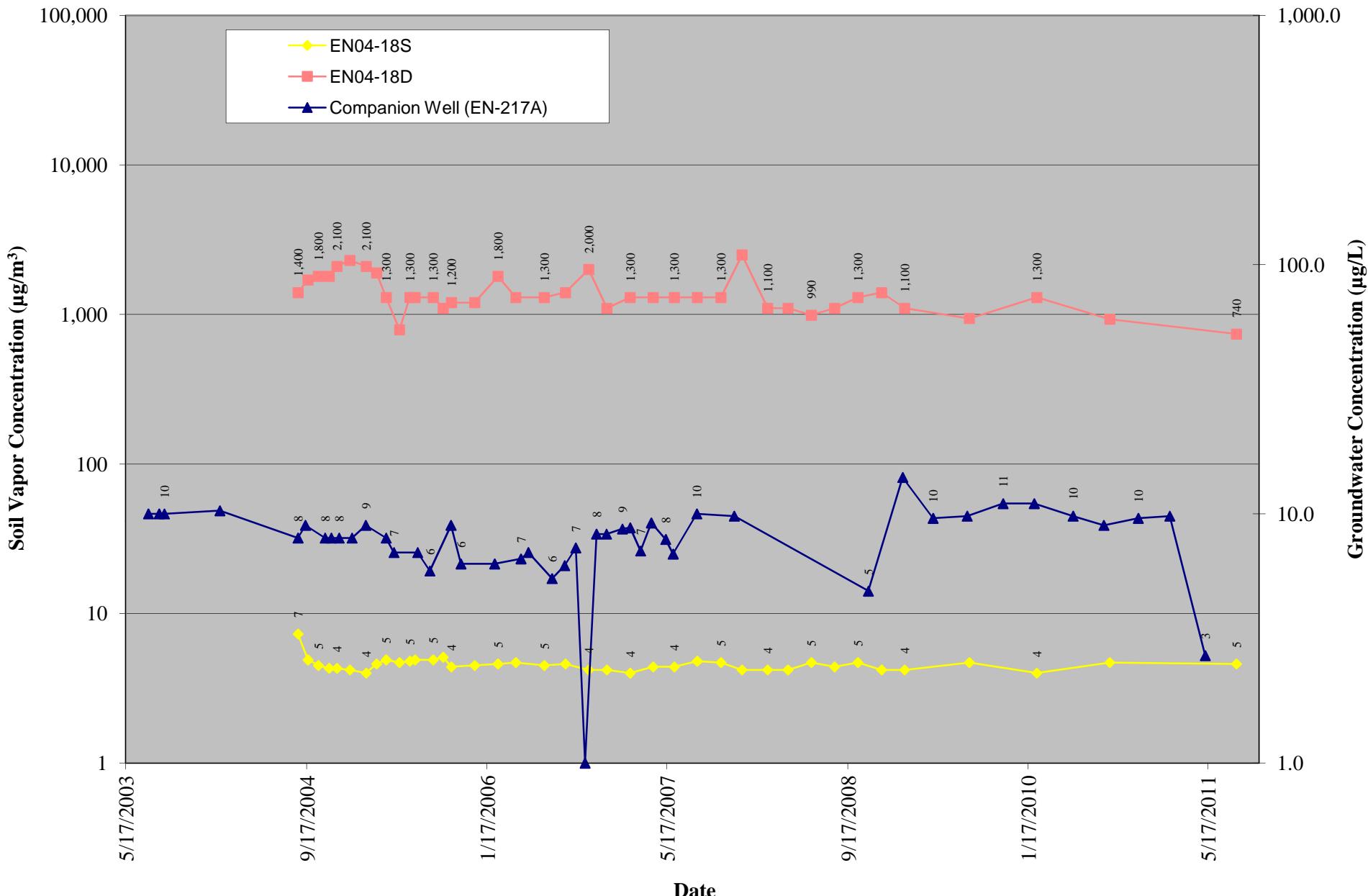


Figure B.19
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

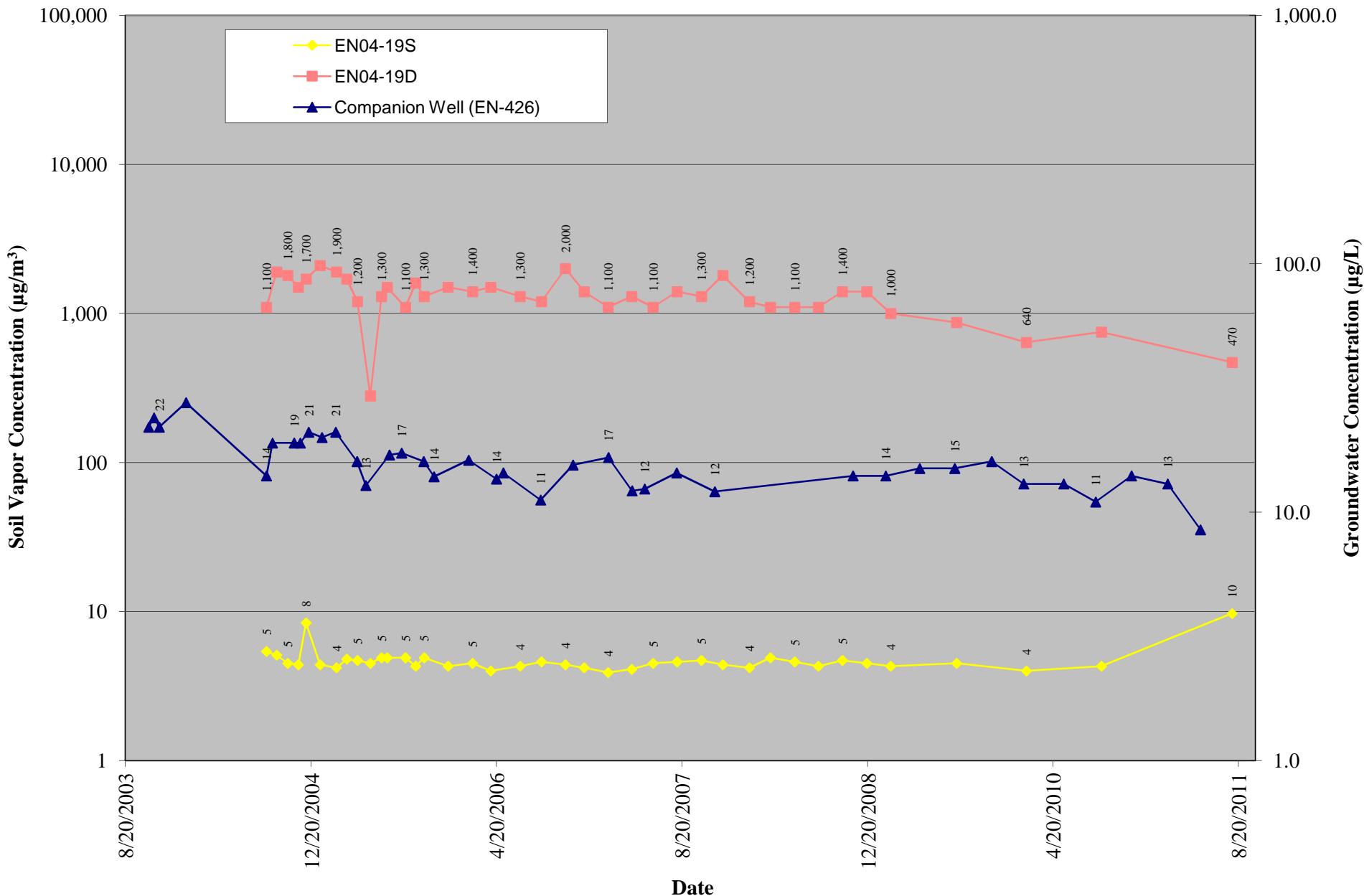


Figure B.20
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

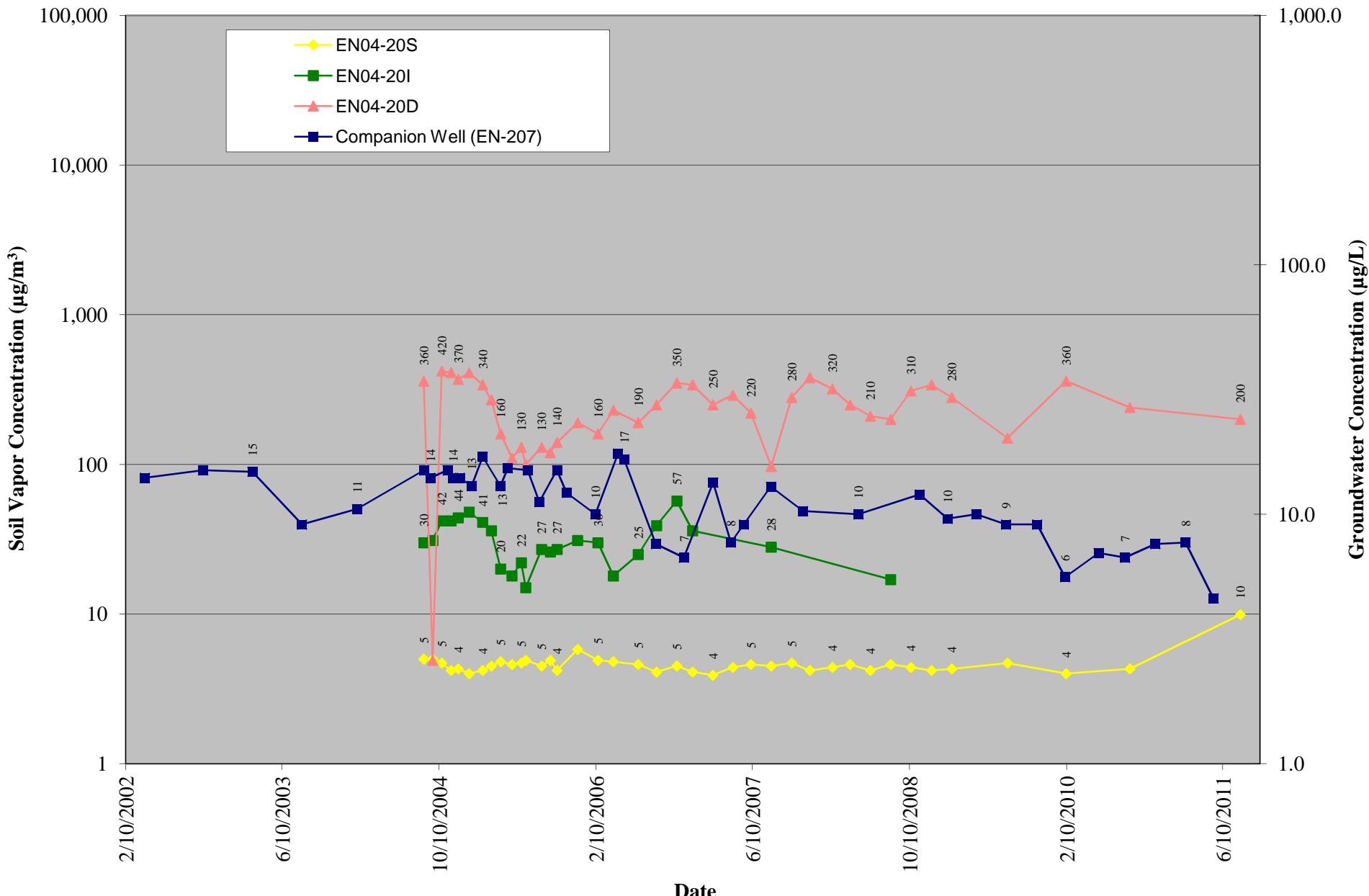


Figure B.21
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

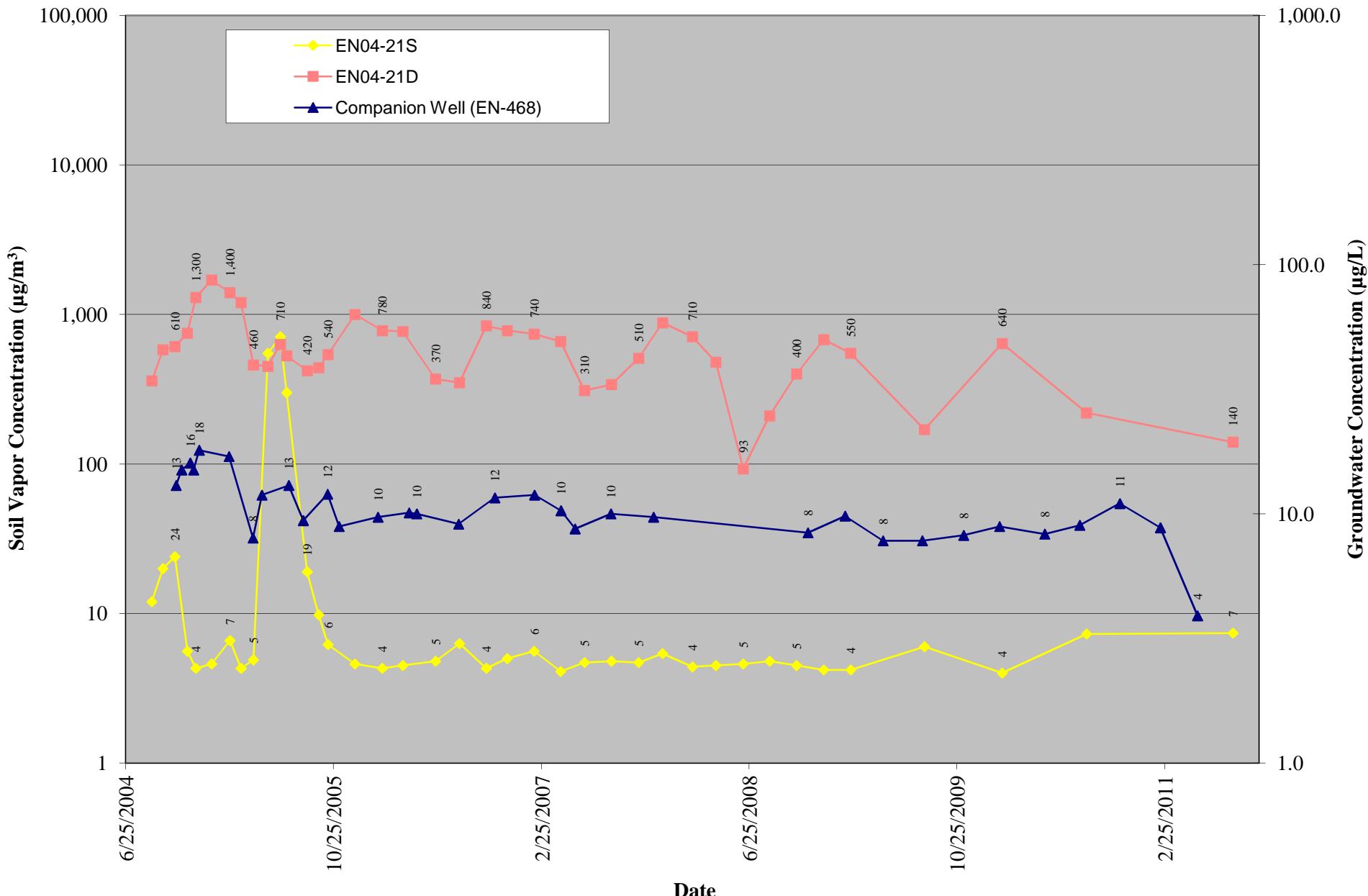


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TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

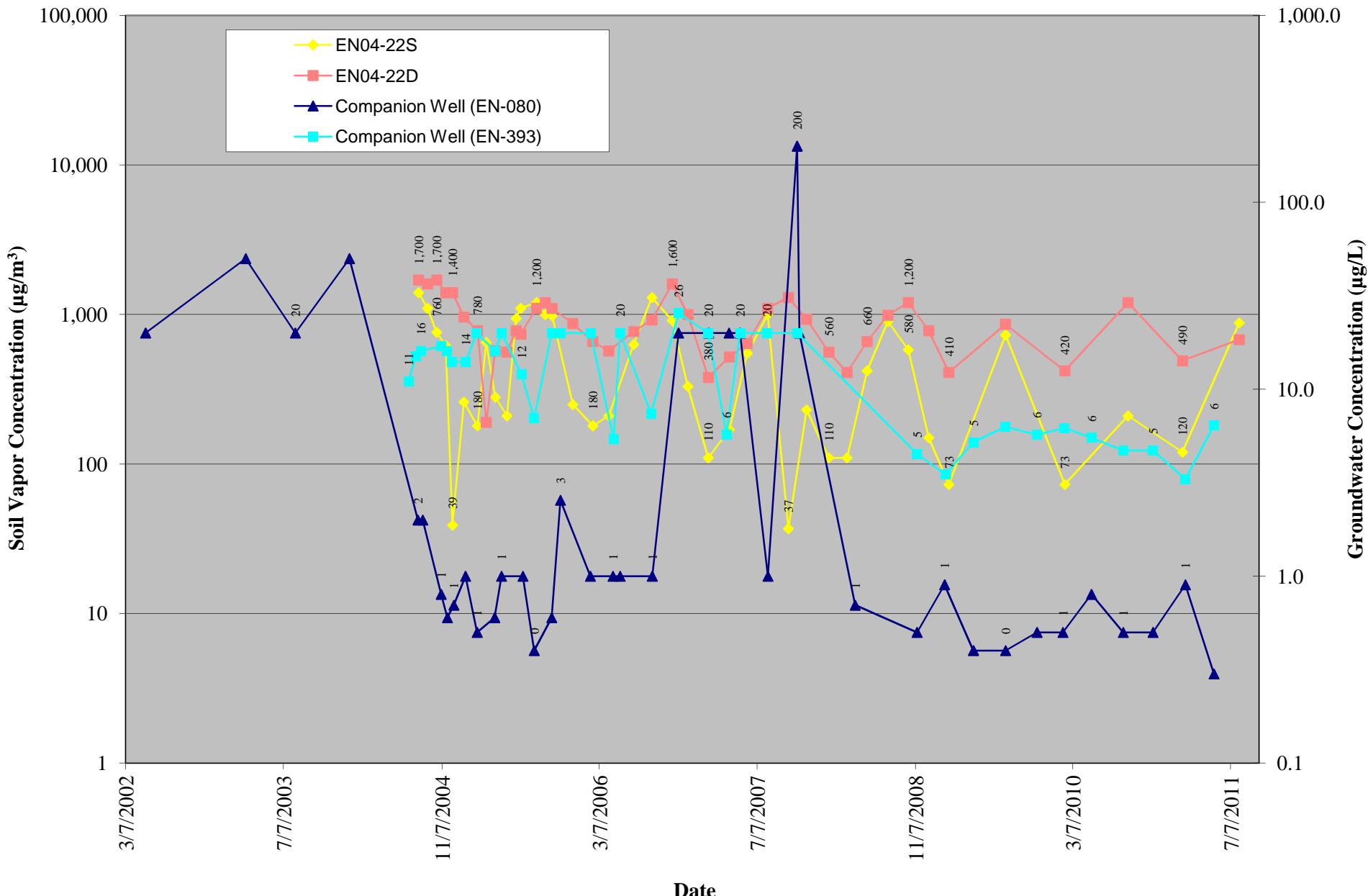


Figure B.23
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

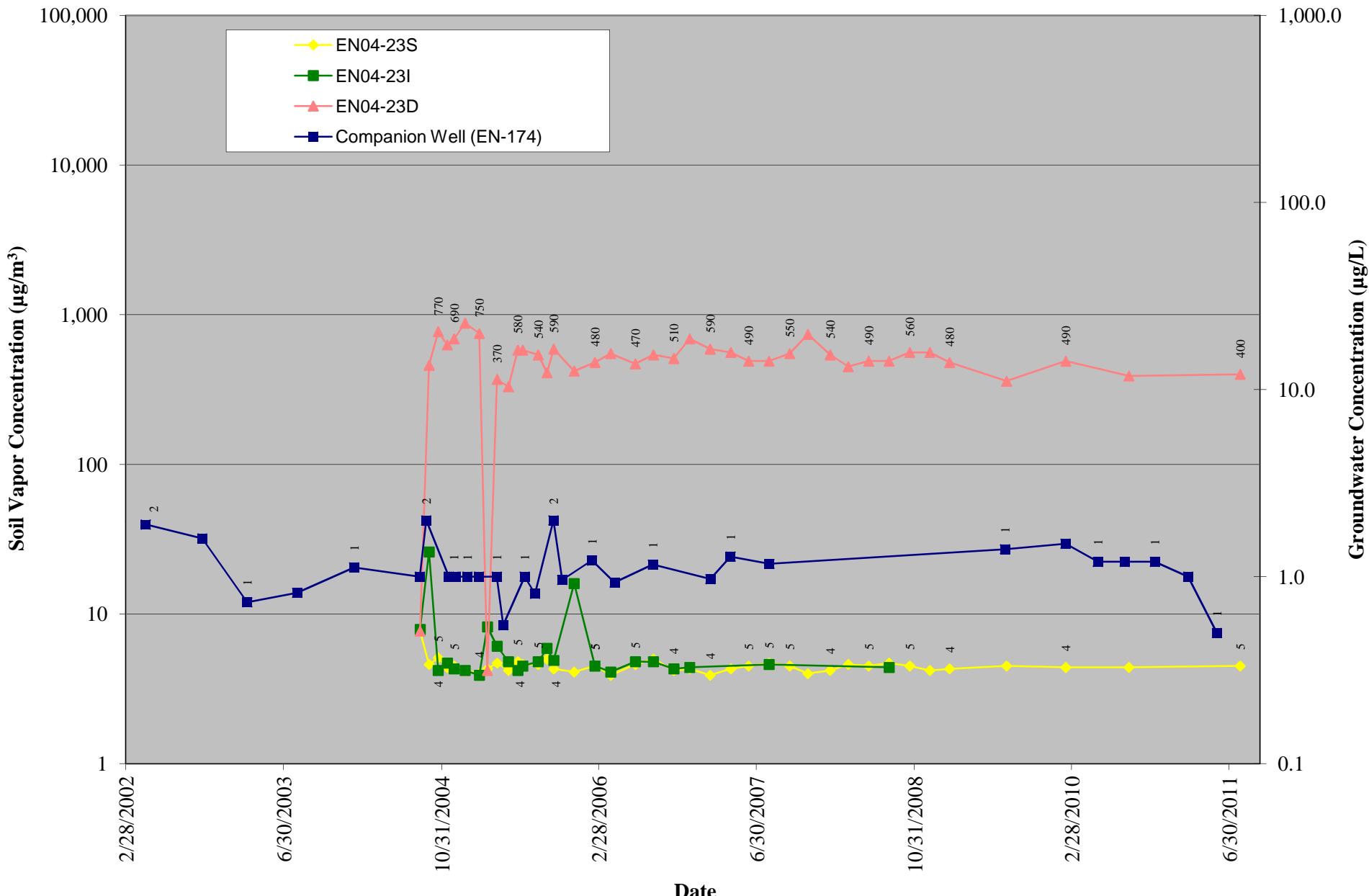


Figure B.24
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

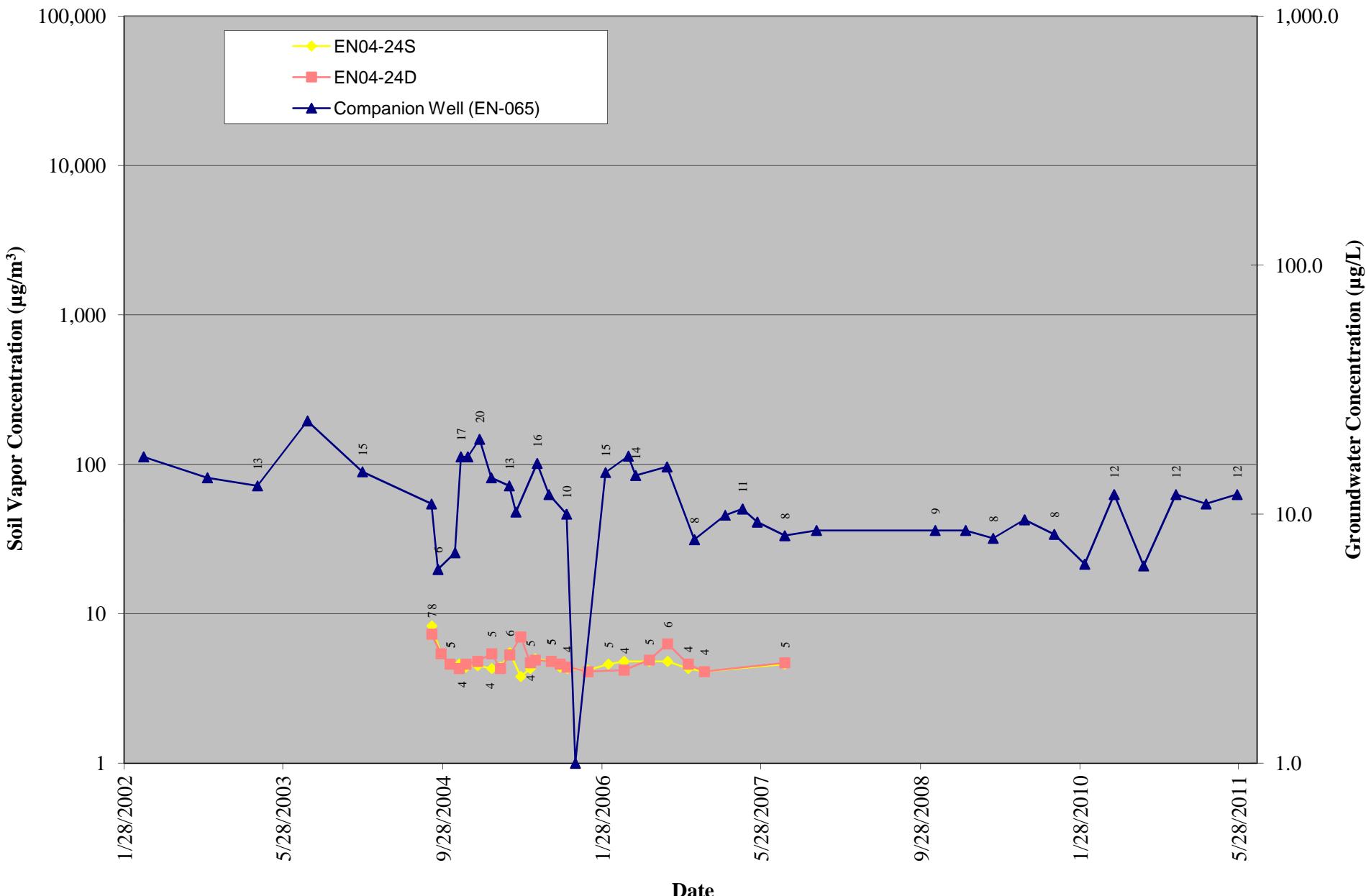


Figure B.25
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

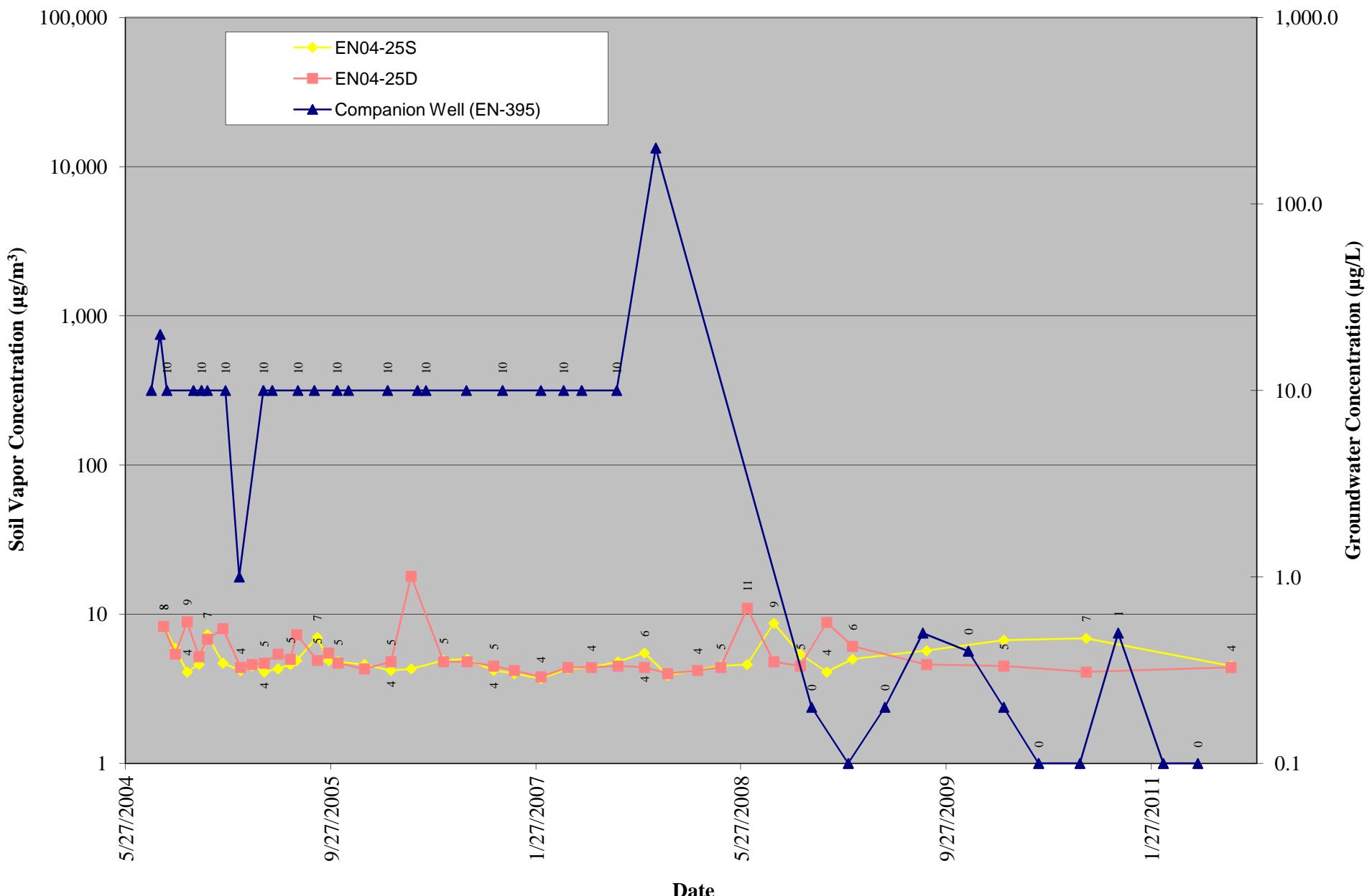


Figure B.26
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

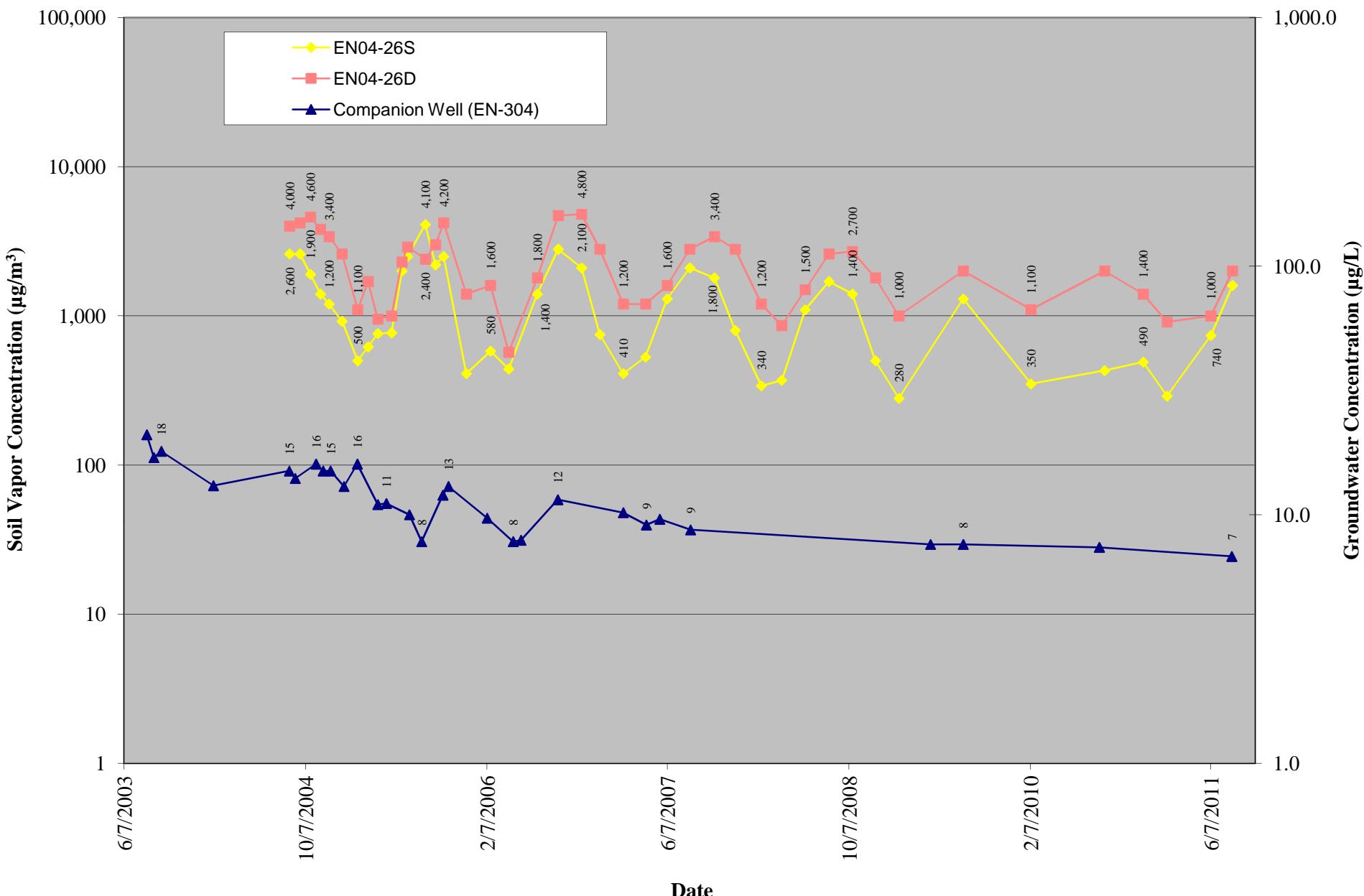


Figure B.27
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

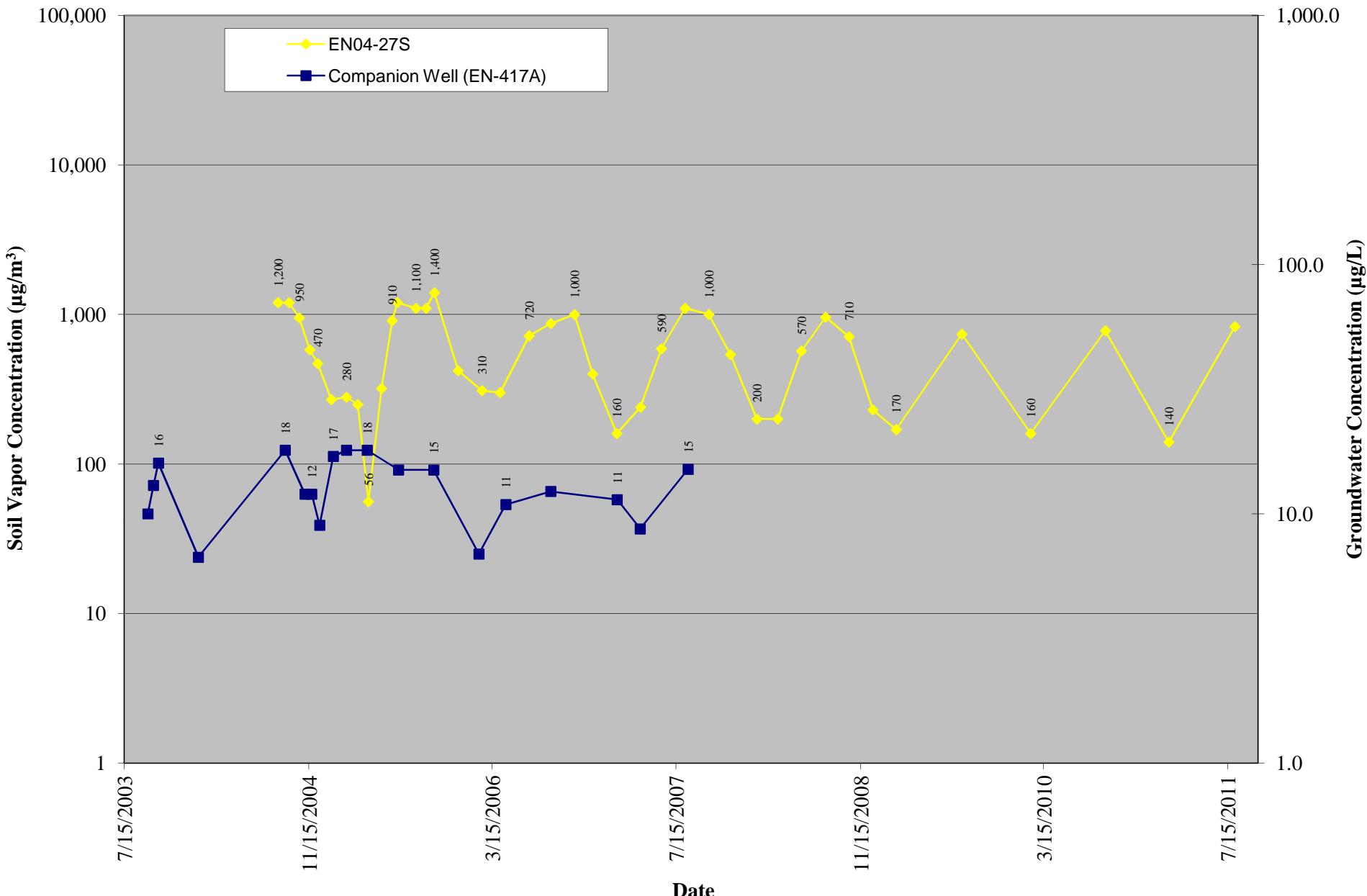


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TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

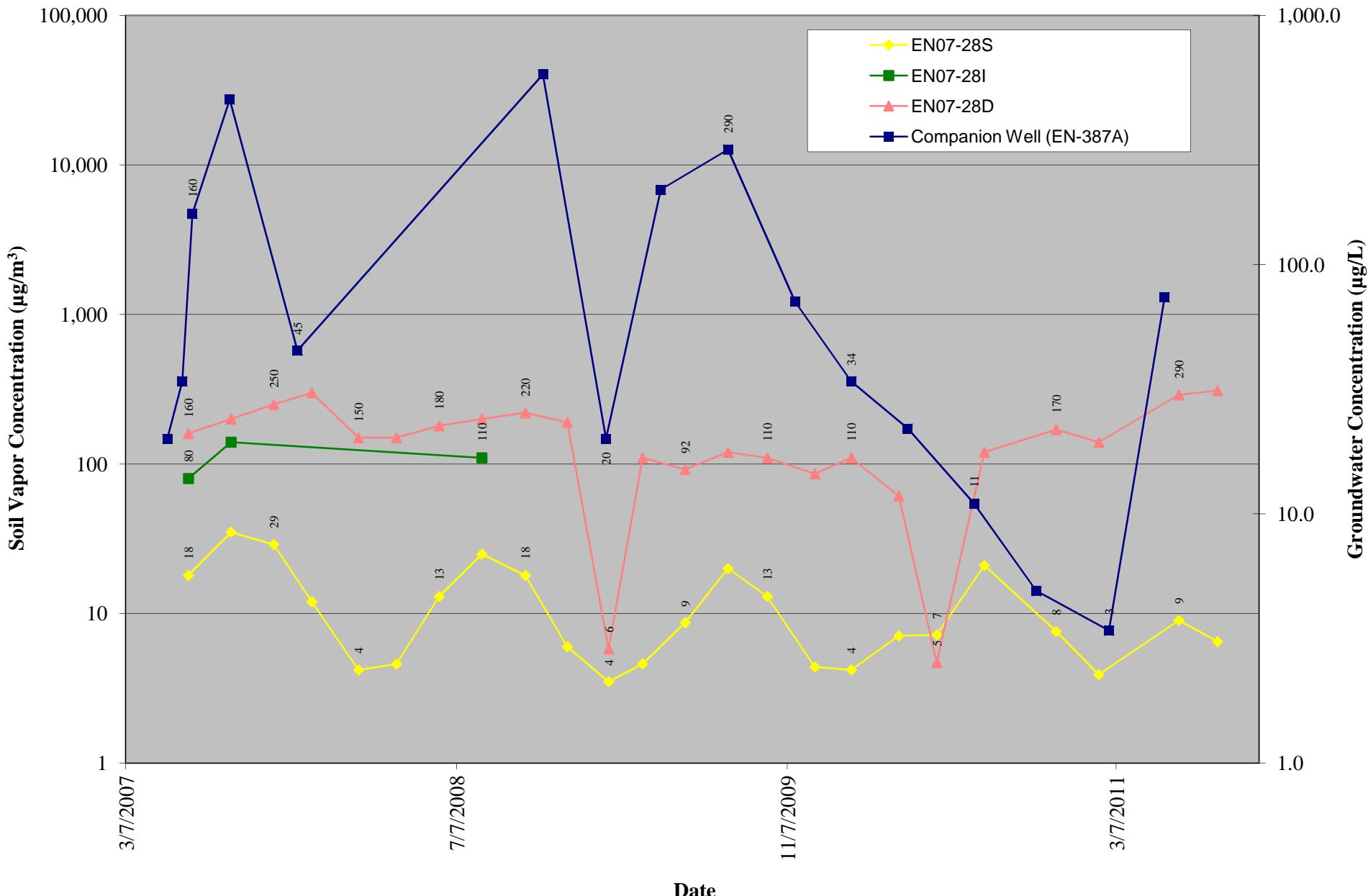


Figure B.29
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

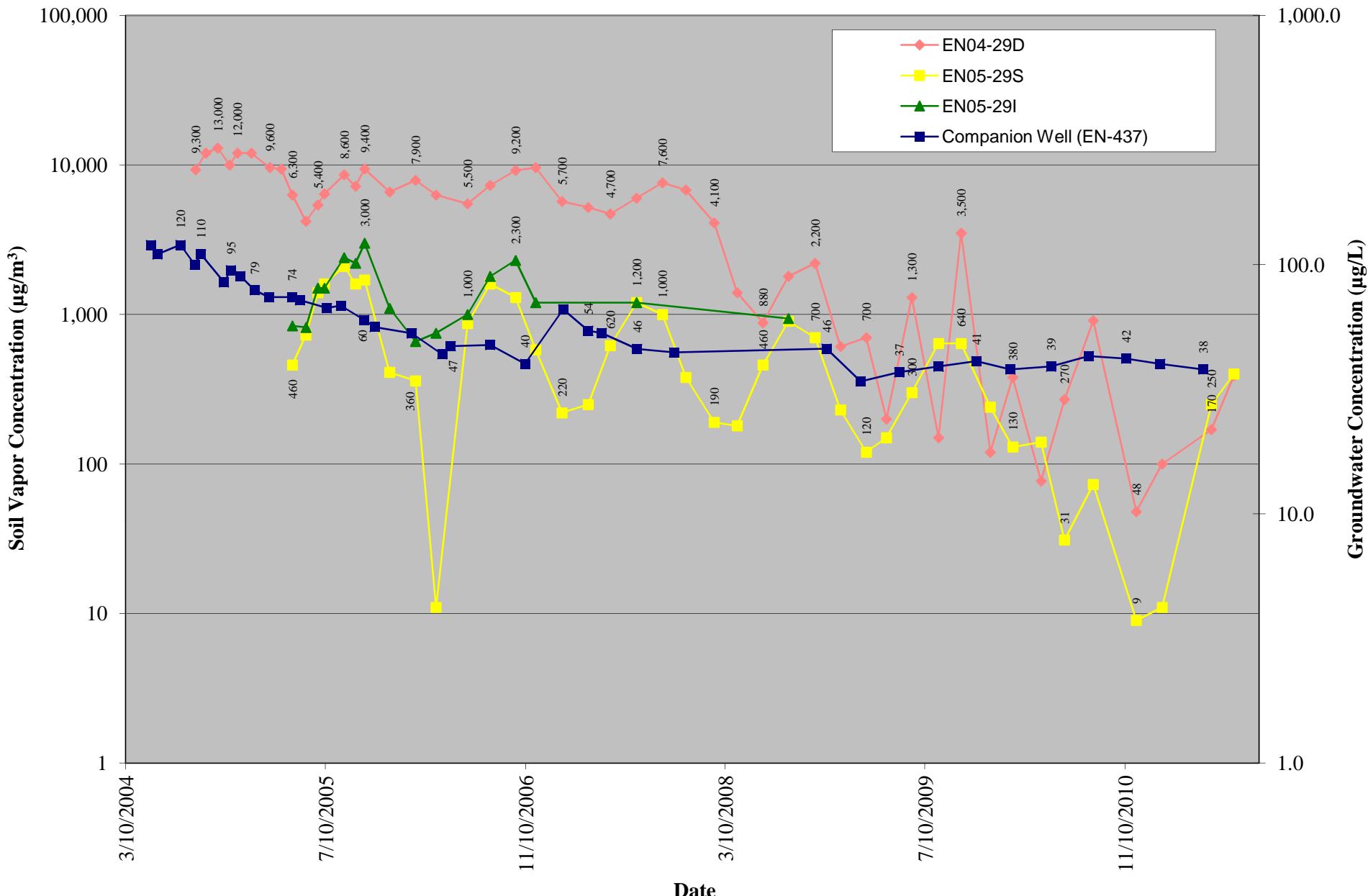


Figure B.30
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

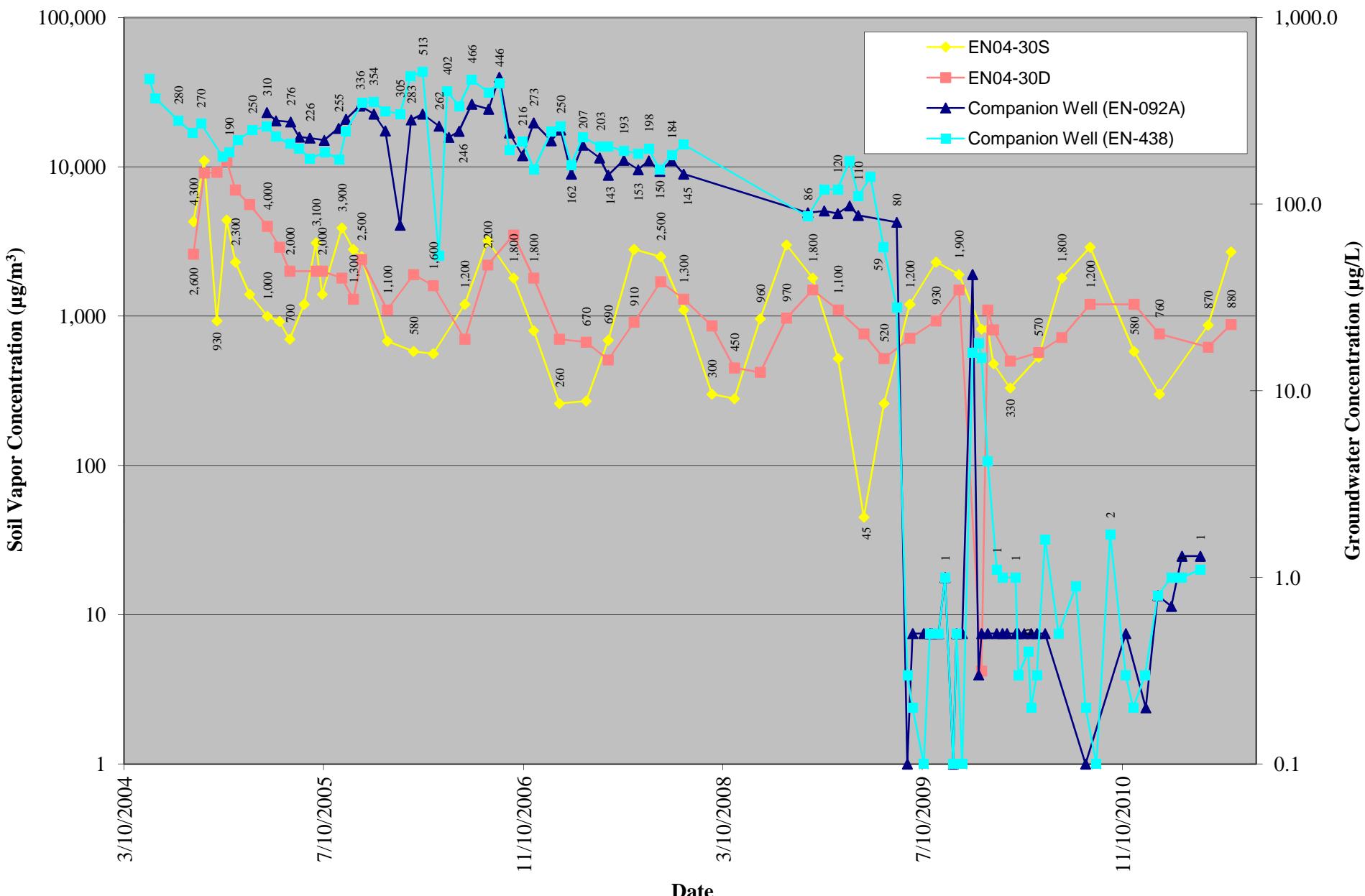


Figure B.31
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

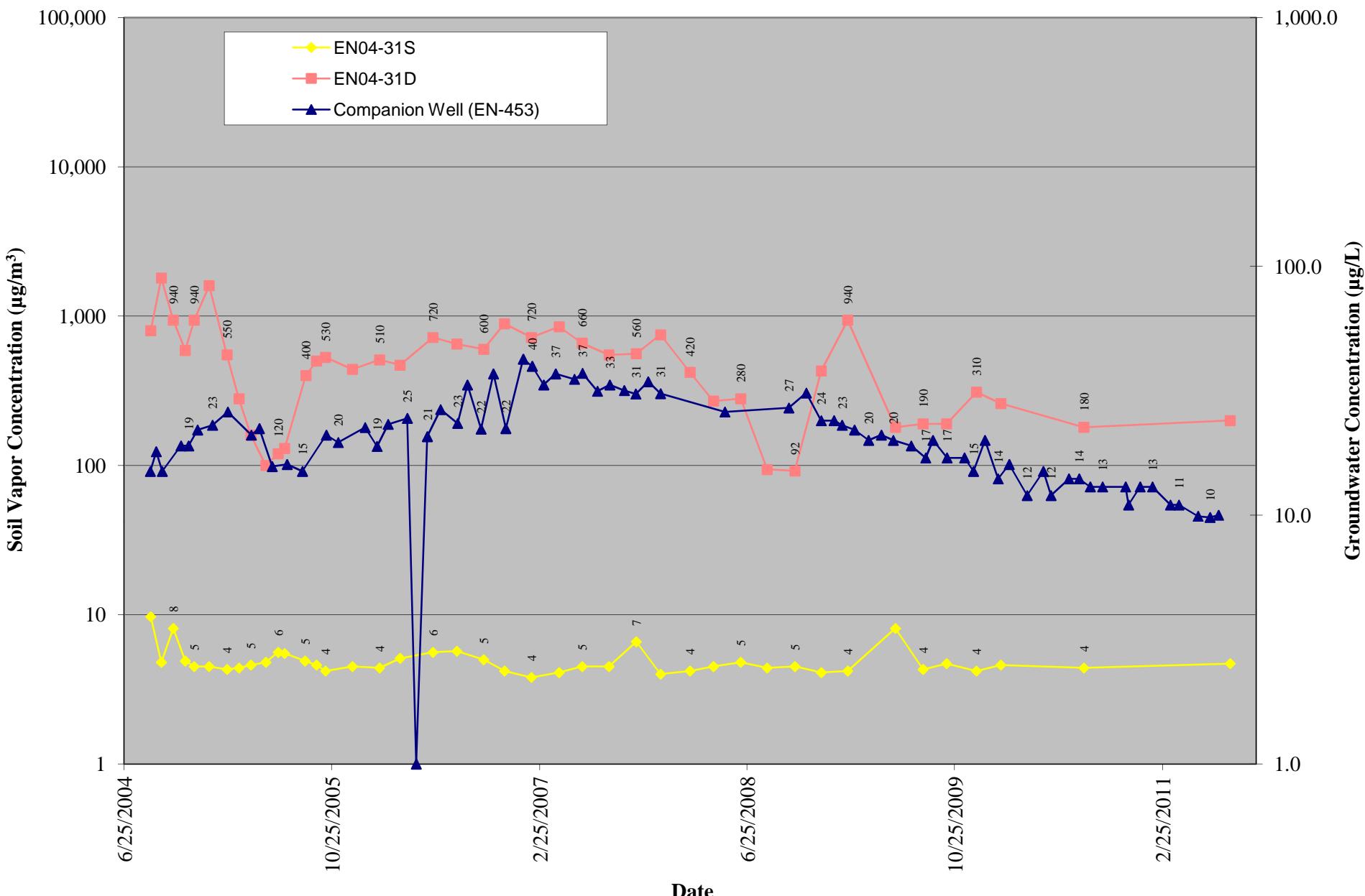


Figure B.32
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

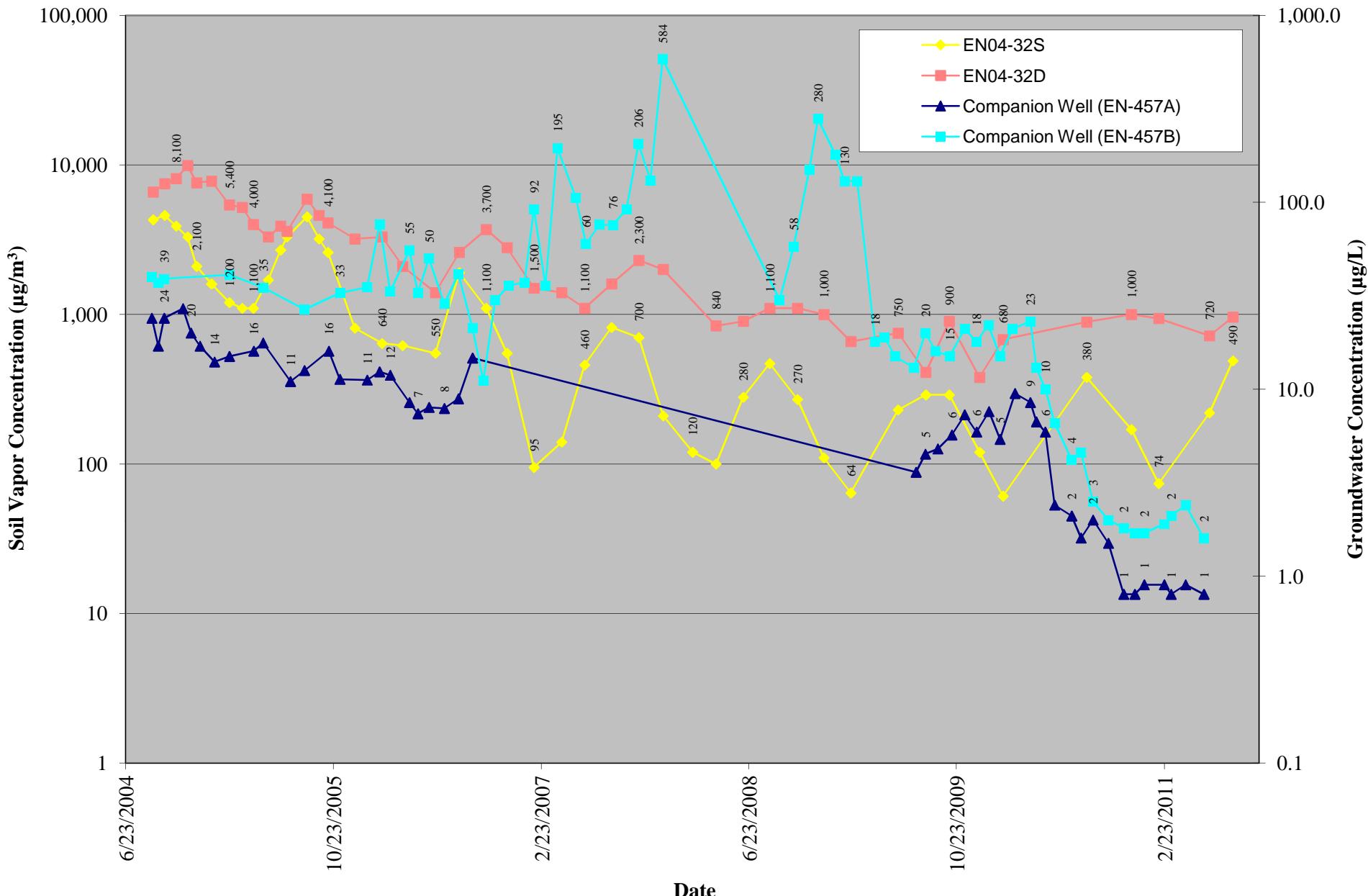


Figure B.33
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

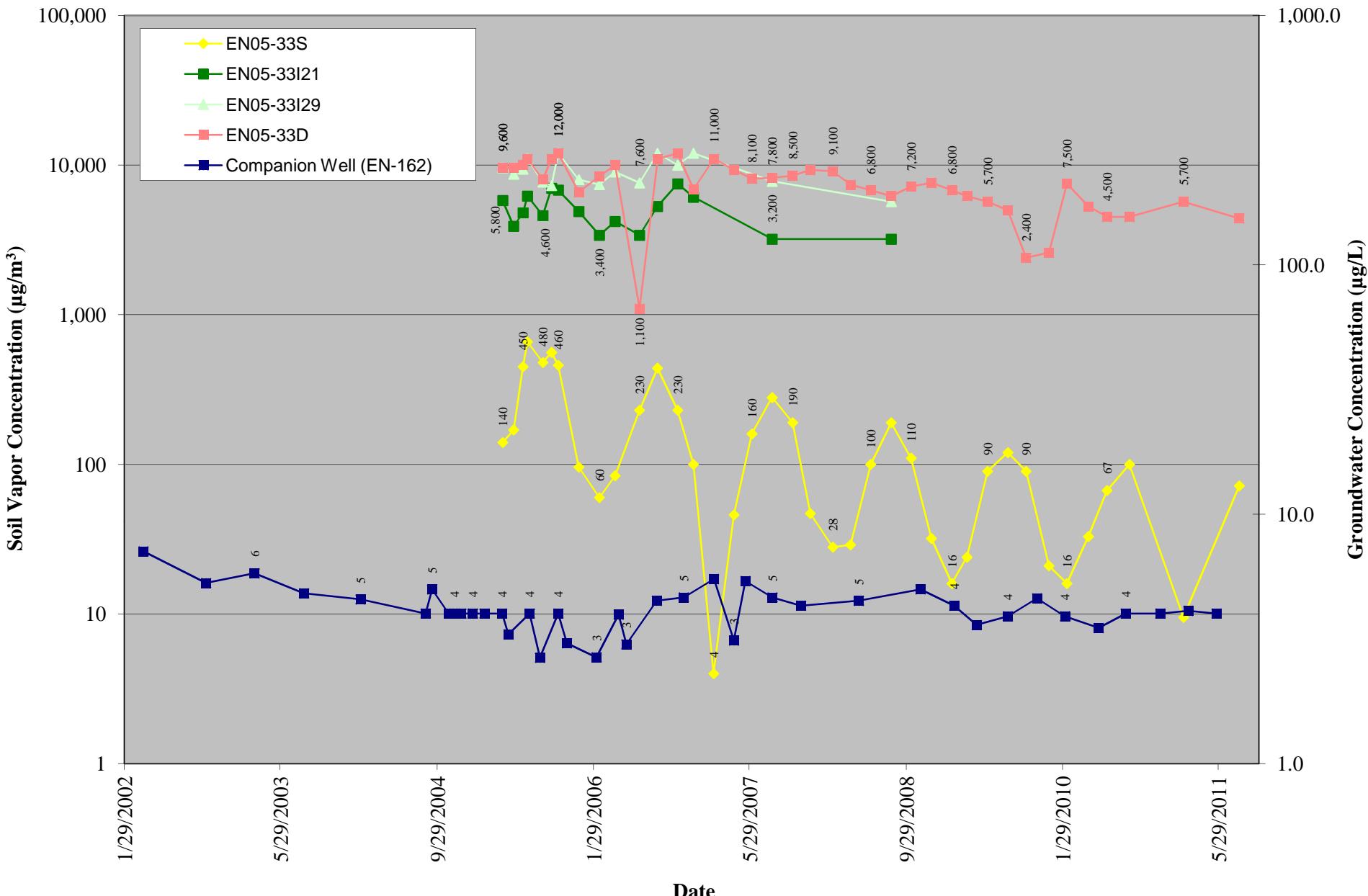


Figure B.34
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

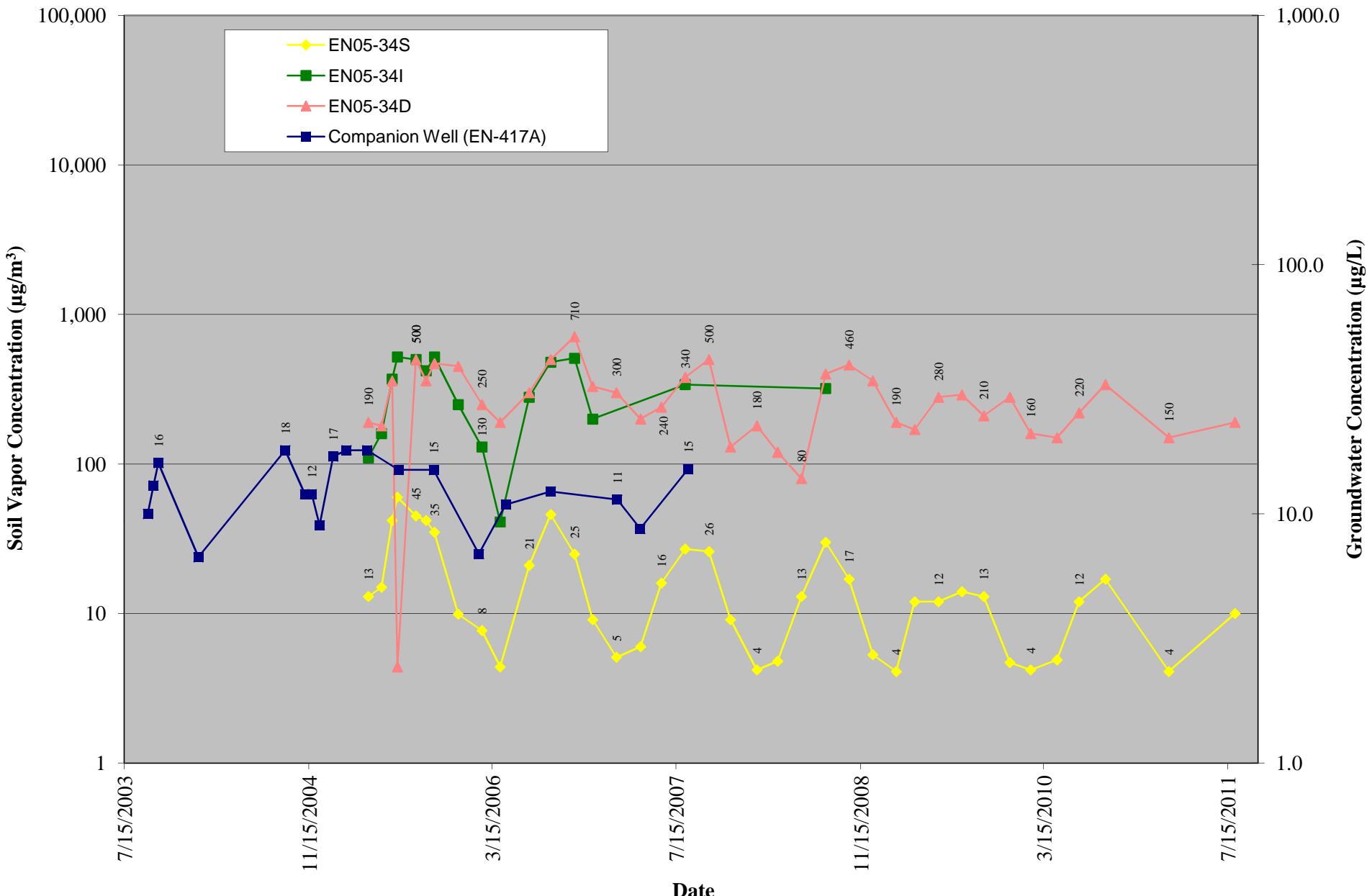


Figure B.35
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York

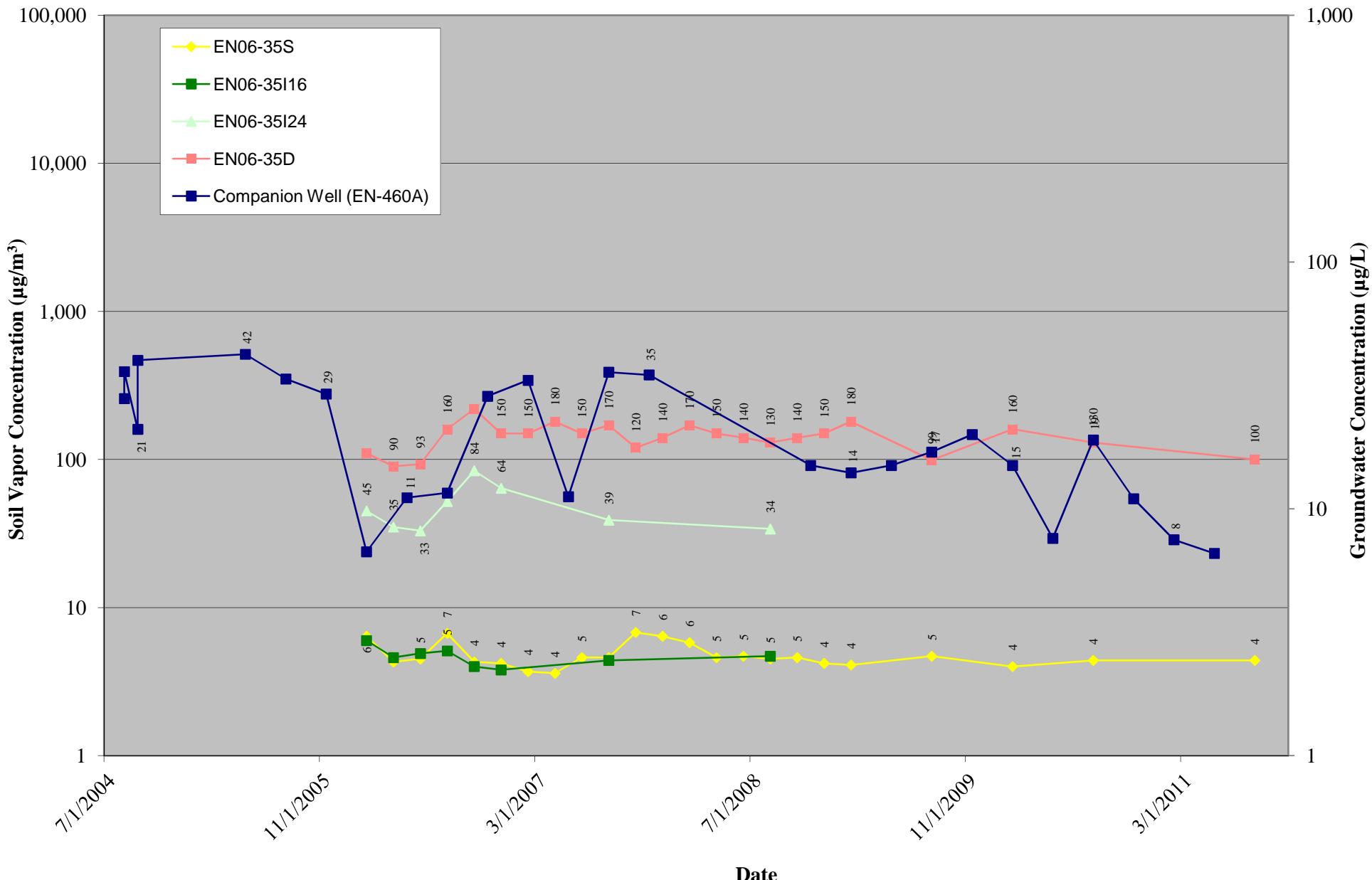


Figure B.36
TCE in Soil Vapor and Groundwater
Annual Report - Soil Vapor Monitoring through August 2011
Comprehensive Operations, Maintenance, Monitoring Program
Endicott, New York

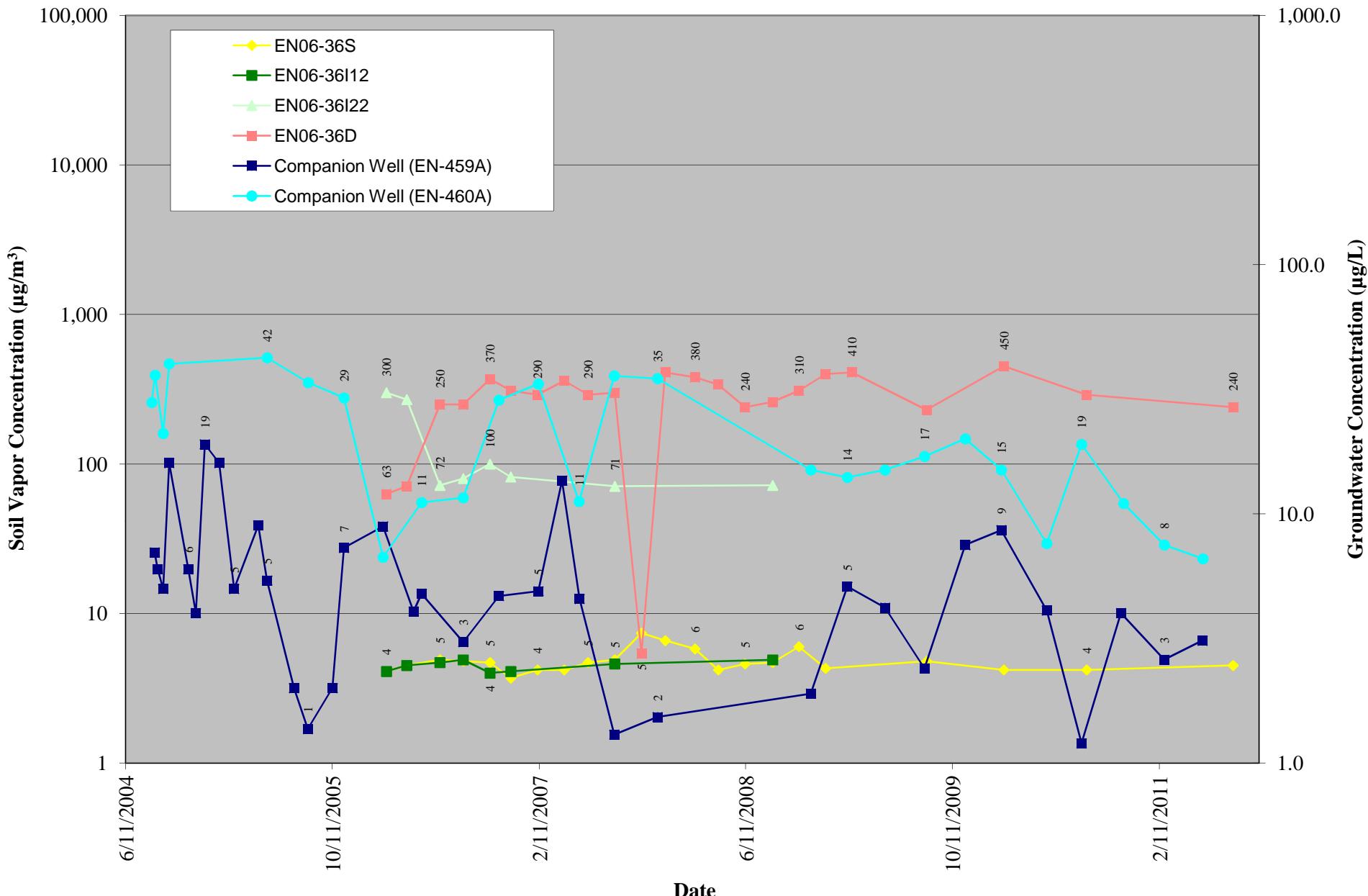


Figure B.37
TCE in Soil Vapor and Groundwater
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
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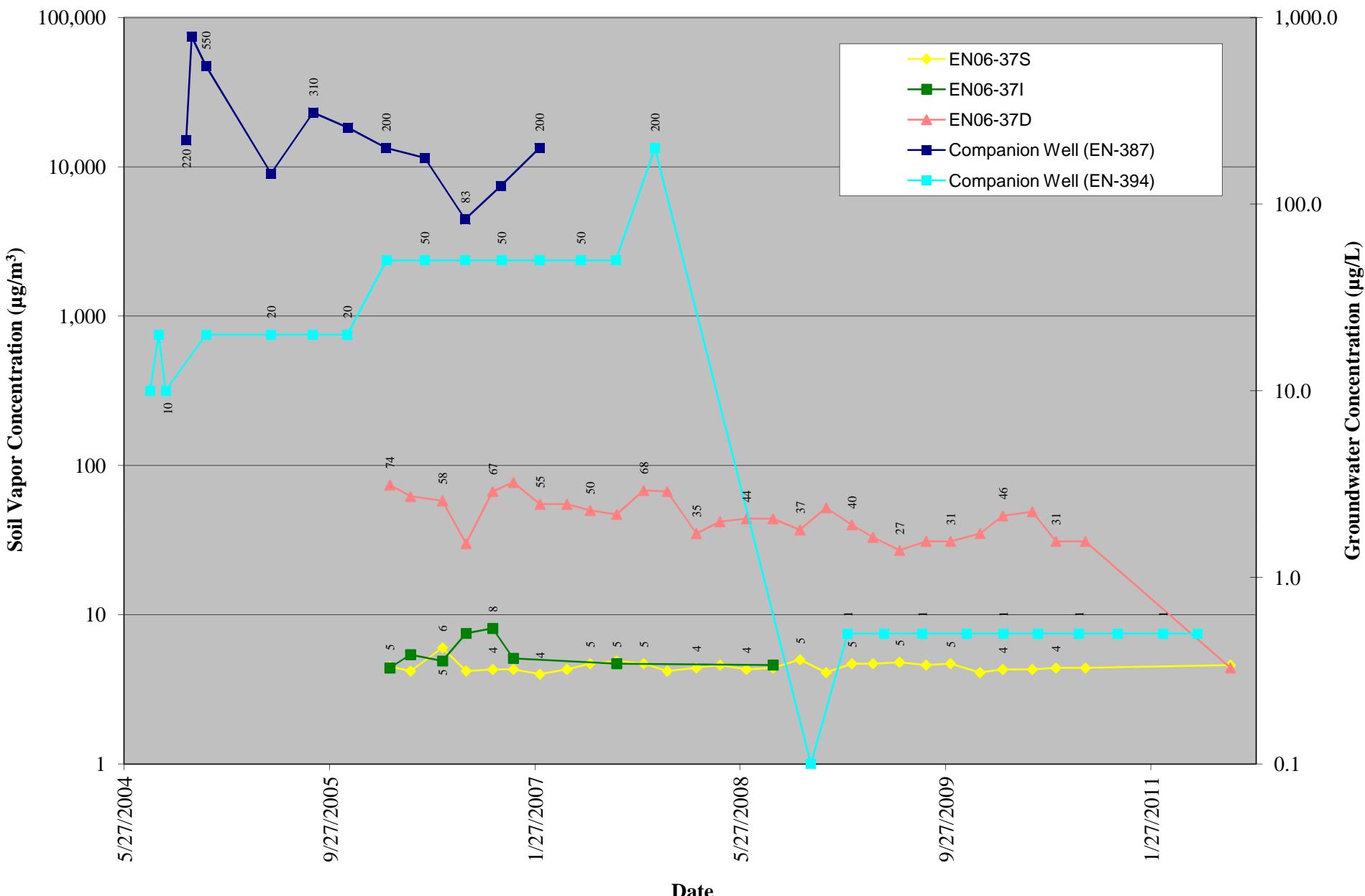
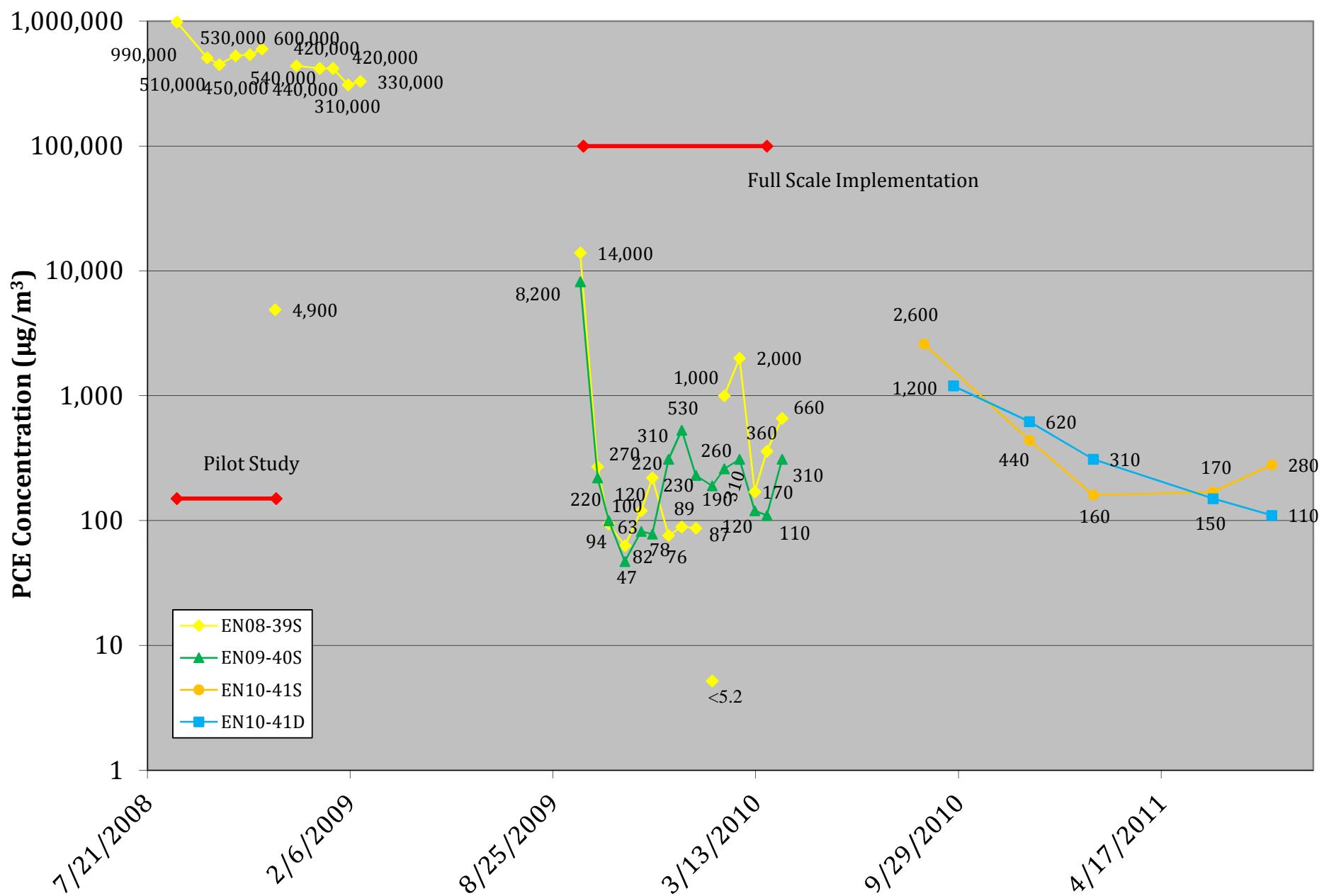


Figure B.38
PCE in Soil Vapor
 Annual Report - Soil Vapor Monitoring through August 2011
 Comprehensive Operations, Maintenance, Monitoring Program
 Endicott, New York



APPENDIX C

**ANALYTICAL RESULTS AND
LABORATORY REPORTS
(Select Copies Only)**

Table C.1
Summary of Analytical Laboratory Data
Annual Report - Soil Vapor Monitoring through August 2011
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 (Freo)											
Designation Monitoring Well	EN04-1 EN-094	EN04-1S	8	8/23/2010	EN041S082310	Summa Canister	21.0	0.1	0.0	1.7	No	No	ug/m3	< 5.8	U	- 16	- < 3.4	U	< 3.4	U	< 4.7	U	< 3.4	U	< 3.5	U	< 2.2	U	- 3.7	- < 6.6	U				
		EN04-1S	8	2/8/2011	EN041S020811	Summa Canister	21.3	0.3	0.0	1.6	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	- < 6.0	U		
		EN04-1S	8	8/2/2011	EN041S080211	Summa Canister	20.0	0.6	0.0	1.6	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	- < 6.2	U		
		EN04-1D	23	8/23/2010	EN041D082310	Summa Canister	21.1	0.0	0.0	1.6	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	- < 6.2	U			
		EN04-1D	23	2/8/2011	EN041D020811	Summa Canister	21.3	0.4	0.0	1.6	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	- < 6.0	U			
		EN04-1D	23	8/2/2011	EN041D080211	Summa Canister	20.0	0.3	0.0	1.7	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	- < 6.5	U			
Designation Monitoring Well	EN04-2 EN-450;EN-091A	EN04-2S	8	8/23/2010	EN042S082310	Summa Canister	20.5	0.5	0.0	1.6	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	- < 6.0	U		
		EN04-2S	8	12/8/2010	EN042S120810	Summa Canister	20.2	0.2	0.0	1.6	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	- < 6.2	U	
		EN04-2S	8	2/8/2011	EN042S020811	Summa Canister	20.9	0.2	0.0	1.5	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	< 2.0	U	- 2.7	- < 5.9	U			
		EN04-2S	8	6/8/2011	EN042S060811	Summa Canister	20.3	0.5	0.0	1.7	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	- < 6.4	U	
		EN04-2S	8	8/2/2011	EN042S080211	Summa Canister	20.6	0.3	0.0	1.6	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	- < 6.3	U		
		EN04-2D	20	8/23/2010	EN042D082310	Summa Canister	20.7	0.3	0.0	1.6	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	- < 6.0	U			
		EN04-2D	20	12/8/2010	EN042D120810	Summa Canister	20.6	0.1	0.0	1.6	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	- < 6.2	U			
		EN04-2D	20	12/8/2010	EN042D120810-tube	Summa Canister	20.6	0.1	0.0	1.0	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	1.7	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	- < 6.5	U			
		EN04-2D	20	6/8/2011	EN042D060811	Summa Canister	20.4	0.2	0.0	1.7	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	- < 6.6	U			
		EN04-2D	20	8/2/2011	EN042D080211	Summa Canister	20.8	0.2	0.0	1.6	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	- < 6.3	U			
Designation Monitoring Well	EN04-3 EN-203	EN04-3S	8	8/23/2010	EN043S082310	Summa Canister	21.2	0.0	0.0	1.6	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	- < 6.0	U	
		EN04-3S	8	8/2/2011	EN043S080211	Summa Canister	20.3	0.3	0.0	1.5	No	No	ug/m3	< 5.2	U	< 4.4	U	< 3.1	U	< 3.1	U	< 2.0	U	< 4.2	U	< 3.1	U	< 3.1	U	< 8.2	U	- 2.7	- < 5.9	U	
		EN04-3D	19	8/23/2010	EN043D082310	Summa Canister	21.2	0.0	0.0	1.6	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	- < 6.0	U		
		EN04-3D	19	8/2/2011	EN043D080211	Summa Canister	20.0	0.3	0.0	1.7	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	- < 6.4	U		
Designation Monitoring Well	EN04-4 EN-022	EN04-4S	8	8/24/2010	EN044S082410	Summa Canister	19.0	1.8	0.0	1.7	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	- < 6.4	U	
		EN04-4S	8	8/2/2011	EN044S080211	Summa Canister	18.2	1.8	0.0	1.6	No	No	ug/m3	< 5.6	U	< 4.4																			

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SV Mon Point Designation		Sampling Point Designation	Sampling Depth	Sampling Date	Field Sample ID	Sample Type	O ₂ (%)	CO ₂ (%)	CH ₄ (%)	Dilution Factor	SF ₆ Applied?	He Applied?	Units of VOC Results	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl chloride	1,1,1-Trichloroethane	1,1-Dichloroethene	Chloroethane	Methylene chloride	Trifluorotrichloroethane (Freon)																							
Designation Monitoring Well	EN04-6 EN-310	EN04-6S	8	8/23/2010	EN046S082310	Summa Canister	19.7	1.5	0.0	1.6	No	No	ug/m3	<	5.5	U	<	4.3	U	<	3.2	U	<	3.2	U	<	3.2	U	<	2.1	U	<	2.8	U	<	6.2	U									
		EN04-6S	8	8/3/2011	EN046S080311	Summa Canister	19.8	0.4	0.0	1.6	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
		EN04-6D	27	8/23/2010	EN046D082310	Summa Canister	19.0	1.9	0.0	1.6	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	1.7	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
Designation Monitoring Well	EN04-7 EN-311	EN04-7S	8	8/23/2010	EN047S082310	Summa Canister	19.8	1.1	0.0	1.6	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
		EN04-7S	8	12/7/2010	EN047S120710	Summa Canister	20.7	0.5	0.0	1.5	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	2.0	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	1.7	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	1.7	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	1.8	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
		EN04-7D	34	8/23/2010	EN047D082310	Summa Canister	19.7	1.1	0.0	4.3	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	6.1	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	19.6	1.7	0.0	1.0	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	6.1	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	5.3	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	20.0	1.0	0.0	5.7	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	4.8	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	3.7	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
Designation Monitoring Well	EN04-9 EN-278;EN-279	EN04-9S	8	8/24/2010	EN049S082410	Summa Canister	18.7	1.2	0.0	8.4	No	No	ug/m3	-	440	-	-	8200	-	-	23	-	<	17	U	<	11	U	-	380	-	<	17	U	-	20	-	<	11	U	<	14	U	<	32	U
		EN04-9S	8	2/8/2011	EN049S020811	Summa Canister	21.3	0.2	0.0	1.6	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	5.3	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
		EN04-9D	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	U
Designation Monitoring Well	EN04-10 EN-077	EN04-10S	8	8/24/2010	EN0410S082410	Summa Canister	12.7	6.1	0.0	5.9	No	No	ug/m3	-	660	-	-	73000	-	-	12000	-	<	120	U	<	75	U	-	9400	-	-	720	-	<	4600	-	<	77	U	<	270	-	<	220	U
		EN04-10S	8	12/7/2010	EN0410S120710-tube	Summa Canister	12.7	6.1	0.0	1.0	No	No	ug/m3	-	260	-	-	19000	E	-	5800	-	-	45	-	<	26	U	-	5600	-	-	540	-	<	2300	-	-	-	-	<	210	U			

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SV Mon Point Designation		Sampling Point Designation	Sampling Depth	Sampling Date	Field Sample ID	Sample Type	O ₂ (%)	CO ₂ (%)	CH ₄ (%)	Dilution Factor	SF ₆ Applied?	He Applied?	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 (Freo)																						
Designation Monitoring Well	EN04-11 EN-215;EN-215B	EN04-11S	8	8/24/2010	EN0411S082410	Summa Canister	20.1	0.9	0.0	1.7	No	No	ug/m ³	-	15	-	340	-	<	3.3	U	<	3.3	U	<	3.4	U	<	2.2	U	<	2.9	U	-	10											
		EN04-11S	8	12/7/2010	EN0411S120710	Summa Canister	20.0	0.7	0.3	1.6	No	No	ug/m ³	<	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	1.5	No	No	ug/m ³	<	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	1.8	No	No	ug/m ³	<	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	1.7	No	No	ug/m ³	-	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
		EN04-11D	21	8/24/2010	EN0411D082410	Summa Canister	20.7	0.4	0.0	1.6	No	No	ug/m ³	-	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	2.1	No	No	ug/m ³	-	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	0.8	0.0	1.5	No	No	ug/m ³	-	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	1.8	No	No	ug/m ³	-	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	0.3	0.0	1.5	No	No	ug/m ³	-	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
		EN10-11D	30	8/24/2010	EN1011D082410	Summa Canister	19.3	1.3	0.0	13.6	No	No	ug/m ³	-	230	-	-	11000	-	-	180	-	<	27	U	<	17	U	-	340	-	-	31	-	<	28	U	<	18	U	<	24	U	<	52	U
Designation Monitoring Well	EN04-12 EN-214A	EN04-12S	8	8/25/2010	EN0412S082510	Summa Canister	18.4	2.9	0.0	1.6	No	No	ug/m ³	<	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
		EN04-12S	8	12/6/2010	EN0412S120610	Summa Canister	20.3	0.7	0.0	1.6	No	No	ug/m ³	<	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	1.5	No	No	ug/m ³	<	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	0.5	0.0	1.7	No	No	ug/m ³	<	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	1.7	No	No	ug/m ³	<	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
		EN04-12D	19	8/25/2010	EN0412D082510	Summa Canister	18.1	2.9	0.0	1.6	No	No	ug/m ³	<	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	1.6	No	No	ug/m ³	<	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	0.0	1.4	No	No	ug/m ³	<	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	1.6	No	No	ug/m ³	<	5.4	U	-	360	-	<	3.1	U	<	3.1	U	<	2.0	U	-	11	-	<														

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SV Mon Point Designation		Sampling Point Designation	Sampling Depth	Sampling Date	Field Sample ID	Sample Type	O ₂ (%)	CO ₂ (%)	CH ₄ (%)	Dilution Factor	SF ₆ Applied?	He Applied?	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 (Freo)				
Designation Monitoring Well	EN04-15 EN-162	EN04-15S	8	8/25/2010	EN0415S082510	Summa Canister	18.5	2.1	0.0	1.7	No	No	ug/m ³	< 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	< 8.9 U < 2.9 U < 6.5 U	< 2.2 U < 2.9 U < 6.3 U	< 8.9 U < 2.9 U < 6.5 U	< 2.3 U < 3.0 U < 6.6 U	< 8.9 U < 2.9 U < 6.5 U	< 2.3 U < 3.0 U < 6.6 U	< 8.9 U < 2.9 U < 6.5 U	< 2.3 U < 3.0 U < 6.6 U	< 8.9 U < 2.9 U < 6.5 U	< 2.3 U < 3.0 U < 6.6 U		
		EN04-15S	8	8/2/2011	EN0415S080211	Summa Canister	19.0	1.0	0.0	1.7	No	No	ug/m ³	< 5.7 U < 4.5 U < 3.4 U < 3.4 U	< 2.2 U < 4.6 U < 3.4 U < 3.4 U	< 2.3 U < 3.0 U < 6.6 U	< 8.9 U < 2.9 U < 6.5 U	< 2.2 U < 2.9 U < 6.3 U	< 8.9 U < 2.9 U < 6.5 U	< 2.3 U < 3.0 U < 6.6 U	< 8.9 U < 2.9 U < 6.5 U	< 2.2 U < 2.9 U < 6.3 U	< 8.9 U < 2.9 U < 6.5 U	< 2.3 U < 3.0 U < 6.6 U	< 8.9 U < 2.9 U < 6.5 U	< 2.3 U < 3.0 U < 6.6 U		
		EN04-15D	30	8/25/2010	EN0415D082510	Summa Canister	18.5	2.2	0.0	1.6	No	No	ug/m ³	< 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 < 4.6 U < 3.4 U < 3.4 U	< 2.3 U < 3.0 U < 6.6 U	< 2.2 U < 2.9 U < 6.3 U	< 2.2 U < 2.9 U < 6.3 U	< 2.3 U < 3.0 U < 6.6 U	< 2.2 U < 2.9 U < 6.3 U	< 2.2 U < 2.9 U < 6.3 U	< 2.2 U < 2.9 U < 6.3 U	< 2.2 U < 2.9 U < 6.3 U	< 2.2 U < 2.9 U < 6.3 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	1.7	No	No	ug/m ³	< 5.7 U < 4.5 U < 3.4 U < 3.4 U	< 2.2 U < 4.6 U < 3.4 U < 3.4 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	
Designation Monitoring Well	EN04-16 EN-206	EN04-16S	8	8/25/2010	EN0416S082510	Summa Canister	18.6	2.4	0.0	1.7	No	No	ug/m ³	- 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	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	< 2.3 U < 3.0 U < 6.6 U	
		EN04-16S	8	8/2/2011	EN0416S080211	Summa Canister	18.4	2.1	0.0	1.5	No	No	ug/m ³	- 12 - 9.4 - < 3.0 U < 3.0 U	< 1.9 U - 4.9 - < 3.0 U < 3.0 U	< 2.0 U < 4.9 U < 3.0 U < 3.0 U	< 2.0 U < 4.9 U < 3.0 U < 3.0 U	< 2.0 U < 4.9 U < 3.0 U < 3.0 U	< 2.0 U < 4.9 U < 3.0 U < 3.0 U	< 2.0 U < 4.9 U < 3.0 U < 3.0 U	< 2.0 U < 4.9 U < 3.0 U < 3.0 U	< 2.0 U < 4.9 U < 3.0 U < 3.0 U	< 2.0 U < 4.9 U < 3.0 U < 3.0 U	< 2.0 U < 4.9 U < 3.0 U < 3.0 U	< 2.0 U < 4.9 U < 3.0 U < 3.0 U	< 2.0 U < 4.9 U < 3.0 U < 3.0 U		
		EN04-16D	34	8/25/2010	EN0416D082510	Summa Canister	18.7	0.9	0.0	3.5	No	No	ug/m ³	- 180 - 3100 - 12 - < 7.0 U < 7.0 U	< 4.5 U - 150 - < 7.0 U < 7.0 U	< 4.6 U < 7.1 U < 6.1 U < 13 U	< 4.6 U < 6.1 U < 13 U	< 4.6 U < 6.1 U < 13 U	< 4.6 U < 6.1 U < 13 U	< 4.6 U < 6.1 U < 13 U	< 4.6 U < 6.1 U < 13 U	< 4.6 U < 6.1 U < 13 U	< 4.6 U < 6.1 U < 13 U	< 4.6 U < 6.1 U < 13 U	< 4.6 U < 6.1 U < 13 U	< 4.6 U < 6.1 U < 13 U	< 4.6 U < 6.1 U < 13 U	
		EN04-16D	34	12/7/2010	EN0416D120710-tube	Summa Canister	- - - 350 - 4600 - 45 - < 40 U < 40 U	< 26 U - 260 - < 40 U < 40 U	< 210 U < 77 U	< 210 U < 77 U	< 210 U < 77 U	< 210 U < 77 U	< 210 U < 77 U	< 210 U < 77 U	< 210 U < 77 U	< 210 U < 77 U	< 210 U < 77 U	< 210 U < 77 U	< 210 U < 77 U	< 210 U < 77 U	< 210 U < 77 U	< 210 U < 77 U	< 210 U < 77 U	< 210 U < 77 U				
		EN04-16D	34	8/2/2011	EN0416D080211	Summa Canister	18.9	0.6	0.0	6.0	No	No	ug/m ³	- 190 - 2900 - 14 - < 12 U < 12 U	< 7.7 U - 99 - < 12 U < 12 U	< 12 U < 12 U < 12 U < 12 U	< 12 U < 12 U < 12 U < 12 U	< 12 U < 12 U < 12 U < 12 U	< 12 U < 12 U < 12 U < 12 U	< 12 U < 12 U < 12 U < 12 U	< 12 U < 12 U < 12 U < 12 U	< 12 U < 12 U < 12 U < 12 U	< 12 U < 12 U < 12 U < 12 U	< 12 U < 12 U < 12 U < 12 U	< 12 U < 12 U < 12 U < 12 U	< 12 U < 12 U < 12 U < 12 U	< 12 U < 12 U < 12 U < 12 U	
Designation Monitoring Well	EN04-17 EN-401	EN04-17S	8	8/24/2010	EN0417S082410	Summa Canister	19.6	1.2	0.0	1.6	No	No	ug/m ³	< 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	< 2.1 U < 2.8 U < 6.2 U	< 2.1 U < 2.8 U < 6.2 U	< 2.1 U < 2.8 U < 6.2 U	< 2.1 U < 2.8 U < 6.2 U	< 2.1 U < 2.8 U < 6.2 U	< 2.1 U < 2.8 U < 6.2 U	< 2.1 U < 2.8 U < 6.2 U	< 2.1 U < 2.8 U < 6.2 U	< 2.1 U < 2.8 U < 6.2 U	< 2.1 U < 2.8 U < 6.2 U	< 2.1 U < 2.8 U < 6.2 U	< 2.1 U < 2.8 U < 6.2 U
		EN04-17S	8	12/7/2010	EN0417S120710	Summa Canister	20.2	0.4	0.0	1.6	No	No	ug/m ³	< 5.5 U - 140 - < 3.2 U < 3.2 U	< 2.0 U < 4.4 U < 3.2 U < 3.2 U	< 2.0 U < 2.8 U < 6.2 U	< 2.0 U < 2.8 U < 6.2 U	< 2.0 U < 2.8 U < 6.2 U	< 2.0 U < 2.8 U < 6.2 U	< 2.0 U < 2.8 U < 6.2 U	< 2.0 U < 2.8 U < 6.2 U	< 2.0 U < 2.8 U < 6.2 U	< 2.0 U < 2.8 U < 6.2 U	< 2.0 U < 2.8 U < 6.2 U	< 2.0 U < 2.8 U < 6.2 U	< 2.0 U < 2.8 U < 6.2 U	< 2.0 U < 2.8 U < 6.2 U	< 2.0 U < 2.8 U < 6.2 U
		EN04-17S	8	12/7/2010	EN0417S120710-tube	Summa Canister	20.2	0.4	0.0	1.0	No	No	ug/m ³	< 34 U - 170 - < 20 U < 20 U	< 13 U < 27 U < 20 U < 20 U	< 20 U < 20 U < 20 U < 20 U	< 20 U < 20 U < 20 U < 20 U	< 20 U < 20 U < 20 U < 20 U	< 20 U < 20 U < 20 U < 20 U	< 20 U < 20 U < 20 U < 20 U	< 20 U < 20 U < 20 U < 20 U	< 20 U < 20 U < 20 U < 20 U	< 20 U < 20 U < 20 U < 20 U	< 20 U < 20 U < 20 U < 20 U	< 20 U < 20 U < 20 U < 20 U	< 20 U < 20 U < 20 U < 20 U	< 20 U < 20 U < 20 U < 20 U	
		EN04-17S	8	2/8/2011	EN0417S020811	Summa Canister	20.9	0.3	0.0	1.6	No	No	ug/m ³	< 5.4 U - 78 - < 3.1 U < 3.1 U	< 2.0 U < 4.3 U < 3.1 U < 3.1 U	< 2.1 U < 2.7 U < 6.0 U < 6.0 U	< 2.1 U < 2.7 U <											

Table C.1
Summary of Analytical Laboratory Data

SV Mon Point Designation		Sampling Point Designation	Sampling Depth	Sampling Date	Field Sample ID	Sample Type	O ₂ (%)	C _{CO₂} (%)	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	Chloroethane	Methylene chloride	Trifluorotrichloroethane (Freon)																							
Designation	EN04-20	EN04-20S	8	8/25/2010	EN0420S082510	Summa Canister	19.3	1.7	0.0	1.6	No	No	ug/m ₃	<	5.5	U	<	4.3	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	1.8	No	No	ug/m ₃	<	6.0	U	<	4.8	U	<	3.5	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	1.6	No	No	ug/m ₃	<	5.5	U	-	9.9	-	<	3.2	U	<	3.2	U	<	3.3	U	<	8.6	U	<	2.8	U	<	6.2	U									
		EN04-20D	36	8/25/2010	EN0420D082510	Summa Canister	20.5	0.6	0.0	1.8	No	No	ug/m ₃	<	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	1.7	No	No	ug/m ₃	<	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	1.6	No	No	ug/m ₃	<	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	1.7	No	No	ug/m ₃	<	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
Designation	EN04-21	EN04-21S	7.5	8/25/2010	EN0421S082510	Summa Canister	17.7	2.6	0.0	1.6	No	No	ug/m ₃	<	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	19.0	1.7	0.0	1.7	No	No	ug/m ₃	-	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
		EN04-21D	23	8/25/2010	EN0421D082510	Summa Canister	19.1	1.8	0.0	2.4	No	No	ug/m ₃	-	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	1.7	No	No	ug/m ₃	-	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
		EN04-22S	8	8/24/2010	EN0422S082410	Summa Canister	14.8	5.2	0.0	1.7	No	No	ug/m ₃	<	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	1.6	No	No	ug/m ₃	<	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	1.5	No	No	ug/m ₃	-	8.4	-	-	880	-	-	280	-	-	39	-	<	1.9	U	-	64	-	<	3.0	U	-	3.8	-	<	7.9	U	<	2.6	U	-	17	
		EN04-22D	16	8/24/2010	EN0422D082410	Summa Canister	13.6	6.0	0.0	1.6	No	No	ug/m ₃	-	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	1.5	No	No	ug/m ₃	<	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	1.5	No	No	ug/m ₃	<	5.2	U	-	680	-	-	500	-	-	71	-	<	2.0	U	-	58	-	<	3.1	U	-	5.4	-	<	8.2	U	<	2.7	U	-	12	
Designation	EN04-23	EN04-23S	8	8/24/2010	EN0423S082410	Summa Canister	16.3	4.4	0.0	1.6	No	No	ug/m ₃	<	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	1.7	No	No	ug/m ₃	<	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
		EN04-23D	23	8/24/2010	EN0423D082410	Summa Canister	19.8	1.5	0.0	1.7	No	No	ug/m ₃	-	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	1.7	No	No	ug/m ₃	-	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	1.7	No	No	ug/m ₃	-	15	-	-	390	-	-	96	-	-	8.3	-	<	2.1	U	<	4.6	U	<	3.3	U	-	16	-	<	8.9	U	<	2.9	U	<	6.4	U
Designation	EN04-25	EN04-25S	8	8/25/2010	EN0425S082510	Summa Canister	13.9	5.3	0.0	1.6	Yes	Yes	ug/m ₃	-	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	19.0	1.4	0.0	1.7	No	No	ug/m ₃	-	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
		EN04-25D	17.5	8/25/2010	EN0425D082510	Summa Canister	17.8	1.9	0.0	1.5	No	No	ug/m ₃	-	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	1.6	No	No	ug/m ₃	-	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

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Comprehensive Operations, Maintenance, Monitoring Program
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SV Mon Point Designation		Sampling Point Designation	Sampling Depth	Sampling Date	Field Sample ID	Sample Type	O ₂ (%)	CO ₂ (%)	CH ₄ (%)	Dilution Factor	SF ₆ Applied?	He Applied?	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 (Freo)
Designation Monitoring Well	EN04-26 EN-304	EN04-26S	8	8/25/2010	EN0426S082510	Summa Canister	19.4	1.4	0.0	1.8	No	No	ug/m ³	< 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
		EN04-26S	8	12/7/2010	EN0426S120710	Summa Canister	19.5	1.2	0.0	1.6	No	No	ug/m ³	< 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	1.4	No	No	ug/m ³	< 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	20.0	1.2	0.0	12.9	No	No	ug/m ³	< 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	20.0	1.1	0.0	1.6	No	No	ug/m ³	- 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
		EN04-26D	14	8/25/2010	EN0426D082510	Summa Canister	19.8	1.8	0.0	2.9	No	No	ug/m ³	- 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	2.0	No	No	ug/m ³	- 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	20.0	1.0	0.0	1.5	No	No	ug/m ³	- 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	0.0	1.7	No	No	ug/m ³	- 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	2.2	No	No	ug/m ³	- 13	- 2000	- < 4.4 U	< 4.4 U	2.9 U	- 99	- < 4.4 U	< 4.5 U	< 12 U	< 3.9 U	- 15
Designation Monitoring Well	EN04-27 EN-417A	EN04-27S	8	8/25/2010	EN0427S082510	Summa Canister	15.0	5.5	6.0	1.7	No	No	ug/m ³	- 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
		EN04-27S	8	2/9/2011	EN0427S020911	Summa Canister	20.0	1.5	0.0	1.5	No	No	ug/m ³	- 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	1.6	No	No	ug/m ³	- 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
Designation Monitoring Well	EN07-28 EN-387A	EN07-28S	7	8/24/2010	EN0728S082410	Summa Canister	20.7	0.7	0.0	1.7	No	No	ug/m ³	- 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
		EN07-28S	7	12/8/2010	EN0728S120810	Summa Canister	20.5	0.2	0.0	1.6	No	No	ug/m ³	- 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	20.5	0.2	0.0	1.0	No	No	ug/m ³	- 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	1.5	No	No	ug/m ³	- 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	1.7	No	No	ug/m ³	- 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	1.8	No	No	ug/m ³	- 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	1.4	No	No	ug/m ³	- 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
		EN07-28D	19	8/24/2010	EN0728D082410	Summa Canister	8.9	9.0	0.0	3.7	No	No	ug/m ³	- 2400	- 120	- < 17 U	< 10 U	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	3.9	No	No	ug/m ³	- 3800	- 170	- < 21 U	< 15 U	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	2.9	No	No	ug/m ³	- 3700	- 140	- < 14 U	< 14 U	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	3.4	No	No	ug/m ³	- 3800	- 90	- < 15 U	< 11 U	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	5.5	No	No	ug/m ³	- 4800	- 310	- < 11 U	< 11 U	7.0 U	< 15 U	< 11 U	< 11 U	< 29 U	< 9.6 U	< 21 U

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SV Mon Point Designation		Sampling Point Designation	Sampling Depth	Sampling Date	Field Sample ID	Sample Type	O ₂ (%)	CO ₂ (%)	CH ₄ (%)	Dilution Factor	SF ₆ Applied?	He Applied?	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 (Freo
Designation Monitoring Well	EN04-29;EN05-29 EN-437	EN05-29S	8	8/24/2010	EN0529S082410	Summa Canister	18.4	2.1	0.0	1.6	No	No	ug/m ³	< 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	1.6	No	No	ug/m ³	< 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	1.5	No	No	ug/m ³	< 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	1.6	No	No	ug/m ³	< 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	1.6	No	No	ug/m ³	< 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	1.7	No	No	ug/m ³	< 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	1.8	No	No	ug/m ³	< 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
		EN04-29D	20	8/24/2010	EN0429D082410	Summa Canister	18.7	1.7	0.0	1.6	No	No	ug/m ³	< 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
		EN04-29D Dup	20	8/24/2010	DU31754082410	Summa Canister	18.7	1.7	0.0	1.6	Yes	Yes	ug/m ³	< 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	1.6	No	No	ug/m ³	< 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	1.5	No	No	ug/m ³	< 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	1.6	No	No	ug/m ³	< 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	1.8	No	No	ug/m ³	< 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	19.0	1.1	0.0	1.8	No	No	ug/m ³	< 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
Designation Monitoring Well	EN04-30 EN-092A;EN-438	EN04-30S	9	8/23/2010	EN0430S082310	Summa Canister	20.1	0.9	0.0	4.4	No	No	ug/m ³	< 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
		EN04-30S	9	12/8/2010	EN0430S120810	Summa Canister	19.7	0.8	0.0	1.6	No	No	ug/m ³	< 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	1.6	No	No	ug/m ³	< 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	1.8	No	No	ug/m ³	< 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	3.3	No	No	ug/m ³	< 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
		EN04-30D	20	8/23/2010	EN0430D082310	Summa Canister	19.7	1.0	0.0	1.7	No	No	ug/m ³	< 52	- 1200	- < 11 U	< 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	1.6	No	No	ug/m ³	< 40	- 1200	- < 6.4 U	< 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	1.5	No	No	ug/m ³	< 26	- 760	- < 4.4 U	< 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	1.7	No	No	ug/m ³	< 26	- 620	- < 5.4 U	< 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	1.6	No	No	ug/m ³	< 42	- 880	- < 6.6 U	< 3.2 U	< 2.0 U	- 90	- < 3.2 U	- 4.0	< 8.5 U	< 2.8 U	- 7.5
Designation Monitoring Well	EN04-31 EN-453	EN04-31S	10	8/24/2010	EN0431S082410	Summa Canister	20.6	0.1	0.0	1.6	No	No	ug/m ³	< 5.6 U	< 4.4 U	< 3.2 U	< 3.2 U	< 2.1 U	< 4.5 U	< 3.2 U	< 3.3 U	< 2.2 U	< 2.8 U	< 6.3 U
		EN04-31S	10	8/2/2011	EN0431S080211	Summa Canister	20.4	0.1	0.0	1.8	No	No	ug/m ³	< 5.9 U	< 4.7 U	< 3.5 U	< 3.5 U	< 2.2 U	< 4.8 U	< 3.5 U				

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Designation Monitoring Well	EN04-32 EN-457A;EN-457B	EN04-32S	8	8/24/2010	EN0432S082410	Summa Canister	19.8	1.2	0.0	2.4	No	No	ug/m ³	< 8.2	U	-	380	- <	4.8	U	< 4.8	U	< 4.9	U	< 3.2	U	< 4.2	U	< 9.2	U									
		EN04-32S	8	12/7/2010	EN0432S120710	Summa Canister	20.1	0.7	0.0	1.6	No	No	ug/m ³	-	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	1.6	No	No	ug/m ³	<	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	1.5	No	No	ug/m ³	<	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	1.8	No	No	ug/m ³	<	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	0.0	1.7	No	No	ug/m ³	<	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	
		EN04-32D	18	8/24/2010	EN0432D082410	Summa Canister	19.6	1.0	0.0	2.5	No	No	ug/m ³	<	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	1.5	No	No	ug/m ³	<	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	1.6	No	No	ug/m ³	<	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	0.6	0.0	1.5	No	No	ug/m ³	<	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	1.7	No	No	ug/m ³	<	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	1.6	No	No	ug/m ³	<	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	
Designation Monitoring Well	EN05-33 EN-162	EN05-33S	7.5	8/25/2010	EN0533S082510	Summa Canister	19.7	0.8	0.0	1.8	No	No	ug/m ³	-	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	
		EN05-33S	7.5	12/7/2010	EN0533S120710-tube	Summa Canister	19.7	0.8	0.0	1.0	No	No	ug/m ³	<	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	1.6	No	No	ug/m ³	<	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	1.7	No	No	ug/m ³	-	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	
		EN05-33D	32	8/25/2010	EN0533D082510	Summa Canister	20.0	0.6	0.0	5.6	No	No	ug/m ³	-	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	7.8	No	No	ug/m ³	-	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	6.3	No	No	ug/m ³	-	240	-	-	4400	- <	12	U	< 12	U	< 8.0	U	-	170	-	< 12	U	< 13	U	< 33	U	< 11	U	< 24	U	
Designation Monitoring Well	EN05-34 EN-417A	EN05-34S	8	8/25/2010	EN0534S082510	Summa Canister	19.1	1.5	0.0	1.8	No	No	ug/m ³	<	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	
		EN05-34S	8	2/9/2011	EN0534S020911	Summa Canister	21.0	0.3	0.0	1.5	No	No	ug/m ³	<	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
		EN																																					

Table C.1
Summary of Analytical Laboratory Data
Annual Report - Soil Vapor Monitoring through August 2011
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 (%)	C _{CO₂} (%)	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		Chloroethane		Methylene chloride		Trifluorotrichloroethane (Freon)															
Designation	EN06-36	EN06-36S	8	8/23/2010	EN0636S082310	Summa Canister	19.7	1.5	0.0	1.5	No	No	ug/m ₃	<	5.2	U	<	4.2	U	<	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	1.7	No	No	ug/m ₃	<	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	
		EN06-36D	33	8/23/2010	EN0636D082310	Summa Canister	19.9	1.1	0.0	1.5	No	No	ug/m ₃	<	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	1.6	No	No	ug/m ₃	-	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	
Designation	EN06-37	EN06-37S	8	8/24/2010	EN0637S082410	Summa Canister	18.8	2.1	0.0	1.6	No	No	ug/m ₃	<	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	1.7	No	No	ug/m ₃	<	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	
		EN06-37D	21	8/24/2010	EN0637D082410	Summa Canister	18.0	2.7	0.0	1.6	No	No	ug/m ₃	-	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	1.6	No	No	ug/m ₃	<	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	
Designation	EN10-41	EN10-41S	8	8/26/2010	EN1041S082610	Summa Canister	3.9	2.9	0.0	3.2	No	No	ug/m ₃	-	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	1.6	No	No	ug/m ₃	-	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	1.5	No	No	ug/m ₃	-	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	1.7	No	No	ug/m ₃	-	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	1.7	No	No	ug/m ₃	-	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	
		EN10-41D	23.5	9/24/2010	EN1041D092410	Summa Canister	0.2	1.5	0.0	2.0	No	No	ug/m ₃	-	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	1.5	No	No	ug/m ₃	-	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	1.5	No	No	ug/m ₃	-	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	1.8	No	No	ug/m ₃	-	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	1.8	No	No	ug/m ₃	-	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	1.7	No	No	ug/m ₃	-	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	
Equipment Blanks		Equipment Blank		6/7/2011	EB3024060711	Summa Canister				2.4			ug/m ₃	<	8.2	U	<	6.5	U	<	4.8	U	<	4.8	U	<	3.1	U	<	6.6	U	<	4.8	U	<	4.9	U	<	13	U	<	4.2	U	<	9.2	U	
		Equipment Blank		6/8/2011	EB3333060811	Summa Canister				2.3			ug/m ₃	<	7.8	U	<	6.2	U	<	4.6	U	<	4.6	U	<	3.0	U	<	6.3	U	<	4.6	U	<	4.7	U	<	12	U	<	4.0	U	<	8.8	U	
		Equipment Blank		8/2/2011	EB3363080211	Summa Canister				1.7			ug/m ₃	<	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	
		Equipment Blank		8/3/2011	EB94934080311	Summa Canister				1.6			ug/m ₃	<	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	
		Equipment Blank		8/4/2011	EB9521080411	Summa Canister				1.6			ug/m ₃	<	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	-	7.3	-	<	6.2	U	

Notes:

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

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

3. This table is an abbreviated summary of the soil vapor monitoring. Data reported were collected in routine monitoring events during the August 2010 to August 2011 calendar year.

4. As noted on the table by a "Y" entry in the "SF₆ 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 SF₆ 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.

6/21/2011

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP
Project #: 2755.06
Workorder #: 1106232A

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 6/9/2011 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

WORK ORDER #: 1106232A

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. #	2755.03
FAX:		PROJECT #	2755.06 GVP
DATE RECEIVED:	06/09/2011	CONTACT:	Ausha Scott
DATE COMPLETED:	06/21/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	DU3322060711	Modified TO-15	7.0 "Hg	5 psi
02A	DU3331060711	Modified TO-15	7.0 "Hg	5 psi
03A	EB3024060711	Modified TO-15	6.5 "Hg	5 psi
04A	EB3333060811	Modified TO-15	5.5 "Hg	5 psi
05A	EN0411D060811	Modified TO-15	7.5 "Hg	5 psi
05AA	EN0411D060811 Lab Duplicate	Modified TO-15	7.5 "Hg	5 psi
06A	EN0411S060811	Modified TO-15	7.0 "Hg	5 psi
07A	EN0412D060711	Modified TO-15	4.5 "Hg	5 psi
08A	EN0412S060711	Modified TO-15	6.0 "Hg	5 psi
08AA	EN0412S060711 Lab Duplicate	Modified TO-15	6.0 "Hg	5 psi
09A	EN0417D060711	Modified TO-15	6.5 "Hg	5 psi
10A	EN0417S060711	Modified TO-15	7.5 "Hg	5 psi
11A	Lab Blank	Modified TO-15	NA	NA
11B	Lab Blank	Modified TO-15	NA	NA
12A	CCV	Modified TO-15	NA	NA
12B	CCV	Modified TO-15	NA	NA
13A	LCS	Modified TO-15	NA	NA

Continued on next page

WORK ORDER #: **1106232A**

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. #	2755.03
FAX:		PROJECT #	2755.06 GVP
DATE RECEIVED:	06/09/2011	CONTACT:	Ausha Scott
DATE COMPLETED:	06/21/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
13AA	LCSD	Modified TO-15	NA	NA
13B	LCS	Modified TO-15	NA	NA
13BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 06/21/11

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1106232A**

Ten 1 Liter Summa Canister (100% Certified) samples were received on June 09, 2011. 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



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

Client Sample ID: DU3322060711

Lab ID#: 1106232A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.88	1.5	4.7	8.2
Tetrachloroethene	0.88	32	5.9	210

Client Sample ID: DU3331060711

Lab ID#: 1106232A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.88	2.5	3.5	9.8
Trichloroethene	0.88	4.0	4.7	22
Tetrachloroethene	0.88	18	5.9	120

Client Sample ID: EB3024060711

Lab ID#: 1106232A-03A

No Detections Were Found.

Client Sample ID: EB3333060811

Lab ID#: 1106232A-04A

No Detections Were Found.

Client Sample ID: EN0411D060811

Lab ID#: 1106232A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.90	4.2	4.9	23
Trichloroethene	0.90	150	4.8	820
Tetrachloroethene	0.90	3.2	6.1	22

Client Sample ID: EN0411D060811 Lab Duplicate

Lab ID#: 1106232A-05AA



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

Client Sample ID: EN0411D060811 Lab Duplicate

Lab ID#: 1106232A-05AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	1.2	5.5	6.8	30
Trichloroethene	1.2	160	6.7	860
Tetrachloroethene	1.2	3.7	8.4	25

Client Sample ID: EN0411S060811

Lab ID#: 1106232A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.88	23	4.7	120

Client Sample ID: EN0412D060711

Lab ID#: 1106232A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.79	2.0	4.3	11
Trichloroethene	0.79	68	4.2	360

Client Sample ID: EN0412S060711

Lab ID#: 1106232A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	3.0	4.6	16
Trichloroethene	0.84	93	4.5	500

Client Sample ID: EN0412S060711 Lab Duplicate

Lab ID#: 1106232A-08AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	1.1	3.2	6.2	18
Trichloroethene	1.1	99	6.1	530



Summary of Detected Compounds

EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN0417D060711

Lab ID#: 1106232A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.86	2.8	4.6	15

Client Sample ID: EN0417S060711

Lab ID#: 1106232A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.90	44	4.8	240



Client Sample ID: DU3322060711

Lab ID#: 1106232A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o061407	Date of Collection:	6/7/11 11:56:00 AM	
Dil. Factor:	1.75	Date of Analysis:	6/14/11 12:10 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	0.88	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.88	Not Detected	4.8	Not Detected
Trichloroethene	0.88	1.5	4.7	8.2
Tetrachloroethene	0.88	32	5.9	210
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	100	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	83	70-130



Client Sample ID: DU3331060711

Lab ID#: 1106232A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o061408	Date of Collection:	6/7/11 11:45:00 AM	
Dil. Factor:	1.75	Date of Analysis:	6/14/11 12:48 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.88	Not Detected	2.2	Not Detected
Chloroethane	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	0.88	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.88	2.5	3.5	9.8
1,1,1-Trichloroethane	0.88	Not Detected	4.8	Not Detected
Trichloroethene	0.88	4.0	4.7	22
Tetrachloroethene	0.88	18	5.9	120
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	102	70-130
4-Bromofluorobenzene	86	70-130



Client Sample ID: EB3024060711

Lab ID#: 1106232A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061514	Date of Collection:	6/7/11 5:26:00 PM	
Dil. Factor:	2.41	Date of Analysis:	6/15/11 01:16 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Freon 113	1.2	Not Detected	9.2	Not Detected
Methylene Chloride	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	108	70-130



Client Sample ID: EB3333060811

Lab ID#: 1106232A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061515	Date of Collection:	6/8/11 7:22:00 AM	
Dil. Factor:	2.31	Date of Analysis:	6/15/11 01:41 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Freon 113	1.2	Not Detected	8.8	Not Detected
Methylene Chloride	1.2	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.3	Not Detected
Trichloroethene	1.2	Not Detected	6.2	Not Detected
Tetrachloroethene	1.2	Not Detected	7.8	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	121	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: EN0411D060811

Lab ID#: 1106232A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061508	Date of Collection:	6/8/11 2:15:00 PM	
Dil. Factor:	1.79	Date of Analysis:	6/15/11 10:31 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	0.90	Not Detected	3.1	Not Detected
1,1-Dichloroethane	0.90	Not Detected	3.6	Not Detected
cis-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.90	4.2	4.9	23
Trichloroethene	0.90	150	4.8	820
Tetrachloroethene	0.90	3.2	6.1	22
trans-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0411D060811 Lab Duplicate

Lab ID#: 1106232A-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061516	Date of Collection:	6/8/11 2:15:00 PM	
Dil. Factor:	2.49	Date of Analysis:	6/15/11 02:06 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.2	Not Detected
Chloroethane	5.0	Not Detected	13	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.9	Not Detected
Freon 113	1.2	Not Detected	9.5	Not Detected
Methylene Chloride	1.2	Not Detected	4.3	Not Detected
1,1-Dichloroethane	1.2	Not Detected	5.0	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected
1,1,1-Trichloroethane	1.2	5.5	6.8	30
Trichloroethene	1.2	160	6.7	860
Tetrachloroethene	1.2	3.7	8.4	25
trans-1,2-Dichloroethene	1.2	Not Detected	4.9	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	119	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN0411S060811

Lab ID#: 1106232A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061509	Date of Collection:	6/8/11 2:15:00 PM	
Dil. Factor:	1.75	Date of Analysis:	6/15/11 10:59 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	0.88	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.88	Not Detected	4.8	Not Detected
Trichloroethene	0.88	23	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	115	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN0412D060711

Lab ID#: 1106232A-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061510	Date of Collection:	6/7/11 8:33:00 AM	
Dil. Factor:	1.58	Date of Analysis:	6/15/11 11:25 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.79	Not Detected	2.0	Not Detected
Chloroethane	3.2	Not Detected	8.3	Not Detected
1,1-Dichloroethene	0.79	Not Detected	3.1	Not Detected
Freon 113	0.79	Not Detected	6.0	Not Detected
Methylene Chloride	0.79	Not Detected	2.7	Not Detected
1,1-Dichloroethane	0.79	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.79	2.0	4.3	11
Trichloroethene	0.79	68	4.2	360
Tetrachloroethene	0.79	Not Detected	5.4	Not Detected
trans-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	105	70-130



Client Sample ID: EN0412S060711

Lab ID#: 1106232A-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061511	Date of Collection:	6/7/11 8:33:00 AM	
Dil. Factor:	1.68	Date of Analysis:	6/15/11 11:55 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	3.0	4.6	16
Trichloroethene	0.84	93	4.5	500
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	118	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	108	70-130



Client Sample ID: EN0412S060711 Lab Duplicate

Lab ID#: 1106232A-08AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061518	Date of Collection:	6/7/11 8:33:00 AM	
Dil. Factor:	2.28	Date of Analysis:	6/15/11 03:23 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Chloroethane	4.6	Not Detected	12	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Freon 113	1.1	Not Detected	8.7	Not Detected
Methylene Chloride	1.1	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
1,1,1-Trichloroethane	1.1	3.2	6.2	18
Trichloroethene	1.1	99	6.1	530
Tetrachloroethene	1.1	Not Detected	7.7	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	125	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: EN0417D060711

Lab ID#: 1106232A-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061512	Date of Collection:	6/7/11 4:41:00 PM	
Dil. Factor:	1.71	Date of Analysis:	6/15/11 12:22 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.86	Not Detected	2.2	Not Detected
Chloroethane	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	0.86	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.86	Not Detected	4.7	Not Detected
Trichloroethene	0.86	2.8	4.6	15
Tetrachloroethene	0.86	Not Detected	5.8	Not Detected
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: EN0417S060711

Lab ID#: 1106232A-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061513	Date of Collection:	6/7/11 4:08:00 PM	
Dil. Factor:	1.79	Date of Analysis:	6/15/11 12:52 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	0.90	Not Detected	3.1	Not Detected
1,1-Dichloroethane	0.90	Not Detected	3.6	Not Detected
cis-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.90	Not Detected	4.9	Not Detected
Trichloroethene	0.90	44	4.8	240
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	117	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: Lab Blank

Lab ID#: 1106232A-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o061406	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 6/14/11 11:19 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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	84	70-130



Client Sample ID: Lab Blank

Lab ID#: 1106232A-11B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061507	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	6/15/11 09:45 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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	106	70-130



Client Sample ID: CCV

Lab ID#: 1106232A-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o061403	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/14/11 08:26 AM

Compound	%Recovery
Vinyl Chloride	102
Chloroethane	100
1,1-Dichloroethene	93
Freon 113	98
Methylene Chloride	98
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	91
Trichloroethene	109
Tetrachloroethene	111
trans-1,2-Dichloroethene	92

Container Type: NA - Not Applicable

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



Client Sample ID: CCV

Lab ID#: 1106232A-12B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061502	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/15/11 07:00 AM

Compound	%Recovery
Vinyl Chloride	103
Chloroethane	100
1,1-Dichloroethene	104
Freon 113	102
Methylene Chloride	111
1,1-Dichloroethane	106
cis-1,2-Dichloroethene	100
1,1,1-Trichloroethane	118
Trichloroethene	105
Tetrachloroethene	101
trans-1,2-Dichloroethene	105

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	126	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	113	70-130



Client Sample ID: LCS

Lab ID#: 1106232A-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o061404	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/14/11 09:15 AM

Compound	%Recovery
Vinyl Chloride	100
Chloroethane	99
1,1-Dichloroethene	93
Freon 113	94
Methylene Chloride	92
1,1-Dichloroethane	91
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	88
Trichloroethene	104
Tetrachloroethene	103
trans-1,2-Dichloroethene	103

Container Type: NA - Not Applicable

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



Client Sample ID: LCSD

Lab ID#: 1106232A-13AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o061405	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/14/11 09:53 AM

Compound	%Recovery
Vinyl Chloride	96
Chloroethane	95
1,1-Dichloroethene	95
Freon 113	90
Methylene Chloride	90
1,1-Dichloroethane	86
cis-1,2-Dichloroethene	91
1,1,1-Trichloroethane	84
Trichloroethene	100
Tetrachloroethene	100
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	90	70-130
4-Bromofluorobenzene	94	70-130



Client Sample ID: LCS

Lab ID#: 1106232A-13B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061503	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/15/11 07:44 AM

Compound	%Recovery
Vinyl Chloride	112
Chloroethane	108
1,1-Dichloroethene	117
Freon 113	110
Methylene Chloride	110
1,1-Dichloroethane	108
cis-1,2-Dichloroethene	104
1,1,1-Trichloroethane	121
Trichloroethene	110
Tetrachloroethene	102
trans-1,2-Dichloroethene	120

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	111	70-130



Client Sample ID: LCSD

Lab ID#: 1106232A-13BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061504	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/15/11 08:14 AM

Compound	%Recovery
Vinyl Chloride	108
Chloroethane	102
1,1-Dichloroethene	112
Freon 113	102
Methylene Chloride	103
1,1-Dichloroethane	103
cis-1,2-Dichloroethene	102
1,1,1-Trichloroethane	112
Trichloroethene	104
Tetrachloroethene	101
trans-1,2-Dichloroethene	117

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	111	70-130

6/21/2011

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP

Project #: 2755.06

Workorder #: 1106232B

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 6/9/2011 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

WORK ORDER #: 1106232B

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. #	2755.03
FAX:		PROJECT #	2755.06 GVP
DATE RECEIVED:	06/09/2011	CONTACT:	Ausha Scott
DATE COMPLETED:	06/21/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
11A	EN0426D060711	Modified TO-15	6.5 "Hg	5 psi
12A	EN0426S060711	Modified TO-15	5.0 "Hg	5 psi
13A	EN0429D060811	Modified TO-15	7.0 "Hg	5 psi
14A	EN042D060811	Modified TO-15	6.5 "Hg	5 psi
15A	EN042S060811	Modified TO-15	6.0 "Hg	5 psi
16A	EN0430D060711	Modified TO-15	6.5 "Hg	5 psi
17A	EN0430S060711	Modified TO-15	7.5 "Hg	5 psi
18A	EN0432D060811	Modified TO-15	6.0 "Hg	5 psi
19A	EN0432S060811	Modified TO-15	7.0 "Hg	5 psi
20A	EN047S060611	Modified TO-15	6.5 "Hg	5 psi
21A	EN0529S060811	Modified TO-15	6.5 "Hg	5 psi
22A	EN0728D060711	Modified TO-15	6.5 "Hg	5 psi
22AA	EN0728D060711 Lab Duplicate	Modified TO-15	6.5 "Hg	5 psi
23A	EN0728S060711	Modified TO-15	6.0 "Hg	5 psi
24A	EN1041S060711	Modified TO-15	6.0 "Hg	5 psi
25A	EN047D060611	Modified TO-15	6.5 "Hg	5 psi
26A	EN1041D060711	Modified TO-15	7.0 "Hg	5 psi

Continued on next page

WORK ORDER #: **1106232B**

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. #	2755.03
FAX:		PROJECT #	2755.06 GVP
DATE RECEIVED:	06/09/2011	CONTACT:	Ausha Scott
DATE COMPLETED:	06/21/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
27A	Lab Blank	Modified TO-15	NA	NA
27B	Lab Blank	Modified TO-15	NA	NA
28A	CCV	Modified TO-15	NA	NA
28B	CCV	Modified TO-15	NA	NA
29A	LCS	Modified TO-15	NA	NA
29AA	LCSD	Modified TO-15	NA	NA
29B	LCS	Modified TO-15	NA	NA
29BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 06/21/11

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1106232B**

Sixteen 1 Liter Summa Canister (100% Certified) samples were received on June 09, 2011. 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

Dilution was performed on samples EN0728D060711 and EN047D060611 due to the presence of high level target species.

Dilution was performed on sample EN0426S060711 due to the presence of high level non-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



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

Client Sample ID: EN0426D060711

Lab ID#: 1106232B-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.86	1.6	6.6	12
1,1,1-Trichloroethane	0.86	11	4.7	59
Trichloroethene	0.86	180	4.6	1000
Tetrachloroethene	0.86	1.2	5.8	8.2

Client Sample ID: EN0426S060711

Lab ID#: 1106232B-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	6.4	10	35	57
Trichloroethene	6.4	140	35	740

Client Sample ID: EN0429D060811

Lab ID#: 1106232B-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.88	1.9	4.8	10
Trichloroethene	0.88	32	4.7	170

Client Sample ID: EN042D060811

Lab ID#: 1106232B-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.86	2.1	4.7	11
Trichloroethene	0.86	16	4.6	86
Tetrachloroethene	0.86	2.8	5.8	19

Client Sample ID: EN042S060811

Lab ID#: 1106232B-15A

No Detections Were Found.



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

Client Sample ID: EN0430D060711

Lab ID#: 1106232B-16A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.86	1.4	3.4	5.4
1,1,1-Trichloroethane	0.86	9.7	4.7	53
Trichloroethene	0.86	120	4.6	620
Tetrachloroethene	0.86	3.9	5.8	26

Client Sample ID: EN0430S060711

Lab ID#: 1106232B-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.90	1.1	4.9	6.2
Trichloroethene	0.90	160	4.8	870

Client Sample ID: EN0432D060811

Lab ID#: 1106232B-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	2.3	4.6	12
Trichloroethene	0.84	130	4.5	720

Client Sample ID: EN0432S060811

Lab ID#: 1106232B-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.88	0.90	4.8	4.9
Trichloroethene	0.88	40	4.7	220

Client Sample ID: EN047S060611

Lab ID#: 1106232B-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.86	1.1	5.8	7.8



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

Client Sample ID: EN0529S060811

Lab ID#: 1106232B-21A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.86	3.7	4.7	20
Trichloroethene	0.86	47	4.6	250

Client Sample ID: EN0728D060711

Lab ID#: 1106232B-22A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	1.7	23	6.8	90
Trichloroethene	1.7	54	9.2	290
Tetrachloroethene	1.7	570	12	3800
trans-1,2-Dichloroethene	1.7	3.8	6.8	15

Client Sample ID: EN0728D060711 Lab Duplicate

Lab ID#: 1106232B-22AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	1.7	20	6.8	80
Trichloroethene	1.7	47	9.2	250
Tetrachloroethene	1.7	500	12	3400
trans-1,2-Dichloroethene	1.7	4.0	6.8	16

Client Sample ID: EN0728S060711

Lab ID#: 1106232B-23A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.84	1.7	4.5	9.0
Tetrachloroethene	0.84	32	5.7	210

Client Sample ID: EN1041S060711

Lab ID#: 1106232B-24A



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

Client Sample ID: EN1041S060711

Lab ID#: 1106232B-24A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.84	3.1	4.5	17
Tetrachloroethene	0.84	26	5.7	170

Client Sample ID: EN047D060611

Lab ID#: 1106232B-25A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	2.8	6.1	11	24
Trichloroethene	2.8	820	15	4400

Client Sample ID: EN1041D060711

Lab ID#: 1106232B-26A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.88	4.2	3.5	16
Trichloroethene	0.88	5.4	4.7	29
Tetrachloroethene	0.88	22	5.9	150



Client Sample ID: EN0426D060711

Lab ID#: 1106232B-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061409	Date of Collection:	6/7/11 6:22:00 PM	
Dil. Factor:	1.71	Date of Analysis:	6/14/11 11:55 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	1.6	6.6	12
Methylene Chloride	0.86	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.86	11	4.7	59
Trichloroethene	0.86	180	4.6	1000
Tetrachloroethene	0.86	1.2	5.8	8.2
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: EN0426S060711

Lab ID#: 1106232B-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061422	Date of Collection:	6/7/11 6:22:00 PM	
Dil. Factor:	12.9	Date of Analysis:	6/14/11 06:06 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	6.4	Not Detected	16	Not Detected
Chloroethane	26	Not Detected	68	Not Detected
1,1-Dichloroethene	6.4	Not Detected	26	Not Detected
Freon 113	6.4	Not Detected	49	Not Detected
Methylene Chloride	6.4	Not Detected	22	Not Detected
1,1-Dichloroethane	6.4	Not Detected	26	Not Detected
cis-1,2-Dichloroethene	6.4	Not Detected	26	Not Detected
1,1,1-Trichloroethane	6.4	10	35	57
Trichloroethene	6.4	140	35	740
Tetrachloroethene	6.4	Not Detected	44	Not Detected
trans-1,2-Dichloroethene	6.4	Not Detected	26	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: EN0429D060811

Lab ID#: 1106232B-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061421	Date of Collection:	6/8/11 9:50:00 AM	
Dil. Factor:	1.75	Date of Analysis:	6/14/11 05:34 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	0.88	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.88	1.9	4.8	10
Trichloroethene	0.88	32	4.7	170
Tetrachloroethene	0.88	Not Detected	5.9	Not Detected
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: EN042D060811

Lab ID#: 1106232B-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061420	Date of Collection:	6/8/11 8:15:00 AM	
Dil. Factor:	1.71	Date of Analysis:	6/14/11 05:15 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.86	Not Detected	2.2	Not Detected
Chloroethane	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	0.86	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.86	2.1	4.7	11
Trichloroethene	0.86	16	4.6	86
Tetrachloroethene	0.86	2.8	5.8	19
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	106	70-130



Client Sample ID: EN042S060811

Lab ID#: 1106232B-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061410	Date of Collection:	6/8/11 8:15:00 AM	
Dil. Factor:	1.68	Date of Analysis:	6/14/11 12:27 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.84	Not Detected	2.1	Not Detected
Chloroethane	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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
trans-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: EN0430D060711

Lab ID#: 1106232B-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061411	Date of Collection:	6/7/11 2:25:00 PM	
Dil. Factor:	1.71	Date of Analysis:	6/14/11 01:04 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	0.86	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	1.4	3.4	5.4
1,1,1-Trichloroethane	0.86	9.7	4.7	53
Trichloroethene	0.86	120	4.6	620
Tetrachloroethene	0.86	3.9	5.8	26
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	98	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN0430S060711

Lab ID#: 1106232B-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061412	Date of Collection:	6/7/11 2:25:00 PM	
Dil. Factor:	1.79	Date of Analysis:	6/14/11 01:28 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.90	Not Detected	2.3	Not Detected
Chloroethane	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	0.90	Not Detected	3.1	Not Detected
1,1-Dichloroethane	0.90	Not Detected	3.6	Not Detected
cis-1,2-Dichloroethene	0.90	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.90	1.1	4.9	6.2
Trichloroethene	0.90	160	4.8	870
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	108	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0432D060811

Lab ID#: 1106232B-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061413	Date of Collection:	6/8/11 11:35:00 AM	
Dil. Factor:	1.68	Date of Analysis:	6/14/11 01:54 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	2.3	4.6	12
Trichloroethene	0.84	130	4.5	720
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	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0432S060811

Lab ID#: 1106232B-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061414	Date of Collection:	6/8/11 11:35:00 AM	
Dil. Factor:	1.75	Date of Analysis:	6/14/11 02:18 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	0.88	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.88	0.90	4.8	4.9
Trichloroethene	0.88	40	4.7	220
Tetrachloroethene	0.88	Not Detected	5.9	Not Detected
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN047S060611

Lab ID#: 1106232B-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061415	Date of Collection:	6/6/11 6:18:00 PM	
Dil. Factor:	1.71	Date of Analysis:	6/14/11 02:43 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	0.86	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.86	Not Detected	4.7	Not Detected
Trichloroethene	0.86	Not Detected	4.6	Not Detected
Tetrachloroethene	0.86	1.1	5.8	7.8
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	109	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN0529S060811

Lab ID#: 1106232B-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061416	Date of Collection:	6/8/11 9:50:00 AM	
Dil. Factor:	1.71	Date of Analysis:	6/14/11 03:08 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.86	Not Detected	2.2	Not Detected
Chloroethane	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	0.86	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.86	3.7	4.7	20
Trichloroethene	0.86	47	4.6	250
Tetrachloroethene	0.86	Not Detected	5.8	Not Detected
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN0728D060711

Lab ID#: 1106232B-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061418	Date of Collection:	6/7/11 10:40:00 AM	
Dil. Factor:	3.42	Date of Analysis:	6/14/11 04:12 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.7	Not Detected	4.4	Not Detected
Chloroethane	6.8	Not Detected	18	Not Detected
1,1-Dichloroethene	1.7	Not Detected	6.8	Not Detected
Freon 113	1.7	Not Detected	13	Not Detected
Methylene Chloride	1.7	Not Detected	5.9	Not Detected
1,1-Dichloroethane	1.7	Not Detected	6.9	Not Detected
cis-1,2-Dichloroethene	1.7	23	6.8	90
1,1,1-Trichloroethane	1.7	Not Detected	9.3	Not Detected
Trichloroethene	1.7	54	9.2	290
Tetrachloroethene	1.7	570	12	3800
trans-1,2-Dichloroethene	1.7	3.8	6.8	15

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: EN0728D060711 Lab Duplicate

Lab ID#: 1106232B-22AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061419	Date of Collection:	6/7/11 10:40:00 AM	
Dil. Factor:	3.42	Date of Analysis:	6/14/11 04:42 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.7	Not Detected	4.4	Not Detected
Chloroethane	6.8	Not Detected	18	Not Detected
1,1-Dichloroethene	1.7	Not Detected	6.8	Not Detected
Freon 113	1.7	Not Detected	13	Not Detected
Methylene Chloride	1.7	Not Detected	5.9	Not Detected
1,1-Dichloroethane	1.7	Not Detected	6.9	Not Detected
cis-1,2-Dichloroethene	1.7	20	6.8	80
1,1,1-Trichloroethane	1.7	Not Detected	9.3	Not Detected
Trichloroethene	1.7	47	9.2	250
Tetrachloroethene	1.7	500	12	3400
trans-1,2-Dichloroethene	1.7	4.0	6.8	16

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: EN0728S060711

Lab ID#: 1106232B-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061417	Date of Collection:	6/7/11 11:56:00 AM	
Dil. Factor:	1.68	Date of Analysis:	6/14/11 03:34 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.84	Not Detected	2.1	Not Detected
Chloroethane	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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	1.7	4.5	9.0
Tetrachloroethene	0.84	32	5.7	210
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	110	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: EN1041S060711

Lab ID#: 1106232B-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6061407	Date of Collection:	6/7/11 10:09:00 AM	
Dil. Factor:	1.68	Date of Analysis:	6/14/11 10:32 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	3.1	4.5	17
Tetrachloroethene	0.84	26	5.7	170
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	120	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN047D060611

Lab ID#: 1106232B-25A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6061406	Date of Collection:	6/6/11 6:18:00 PM	
Dil. Factor:	5.70	Date of Analysis:	6/14/11 09:56 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.8	Not Detected	7.3	Not Detected
Chloroethane	11	Not Detected	30	Not Detected
1,1-Dichloroethene	2.8	Not Detected	11	Not Detected
Freon 113	2.8	Not Detected	22	Not Detected
Methylene Chloride	2.8	Not Detected	9.9	Not Detected
1,1-Dichloroethane	2.8	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	2.8	6.1	11	24
1,1,1-Trichloroethane	2.8	Not Detected	16	Not Detected
Trichloroethene	2.8	820	15	4400
Tetrachloroethene	2.8	Not Detected	19	Not Detected
trans-1,2-Dichloroethene	2.8	Not Detected	11	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	89	70-130



Client Sample ID: EN1041D060711

Lab ID#: 1106232B-26A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6061408	Date of Collection:	6/7/11 11:45:00 AM	
Dil. Factor:	1.75	Date of Analysis:	6/14/11 10:59 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.88	Not Detected	2.2	Not Detected
Chloroethane	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	0.88	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.88	4.2	3.5	16
1,1,1-Trichloroethane	0.88	Not Detected	4.8	Not Detected
Trichloroethene	0.88	5.4	4.7	29
Tetrachloroethene	0.88	22	5.9	150
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	122	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	108	70-130



Client Sample ID: Lab Blank

Lab ID#: 1106232B-27A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061408	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	6/14/11 11:19 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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: Lab Blank

Lab ID#: 1106232B-27B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6061405	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	6/14/11 09:21 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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	91	70-130



Client Sample ID: CCV

Lab ID#: 1106232B-28A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061402	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/14/11 07:08 AM

Compound	%Recovery
Vinyl Chloride	100
Chloroethane	100
1,1-Dichloroethene	101
Freon 113	96
Methylene Chloride	98
1,1-Dichloroethane	98
cis-1,2-Dichloroethene	97
1,1,1-Trichloroethane	105
Trichloroethene	99
Tetrachloroethene	98
trans-1,2-Dichloroethene	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	106	70-130



Client Sample ID: CCV

Lab ID#: 1106232B-28B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6061402	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/14/11 07:52 PM

Compound	%Recovery
Vinyl Chloride	115
Chloroethane	111
1,1-Dichloroethene	104
Freon 113	109
Methylene Chloride	112
1,1-Dichloroethane	113
cis-1,2-Dichloroethene	108
1,1,1-Trichloroethane	116
Trichloroethene	97
Tetrachloroethene	99
trans-1,2-Dichloroethene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	114	70-130



Client Sample ID: LCS

Lab ID#: 1106232B-29A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061403	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/14/11 07:59 AM

Compound	%Recovery
Vinyl Chloride	106
Chloroethane	105
1,1-Dichloroethene	114
Freon 113	102
Methylene Chloride	101
1,1-Dichloroethane	102
cis-1,2-Dichloroethene	104
1,1,1-Trichloroethane	110
Trichloroethene	104
Tetrachloroethene	102
trans-1,2-Dichloroethene	117

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: LCSD

Lab ID#: 1106232B-29AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p061404	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/14/11 08:40 AM

Compound	%Recovery
Vinyl Chloride	105
Chloroethane	105
1,1-Dichloroethene	114
Freon 113	98
Methylene Chloride	98
1,1-Dichloroethane	102
cis-1,2-Dichloroethene	104
1,1,1-Trichloroethane	107
Trichloroethene	102
Tetrachloroethene	100
trans-1,2-Dichloroethene	115

Container Type: NA - Not Applicable

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



Client Sample ID: LCS

Lab ID#: 1106232B-29B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6061403	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/14/11 08:26 PM

Compound	%Recovery
Vinyl Chloride	106
Chloroethane	95
1,1-Dichloroethene	94
Freon 113	98
Methylene Chloride	96
1,1-Dichloroethane	99
cis-1,2-Dichloroethene	93
1,1,1-Trichloroethane	106
Trichloroethene	92
Tetrachloroethene	88
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	115	70-130



Client Sample ID: LCSD

Lab ID#: 1106232B-29BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6061404	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/14/11 08:47 PM

Compound	%Recovery
Vinyl Chloride	101
Chloroethane	93
1,1-Dichloroethene	97
Freon 113	94
Methylene Chloride	95
1,1-Dichloroethane	94
cis-1,2-Dichloroethene	89
1,1,1-Trichloroethane	99
Trichloroethene	93
Tetrachloroethene	91
trans-1,2-Dichloroethene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	111	70-130

8/19/2011

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP
Project #: 2755.06
Workorder #: 1108140A

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 8/5/2011 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

WORK ORDER #: 1108140A

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. #	2755.03
FAX:		PROJECT #	2755.06 GVP
DATE RECEIVED:	08/05/2011	CONTACT:	Ausha Scott
DATE COMPLETED:	08/17/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	DU3355080311	Modified TO-15	6.0 "Hg	5 psi
02A	DU3370080211	Modified TO-15	6.8 "Hg	5 psi
03A	EB3363080211	Modified TO-15	6.0 "Hg	5 psi
04A	EN0412D080211	Modified TO-15	6.2 "Hg	5 psi
05A	EN0412S080211	Modified TO-15	6.6 "Hg	5 psi
06A	EN0413D080311	Modified TO-15	5.4 "Hg	5 psi
07A	EN0413S080311	Modified TO-15	6.4 "Hg	5 psi
08A	EN0416S080211	Modified TO-15	3.2 "Hg	5 psi
08AA	EN0416S080211 Lab Duplicate	Modified TO-15	3.2 "Hg	5 psi
09A	EN0418S080211	Modified TO-15	6.4 "Hg	5 psi
10A	EN0419D080311	Modified TO-15	7.2 "Hg	5 psi
11A	EN0419S080311	Modified TO-15	7.6 "Hg	5 psi
12A	EN0420S080311	Modified TO-15	5.4 "Hg	5 psi
13A	EN0421D080311	Modified TO-15	5.8 "Hg	5 psi
14A	EN0421S080311	Modified TO-15	6.2 "Hg	5 psi
15A	EN0423D080311	Modified TO-15	6.2 "Hg	5 psi
16A	EN044S080211	Modified TO-15	5.6 "Hg	5 psi

Continued on next page

WORK ORDER #: 1108140A

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. #	2755.03
FAX:		PROJECT #	2755.06 GVP
DATE RECEIVED:	08/05/2011	CONTACT:	Ausha Scott
DATE COMPLETED:	08/17/2011		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
17A	EN049D080211	Modified TO-15	7.0 "Hg	5 psi
18A	EN049S080211	Modified TO-15	8.0 "Hg	5.2 psi
18AA	EN049S080211 Lab Duplicate	Modified TO-15	8.0 "Hg	5.2 psi
19A	EN0529S080211	Modified TO-15	7.8 "Hg	5 psi
20A	EN0533D080211	Modified TO-15	8.6 "Hg	5 psi
21A	Lab Blank	Modified TO-15	NA	NA
21B	Lab Blank	Modified TO-15	NA	NA
21C	Lab Blank	Modified TO-15	NA	NA
22A	CCV	Modified TO-15	NA	NA
22B	CCV	Modified TO-15	NA	NA
22C	CCV	Modified TO-15	NA	NA
23A	LCS	Modified TO-15	NA	NA
23AA	LCSD	Modified TO-15	NA	NA
23B	LCS	Modified TO-15	NA	NA
23BB	LCSD	Modified TO-15	NA	NA
23C	LCS	Modified TO-15	NA	NA
23CC	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 08/19/11

Laboratory Director

Certification numbers: AZ Licensure AZ0719, CA NELAP - 02110CA, LA NELAP - 02089,
 NY NELAP - 11291, TX NELAP - T104704434-11-3, UT NELAP -CA009332011-1, WA NELAP - C935
 Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,

Accreditation number: E87680, Effective date: 07/01/11 , Expiration date: 06/30/12.

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1108140A

Twenty 1 Liter Summa Canister (100% Certified) samples were received on August 05, 2011. 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

Dilution was performed on samples EN049D080211, EN049S080211, EN049S080211 Lab Duplicate and EN0533D080211 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



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

Client Sample ID: DU3355080311

Lab ID#: 1108140A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	0.84	4.1	3.4	16
cis-1,2-Dichloroethene	0.84	24	3.3	96
Trichloroethene	0.84	72	4.5	390
Tetrachloroethene	0.84	2.2	5.7	15
trans-1,2-Dichloroethene	0.84	2.1	3.3	8.3

Client Sample ID: DU3370080211

Lab ID#: 1108140A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.86	1.3	3.4	5.3
1,1,1-Trichloroethane	0.86	10	4.7	55
Trichloroethene	0.86	140	4.6	750
Tetrachloroethene	0.86	1.2	5.9	8.3

Client Sample ID: EB3363080211

Lab ID#: 1108140A-03A

No Detections Were Found.

Client Sample ID: EN0412D080211

Lab ID#: 1108140A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	2.0	4.6	11
Trichloroethene	0.84	70	4.5	380

Client Sample ID: EN0412S080211

Lab ID#: 1108140A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.86	3.9	4.7	21



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

Client Sample ID: EN0412S080211

Lab ID#: 1108140A-05A

Trichloroethene	0.86	140	4.6	780
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Client Sample ID: EN0413D080311

Lab ID#: 1108140A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.82	2.8	4.4	16
Trichloroethene	0.82	31	4.4	170

Client Sample ID: EN0413S080311

Lab ID#: 1108140A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.85	44	4.6	240
Trichloroethene	0.85	310	4.6	1600

Client Sample ID: EN0416S080211

Lab ID#: 1108140A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.75	0.90	4.1	4.9
Trichloroethene	0.75	1.8	4.0	9.4
Tetrachloroethene	0.75	1.7	5.1	12

Client Sample ID: EN0416S080211 Lab Duplicate

Lab ID#: 1108140A-08AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.75	1.2	4.0	6.4
Tetrachloroethene	0.75	1.2	5.1	7.8



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

Client Sample ID: EN0418S080211

Lab ID#: 1108140A-09A

No Detections Were Found.

Client Sample ID: EN0419D080311

Lab ID#: 1108140A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.88	1.1	3.5	4.2
1,1,1-Trichloroethane	0.88	5.1	4.8	28
Trichloroethene	0.88	88	4.7	470

Client Sample ID: EN0419S080311

Lab ID#: 1108140A-11A

No Detections Were Found.

Client Sample ID: EN0420S080311

Lab ID#: 1108140A-12A

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

Client Sample ID: EN0421D080311

Lab ID#: 1108140A-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.83	26	4.5	140
Tetrachloroethene	0.83	1.1	5.6	7.3

Client Sample ID: EN0421S080311

Lab ID#: 1108140A-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.84	1.4	4.5	7.4



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

Client Sample ID: EN0421S080311

Lab ID#: 1108140A-14A

Tetrachloroethene	0.84	18	5.7	120
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Client Sample ID: EN0423D080311

Lab ID#: 1108140A-15A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	0.84	3.9	3.4	16
cis-1,2-Dichloroethene	0.84	24	3.4	96
Trichloroethene	0.84	74	4.5	400
Tetrachloroethene	0.84	2.1	5.7	14
trans-1,2-Dichloroethene	0.84	2.0	3.4	8.1

Client Sample ID: EN044S080211

Lab ID#: 1108140A-16A

No Detections Were Found.

Client Sample ID: EN049D080211

Lab ID#: 1108140A-17A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	5.8	41	23	160
Freon 113	5.8	16	45	120
1,1-Dichloroethane	5.8	26	24	110
cis-1,2-Dichloroethene	5.8	91	23	360
1,1,1-Trichloroethane	5.8	120	32	660
Trichloroethene	5.8	1600	31	8500
Tetrachloroethene	5.8	96	40	650

Client Sample ID: EN049S080211

Lab ID#: 1108140A-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: EN049S080211

Lab ID#: 1108140A-18A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	2.6	20	14	110
Trichloroethene	2.6	510	14	2700
Tetrachloroethene	2.6	11	18	77

Client Sample ID: EN049S080211 Lab Duplicate

Lab ID#: 1108140A-18AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	2.6	21	14	120
Trichloroethene	2.6	520	14	2800
Tetrachloroethene	2.6	11	18	74

Client Sample ID: EN0529S080211

Lab ID#: 1108140A-19A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.90	5.2	4.9	29
Trichloroethene	0.90	74	4.9	400

Client Sample ID: EN0533D080211

Lab ID#: 1108140A-20A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	3.1	31	17	170
Trichloroethene	3.1	810	17	4400
Tetrachloroethene	3.1	36	21	240



Client Sample ID: DU3355080311

Lab ID#: 1108140A-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o080907	Date of Collection:	8/3/11 3:40:00 PM	
Dil. Factor:	1.68	Date of Analysis:	8/9/11 12:47 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.84	Not Detected	2.1	Not Detected
Chloroethane	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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	4.1	3.4	16
cis-1,2-Dichloroethene	0.84	24	3.3	96
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	72	4.5	390
Tetrachloroethene	0.84	2.2	5.7	15
trans-1,2-Dichloroethene	0.84	2.1	3.3	8.3

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: DU3370080211

Lab ID#: 1108140A-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o080908	Date of Collection:	8/2/11 4:25:00 PM	
Dil. Factor:	1.73	Date of Analysis:	8/9/11 01:26 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.86	Not Detected	2.2	Not Detected
Chloroethane	3.5	Not Detected	9.1	Not Detected
1,1-Dichloroethene	0.86	Not Detected	3.4	Not Detected
Freon 113	0.86	Not Detected	6.6	Not Detected
Methylene Chloride	0.86	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	1.3	3.4	5.3
1,1,1-Trichloroethane	0.86	10	4.7	55
Trichloroethene	0.86	140	4.6	750
Tetrachloroethene	0.86	1.2	5.9	8.3
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EB3363080211

Lab ID#: 1108140A-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o080909	Date of Collection:	8/2/11 6:11:00 PM	
Dil. Factor:	1.68	Date of Analysis:	8/9/11 02:06 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.84	Not Detected	2.1	Not Detected
Chloroethane	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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
trans-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0412D080211

Lab ID#: 1108140A-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o080910	Date of Collection:	8/2/11 3:45:00 PM	
Dil. Factor:	1.69	Date of Analysis:	8/9/11 02:54 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.84	2.0	4.6	11
Trichloroethene	0.84	70	4.5	380
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	120	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0412S080211

Lab ID#: 1108140A-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o080911	Date of Collection:	8/2/11 3:40:00 PM	
Dil. Factor:	1.72	Date of Analysis:	8/9/11 04:01 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	9.1	Not Detected
1,1-Dichloroethene	0.86	Not Detected	3.4	Not Detected
Freon 113	0.86	Not Detected	6.6	Not Detected
Methylene Chloride	0.86	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.86	3.9	4.7	21
Trichloroethene	0.86	140	4.6	780
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	122	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0413D080311

Lab ID#: 1108140A-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o080912	Date of Collection:	8/3/11 8:20:00 AM	
Dil. Factor:	1.63	Date of Analysis:	8/9/11 04:39 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	6.2	Not Detected
Methylene Chloride	0.82	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	2.8	4.4	16
Trichloroethene	0.82	31	4.4	170
Tetrachloroethene	0.82	Not Detected	5.5	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	123	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0413S080311

Lab ID#: 1108140A-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o080913	Date of Collection:	8/3/11 8:25:00 AM	
Dil. Factor:	1.70	Date of Analysis:	8/9/11 05:21 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	0.85	Not Detected	3.0	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	44	4.6	240
Trichloroethene	0.85	310	4.6	1600
Tetrachloroethene	0.85	Not Detected	5.8	Not Detected
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	124	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0416S080211

Lab ID#: 1108140A-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o080914	Date of Collection:	8/2/11 4:06:00 PM	
Dil. Factor:	1.50	Date of Analysis:	8/9/11 06:01 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.75	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	0.75	Not Detected	3.0	Not Detected
Freon 113	0.75	Not Detected	5.7	Not Detected
Methylene Chloride	0.75	Not Detected	2.6	Not Detected
1,1-Dichloroethane	0.75	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.75	0.90	4.1	4.9
Trichloroethene	0.75	1.8	4.0	9.4
Tetrachloroethene	0.75	1.7	5.1	12
trans-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	124	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0416S080211 Lab Duplicate

Lab ID#: 1108140A-08AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o080916	Date of Collection:	8/2/11 4:06:00 PM	
Dil. Factor:	1.50	Date of Analysis:	8/9/11 07:32 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.75	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	0.75	Not Detected	3.0	Not Detected
Freon 113	0.75	Not Detected	5.7	Not Detected
Methylene Chloride	0.75	Not Detected	2.6	Not Detected
1,1-Dichloroethane	0.75	Not Detected	3.0	Not Detected
cis-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.75	Not Detected	4.1	Not Detected
Trichloroethene	0.75	1.2	4.0	6.4
Tetrachloroethene	0.75	1.2	5.1	7.8
trans-1,2-Dichloroethene	0.75	Not Detected	3.0	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	125	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0418S080211

Lab ID#: 1108140A-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o080915	Date of Collection:	8/2/11 3:15:00 PM	
Dil. Factor:	1.70	Date of Analysis:	8/9/11 06:43 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	0.85	Not Detected	3.0	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	Not Detected	4.6	Not Detected
Tetrachloroethene	0.85	Not Detected	5.8	Not Detected
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	127	70-130
Toluene-d8	111	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0419D080311

Lab ID#: 1108140A-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081211	Date of Collection:	8/3/11 10:15:00 AM	
Dil. Factor:	1.76	Date of Analysis:	8/12/11 03:56 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	9.3	Not Detected
1,1-Dichloroethene	0.88	Not Detected	3.5	Not Detected
Freon 113	0.88	Not Detected	6.7	Not Detected
Methylene Chloride	0.88	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.6	Not Detected
cis-1,2-Dichloroethene	0.88	1.1	3.5	4.2
1,1,1-Trichloroethane	0.88	5.1	4.8	28
Trichloroethene	0.88	88	4.7	470
Tetrachloroethene	0.88	Not Detected	6.0	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	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0419S080311

Lab ID#: 1108140A-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081212	Date of Collection:	8/3/11 10:15:00 AM	
Dil. Factor:	3.62	Date of Analysis:	8/12/11 04:24 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	7.2	Not Detected
Freon 113	1.8	Not Detected	14	Not Detected
Methylene Chloride	1.8	Not Detected	6.3	Not Detected
1,1-Dichloroethane	1.8	Not Detected	7.3	Not Detected
cis-1,2-Dichloroethene	1.8	Not Detected	7.2	Not Detected
1,1,1-Trichloroethane	1.8	Not Detected	9.9	Not Detected
Trichloroethene	1.8	Not Detected	9.7	Not Detected
Tetrachloroethene	1.8	Not Detected	12	Not Detected
trans-1,2-Dichloroethene	1.8	Not Detected	7.2	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0420S080311

Lab ID#: 1108140A-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081213	Date of Collection:	8/3/11 9:50:00 AM	
Dil. Factor:	1.63	Date of Analysis:	8/12/11 04:55 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	6.2	Not Detected
Methylene Chloride	0.82	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	Not Detected	4.4	Not Detected
Trichloroethene	0.82	1.8	4.4	9.9
Tetrachloroethene	0.82	Not Detected	5.5	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	100	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0421D080311

Lab ID#: 1108140A-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081215	Date of Collection:	8/3/11 10:00:00 AM	
Dil. Factor:	1.66	Date of Analysis:	8/12/11 06:12 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.83	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.8	Not Detected
1,1-Dichloroethene	0.83	Not Detected	3.3	Not Detected
Freon 113	0.83	Not Detected	6.4	Not Detected
Methylene Chloride	0.83	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.83	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.83	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.83	Not Detected	4.5	Not Detected
Trichloroethene	0.83	26	4.5	140
Tetrachloroethene	0.83	1.1	5.6	7.3
trans-1,2-Dichloroethene	0.83	Not Detected	3.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	90	70-130



Client Sample ID: EN0421S080311

Lab ID#: 1108140A-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081216	Date of Collection:	8/3/11 10:00:00 AM	
Dil. Factor:	1.69	Date of Analysis:	8/12/11 06:38 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	1.4	4.5	7.4
Tetrachloroethene	0.84	18	5.7	120
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	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0423D080311

Lab ID#: 1108140A-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081217	Date of Collection:	8/3/11 3:40:00 PM	
Dil. Factor:	1.69	Date of Analysis:	8/12/11 07:10 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	3.9	3.4	16
cis-1,2-Dichloroethene	0.84	24	3.4	96
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	74	4.5	400
Tetrachloroethene	0.84	2.1	5.7	14
trans-1,2-Dichloroethene	0.84	2.0	3.4	8.1

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN044S080211

Lab ID#: 1108140A-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081218	Date of Collection:	8/2/11 11:34:00 AM	
Dil. Factor:	1.65	Date of Analysis:	8/12/11 07:42 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	0.82	Not Detected	2.9	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	102	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN049D080211

Lab ID#: 1108140A-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081212	Date of Collection:	8/2/11 12:35:00 PM	
Dil. Factor:	11.7	Date of Analysis:	8/12/11 10:01 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	5.8	Not Detected	15	Not Detected
Chloroethane	23	Not Detected	62	Not Detected
1,1-Dichloroethene	5.8	41	23	160
Freon 113	5.8	16	45	120
Methylene Chloride	5.8	Not Detected	20	Not Detected
1,1-Dichloroethane	5.8	26	24	110
cis-1,2-Dichloroethene	5.8	91	23	360
1,1,1-Trichloroethane	5.8	120	32	660
Trichloroethene	5.8	1600	31	8500
Tetrachloroethene	5.8	96	40	650
trans-1,2-Dichloroethene	5.8	Not Detected	23	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	106	70-130



Client Sample ID: EN049S080211

Lab ID#: 1108140A-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081208	Date of Collection:	8/2/11 12:25:00 PM	
Dil. Factor:	5.27	Date of Analysis:	8/12/11 02:18 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.6	Not Detected	6.7	Not Detected
Chloroethane	10	Not Detected	28	Not Detected
1,1-Dichloroethene	2.6	Not Detected	10	Not Detected
Freon 113	2.6	Not Detected	20	Not Detected
Methylene Chloride	2.6	Not Detected	9.2	Not Detected
1,1-Dichloroethane	2.6	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	2.6	Not Detected	10	Not Detected
1,1,1-Trichloroethane	2.6	20	14	110
Trichloroethene	2.6	510	14	2700
Tetrachloroethene	2.6	11	18	77
trans-1,2-Dichloroethene	2.6	Not Detected	10	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	95	70-130



Client Sample ID: EN049S080211 Lab Duplicate

Lab ID#: 1108140A-18AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081209	Date of Collection:	8/2/11 12:25:00 PM	
Dil. Factor:	5.27	Date of Analysis:	8/12/11 02:47 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.6	Not Detected	6.7	Not Detected
Chloroethane	10	Not Detected	28	Not Detected
1,1-Dichloroethene	2.6	Not Detected	10	Not Detected
Freon 113	2.6	Not Detected	20	Not Detected
Methylene Chloride	2.6	Not Detected	9.2	Not Detected
1,1-Dichloroethane	2.6	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	2.6	Not Detected	10	Not Detected
1,1,1-Trichloroethane	2.6	21	14	120
Trichloroethene	2.6	520	14	2800
Tetrachloroethene	2.6	11	18	74
trans-1,2-Dichloroethene	2.6	Not Detected	10	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0529S080211

Lab ID#: 1108140A-19A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081219	Date of Collection:	8/2/11 12:40:00 PM	
Dil. Factor:	1.81	Date of Analysis:	8/12/11 08:13 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	9.6	Not Detected
1,1-Dichloroethene	0.90	Not Detected	3.6	Not Detected
Freon 113	0.90	Not Detected	6.9	Not Detected
Methylene Chloride	0.90	Not Detected	3.1	Not Detected
1,1-Dichloroethane	0.90	Not Detected	3.7	Not Detected
cis-1,2-Dichloroethene	0.90	Not Detected	3.6	Not Detected
1,1,1-Trichloroethane	0.90	5.2	4.9	29
Trichloroethene	0.90	74	4.9	400
Tetrachloroethene	0.90	Not Detected	6.1	Not Detected
trans-1,2-Dichloroethene	0.90	Not Detected	3.6	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0533D080211

Lab ID#: 1108140A-20A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081214	Date of Collection:	8/2/11 5:00:00 PM	
Dil. Factor:	6.27	Date of Analysis:	8/12/11 11:00 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.1	Not Detected	8.0	Not Detected
Chloroethane	12	Not Detected	33	Not Detected
1,1-Dichloroethene	3.1	Not Detected	12	Not Detected
Freon 113	3.1	Not Detected	24	Not Detected
Methylene Chloride	3.1	Not Detected	11	Not Detected
1,1-Dichloroethane	3.1	Not Detected	13	Not Detected
cis-1,2-Dichloroethene	3.1	Not Detected	12	Not Detected
1,1,1-Trichloroethane	3.1	31	17	170
Trichloroethene	3.1	810	17	4400
Tetrachloroethene	3.1	36	21	240
trans-1,2-Dichloroethene	3.1	Not Detected	12	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	110	70-130



Client Sample ID: Lab Blank

Lab ID#: 1108140A-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o080906a	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	8/9/11 11:50 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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: Lab Blank

Lab ID#: 1108140A-21B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081207	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	8/12/11 01:39 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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: Lab Blank

Lab ID#: 1108140A-21C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081207	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	8/12/11 06:30 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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: CCV

Lab ID#: 1108140A-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o080902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/9/11 08:47 AM

Compound	%Recovery
Vinyl Chloride	96
Chloroethane	97
1,1-Dichloroethene	100
Freon 113	99
Methylene Chloride	99
1,1-Dichloroethane	103
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	109
Trichloroethene	103
Tetrachloroethene	99
trans-1,2-Dichloroethene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: CCV

Lab ID#: 1108140A-22B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081204	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/12/11 11:35 AM

Compound	%Recovery
Vinyl Chloride	102
Chloroethane	104
1,1-Dichloroethene	97
Freon 113	98
Methylene Chloride	95
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	101
1,1,1-Trichloroethane	98
Trichloroethene	100
Tetrachloroethene	100
trans-1,2-Dichloroethene	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: CCV

Lab ID#: 1108140A-22C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081202	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/12/11 04:28 PM

Compound	%Recovery
Vinyl Chloride	102
Chloroethane	79
1,1-Dichloroethene	98
Freon 113	110
Methylene Chloride	78
1,1-Dichloroethane	87
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	99
Trichloroethene	97
Tetrachloroethene	116
trans-1,2-Dichloroethene	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	110	70-130



Client Sample ID: LCS

Lab ID#: 1108140A-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o080903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/9/11 09:36 AM

Compound	%Recovery
Vinyl Chloride	107
Chloroethane	104
1,1-Dichloroethene	111
Freon 113	105
Methylene Chloride	104
1,1-Dichloroethane	108
cis-1,2-Dichloroethene	104
1,1,1-Trichloroethane	115
Trichloroethene	105
Tetrachloroethene	102
trans-1,2-Dichloroethene	116

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: LCSD

Lab ID#: 1108140A-23AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o080904	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/9/11 10:14 AM

Compound	%Recovery
Vinyl Chloride	111
Chloroethane	108
1,1-Dichloroethene	112
Freon 113	106
Methylene Chloride	104
1,1-Dichloroethane	110
cis-1,2-Dichloroethene	106
1,1,1-Trichloroethane	116
Trichloroethene	106
Tetrachloroethene	102
trans-1,2-Dichloroethene	118

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: LCS

Lab ID#: 1108140A-23B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081202	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/12/11 10:36 AM

Compound	%Recovery
Vinyl Chloride	101
Chloroethane	103
1,1-Dichloroethene	100
Freon 113	98
Methylene Chloride	95
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	100
Trichloroethene	104
Tetrachloroethene	101
trans-1,2-Dichloroethene	112

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: LCSD

Lab ID#: 1108140A-23BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081203	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/12/11 11:07 AM

Compound	%Recovery
Vinyl Chloride	104
Chloroethane	104
1,1-Dichloroethene	101
Freon 113	97
Methylene Chloride	97
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	100
Trichloroethene	104
Tetrachloroethene	102
trans-1,2-Dichloroethene	108

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: LCS

Lab ID#: 1108140A-23C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081203	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/12/11 04:58 PM

Compound	%Recovery
Vinyl Chloride	97
Chloroethane	92
1,1-Dichloroethene	106
Freon 113	108
Methylene Chloride	75
1,1-Dichloroethane	87
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	98
Trichloroethene	100
Tetrachloroethene	115
trans-1,2-Dichloroethene	115

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	108	70-130



Client Sample ID: LCSD

Lab ID#: 1108140A-23CC

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081204	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/12/11 05:16 PM

Compound	%Recovery
Vinyl Chloride	94
Chloroethane	82
1,1-Dichloroethene	110
Freon 113	109
Methylene Chloride	79
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	98
Trichloroethene	99
Tetrachloroethene	108
trans-1,2-Dichloroethene	119

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	103	70-130

8/18/2011

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP

Project #: 2755.06

Workorder #: 1108140B

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 8/5/2011 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

WORK ORDER #: 1108140B

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. #	2755.03
FAX:		PROJECT #	2755.06 GVP
DATE RECEIVED:	08/05/2011	CONTACT:	Ausha Scott
DATE COMPLETED:	08/18/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
21A	EN0637D080311	Modified TO-15	5.6 "Hg	5 psi
22A	EN0637S080311	Modified TO-15	6.8 "Hg	5 psi
23A	EN0728D080311	Modified TO-15	0.8 "Hg	5 psi
23AA	EN0728D080311 Lab Duplicate	Modified TO-15	0.8 "Hg	5 psi
24A	EN0728S080311	Modified TO-15	1.4 "Hg	5 psi
25A	DU35655080311	Modified TO-15	6.2 "Hg	5 psi
26A	EN0410D080211	Modified TO-15	8.0 "Hg	5 psi
26AA	EN0410D080211 Lab Duplicate	Modified TO-15	8.0 "Hg	5 psi
27A	EN0411S080211	Modified TO-15	6.0 "Hg	5 psi
28A	EN0414D080311	Modified TO-15	6.0 "Hg	5 psi
29A	EN0414S080311	Modified TO-15	5.8 "Hg	5 psi
30A	EN0415D080211	Modified TO-15	6.2 "Hg	5 psi
31A	EN0415S080211	Modified TO-15	6.2 "Hg	5 psi
32A	EN0416D080211	Modified TO-15	7.8 "Hg	5 psi
33A	EN0417D080311	Modified TO-15	3.6 "Hg	5 psi
33AA	EN0417D080311 Lab Duplicate	Modified TO-15	3.6 "Hg	5 psi
34A	EN0418D080211	Modified TO-15	7.4 "Hg	5 psi

Continued on next page

WORK ORDER #: 1108140B

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. #	2755.03
FAX:		PROJECT #	2755.06 GVP
DATE RECEIVED:	08/05/2011	CONTACT:	Ausha Scott
DATE COMPLETED:	08/18/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
35A	EN041D080211	Modified TO-15	6.2 "Hg	5 psi
36A	EN041S080211	Modified TO-15	5.0 "Hg	5 psi
37A	EN0420D080311	Modified TO-15	5.6 "Hg	5 psi
38A	EN0422S080211	Modified TO-15	3.0 "Hg	5 psi
39A	EN042S080211	Modified TO-15	5.6 "Hg	5 psi
40A	EN0431D080211	Modified TO-15	6.0 "Hg	5 psi
41A	EN0432D080211	Modified TO-15	5.0 "Hg	5 psi
42A	EN044D080211	Modified TO-15	6.0 "Hg	5 psi
43A	EN045S080311	Modified TO-15	4.5 "Hg	5 psi
44A	EN047D080311	Modified TO-15	6.5 "Hg	5 psi
45A	Lab Blank	Modified TO-15	NA	NA
45B	Lab Blank	Modified TO-15	NA	NA
45C	Lab Blank	Modified TO-15	NA	NA
45D	Lab Blank	Modified TO-15	NA	NA
46A	CCV	Modified TO-15	NA	NA
46B	CCV	Modified TO-15	NA	NA
46C	CCV	Modified TO-15	NA	NA
46D	CCV	Modified TO-15	NA	NA
47A	LCS	Modified TO-15	NA	NA
47AA	LCSD	Modified TO-15	NA	NA

Continued on next page

WORK ORDER #: 1108140B

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. #	2755.03
FAX:		PROJECT #	2755.06 GVP
DATE RECEIVED:	08/05/2011	CONTACT:	Ausha Scott
DATE COMPLETED:	08/18/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT</u>	<u>FINAL</u>
			<u>VAC./PRES.</u>	<u>PRESSURE</u>
47B	LCS	Modified TO-15	NA	NA
47BB	LCSD	Modified TO-15	NA	NA
47C	LCS	Modified TO-15	NA	NA
47CC	LCSD	Modified TO-15	NA	NA
47D	LCS	Modified TO-15	NA	NA
47DD	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 08/18/11

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1108140B**

Twenty-four 1 Liter Summa Canister (100% Certified) samples were received on August 05, 2011. 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 EN0637D080311 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



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

Client Sample ID: EN0637D080311

Lab ID#: 1108140B-21A

No Detections Were Found.

Client Sample ID: EN0637S080311

Lab ID#: 1108140B-22A

No Detections Were Found.

Client Sample ID: EN0728D080311

Lab ID#: 1108140B-23A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	2.8	58	11	230
Trichloroethene	2.8	58	15	310
Tetrachloroethene	2.8	710	19	4800

Client Sample ID: EN0728D080311 Lab Duplicate

Lab ID#: 1108140B-23AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	2.8	50	11	200
Trichloroethene	2.8	52	15	280
Tetrachloroethene	2.8	680	19	4600

Client Sample ID: EN0728S080311

Lab ID#: 1108140B-24A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.70	1.2	3.8	6.5
Tetrachloroethene	0.70	25	4.7	170

Client Sample ID: DU35655080311

Lab ID#: 1108140B-25A



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

Client Sample ID: DU35655080311

Lab ID#: 1108140B-25A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	0.86	4.6	4.7
Trichloroethene	0.84	32	4.5	170

Client Sample ID: EN0410D080211

Lab ID#: 1108140B-26A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	12	79	48	310
1,1-Dichloroethane	12	380	49	1500
cis-1,2-Dichloroethene	12	1200	48	4600
1,1,1-Trichloroethane	12	780	66	4300
Trichloroethene	12	4600	66	25000
Tetrachloroethene	12	47	83	320

Client Sample ID: EN0410D080211 Lab Duplicate

Lab ID#: 1108140B-26AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	23	72	91	280
1,1-Dichloroethane	23	360	93	1500
cis-1,2-Dichloroethene	23	1100	91	4500
1,1,1-Trichloroethane	23	770	120	4200
Trichloroethene	23	4400	120	24000
Tetrachloroethene	23	42	160	290

Client Sample ID: EN0411S080211

Lab ID#: 1108140B-27A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	1.2	4.6	6.4
Trichloroethene	0.84	34	4.5	180



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

Client Sample ID: EN0411S080211

Lab ID#: 1108140B-27A

Tetrachloroethene	0.84	1.2	5.7	8.0
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Client Sample ID: EN0414D080311

Lab ID#: 1108140B-28A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	8.6	4.6	47
Trichloroethene	0.84	210	4.5	1100

Client Sample ID: EN0414S080311

Lab ID#: 1108140B-29A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.83	3.5	4.5	19

Client Sample ID: EN0415D080211

Lab ID#: 1108140B-30A

No Detections Were Found.

Client Sample ID: EN0415S080211

Lab ID#: 1108140B-31A

No Detections Were Found.

Client Sample ID: EN0416D080211

Lab ID#: 1108140B-32A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	3.0	3.6	12	14
1,1,1-Trichloroethane	3.0	18	16	99
Trichloroethene	3.0	540	16	2900
Tetrachloroethene	3.0	28	20	190



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

Client Sample ID: EN0417D080311

Lab ID#: 1108140B-33A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.76	3.7	4.1	20

Client Sample ID: EN0417D080311 Lab Duplicate

Lab ID#: 1108140B-33AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	1.9	4.5	10	24

Client Sample ID: EN0418D080211

Lab ID#: 1108140B-34A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.89	1.3	3.5	5.0
1,1,1-Trichloroethane	0.89	8.5	4.8	46
Trichloroethene	0.89	140	4.8	740
Tetrachloroethene	0.89	1.4	6.0	9.4

Client Sample ID: EN041D080211

Lab ID#: 1108140B-35A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	2.3	4.6	12
Trichloroethene	0.84	19	4.5	100

Client Sample ID: EN041S080211

Lab ID#: 1108140B-36A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.80	1.9	4.3	10



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

Client Sample ID: EN0420D080311

Lab ID#: 1108140B-37A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.82	1.1	4.5	6.1
Trichloroethene	0.82	37	4.4	200

Client Sample ID: EN0422S080211

Lab ID#: 1108140B-38A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.74	2.2	5.7	17
1,1-Dichloroethane	0.74	0.94	3.0	3.8
cis-1,2-Dichloroethene	0.74	71	3.0	280
1,1,1-Trichloroethane	0.74	12	4.1	64
Trichloroethene	0.74	160	4.0	880
Tetrachloroethene	0.74	1.2	5.0	8.4
trans-1,2-Dichloroethene	0.74	9.9	3.0	39

Client Sample ID: EN042S080211

Lab ID#: 1108140B-39A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.82	3.0	4.4	16

Client Sample ID: EN0431D080211

Lab ID#: 1108140B-40A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	1.1	37	5.8	200

Client Sample ID: EN0432D080211

Lab ID#: 1108140B-41A

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



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

Client Sample ID: EN0432D080211

Lab ID#: 1108140B-41A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.80	3.3	4.4	18
Trichloroethene	0.80	180	4.3	960

Client Sample ID: EN044D080211

Lab ID#: 1108140B-42A

No Detections Were Found.

Client Sample ID: EN045S080311

Lab ID#: 1108140B-43A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.79	1.5	4.3	8.1
Trichloroethene	0.79	36	4.2	190

Client Sample ID: EN047D080311

Lab ID#: 1108140B-44A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	2.4	5.2	9.4	21
1,1,1-Trichloroethane	2.4	28	13	160
Trichloroethene	2.4	700	13	3700



Client Sample ID: EN0637D080311

Lab ID#: 1108140B-21A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081220	Date of Collection:	8/3/11 2:50:00 PM	
Dil. Factor:	1.65	Date of Analysis:	8/12/11 09:00 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	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	0.82	Not Detected	2.9	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	105	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	92	70-130



Client Sample ID: EN0637S080311

Lab ID#: 1108140B-22A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081014	Date of Collection:	8/3/11 2:45:00 PM	
Dil. Factor:	1.73	Date of Analysis:	8/10/11 02:22 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.86	Not Detected	2.2	Not Detected
Chloroethane	3.5	Not Detected	9.1	Not Detected
1,1-Dichloroethene	0.86	Not Detected	3.4	Not Detected
Freon 113	0.86	Not Detected	6.6	Not Detected
Methylene Chloride	0.86	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.86	Not Detected	4.7	Not Detected
Trichloroethene	0.86	Not Detected	4.6	Not Detected
Tetrachloroethene	0.86	Not Detected	5.9	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	83	70-130
Toluene-d8	83	70-130
4-Bromofluorobenzene	75	70-130



Client Sample ID: EN0728D080311

Lab ID#: 1108140B-23A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081015	Date of Collection:	8/3/11 3:25:00 PM	
Dil. Factor:	5.52	Date of Analysis:	8/10/11 03:10 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.8	Not Detected	7.0	Not Detected
Chloroethane	11	Not Detected	29	Not Detected
1,1-Dichloroethene	2.8	Not Detected	11	Not Detected
Freon 113	2.8	Not Detected	21	Not Detected
Methylene Chloride	2.8	Not Detected	9.6	Not Detected
1,1-Dichloroethane	2.8	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	2.8	58	11	230
1,1,1-Trichloroethane	2.8	Not Detected	15	Not Detected
Trichloroethene	2.8	58	15	310
Tetrachloroethene	2.8	710	19	4800
trans-1,2-Dichloroethene	2.8	Not Detected	11	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	80	70-130
Toluene-d8	83	70-130
4-Bromofluorobenzene	84	70-130



Client Sample ID: EN0728D080311 Lab Duplicate

Lab ID#: 1108140B-23AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081016	Date of Collection:	8/3/11 3:25:00 PM	
Dil. Factor:	5.52	Date of Analysis:	8/10/11 03:41 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.8	Not Detected	7.0	Not Detected
Chloroethane	11	Not Detected	29	Not Detected
1,1-Dichloroethene	2.8	Not Detected	11	Not Detected
Freon 113	2.8	Not Detected	21	Not Detected
Methylene Chloride	2.8	Not Detected	9.6	Not Detected
1,1-Dichloroethane	2.8	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	2.8	50	11	200
1,1,1-Trichloroethane	2.8	Not Detected	15	Not Detected
Trichloroethene	2.8	52	15	280
Tetrachloroethene	2.8	680	19	4600
trans-1,2-Dichloroethene	2.8	Not Detected	11	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	77	70-130
Toluene-d8	84	70-130
4-Bromofluorobenzene	72	70-130



Client Sample ID: EN0728S080311

Lab ID#: 1108140B-24A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081009	Date of Collection:	8/3/11 3:00:00 PM	
Dil. Factor:	1.40	Date of Analysis:	8/10/11 11:11 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.70	Not Detected	1.8	Not Detected
Chloroethane	2.8	Not Detected	7.4	Not Detected
1,1-Dichloroethene	0.70	Not Detected	2.8	Not Detected
Freon 113	0.70	Not Detected	5.4	Not Detected
Methylene Chloride	0.70	Not Detected	2.4	Not Detected
1,1-Dichloroethane	0.70	Not Detected	2.8	Not Detected
cis-1,2-Dichloroethene	0.70	Not Detected	2.8	Not Detected
1,1,1-Trichloroethane	0.70	Not Detected	3.8	Not Detected
Trichloroethene	0.70	1.2	3.8	6.5
Tetrachloroethene	0.70	25	4.7	170
trans-1,2-Dichloroethene	0.70	Not Detected	2.8	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	78	70-130
Toluene-d8	86	70-130
4-Bromofluorobenzene	73	70-130



Client Sample ID: DU35655080311

Lab ID#: 1108140B-25A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081008	Date of Collection:	8/3/11 11:10:00 AM	
Dil. Factor:	1.69	Date of Analysis:	8/10/11 10:24 AM	
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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.84	0.86	4.6	4.7
Trichloroethene	0.84	32	4.5	170
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	80	70-130
Toluene-d8	84	70-130
4-Bromofluorobenzene	77	70-130



Client Sample ID: EN0410D080211

Lab ID#: 1108140B-26A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081018	Date of Collection:	8/2/11 12:00:00 PM	
Dil. Factor:	24.4	Date of Analysis:	8/10/11 05:30 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	12	Not Detected	31	Not Detected
Chloroethane	49	Not Detected	130	Not Detected
1,1-Dichloroethene	12	79	48	310
Freon 113	12	Not Detected	94	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
1,1-Dichloroethane	12	380	49	1500
cis-1,2-Dichloroethene	12	1200	48	4600
1,1,1-Trichloroethane	12	780	66	4300
Trichloroethene	12	4600	66	25000
Tetrachloroethene	12	47	83	320
trans-1,2-Dichloroethene	12	Not Detected	48	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	91	70-130



Client Sample ID: EN0410D080211 Lab Duplicate

Lab ID#: 1108140B-26AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081017	Date of Collection:	8/2/11 12:00:00 PM	
Dil. Factor:	45.8	Date of Analysis:	8/10/11 04:40 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	23	Not Detected	58	Not Detected
Chloroethane	92	Not Detected	240	Not Detected
1,1-Dichloroethene	23	72	91	280
Freon 113	23	Not Detected	180	Not Detected
Methylene Chloride	23	Not Detected	80	Not Detected
1,1-Dichloroethane	23	360	93	1500
cis-1,2-Dichloroethene	23	1100	91	4500
1,1,1-Trichloroethane	23	770	120	4200
Trichloroethene	23	4400	120	24000
Tetrachloroethene	23	42	160	290
trans-1,2-Dichloroethene	23	Not Detected	91	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	93	70-130



Client Sample ID: EN0411S080211

Lab ID#: 1108140B-27A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081010	Date of Collection:	8/2/11 12:08:00 PM	
Dil. Factor:	1.68	Date of Analysis:	8/10/11 11:38 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	1.2	4.6	6.4
Trichloroethene	0.84	34	4.5	180
Tetrachloroethene	0.84	1.2	5.7	8.0
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	78	70-130
Toluene-d8	83	70-130
4-Bromofluorobenzene	72	70-130



Client Sample ID: EN0414D080311

Lab ID#: 1108140B-28A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081221	Date of Collection:	8/3/11 2:01:00 PM	
Dil. Factor:	1.68	Date of Analysis:	8/12/11 09:25 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	8.6	4.6	47
Trichloroethene	0.84	210	4.5	1100
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	106	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0414S080311

Lab ID#: 1108140B-29A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081012	Date of Collection:	8/3/11 2:01:00 PM	
Dil. Factor:	1.66	Date of Analysis:	8/10/11 12:43 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.83	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.8	Not Detected
1,1-Dichloroethene	0.83	Not Detected	3.3	Not Detected
Freon 113	0.83	Not Detected	6.4	Not Detected
Methylene Chloride	0.83	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.83	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.83	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.83	Not Detected	4.5	Not Detected
Trichloroethene	0.83	3.5	4.5	19
Tetrachloroethene	0.83	Not Detected	5.6	Not Detected
trans-1,2-Dichloroethene	0.83	Not Detected	3.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	77	70-130
Toluene-d8	83	70-130
4-Bromofluorobenzene	78	70-130



Client Sample ID: EN0415D080211

Lab ID#: 1108140B-30A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081011	Date of Collection:	8/2/11 5:00:00 PM	
Dil. Factor:	1.69	Date of Analysis:	8/10/11 12:07 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.4	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	3.4	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	76	70-130
Toluene-d8	81	70-130
4-Bromofluorobenzene	73	70-130



Client Sample ID: EN0415S080211

Lab ID#: 1108140B-31A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081013	Date of Collection:	8/2/11 5:20:00 PM	
Dil. Factor:	1.69	Date of Analysis:	8/10/11 01:41 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.4	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	3.4	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	82	70-130
4-Bromofluorobenzene	78	70-130



Client Sample ID: EN0416D080211

Lab ID#: 1108140B-32A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081017	Date of Collection:	8/2/11 2:59:00 PM	
Dil. Factor:	6.03	Date of Analysis:	8/10/11 04:39 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.0	Not Detected	7.7	Not Detected
Chloroethane	12	Not Detected	32	Not Detected
1,1-Dichloroethene	3.0	Not Detected	12	Not Detected
Freon 113	3.0	Not Detected	23	Not Detected
Methylene Chloride	3.0	Not Detected	10	Not Detected
1,1-Dichloroethane	3.0	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	3.0	3.6	12	14
1,1,1-Trichloroethane	3.0	18	16	99
Trichloroethene	3.0	540	16	2900
Tetrachloroethene	3.0	28	20	190
trans-1,2-Dichloroethene	3.0	Not Detected	12	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	78	70-130
Toluene-d8	84	70-130
4-Bromofluorobenzene	77	70-130



Client Sample ID: EN0417D080311

Lab ID#: 1108140B-33A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081010	Date of Collection:	8/3/11 2:16:00 PM	
Dil. Factor:	1.52	Date of Analysis:	8/10/11 11:18 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	0.76	Not Detected	2.6	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
1,1,1-Trichloroethane	0.76	Not Detected	4.1	Not Detected
Trichloroethene	0.76	3.7	4.1	20
Tetrachloroethene	0.76	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	81	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	109	70-130



Client Sample ID: EN0417D080311 Lab Duplicate

Lab ID#: 1108140B-33AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081008	Date of Collection:	8/3/11 2:16:00 PM	
Dil. Factor:	3.80	Date of Analysis:	8/10/11 10:33 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.9	Not Detected	4.8	Not Detected
Chloroethane	7.6	Not Detected	20	Not Detected
1,1-Dichloroethene	1.9	Not Detected	7.5	Not Detected
Freon 113	1.9	Not Detected	14	Not Detected
Methylene Chloride	1.9	Not Detected	6.6	Not Detected
1,1-Dichloroethane	1.9	Not Detected	7.7	Not Detected
cis-1,2-Dichloroethene	1.9	Not Detected	7.5	Not Detected
1,1,1-Trichloroethane	1.9	Not Detected	10	Not Detected
Trichloroethene	1.9	4.5	10	24
Tetrachloroethene	1.9	Not Detected	13	Not Detected
trans-1,2-Dichloroethene	1.9	Not Detected	7.5	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	82	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	109	70-130



Client Sample ID: EN0418D080211

Lab ID#: 1108140B-34A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081011	Date of Collection:	8/2/11 4:25:00 PM	
Dil. Factor:	1.78	Date of Analysis:	8/10/11 11:53 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	0.89	Not Detected	3.1	Not Detected
1,1-Dichloroethane	0.89	Not Detected	3.6	Not Detected
cis-1,2-Dichloroethene	0.89	1.3	3.5	5.0
1,1,1-Trichloroethane	0.89	8.5	4.8	46
Trichloroethene	0.89	140	4.8	740
Tetrachloroethene	0.89	1.4	6.0	9.4
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	82	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	108	70-130



Client Sample ID: EN041D080211

Lab ID#: 1108140B-35A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081012	Date of Collection:	8/2/11 9:24:00 AM	
Dil. Factor:	1.69	Date of Analysis:	8/10/11 12:19 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.84	2.3	4.6	12
Trichloroethene	0.84	19	4.5	100
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	83	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	108	70-130



Client Sample ID: EN041S080211

Lab ID#: 1108140B-36A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081013	Date of Collection:	8/2/11 9:27:00 AM	
Dil. Factor:	1.61	Date of Analysis:	8/10/11 12:39 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.80	Not Detected	2.0	Not Detected
Chloroethane	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	0.80	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.80	Not Detected	4.4	Not Detected
Trichloroethene	0.80	1.9	4.3	10
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	84	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	110	70-130



Client Sample ID: EN0420D080311

Lab ID#: 1108140B-37A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081014	Date of Collection:	8/3/11 11:10:00 AM	
Dil. Factor:	1.65	Date of Analysis:	8/10/11 12:57 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	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	0.82	Not Detected	2.9	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	1.1	4.5	6.1
Trichloroethene	0.82	37	4.4	200
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	85	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	105	70-130



Client Sample ID: EN0422S080211

Lab ID#: 1108140B-38A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081015	Date of Collection:	8/2/11 7:58:00 AM	
Dil. Factor:	1.49	Date of Analysis:	8/10/11 01:16 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.74	Not Detected	1.9	Not Detected
Chloroethane	3.0	Not Detected	7.9	Not Detected
1,1-Dichloroethene	0.74	Not Detected	3.0	Not Detected
Freon 113	0.74	2.2	5.7	17
Methylene Chloride	0.74	Not Detected	2.6	Not Detected
1,1-Dichloroethane	0.74	0.94	3.0	3.8
cis-1,2-Dichloroethene	0.74	71	3.0	280
1,1,1-Trichloroethane	0.74	12	4.1	64
Trichloroethene	0.74	160	4.0	880
Tetrachloroethene	0.74	1.2	5.0	8.4
trans-1,2-Dichloroethene	0.74	9.9	3.0	39

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	109	70-130



Client Sample ID: EN042S080211

Lab ID#: 1108140B-39A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081007	Date of Collection:	8/2/11 8:05:00 AM	
Dil. Factor:	1.65	Date of Analysis:	8/10/11 09:48 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	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	0.82	Not Detected	2.9	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	3.0	4.4	16
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	81	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	105	70-130



Client Sample ID: EN0431D080211

Lab ID#: 1108140B-40A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081021	Date of Collection:	8/2/11 2:05:00 PM	
Dil. Factor:	2.17	Date of Analysis:	8/10/11 04:38 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Freon 113	1.1	Not Detected	8.3	Not Detected
Methylene Chloride	1.1	Not Detected	3.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Trichloroethene	1.1	37	5.8	200
Tetrachloroethene	1.1	Not Detected	7.4	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	105	70-130



Client Sample ID: EN0432D080211

Lab ID#: 1108140B-41A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081017	Date of Collection:	8/2/11 11:18:00 AM	
Dil. Factor:	1.61	Date of Analysis:	8/10/11 02:10 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	0.80	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.80	3.3	4.4	18
Trichloroethene	0.80	180	4.3	960
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	88	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	109	70-130



Client Sample ID: EN044D080211

Lab ID#: 1108140B-42A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081018	Date of Collection:	8/2/11 11:36:00 AM	
Dil. Factor:	1.68	Date of Analysis:	8/10/11 02:49 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
trans-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	87	70-130
4-Bromofluorobenzene	106	70-130



Client Sample ID: EN045S080311

Lab ID#: 1108140B-43A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081019	Date of Collection:	8/3/11 8:35:00 AM	
Dil. Factor:	1.58	Date of Analysis:	8/10/11 03:20 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.79	Not Detected	2.0	Not Detected
Chloroethane	3.2	Not Detected	8.3	Not Detected
1,1-Dichloroethene	0.79	Not Detected	3.1	Not Detected
Freon 113	0.79	Not Detected	6.0	Not Detected
Methylene Chloride	0.79	Not Detected	2.7	Not Detected
1,1-Dichloroethane	0.79	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected
1,1,1-Trichloroethane	0.79	1.5	4.3	8.1
Trichloroethene	0.79	36	4.2	190
Tetrachloroethene	0.79	Not Detected	5.4	Not Detected
trans-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	108	70-130



Client Sample ID: EN047D080311

Lab ID#: 1108140B-44A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081023	Date of Collection:	8/3/11 9:57:00 AM	
Dil. Factor:	4.75	Date of Analysis:	8/10/11 06:00 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	2.4	Not Detected	8.2	Not Detected
1,1-Dichloroethane	2.4	Not Detected	9.6	Not Detected
cis-1,2-Dichloroethene	2.4	5.2	9.4	21
1,1,1-Trichloroethane	2.4	28	13	160
Trichloroethene	2.4	700	13	3700
Tetrachloroethene	2.4	Not Detected	16	Not Detected
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	88	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	105	70-130



Client Sample ID: Lab Blank

Lab ID#: 1108140B-45A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081005	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	8/10/11 08:29 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: Lab Blank

Lab ID#: 1108140B-45B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081006	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	8/10/11 09:12 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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	79	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	106	70-130



Client Sample ID: Lab Blank

Lab ID#: 1108140B-45C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081007	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	8/10/11 09:37 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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	76	70-130
Toluene-d8	81	70-130
4-Bromofluorobenzene	78	70-130



Client Sample ID: Lab Blank

Lab ID#: 1108140B-45D

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081207	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	8/12/11 01:39 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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: CCV

Lab ID#: 1108140B-46A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081002	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 06:50 AM

Compound	%Recovery
Vinyl Chloride	92
Chloroethane	98
1,1-Dichloroethene	88
Freon 113	88
Methylene Chloride	88
1,1-Dichloroethane	84
cis-1,2-Dichloroethene	87
1,1,1-Trichloroethane	88
Trichloroethene	86
Tetrachloroethene	86
trans-1,2-Dichloroethene	85

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: CCV

Lab ID#: 1108140B-46B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081002	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 06:59 AM

Compound	%Recovery
Vinyl Chloride	88
Chloroethane	85
1,1-Dichloroethene	102
Freon 113	106
Methylene Chloride	76
1,1-Dichloroethane	86
cis-1,2-Dichloroethene	100
1,1,1-Trichloroethane	92
Trichloroethene	93
Tetrachloroethene	112
trans-1,2-Dichloroethene	103

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	79	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: CCV

Lab ID#: 1108140B-46C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081002	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 07:00 AM

Compound	%Recovery
Vinyl Chloride	117
Chloroethane	112
1,1-Dichloroethene	93
Freon 113	96
Methylene Chloride	118
1,1-Dichloroethane	98
cis-1,2-Dichloroethene	90
1,1,1-Trichloroethane	71
Trichloroethene	83
Tetrachloroethene	102
trans-1,2-Dichloroethene	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	83	70-130
Toluene-d8	83	70-130
4-Bromofluorobenzene	86	70-130



Client Sample ID: CCV

Lab ID#: 1108140B-46D

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081204	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/12/11 11:35 AM

Compound	%Recovery
Vinyl Chloride	102
Chloroethane	104
1,1-Dichloroethene	97
Freon 113	98
Methylene Chloride	95
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	101
1,1,1-Trichloroethane	98
Trichloroethene	100
Tetrachloroethene	100
trans-1,2-Dichloroethene	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: LCS

Lab ID#: 1108140B-47A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 07:22 AM

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

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: LCSD

Lab ID#: 1108140B-47AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 07:52 AM

Compound	%Recovery
Vinyl Chloride	83
Chloroethane	89
1,1-Dichloroethene	89
Freon 113	85
Methylene Chloride	82
1,1-Dichloroethane	79
cis-1,2-Dichloroethene	83
1,1,1-Trichloroethane	84
Trichloroethene	86
Tetrachloroethene	82
trans-1,2-Dichloroethene	91

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: LCS

Lab ID#: 1108140B-47B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 07:38 AM

Compound	%Recovery
Vinyl Chloride	88
Chloroethane	82
1,1-Dichloroethene	108
Freon 113	106
Methylene Chloride	76
1,1-Dichloroethane	87
cis-1,2-Dichloroethene	102
1,1,1-Trichloroethane	92
Trichloroethene	97
Tetrachloroethene	113
trans-1,2-Dichloroethene	117

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	77	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: LCSD

Lab ID#: 1108140B-47BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3081004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 08:05 AM

Compound	%Recovery
Vinyl Chloride	88
Chloroethane	95
1,1-Dichloroethene	111
Freon 113	108
Methylene Chloride	76
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	101
1,1,1-Trichloroethane	93
Trichloroethene	96
Tetrachloroethene	112
trans-1,2-Dichloroethene	118

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	77	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: LCS

Lab ID#: 1108140B-47C

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 07:58 AM

Compound	%Recovery
Vinyl Chloride	118
Chloroethane	113
1,1-Dichloroethene	95
Freon 113	94
Methylene Chloride	118
1,1-Dichloroethane	102
cis-1,2-Dichloroethene	92
1,1,1-Trichloroethane	74
Trichloroethene	87
Tetrachloroethene	100
trans-1,2-Dichloroethene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	85	70-130
4-Bromofluorobenzene	86	70-130



Client Sample ID: LCSD

Lab ID#: 1108140B-47CC

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081005	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 08:27 AM

Compound	%Recovery
Vinyl Chloride	122
Chloroethane	118
1,1-Dichloroethene	99
Freon 113	96
Methylene Chloride	114
1,1-Dichloroethane	97
cis-1,2-Dichloroethene	91
1,1,1-Trichloroethane	70
Trichloroethene	86
Tetrachloroethene	102
trans-1,2-Dichloroethene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	78	70-130
Toluene-d8	82	70-130
4-Bromofluorobenzene	84	70-130



Client Sample ID: LCS

Lab ID#: 1108140B-47D

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081202	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/12/11 10:36 AM

Compound	%Recovery
Vinyl Chloride	101
Chloroethane	103
1,1-Dichloroethene	100
Freon 113	98
Methylene Chloride	95
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	100
Trichloroethene	104
Tetrachloroethene	101
trans-1,2-Dichloroethene	112

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: LCSD

Lab ID#: 1108140B-47DD

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081203	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/12/11 11:07 AM

Compound	%Recovery
Vinyl Chloride	104
Chloroethane	104
1,1-Dichloroethene	101
Freon 113	97
Methylene Chloride	97
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	99
1,1,1-Trichloroethane	100
Trichloroethene	104
Tetrachloroethene	102
trans-1,2-Dichloroethene	108

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130

8/18/2011

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP
Project #: 2755.06
Workorder #: 1108140C

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 8/5/2011 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

WORK ORDER #: 1108140C

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. #	2755.03
FAX:		PROJECT #	2755.06 GVP
DATE RECEIVED:	08/05/2011	CONTACT:	Ausha Scott
DATE COMPLETED:	08/18/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
45A	EN0533S080211	Modified TO-15	6.5 "Hg	5 psi
46A	EN0635D080311	Modified TO-15	5.0 "Hg	5 psi
47A	EN0635S080311	Modified TO-15	5.5 "Hg	5 psi
48A	EN0636D080311	Modified TO-15	5.0 "Hg	5 psi
49A	DU3333080211	Modified TO-15	4.0 "Hg	5 psi
50A	DU3338080311	Modified TO-15	6.0 "Hg	5 psi
50AA	DU3338080311 Lab Duplicate	Modified TO-15	6.0 "Hg	5 psi
51A	DU3361080311	Modified TO-15	7.0 "Hg	5 psi
52A	DU3463080311	Modified TO-15	5.5 "Hg	5 psi
53A	EN0410S080211	Modified TO-15	4.5 "Hg	5 psi
53AA	EN0410S080211 Lab Duplicate	Modified TO-15	4.5 "Hg	5 psi
54A	EN0411D080211	Modified TO-15	4.0 "Hg	5 psi
55A	EN0417S080311	Modified TO-15	5.0 "Hg	5 psi
56A	EN0423S080311	Modified TO-15	6.0 "Hg	5 psi
57A	EN0427S080311	Modified TO-15	5.5 "Hg	5 psi
58A	EN0429D080211	Modified TO-15	7.0 "Hg	5 psi
59A	EN042D080211	Modified TO-15	5.5 "Hg	5 psi

Continued on next page

WORK ORDER #: 1108140C

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. #	2755.03
FAX:		PROJECT #	2755.06 GVP
DATE RECEIVED:	08/05/2011	CONTACT:	Ausha Scott
DATE COMPLETED:	08/18/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
60A	EN0430D080211	Modified TO-15	5.0 "Hg	5 psi
61A	EN0430S080211	Modified TO-15	5.5 "Hg	5 psi
61AA	EN0430S080211 Lab Duplicate	Modified TO-15	5.5 "Hg	5 psi
62A	EN0431S080211	Modified TO-15	7.0 "Hg	5 psi
63A	EN0432S080211	Modified TO-15	6.5 "Hg	5 psi
64A	EN043D080211	Modified TO-15	6.0 "Hg	5 psi
65A	EN043S080211	Modified TO-15	4.0 "Hg	5 psi
66A	EN045D080311	Modified TO-15	7.0 "Hg	5 psi
67A	EN046D080311	Modified TO-15	6.0 "Hg	5 psi
68A	EN046S080311	Modified TO-15	5.0 "Hg	5 psi
69A	Lab Blank	Modified TO-15	NA	NA
69B	Lab Blank	Modified TO-15	NA	NA
70A	CCV	Modified TO-15	NA	NA
70B	CCV	Modified TO-15	NA	NA
71A	LCS	Modified TO-15	NA	NA
71AA	LCSD	Modified TO-15	NA	NA
71B	LCS	Modified TO-15	NA	NA
71BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 08/18/11

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1108140C**

twenty-four 1 Liter Summa Canister (100% Certified) samples were received on August 05, 2011. 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



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

Client Sample ID: EN0533S080211

Lab ID#: 1108140C-45A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.86	1.4	4.7	7.8
Trichloroethene	0.86	13	4.6	72
Tetrachloroethene	0.86	2.5	5.8	17

Client Sample ID: EN0635D080311

Lab ID#: 1108140C-46A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.80	0.91	2.0	2.3
1,1,1-Trichloroethane	0.80	3.4	4.4	18
Trichloroethene	0.80	19	4.3	100

Client Sample ID: EN0635S080311

Lab ID#: 1108140C-47A

No Detections Were Found.

Client Sample ID: EN0636D080311

Lab ID#: 1108140C-48A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.80	0.94	3.2	3.7
1,1,1-Trichloroethane	0.80	46	4.4	250
Trichloroethene	0.80	45	4.3	240
Tetrachloroethene	0.80	2.3	5.5	16

Client Sample ID: DU3333080211

Lab ID#: 1108140C-49A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	39	67	150	270
1,1-Dichloroethane	39	530	160	2100



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

Client Sample ID: DU333080211

Lab ID#: 1108140C-49A

cis-1,2-Dichloroethene	39	1600	150	6400
1,1,1-Trichloroethane	39	1000	210	5600
Trichloroethene	39	8300	210	44000
Tetrachloroethene	39	67	260	460

Client Sample ID: DU3338080311

Lab ID#: 1108140C-50A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	1.9	5.7	7.4	23
1,1,1-Trichloroethane	1.9	32	10	180
Trichloroethene	1.9	660	10	3600

Client Sample ID: DU3338080311 Lab Duplicate

Lab ID#: 1108140C-50AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	1.9	6.1	7.4	24
1,1,1-Trichloroethane	1.9	30	10	160
Trichloroethene	1.9	630	10	3400

Client Sample ID: DU3361080311

Lab ID#: 1108140C-51A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.88	2.0	4.7	11
Tetrachloroethene	0.88	5.0	5.9	34

Client Sample ID: DU3463080311

Lab ID#: 1108140C-52A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	1.1	15	6.0	81



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

Client Sample ID: DU3463080311

Lab ID#: 1108140C-52A

Trichloroethene	1.1	380	5.9	2100
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Client Sample ID: EN0410S080211

Lab ID#: 1108140C-53A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	40	59	160	230
1,1-Dichloroethane	40	480	160	2000
cis-1,2-Dichloroethene	40	1500	160	5800
1,1,1-Trichloroethane	40	970	220	5300
Trichloroethene	40	7600	210	41000
Tetrachloroethene	40	60	270	410

Client Sample ID: EN0410S080211 Lab Duplicate

Lab ID#: 1108140C-53AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	26	52	100	210
1,1-Dichloroethane	26	460	110	1900
cis-1,2-Dichloroethene	26	1400	100	5600
1,1,1-Trichloroethane	26	960	140	5200
Trichloroethene	26	7300	140	39000
Tetrachloroethene	26	56	180	380

Client Sample ID: EN0411D080211

Lab ID#: 1108140C-54A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	0.78	1.0	2.7	3.5
1,1,1-Trichloroethane	0.78	5.6	4.2	31
Trichloroethene	0.78	180	4.2	980
Tetrachloroethene	0.78	4.7	5.2	32



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

Client Sample ID: EN0417S080311

Lab ID#: 1108140C-55A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.80	1.8	4.4	9.8
Trichloroethene	0.80	67	4.3	360

Client Sample ID: EN0423S080311

Lab ID#: 1108140C-56A

No Detections Were Found.

Client Sample ID: EN0427S080311

Lab ID#: 1108140C-57A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.82	29	4.5	160
Trichloroethene	0.82	150	4.4	830
Tetrachloroethene	0.82	26	5.6	180

Client Sample ID: EN0429D080211

Lab ID#: 1108140C-58A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.88	6.1	4.8	33
Trichloroethene	0.88	72	4.7	390

Client Sample ID: EN042D080211

Lab ID#: 1108140C-59A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.82	3.0	4.5	17
Trichloroethene	0.82	20	4.4	110
Tetrachloroethene	0.82	3.2	5.6	22



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

Client Sample ID: EN0430D080211

Lab ID#: 1108140C-60A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.80	0.98	6.2	7.5
1,1-Dichloroethane	0.80	1.0	3.2	4.0
cis-1,2-Dichloroethene	0.80	1.7	3.2	6.6
1,1,1-Trichloroethane	0.80	16	4.4	90
Trichloroethene	0.80	160	4.3	880
Tetrachloroethene	0.80	6.2	5.5	42

Client Sample ID: EN0430S080211

Lab ID#: 1108140C-61A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	1.6	4.3	8.9	23
Trichloroethene	1.6	510	8.8	2700

Client Sample ID: EN0430S080211 Lab Duplicate

Lab ID#: 1108140C-61AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	1.6	3.9	8.9	21
Trichloroethene	1.6	470	8.8	2500

Client Sample ID: EN0431S080211

Lab ID#: 1108140C-62A

No Detections Were Found.

Client Sample ID: EN0432S080211

Lab ID#: 1108140C-63A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.86	2.6	4.7	14
Trichloroethene	0.86	91	4.6	490



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

Client Sample ID: EN043D080211

Lab ID#: 1108140C-64A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.84	5.3	4.5	28
Tetrachloroethene	0.84	2.1	5.7	14

Client Sample ID: EN043S080211

Lab ID#: 1108140C-65A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.78	0.82	4.2	4.4

Client Sample ID: EN045D080311

Lab ID#: 1108140C-66A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	1.2	9.5	6.4	52
Trichloroethene	1.2	290	6.3	1600

Client Sample ID: EN046D080311

Lab ID#: 1108140C-67A

No Detections Were Found.

Client Sample ID: EN046S080311

Lab ID#: 1108140C-68A

No Detections Were Found.



Client Sample ID: EN0533S080211

Lab ID#: 1108140C-45A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081006	Date of Collection:	8/2/11 5:00:00 PM	
Dil. Factor:	1.71	Date of Analysis:	8/10/11 09:35 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	0.86	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.86	1.4	4.7	7.8
Trichloroethene	0.86	13	4.6	72
Tetrachloroethene	0.86	2.5	5.8	17
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0635D080311

Lab ID#: 1108140C-46A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081007	Date of Collection:	8/3/11 11:25:00 AM	
Dil. Factor:	1.61	Date of Analysis:	8/10/11 10:08 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.80	0.91	2.0	2.3
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	0.80	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.80	3.4	4.4	18
Trichloroethene	0.80	19	4.3	100
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	111	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0635S080311

Lab ID#: 1108140C-47A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081008	Date of Collection:	8/3/11 11:25:00 AM	
Dil. Factor:	1.64	Date of Analysis:	8/10/11 10:41 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	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	0.82	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	Not Detected	4.5	Not Detected
Trichloroethene	0.82	Not Detected	4.4	Not Detected
Tetrachloroethene	0.82	Not Detected	5.6	Not Detected
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN0636D080311

Lab ID#: 1108140C-48A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081009	Date of Collection:	8/3/11 8:57:00 AM	
Dil. Factor:	1.61	Date of Analysis:	8/10/11 11:12 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	0.80	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.80	0.94	3.2	3.7
1,1,1-Trichloroethane	0.80	46	4.4	250
Trichloroethene	0.80	45	4.3	240
Tetrachloroethene	0.80	2.3	5.5	16
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	114	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: DU3333080211

Lab ID#: 1108140C-49A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081106	Date of Collection:	8/2/11 2:20:00 PM	
Dil. Factor:	77.5	Date of Analysis:	8/11/11 09:43 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	39	Not Detected	99	Not Detected
Chloroethane	160	Not Detected	410	Not Detected
1,1-Dichloroethene	39	67	150	270
Freon 113	39	Not Detected	300	Not Detected
Methylene Chloride	39	Not Detected	130	Not Detected
1,1-Dichloroethane	39	530	160	2100
cis-1,2-Dichloroethene	39	1600	150	6400
1,1,1-Trichloroethane	39	1000	210	5600
Trichloroethene	39	8300	210	44000
Tetrachloroethene	39	67	260	460
trans-1,2-Dichloroethene	39	Not Detected	150	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: DU3338080311

Lab ID#: 1108140C-50A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081010	Date of Collection:	8/3/11 9:57:00 AM	
Dil. Factor:	3.73	Date of Analysis:	8/10/11 11:47 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.9	Not Detected	4.8	Not Detected
Chloroethane	7.5	Not Detected	20	Not Detected
1,1-Dichloroethene	1.9	Not Detected	7.4	Not Detected
Freon 113	1.9	Not Detected	14	Not Detected
Methylene Chloride	1.9	Not Detected	6.5	Not Detected
1,1-Dichloroethane	1.9	Not Detected	7.5	Not Detected
cis-1,2-Dichloroethene	1.9	5.7	7.4	23
1,1,1-Trichloroethane	1.9	32	10	180
Trichloroethene	1.9	660	10	3600
Tetrachloroethene	1.9	Not Detected	13	Not Detected
trans-1,2-Dichloroethene	1.9	Not Detected	7.4	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: DU3338080311 Lab Duplicate

Lab ID#: 1108140C-50AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081011	Date of Collection:	8/3/11 9:57:00 AM	
Dil. Factor:	3.73	Date of Analysis:	8/10/11 12:16 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.9	Not Detected	4.8	Not Detected
Chloroethane	7.5	Not Detected	20	Not Detected
1,1-Dichloroethene	1.9	Not Detected	7.4	Not Detected
Freon 113	1.9	Not Detected	14	Not Detected
Methylene Chloride	1.9	Not Detected	6.5	Not Detected
1,1-Dichloroethane	1.9	Not Detected	7.5	Not Detected
cis-1,2-Dichloroethene	1.9	6.1	7.4	24
1,1,1-Trichloroethane	1.9	30	10	160
Trichloroethene	1.9	630	10	3400
Tetrachloroethene	1.9	Not Detected	13	Not Detected
trans-1,2-Dichloroethene	1.9	Not Detected	7.4	Not Detected

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

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



Client Sample ID: DU3361080311

Lab ID#: 1108140C-51A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081012	Date of Collection:	8/3/11 9:36:00 AM	
Dil. Factor:	1.75	Date of Analysis:	8/10/11 12:52 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	0.88	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.88	Not Detected	4.8	Not Detected
Trichloroethene	0.88	2.0	4.7	11
Tetrachloroethene	0.88	5.0	5.9	34
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	123	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: DU3463080311

Lab ID#: 1108140C-52A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081013	Date of Collection:	8/3/11 10:10:00 AM	
Dil. Factor:	2.19	Date of Analysis:	8/10/11 01:42 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Chloroethane	4.4	Not Detected	12	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Freon 113	1.1	Not Detected	8.4	Not Detected
Methylene Chloride	1.1	Not Detected	3.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
1,1,1-Trichloroethane	1.1	15	6.0	81
Trichloroethene	1.1	380	5.9	2100
Tetrachloroethene	1.1	Not Detected	7.4	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN0410S080211

Lab ID#: 1108140C-53A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081108	Date of Collection:	8/2/11 2:20:00 PM	
Dil. Factor:	79.0	Date of Analysis:	8/11/11 11:18 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	40	Not Detected	100	Not Detected
Chloroethane	160	Not Detected	420	Not Detected
1,1-Dichloroethene	40	59	160	230
Freon 113	40	Not Detected	300	Not Detected
Methylene Chloride	40	Not Detected	140	Not Detected
1,1-Dichloroethane	40	480	160	2000
cis-1,2-Dichloroethene	40	1500	160	5800
1,1,1-Trichloroethane	40	970	220	5300
Trichloroethene	40	7600	210	41000
Tetrachloroethene	40	60	270	410
trans-1,2-Dichloroethene	40	Not Detected	160	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0410S080211 Lab Duplicate

Lab ID#: 1108140C-53AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081109	Date of Collection:	8/2/11 2:20:00 PM	
Dil. Factor:	52.7	Date of Analysis:	8/11/11 11:58 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	26	Not Detected	67	Not Detected
Chloroethane	100	Not Detected	280	Not Detected
1,1-Dichloroethene	26	52	100	210
Freon 113	26	Not Detected	200	Not Detected
Methylene Chloride	26	Not Detected	92	Not Detected
1,1-Dichloroethane	26	460	110	1900
cis-1,2-Dichloroethene	26	1400	100	5600
1,1,1-Trichloroethane	26	960	140	5200
Trichloroethene	26	7300	140	39000
Tetrachloroethene	26	56	180	380
trans-1,2-Dichloroethene	26	Not Detected	100	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0411D080211

Lab ID#: 1108140C-54A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081014	Date of Collection:	8/2/11 12:15:00 PM	
Dil. Factor:	1.55	Date of Analysis:	8/10/11 02:17 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	0.78	1.0	2.7	3.5
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	5.6	4.2	31
Trichloroethene	0.78	180	4.2	980
Tetrachloroethene	0.78	4.7	5.2	32
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	115	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: EN0417S080311

Lab ID#: 1108140C-55A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081015	Date of Collection:	8/3/11 2:16:00 PM	
Dil. Factor:	1.61	Date of Analysis:	8/10/11 02:45 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	0.80	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.80	1.8	4.4	9.8
Trichloroethene	0.80	67	4.3	360
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	117	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN0423S080311

Lab ID#: 1108140C-56A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081016	Date of Collection:	8/3/11 3:40:00 PM	
Dil. Factor:	1.68	Date of Analysis:	8/10/11 03:12 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
trans-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN0427S080311

Lab ID#: 1108140C-57A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081017	Date of Collection:	8/3/11 3:45:00 PM	
Dil. Factor:	1.64	Date of Analysis:	8/10/11 03:34 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	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	0.82	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	29	4.5	160
Trichloroethene	0.82	150	4.4	830
Tetrachloroethene	0.82	26	5.6	180
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	114	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN0429D080211

Lab ID#: 1108140C-58A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081018	Date of Collection:	8/2/11 12:50:00 PM	
Dil. Factor:	1.75	Date of Analysis:	8/10/11 04:01 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	0.88	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.88	6.1	4.8	33
Trichloroethene	0.88	72	4.7	390
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	125	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN042D080211

Lab ID#: 1108140C-59A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081019	Date of Collection:	8/2/11 8:05:00 AM	
Dil. Factor:	1.64	Date of Analysis:	8/10/11 04:28 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	0.82	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	3.0	4.5	17
Trichloroethene	0.82	20	4.4	110
Tetrachloroethene	0.82	3.2	5.6	22
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	128	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	99	70-130



Client Sample ID: EN0430D080211

Lab ID#: 1108140C-60A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081020	Date of Collection:	8/2/11 9:30:00 AM	
Dil. Factor:	1.61	Date of Analysis:	8/10/11 04:53 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	0.98	6.2	7.5
Methylene Chloride	0.80	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.80	1.0	3.2	4.0
cis-1,2-Dichloroethene	0.80	1.7	3.2	6.6
1,1,1-Trichloroethane	0.80	16	4.4	90
Trichloroethene	0.80	160	4.3	880
Tetrachloroethene	0.80	6.2	5.5	42
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	119	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN0430S080211

Lab ID#: 1108140C-61A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081022	Date of Collection:	8/2/11 9:12:00 AM	
Dil. Factor:	3.28	Date of Analysis:	8/10/11 05:44 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.6	Not Detected	4.2	Not Detected
Chloroethane	6.6	Not Detected	17	Not Detected
1,1-Dichloroethene	1.6	Not Detected	6.5	Not Detected
Freon 113	1.6	Not Detected	12	Not Detected
Methylene Chloride	1.6	Not Detected	5.7	Not Detected
1,1-Dichloroethane	1.6	Not Detected	6.6	Not Detected
cis-1,2-Dichloroethene	1.6	Not Detected	6.5	Not Detected
1,1,1-Trichloroethane	1.6	4.3	8.9	23
Trichloroethene	1.6	510	8.8	2700
Tetrachloroethene	1.6	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.6	Not Detected	6.5	Not Detected

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

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



Client Sample ID: EN0430S080211 Lab Duplicate

Lab ID#: 1108140C-61AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081023	Date of Collection:	8/2/11 9:12:00 AM	
Dil. Factor:	3.28	Date of Analysis:	8/10/11 06:06 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.6	Not Detected	4.2	Not Detected
Chloroethane	6.6	Not Detected	17	Not Detected
1,1-Dichloroethene	1.6	Not Detected	6.5	Not Detected
Freon 113	1.6	Not Detected	12	Not Detected
Methylene Chloride	1.6	Not Detected	5.7	Not Detected
1,1-Dichloroethane	1.6	Not Detected	6.6	Not Detected
cis-1,2-Dichloroethene	1.6	Not Detected	6.5	Not Detected
1,1,1-Trichloroethane	1.6	3.9	8.9	21
Trichloroethene	1.6	470	8.8	2500
Tetrachloroethene	1.6	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.6	Not Detected	6.5	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130



Client Sample ID: EN0431S080211

Lab ID#: 1108140C-62A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081021	Date of Collection:	8/2/11 2:00:00 PM	
Dil. Factor:	1.75	Date of Analysis:	8/10/11 05:14 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	0.88	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.88	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected
1,1,1-Trichloroethane	0.88	Not Detected	4.8	Not Detected
Trichloroethene	0.88	Not Detected	4.7	Not Detected
Tetrachloroethene	0.88	Not Detected	5.9	Not Detected
trans-1,2-Dichloroethene	0.88	Not Detected	3.5	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: EN0432S080211

Lab ID#: 1108140C-63A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081024	Date of Collection:	8/2/11 11:03:00 AM	
Dil. Factor:	1.71	Date of Analysis:	8/10/11 06:27 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	0.86	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected
1,1,1-Trichloroethane	0.86	2.6	4.7	14
Trichloroethene	0.86	91	4.6	490
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	118	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: EN043D080211

Lab ID#: 1108140C-64A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081110	Date of Collection:	8/2/11 10:30:00 AM	
Dil. Factor:	1.68	Date of Analysis:	8/11/11 12:48 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.84	Not Detected	2.1	Not Detected
Chloroethane	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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	5.3	4.5	28
Tetrachloroethene	0.84	2.1	5.7	14
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	105	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	93	70-130



Client Sample ID: EN043S080211

Lab ID#: 1108140C-65A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081111	Date of Collection:	8/2/11 9:20:00 AM	
Dil. Factor:	1.55	Date of Analysis:	8/11/11 01:27 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	0.78	Not Detected	2.7	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	Not Detected	4.2	Not Detected
Trichloroethene	0.78	0.82	4.2	4.4
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	105	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN045D080311

Lab ID#: 1108140C-66A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081115	Date of Collection:	8/3/11 10:10:00 AM	
Dil. Factor:	2.33	Date of Analysis:	8/11/11 04:06 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
Methylene Chloride	1.2	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
1,1,1-Trichloroethane	1.2	9.5	6.4	52
Trichloroethene	1.2	290	6.3	1600
Tetrachloroethene	1.2	Not Detected	7.9	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: EN046D080311

Lab ID#: 1108140C-67A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081113	Date of Collection:	8/3/11 11:21:00 AM	
Dil. Factor:	1.68	Date of Analysis:	8/11/11 02:43 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
trans-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN046S080311

Lab ID#: 1108140C-68A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081114	Date of Collection:	8/3/11 11:21:00 AM	
Dil. Factor:	1.61	Date of Analysis:	8/11/11 03:20 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	0.80	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.80	Not Detected	4.4	Not Detected
Trichloroethene	0.80	Not Detected	4.3	Not Detected
Tetrachloroethene	0.80	Not Detected	5.5	Not Detected
trans-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	94	70-130



Client Sample ID: Lab Blank

Lab ID#: 1108140C-69A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081005a	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	8/10/11 08:49 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	94	70-130



Client Sample ID: Lab Blank

Lab ID#: 1108140C-69B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081105	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	8/11/11 08:57 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: CCV

Lab ID#: 1108140C-70A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081002	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 07:18 AM

Compound	%Recovery
Vinyl Chloride	99
Chloroethane	95
1,1-Dichloroethene	100
Freon 113	102
Methylene Chloride	95
1,1-Dichloroethane	96
cis-1,2-Dichloroethene	96
1,1,1-Trichloroethane	101
Trichloroethene	97
Tetrachloroethene	103
trans-1,2-Dichloroethene	90

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: CCV

Lab ID#: 1108140C-70B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081102	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/11/11 07:06 AM

Compound	%Recovery
Vinyl Chloride	96
Chloroethane	99
1,1-Dichloroethene	87
Freon 113	88
Methylene Chloride	86
1,1-Dichloroethane	84
cis-1,2-Dichloroethene	86
1,1,1-Trichloroethane	87
Trichloroethene	85
Tetrachloroethene	78
trans-1,2-Dichloroethene	84

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: LCS

Lab ID#: 1108140C-71A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 07:50 AM

Compound	%Recovery
Vinyl Chloride	105
Chloroethane	97
1,1-Dichloroethene	110
Freon 113	107
Methylene Chloride	96
1,1-Dichloroethane	100
cis-1,2-Dichloroethene	102
1,1,1-Trichloroethane	106
Trichloroethene	94
Tetrachloroethene	102
trans-1,2-Dichloroethene	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: LCSD

Lab ID#: 1108140C-71AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	6081004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 08:11 AM

Compound	%Recovery
Vinyl Chloride	94
Chloroethane	91
1,1-Dichloroethene	102
Freon 113	98
Methylene Chloride	92
1,1-Dichloroethane	93
cis-1,2-Dichloroethene	94
1,1,1-Trichloroethane	99
Trichloroethene	97
Tetrachloroethene	100
trans-1,2-Dichloroethene	101

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: LCS

Lab ID#: 1108140C-71B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081103	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/11/11 07:44 AM

Compound	%Recovery
Vinyl Chloride	89
Chloroethane	92
1,1-Dichloroethene	91
Freon 113	86
Methylene Chloride	83
1,1-Dichloroethane	81
cis-1,2-Dichloroethene	85
1,1,1-Trichloroethane	84
Trichloroethene	86
Tetrachloroethene	83
trans-1,2-Dichloroethene	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	108	70-130



Client Sample ID: LCSD

Lab ID#: 1108140C-71BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081104	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/11/11 08:26 AM

Compound	%Recovery
Vinyl Chloride	91
Chloroethane	95
1,1-Dichloroethene	92
Freon 113	86
Methylene Chloride	85
1,1-Dichloroethane	82
cis-1,2-Dichloroethene	86
1,1,1-Trichloroethane	84
Trichloroethene	83
Tetrachloroethene	83
trans-1,2-Dichloroethene	94

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	105	70-130

8/18/2011

Ms. Erica Bradstreet
Sanborn, Head & Associates
1715 W 13th Street

Houston TX 77008

Project Name: GVP
Project #: 2755.06
Workorder #: 1108140D

Dear Ms. Erica Bradstreet

The following report includes the data for the above referenced project for sample(s) received on 8/5/2011 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

WORK ORDER #: 1108140D

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. #	2755.03
FAX:		PROJECT #	2755.06 GVP
DATE RECEIVED:	08/05/2011	CONTACT:	Ausha Scott
DATE COMPLETED:	08/18/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
69A	EN047S080311	Modified TO-15	6.0 "Hg	5 psi
70A	EN0534D080311	Modified TO-15	5.0 "Hg	5 psi
71A	EN0534S080311	Modified TO-15	6.0 "Hg	5 psi
72A	EN0636S080311	Modified TO-15	6.0 "Hg	5 psi
73A	EB94934080311	Modified TO-15	5.5 "Hg	5 psi
74A	EB9521080411	Modified TO-15	5.0 "Hg	5 psi
75A	EN0422D080211	Modified TO-15	4.0 "Hg	5 psi
76A	EN0425D080411	Modified TO-15	5.5 "Hg	5 psi
77A	EN0425S080411	Modified TO-15	6.0 "Hg	5 psi
78A	EN0426D080411	Modified TO-15	6.0 "Hg	5 psi
79A	EN0426S080411	Modified TO-15	5.5 "Hg	5 psi
80A	EN1041D080411	Modified TO-15	6.5 "Hg	5 psi
81A	EN1041S080411	Modified TO-15	6.0 "Hg	5 psi
82A	Lab Blank	Modified TO-15	NA	NA
82B	Lab Blank	Modified TO-15	NA	NA
83A	CCV	Modified TO-15	NA	NA
83B	CCV	Modified TO-15	NA	NA

Continued on next page

WORK ORDER #: 1108140D

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. #	2755.03
FAX:		PROJECT #	2755.06 GVP
DATE RECEIVED:	08/05/2011	CONTACT:	Ausha Scott
DATE COMPLETED:	08/18/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
84A	LCS	Modified TO-15	NA	NA
84AA	LCSD	Modified TO-15	NA	NA
84B	LCS	Modified TO-15	NA	NA
84BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 08/18/11

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
EPA Method TO-15
Sanborn, Head & Associates
Workorder# 1108140D

Seven 1 Liter Summa Canister (100% Certified) and six 1 Liter Summa Canister samples were received on August 05, 2011. 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



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

Client Sample ID: EN047S080311

Lab ID#: 1108140D-69A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.84	1.2	4.5	6.5
Tetrachloroethene	0.84	3.9	5.7	27

Client Sample ID: EN0534D080311

Lab ID#: 1108140D-70A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.80	2.4	4.4	13
Trichloroethene	0.80	36	4.3	190
Tetrachloroethene	0.80	3.7	5.5	25

Client Sample ID: EN0534S080311

Lab ID#: 1108140D-71A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.84	1.9	4.5	10

Client Sample ID: EN0636S080311

Lab ID#: 1108140D-72A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.84	1.7	4.6	9.3

Client Sample ID: EB94934080311

Lab ID#: 1108140D-73A

No Detections Were Found.

Client Sample ID: EB9521080411

Lab ID#: 1108140D-74A



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

Client Sample ID: EB9521080411

Lab ID#: 1108140D-74A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	0.80	2.1	2.8	7.3

Client Sample ID: EN0422D080211

Lab ID#: 1108140D-75A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.78	1.6	5.9	12
1,1-Dichloroethane	0.78	1.3	3.1	5.4
cis-1,2-Dichloroethene	0.78	120	3.1	500
1,1,1-Trichloroethane	0.78	11	4.2	58
Trichloroethene	0.78	130	4.2	680
trans-1,2-Dichloroethene	0.78	18	3.1	71

Client Sample ID: EN0425D080411

Lab ID#: 1108140D-76A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	0.82	0.88	2.8	3.0

Client Sample ID: EN0425S080411

Lab ID#: 1108140D-77A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.84	1.1	5.7	7.5

Client Sample ID: EN0426D080411

Lab ID#: 1108140D-78A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	1.1	1.9	8.6	15
1,1,1-Trichloroethane	1.1	18	6.1	99



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

Client Sample ID: EN0426D080411

Lab ID#: 1108140D-78A

Trichloroethene	1.1	380	6.0	2000
Tetrachloroethene	1.1	1.9	7.6	13

Client Sample ID: EN0426S080411

Lab ID#: 1108140D-79A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.82	1.1	6.3	8.6
1,1,1-Trichloroethane	0.82	16	4.5	86
Trichloroethene	0.82	290	4.4	1600
Tetrachloroethene	0.82	2.6	5.6	18

Client Sample ID: EN1041D080411

Lab ID#: 1108140D-80A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	0.86	1.3	3.4	5.3
Trichloroethene	0.86	4.4	4.6	24
Tetrachloroethene	0.86	16	5.8	110

Client Sample ID: EN1041S080411

Lab ID#: 1108140D-81A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.84	3.8	4.5	21
Tetrachloroethene	0.84	41	5.7	280



Client Sample ID: EN047S080311

Lab ID#: 1108140D-69A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081006	Date of Collection:	8/3/11 9:36:00 AM	
Dil. Factor:	1.68	Date of Analysis:	8/10/11 09:31 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	1.2	4.5	6.5
Tetrachloroethene	0.84	3.9	5.7	27
trans-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	95	70-130



Client Sample ID: EN0534D080311

Lab ID#: 1108140D-70A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081007	Date of Collection:	8/3/11 3:40:00 PM	
Dil. Factor:	1.61	Date of Analysis:	8/10/11 10:02 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	0.80	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.80	2.4	4.4	13
Trichloroethene	0.80	36	4.3	190
Tetrachloroethene	0.80	3.7	5.5	25
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	106	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0534S080311

Lab ID#: 1108140D-71A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081008	Date of Collection:	8/3/11 3:50:00 PM	
Dil. Factor:	1.68	Date of Analysis:	8/10/11 10:40 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	1.9	4.5	10
Tetrachloroethene	0.84	Not Detected	5.7	Not Detected
trans-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0636S080311

Lab ID#: 1108140D-72A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081009	Date of Collection:	8/3/11 9:15:00 AM	
Dil. Factor:	1.68	Date of Analysis:	8/10/11 11:15 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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	1.7	4.6	9.3
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	107	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EB94934080311

Lab ID#: 1108140D-73A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081010	Date of Collection:	8/3/11 5:00:00 PM	
Dil. Factor:	1.64	Date of Analysis:	8/10/11 11:54 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	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	0.82	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	Not Detected	4.5	Not Detected
Trichloroethene	0.82	Not Detected	4.4	Not Detected
Tetrachloroethene	0.82	Not Detected	5.6	Not Detected
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	93	70-130



Client Sample ID: EB9521080411

Lab ID#: 1108140D-74A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081011	Date of Collection:	8/4/11 12:55:00 PM	
Dil. Factor:	1.61	Date of Analysis:	8/10/11 12:33 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	0.80	2.1	2.8	7.3
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	107	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	95	70-130



Client Sample ID: EN0422D080211

Lab ID#: 1108140D-75A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081012	Date of Collection:	8/2/11 7:51:00 AM	
Dil. Factor:	1.55	Date of Analysis:	8/10/11 01:09 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	1.6	5.9	12
Methylene Chloride	0.78	Not Detected	2.7	Not Detected
1,1-Dichloroethane	0.78	1.3	3.1	5.4
cis-1,2-Dichloroethene	0.78	120	3.1	500
1,1,1-Trichloroethane	0.78	11	4.2	58
Trichloroethene	0.78	130	4.2	680
Tetrachloroethene	0.78	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.78	18	3.1	71

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130



Client Sample ID: EN0425D080411

Lab ID#: 1108140D-76A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081013	Date of Collection:	8/4/11 12:30:00 PM	
Dil. Factor:	1.64	Date of Analysis:	8/10/11 01:51 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	0.82	0.88	2.8	3.0
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	106	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: EN0425S080411

Lab ID#: 1108140D-77A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081014	Date of Collection:	8/4/11 12:30:00 PM	
Dil. Factor:	1.68	Date of Analysis:	8/10/11 02:27 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.84	Not Detected	2.1	Not Detected
Chloroethane	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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	Not Detected	4.5	Not Detected
Tetrachloroethene	0.84	1.1	5.7	7.5
trans-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	94	70-130



Client Sample ID: EN0426D080411

Lab ID#: 1108140D-78A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081016	Date of Collection:	8/4/11 12:28:00 PM	
Dil. Factor:	2.24	Date of Analysis:	8/10/11 03:56 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Chloroethane	4.5	Not Detected	12	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Freon 113	1.1	1.9	8.6	15
Methylene Chloride	1.1	Not Detected	3.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.5	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
1,1,1-Trichloroethane	1.1	18	6.1	99
Trichloroethene	1.1	380	6.0	2000
Tetrachloroethene	1.1	1.9	7.6	13
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	94	70-130



Client Sample ID: EN0426S080411

Lab ID#: 1108140D-79A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081019	Date of Collection:	8/4/11 12:28:00 PM	
Dil. Factor:	1.64	Date of Analysis:	8/10/11 06:12 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Chloroethane	3.3	Not Detected	8.6	Not Detected
1,1-Dichloroethene	0.82	Not Detected	3.2	Not Detected
Freon 113	0.82	1.1	6.3	8.6
Methylene Chloride	0.82	Not Detected	2.8	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
1,1,1-Trichloroethane	0.82	16	4.5	86
Trichloroethene	0.82	290	4.4	1600
Tetrachloroethene	0.82	2.6	5.6	18
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	105	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	94	70-130



Client Sample ID: EN1041D080411

Lab ID#: 1108140D-80A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081117	Date of Collection:	8/4/11 12:15:00 PM	
Dil. Factor:	1.71	Date of Analysis:	8/11/11 05:23 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	0.86	Not Detected	3.0	Not Detected
1,1-Dichloroethane	0.86	Not Detected	3.5	Not Detected
cis-1,2-Dichloroethene	0.86	1.3	3.4	5.3
1,1,1-Trichloroethane	0.86	Not Detected	4.7	Not Detected
Trichloroethene	0.86	4.4	4.6	24
Tetrachloroethene	0.86	16	5.8	110
trans-1,2-Dichloroethene	0.86	Not Detected	3.4	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: EN1041S080411

Lab ID#: 1108140D-81A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081118	Date of Collection:	8/4/11 12:20:00 PM	
Dil. Factor:	1.68	Date of Analysis:	8/11/11 06:03 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.84	Not Detected	2.1	Not Detected
Chloroethane	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	0.84	Not Detected	2.9	Not Detected
1,1-Dichloroethane	0.84	Not Detected	3.4	Not Detected
cis-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected
1,1,1-Trichloroethane	0.84	Not Detected	4.6	Not Detected
Trichloroethene	0.84	3.8	4.5	21
Tetrachloroethene	0.84	41	5.7	280
trans-1,2-Dichloroethene	0.84	Not Detected	3.3	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	109	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: Lab Blank

Lab ID#: 1108140D-82A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081005	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	8/10/11 08:29 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: Lab Blank

Lab ID#: 1108140D-82B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081105	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	8/11/11 08:57 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Chloroethane	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	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: CCV

Lab ID#: 1108140D-83A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081002	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 06:50 AM

Compound	%Recovery
Vinyl Chloride	92
Chloroethane	98
1,1-Dichloroethene	88
Freon 113	88
Methylene Chloride	88
1,1-Dichloroethane	84
cis-1,2-Dichloroethene	87
1,1,1-Trichloroethane	88
Trichloroethene	86
Tetrachloroethene	86
trans-1,2-Dichloroethene	85

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	104	70-130



Client Sample ID: CCV

Lab ID#: 1108140D-83B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081102	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/11/11 07:06 AM

Compound	%Recovery
Vinyl Chloride	96
Chloroethane	99
1,1-Dichloroethene	87
Freon 113	88
Methylene Chloride	86
1,1-Dichloroethane	84
cis-1,2-Dichloroethene	86
1,1,1-Trichloroethane	87
Trichloroethene	85
Tetrachloroethene	78
trans-1,2-Dichloroethene	84

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130



Client Sample ID: LCS

Lab ID#: 1108140D-84A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081003	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 07:22 AM

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

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: LCSD

Lab ID#: 1108140D-84AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/10/11 07:52 AM

Compound	%Recovery
Vinyl Chloride	83
Chloroethane	89
1,1-Dichloroethene	89
Freon 113	85
Methylene Chloride	82
1,1-Dichloroethane	79
cis-1,2-Dichloroethene	83
1,1,1-Trichloroethane	84
Trichloroethene	86
Tetrachloroethene	82
trans-1,2-Dichloroethene	91

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	107	70-130



Client Sample ID: LCS

Lab ID#: 1108140D-84B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081103	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/11/11 07:44 AM

Compound	%Recovery
Vinyl Chloride	89
Chloroethane	92
1,1-Dichloroethene	91
Freon 113	86
Methylene Chloride	83
1,1-Dichloroethane	81
cis-1,2-Dichloroethene	85
1,1,1-Trichloroethane	84
Trichloroethene	86
Tetrachloroethene	83
trans-1,2-Dichloroethene	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	108	70-130



Client Sample ID: LCSD

Lab ID#: 1108140D-84BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	2081104	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/11/11 08:26 AM

Compound	%Recovery
Vinyl Chloride	91
Chloroethane	95
1,1-Dichloroethene	92
Freon 113	86
Methylene Chloride	85
1,1-Dichloroethane	82
cis-1,2-Dichloroethene	86
1,1,1-Trichloroethane	84
Trichloroethene	83
Tetrachloroethene	83
trans-1,2-Dichloroethene	94

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	105	70-130



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