



EA Engineering, Science, and Technology, Inc.

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17 September 2007

Mr. Joseph T. Martella II, Senior Engineer  
RIDEM - Office of Waste Management  
Site Remediation Program  
235 Promenade Street  
Providence, Rhode Island 02908

RE: 22 August 2007 Air Sampling Event Summary Letter  
Adelaide Avenue School, 333 Adelaide Avenue, Providence, Rhode Island  
Case No. 2005-029  
EA Project No. 61965.01

Dear Mr. Martella:

Per your request and on behalf of the Providence Department of Public Property (City), EA Engineering, Science, and Technology, Inc. (EA) is providing this letter to summarize air sampling data collected at the referenced Adelaide Avenue School site (the Site) on 22 August 2007. A narrative overview of the sampling results is provided below, and tables summarizing the pertinent data, figures illustrating the sampling locations, and copies of the laboratory analytical reports are attached for your reference (Attachment A). In accordance with the Order of Approval and amendments (Amended OA), a more detailed summary of this and upcoming sampling/monitoring events will be provided in future quarterly air monitoring summary reports for the Site.

#### **Summary of 22 August 2007 Sampling Event**

In accordance with the Amended OA, EA collected four sub-slab vapor samples, eight indoor air samples, and one ambient air sample at the Site on 22 August 2007, and submitted the samples to Alpha Woods Hole Labs (Mansfield, MA) for analysis of volatile organic compounds (VOCs) via Method TO-15. This was the seventh sampling round completed at the Site. Sub-slab vacuum measurements and indoor and sub-slab methane monitoring data were also collected on 22 August 2007.

The data collected on 22 August 2007 indicates that:

- There is no evidence that soil vapor intrusion into the newly constructed school is occurring.
- The continuous operation of the SSD system and confirmation of sub-slab vacuum beneath the school between -0.05 and -0.18 inches of water column illustrates ongoing, effective operation of the SSD system and elimination of the soil vapor intrusion pathway at the site.
- No sub-slab or indoor methane monitoring data exceeded the respective methane Action Levels.
- With the exception of Carbon Tetrachloride, known to be a statewide and ambient background compound for the Site, none of the VOC compounds analyzed for during this sampling round were detected in any of the 8 indoor air samples at concentrations greater than the respective Indoor Air Action Levels.
- Carbon Tetrachloride, a documented background ambient concentration at the Site and in urban communities, has consistently been detected in ambient outdoor air and inside the school during each of the previous sampling events at concentrations ranging between 0.36 to 0.79 ug/m<sup>3</sup>.



During this sampling event, the ambient outdoor concentration of Carbon Tetrachloride was  $0.67 \text{ ug/m}^3$ , and concentrations within the school were similarly between  $0.65$  and  $0.77 \text{ ug/m}^3$ . Based upon discussions and guidance provided by the Rhode Island Department of Health and RIDEM's Office of Waste Management and Office of Air Resources, these Carbon Tetrachloride results do not constitute an Indoor Air Action Level exceedence for the Site.

- During this sampling round, samples from two perimeter sub-slab sampling/monitoring points (MP-3 and MP-5) and two newly-installed, interior sub-slab sampling/monitoring points (IMP-1 and IMP-2) were collected and analyzed for VOCs. VOC results for the interior points are generally less than or approximately equal to the data collected from the perimeter sub-slab monitoring points. One exception is Trichloroethene detected in IMP-2 at  $8.14 \text{ ug/m}^3$ . Referring to the sampling locations on the figures in Appendix A, IMP-2 is installed through the first floor slab of Room 152 in the east wing of the school. This compound was not detected (reporting limit of  $0.11 \text{ ug/m}^3$ ) in the air sample collected from within Room 152 during this sampling event, further validating that no soil vapor intrusion is occurring and that the SSD system is functioning according to design.

In conclusion, the 22 August 2007 sampling and monitoring data does not exceed any of the Indoor Air or Sub-slab Action Levels, and we continue to be encouraged by the results of the sampling and monitoring efforts completed thus far at the Site. The SSD System continues to operate according to design, and data collected to date confirms that the soil vapor intrusion pathway has been eliminated (i.e., no soil vapor intrusion is occurring). No SSD System modifications or other actions to address current site conditions are warranted or proposed at this time.

If you have any questions or require additional information, please contact me at 401-736-3440, Ext. 216.

Sincerely,

EA ENGINEERING, SCIENCE,  
AND TECHNOLOGY, INC.

Peter M. Grivers, P.E., LSP  
Project Manager

#### Attachments

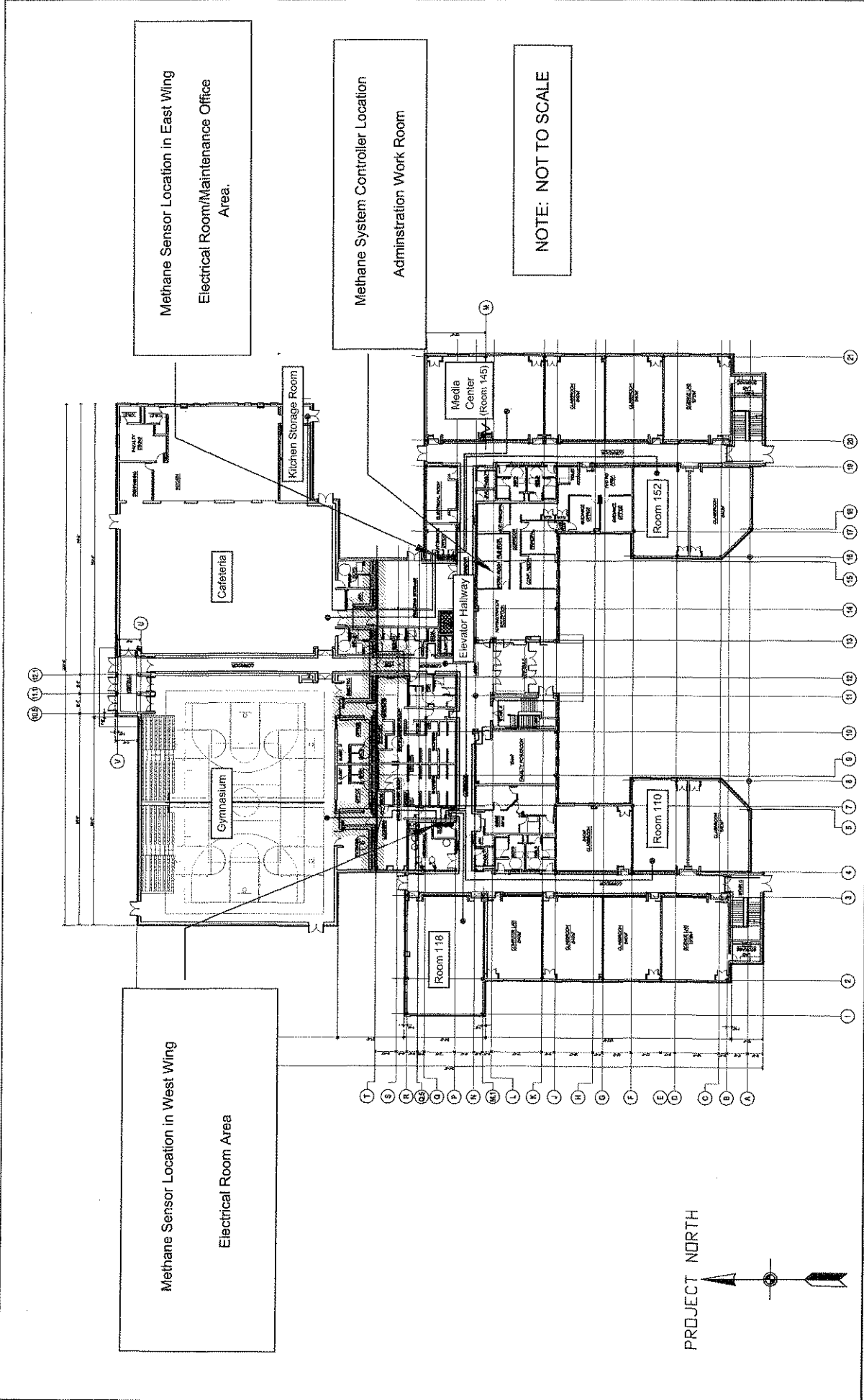
cc: J. Simmons, City of Prov.  
J. Fernandez, City of Prov. Law Department  
J. Boehnert, Partridge, Snow, & Hahn  
T. Deller, Prov. Redevelopment Agency  
J. Langlois, RIDEM Legal Services  
K. Owens, RIDEM OWM  
R. Dorr, Neighborhood Resident  
Principal Torchon, Adelaide High School  
J. Pichardo, Senator  
M. Murphy, MacTec  
Knight Memorial Library Repository

A. Sepe, Prov. Dept. of Public Property  
S. Rapport, City of Prov. Law Department  
J. Ryan, Partridge, Snow, & Hahn  
T. Gray, RIDEM Bureau of Env. Protection  
L. Hellested, RIDEM OWM  
C. Walusiak, RIDEM OWM  
S. Fischbach, RI Legal Services  
T. Slater, Representative  
D. Heislein, MacTec  
G. Simpson, Textron

## **Attachment A**

**Sampling Location Maps, Data Tables,  
and Laboratory Reports – 22 August 2007**

**Indoor Air Sampling Locations, Data Summary  
Table, and Laboratory Report**

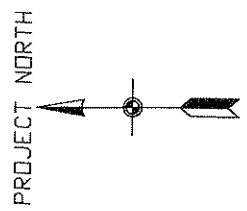


Methane Sensor Location in West Wing  
Electrical Room Area

Methane Sensor Location in East Wing  
Electrical Room/Maintenance Office  
Area.

Methane System Controller Location  
Administration Work Room

NOTE: NOT TO SCALE



DESIGNED BY PMG		DATE 4-3-07	PROJECT NO. 61965.01	FILE NAME Gorham Layout	INDOOR AIR SAMPLING AND METHANE MONITORING SYSTEM DIAGRAM - GORHAM HIGH SCHOOL PROVIDENCE, RHODE ISLAND	LETTER ATTACHMENT FIGURE
CHECKED BY PMG	DRAWN BY PMG	SCALE NTS	DRAWING NO. -	FIGURE N/A		



**Summary of Indoor Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds  
Sampling Event - August 22, 2007**

Volatile Organic Compounds Via TO-15	CT Draft Proposed Indoor Residential Target Air Concentrations*		CT Existing Indoor Residential Target Air Concentrations**		NYSDOH Air Guideline Values***		Kitchen Storage Room	Cafeteria	Gymnasium	Elevator Hallway	Room 118	Room 110	Media Center (Rm 145)	Room 152	Ambient Outdoor
	0.5	1	None	µg/m <sup>3</sup>	Qual	Qual									
Carbon tetrachloride <sup>1</sup>					None	0.79	0.74	0.77	0.74	0.74	0.74	0.85	0.71	0.75	0.87

\* State of Connecticut Draft Proposed Indoor Residential Target Air Concentrations [Proposed Revisions to Connecticut's Remediation Standard Regulations Volatilization Criteria, CTDEP, March 2003]; These concentrations have been established as Action Levels for indoor air in the RIDEM Order of Approval [June 2006, Amended February 2007] with the exception of several compounds (1,2-Dichloroethane, Bromodichloromethane, 1,2-Dibromoethane, 1,1,1,2-Tetrachloroethane, and 1,1,2,2-Tetrachloroethane) where laboratory reporting limits can not achieve these concentrations.

\*\* State of Connecticut Existing Indoor Residential Target Air Concentrations [Remediation Standard Regulations, CTDEP, 1986]. Please note, these concentrations are provided for comparative purposes only and are not Action Levels for the Adelaide Avenue School project. "None" indicates that no target air concentration has been established for this compound by CTDEP.

\*\*\* New York State Department of Health (NYSDOH) air guideline concentrations [Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, NYSDOH, October 2006]. Please note, these concentrations are provided for comparative purposes only and are not Action Levels for the Adelaide Avenue School project. "None" indicates that no air guideline has been established for this compound by NYSDOH.

U: designation indicates that the compound was not detected by the laboratory. Reporting limit shown in the data column.

Qual: grey shading indicates that the sample concentration for this compound exceeds the applicable Indoor Air Action Level.

1: Carbon Tetrachloride is a manufactured chemical used in aerosols, cleaning fluids, fire extinguishers, and degreasing agents. This compound is a worldwide and statewide background ambient air compound and the concentrations detected during this project are consistent with documented background concentrations. accordance with discussions and guidance from the RI Department of Health and RIDEM, this Carbon Tetrachloride data is not considered an Action Level exceedance for this Site.



## ANALYTICAL REPORT

Lab Number:	L0712224
Client:	EA Engineering, Science and Tech 2350 Post Road Warwick, RI 02886
ATTN:	Peter Grivers
Project Name:	ADELAIDE H.S.
Project Number:	6196501
Report Date:	09/14/07

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAC00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), US Army Corps of Engineers.

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



**Project Name:** ADELAIDE H.S.  
**Project Number:** 6196501

**Lab Number:** L0712224  
**Report Date:** 09/14/07

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>
L0712224-01	AMBIENT OUTDOOR	PROVIDENCE, RI
L0712224-02	GYM	PROVIDENCE, RI
L0712224-03	KITCHEN STORAGE	PROVIDENCE, RI
L0712224-04	CAFETERIA	PROVIDENCE, RI
L0712224-05	ELEVATOR HALLWAY	PROVIDENCE, RI
L0712224-06	ROOM 145	PROVIDENCE, RI
L0712224-07	ROOM 152	PROVIDENCE, RI
L0712224-08	ROOM 118	PROVIDENCE, RI
L0712224-09	ROOM 110	PROVIDENCE, RI



**Project Name:** ADELAIDE H.S.  
**Project Number:** 6196501

**Lab Number:** L0712224  
**Report Date:** 09/14/07

### Case Narrative

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

#### Report Submission

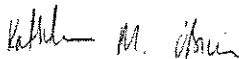
This report replaces the report issued Sept. 10, 2007. The MeCl conversion factor was incorrect, and the report is being amended with corrected ug/m3 results.

#### TO-15 SIM

The WG292919-2 LCS % recoveries for trans-1,2-Dichloroethene, Styrene, Toluene, and Methyl-tert-butyl-ether are below the individual acceptance criteria for the compounds, but within the overall method allowances.

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

Authorized Signature:



Title: Technical Director/Representative

Date: 09/14/07

**AIR**

Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712224-01  
 Client ID: AMBIENT OUTDOOR  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 09/06/07 01:27  
 Analyst: RY

Date Collected: 08/22/07 13:53  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
1,1,1-Trichloroethane	ND	0.020	ND	0.109		1
1,1,1,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2-Trichloroethane	ND	0.020	ND	0.109		1
1,1-Dichloroethane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	ND	0.098		1
1,2-Dibromoethane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroethane	ND	0.020	ND	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	ND	0.020	ND	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	ND	0.020	ND	0.120		1
Benzene	0.050	0.020	0.160	0.064		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.107	0.020	0.673	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	ND	0.020	ND	0.098		1
Chloromethane	ND	0.500	ND	2.44		1
cis-1,2-Dichloroethene	ND	0.020	ND	0.079		1
cis-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Dibromochloromethane	ND	0.020	ND	0.096		1



Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712224-01  
 Client ID: AMBIENT OUTDOOR  
 Sample Location: PROVIDENCE, RI

Date Collected: 08/22/07 13:53  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
Dichlorodifluoromethane	0.435	0.050	2.15	0.247		1
Ethylbenzene	ND	0.020	ND	0.087		1
Methylene chloride	ND	0.800	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
p/m-Xylene	ND	0.040	ND	0.174		1
o-Xylene	ND	0.020	ND	0.087		1
Styrene	ND	0.020	ND	0.085		1
Tetrachloroethene	ND	0.020	ND	0.136		1
Toluene	0.139	0.020	0.523	0.075		1
trans-1,2-Dichloroethene	ND	0.020	ND	0.079		1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Trichloroethene	ND	0.020	ND	0.107		1
Trichlorofluoromethane	0.240	0.050	1.35	0.281		1
Vinyl chloride	ND	0.020	ND	0.051		1
Acrylonitrile	ND	0.500	ND	1.08		1
n-Butylbenzene	ND	0.500	ND	2.74		1
sec-Butylbenzene	ND	0.500	ND	2.74		1
Isopropylbenzene	ND	0.500	ND	2.46		1
p-Isopropyltoluene	ND	0.500	ND	2.74		1
Acetone	3.42	2.00	8.11	4.75		1
2-Butanone	ND	0.500	ND	1.47		1
4-Methyl-2-pentanone	ND	0.500	ND	2.05		1



Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712224-02  
 Client ID: GYM  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 09/06/07 02:45  
 Analyst: RY

Date Collected: 08/22/07 10:33  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
1,1,1-Trichloroethane	ND	0.020	ND	0.109		1
1,1,1,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2-Trichloroethane	ND	0.020	ND	0.109		1
1,1-Dichloroethane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	0.651	0.020	3.20	0.098		1
1,2-Dibromoethane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroethane	ND	0.020	ND	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	0.296	0.020	1.45	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	ND	0.020	ND	0.120		1
Benzene	0.055	0.020	0.176	0.064		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.123	0.020	0.773	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	0.023	0.020	0.112	0.098		1
Chloromethane	0.508	0.500	2.48	2.44		1
cis-1,2-Dichloroethene	ND	0.020	ND	0.079		1
cis-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Dibromochloromethane	ND	0.020	ND	0.096		1



Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712224-02  
 Client ID: GYM  
 Sample Location: PROVIDENCE, RI

Date Collected: 08/22/07 10:33  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
Dichlorodifluoromethane	0.475	0.050	2.35	0.247		1
Ethylbenzene	0.275	0.020	1.19	0.087		1
Methylene chloride	ND	0.800	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
p/m-Xylene	1.23	0.040	5.32	0.174		1
o-Xylene	0.327	0.020	1.42	0.087		1
Styrene	ND	0.020	ND	0.085		1
Tetrachloroethene	ND	0.020	ND	0.136		1
Toluene	0.447	0.020	1.68	0.075		1
trans-1,2-Dichloroethene	ND	0.020	ND	0.079		1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Trichloroethene	ND	0.020	ND	0.107		1
Trichlorofluoromethane	0.270	0.050	1.52	0.281		1
Vinyl chloride	ND	0.020	ND	0.051		1
Acrylonitrile	ND	0.500	ND	1.08		1
n-Butylbenzene	ND	0.500	ND	2.74		1
sec-Butylbenzene	ND	0.500	ND	2.74		1
Isopropylbenzene	ND	0.500	ND	2.46		1
p-Isopropyltoluene	ND	0.500	ND	2.74		1
Acetone	3.84	2.00	9.12	4.75		1
2-Butanone	ND	0.500	ND	1.47		1
4-Methyl-2-pentanone	ND	0.500	ND	2.05		1



Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712224-03  
 Client ID: KITCHEN STORAGE  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 09/06/07 03:23  
 Analyst: RY

Date Collected: 08/22/07 10:45  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
1,1,1-Trichloroethane	ND	0.020	ND	0.109		1
1,1,1,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2-Trichloroethane	ND	0.020	ND	0.109		1
1,1-Dichloroethane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	0.733	0.020	3.60	0.098		1
1,2-Dibromoethane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroethane	ND	0.020	ND	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	0.436	0.020	2.14	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	ND	0.020	ND	0.120		1
Benzene	0.086	0.020	0.274	0.064		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.116	0.020	0.729	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	0.024	0.020	0.117	0.098		1
Chloromethane	0.862	0.500	4.20	2.44		1
cis-1,2-Dichloroethene	ND	0.020	ND	0.079		1
cis-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Dibromochloromethane	ND	0.020	ND	0.096		1



Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712224-03  
 Client ID: KITCHEN STORAGE  
 Sample Location: PROVIDENCE, RI

Date Collected: 08/22/07 10:45  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
Dichlorodifluoromethane	0.479	0.050	2.37	0.247		1
Ethylbenzene	0.108	0.020	0.468	0.087		1
Methylene chloride	ND	0.800	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
p/m-Xylene	0.361	0.040	1.57	0.174		1
o-Xylene	0.167	0.020	0.724	0.087		1
Styrene	0.710	0.020	3.02	0.085		1
Tetrachloroethene	ND	0.020	ND	0.136		1
Toluene	0.394	0.020	1.48	0.075		1
trans-1,2-Dichloroethene	ND	0.020	ND	0.079		1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Trichloroethene	ND	0.020	ND	0.107		1
Trichlorofluoromethane	0.263	0.050	1.48	0.281		1
Vinyl chloride	ND	0.020	ND	0.051		1
Acrylonitrile	ND	0.500	ND	1.08		1
n-Butylbenzene	ND	0.500	ND	2.74		1
sec-Butylbenzene	ND	0.500	ND	2.74		1
Isopropylbenzene	ND	0.500	ND	2.46		1
p-isopropyltoluene	ND	0.500	ND	2.74		1
Acetone	11.3	2.00	26.8	4.75		1
2-Butanone	ND	0.500	ND	1.47		1
4-Methyl-2-pentanone	ND	0.500	ND	2.05		1





Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712224  
Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712224-04  
Client ID: CAFETERIA  
Sample Location: PROVIDENCE, RI  
Matrix: Air  
Analytical Method: 48,TO-15-SIM  
Analytical Date: 09/06/07 04:02  
Analyst: RY

Date Collected: 08/22/07 11:10  
Date Received: 08/23/07  
Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
1,1,1-Trichloroethane	ND	0.020	ND	0.109		1
1,1,1,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2-Trichloroethane	ND	0.020	ND	0.109		1
1,1-Dichloroethane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	0.350	0.020	1.72	0.098		1
1,2-Dibromoethane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroethane	ND	0.020	ND	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	0.180	0.020	0.884	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	ND	0.020	ND	0.120		1
Benzene	0.078	0.020	0.249	0.064		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.118	0.020	0.742	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	0.022	0.020	0.107	0.098		1
Chloromethane	0.612	0.500	2.98	2.44		1
cis-1,2-Dichloroethene	ND	0.020	ND	0.079		1
cis-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Dibromochloromethane	ND	0.020	ND	0.096		1



Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712224-04  
 Client ID: CAFETERIA  
 Sample Location: PROVIDENCE, RI

Date Collected: 08/22/07 11:10  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
Dichlorodifluoromethane	0.479	0.050	2.37	0.247		1
Ethylbenzene	0.094	0.020	0.408	0.087		1
Methylene chloride	ND	0.800	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
p/m-Xylene	0.299	0.040	1.30	0.174		1
o-Xylene	0.108	0.020	0.468	0.087		1
Styrene	0.024	0.020	0.102	0.085		1
Tetrachloroethene	ND	0.020	ND	0.136		1
Toluene	0.343	0.020	1.29	0.075		1
trans-1,2-Dichloroethene	ND	0.020	ND	0.079		1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Trichloroethene	ND	0.020	ND	0.107		1
Trichlorofluoromethane	0.264	0.050	1.48	0.281		1
Vinyl chloride	ND	0.020	ND	0.051		1
Acrylonitrile	ND	0.500	ND	1.08		1
n-Butylbenzene	ND	0.500	ND	2.74		1
sec-Butylbenzene	ND	0.500	ND	2.74		1
Isopropylbenzene	ND	0.500	ND	2.46		1
p-Isopropyltoluene	ND	0.500	ND	2.74		1
Acetone	16.9	2.00	40.0	4.75		1
2-Butanone	ND	0.500	ND	1.47		1
4-Methyl-2-pentanone	ND	0.500	ND	2.05		1



Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712224-05  
 Client ID: ELEVATOR HALLWAY  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 09/06/07 04:41  
 Analyst: RY

Date Collected: 08/22/07 11:22  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
1,1,1-Trichloroethane	ND	0.020	ND	0.109		1
1,1,1,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2-Trichloroethane	ND	0.020	ND	0.109		1
1,1-Dichloroethane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	0.623	0.020	3.06	0.098		1
1,2-Dibromoethane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroethane	ND	0.020	ND	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	0.322	0.020	1.58	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	ND	0.020	ND	0.120		1
Benzene	0.081	0.020	0.258	0.064		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.117	0.020	0.735	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	0.023	0.020	0.112	0.098		1
Chloromethane	0.596	0.500	2.91	2.44		1
cis-1,2-Dichloroethene	ND	0.020	ND	0.079		1
cis-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Dibromochloromethane	ND	0.020	ND	0.096		1



Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712224  
Report Date: 09/14/07

### SAMPLE RESULTS

Lab ID: L0712224-05  
Client ID: ELEVATOR HALLWAY  
Sample Location: PROVIDENCE, RI

Date Collected: 08/22/07 11:22  
Date Received: 08/23/07  
Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
Dichlorodifluoromethane	0.471	0.050	2.33	0.247		1
Ethylbenzene	0.184	0.020	0.798	0.087		1
Methylene chloride	ND	0.800	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
p/m-Xylene	0.723	0.040	3.14	0.174		1
o-Xylene	0.229	0.020	0.994	0.087		1
Styrene	0.054	0.020	0.230	0.085		1
Tetrachloroethene	0.032	0.020	0.217	0.136		1
Toluene	0.469	0.020	1.77	0.075		1
trans-1,2-Dichloroethene	ND	0.020	ND	0.079		1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Trichloroethene	ND	0.020	ND	0.107		1
Trichlorofluoromethane	0.265	0.050	1.49	0.281		1
Vinyl chloride	ND	0.020	ND	0.051		1
Acrylonitrile	ND	0.500	ND	1.08		1
n-Butylbenzene	ND	0.500	ND	2.74		1
sec-Butylbenzene	ND	0.500	ND	2.74		1
isopropylbenzene	ND	0.500	ND	2.46		1
p-Isopropyltoluene	ND	0.500	ND	2.74		1
Acetone	6.15	2.00	14.6	4.75		1
2-Butanone	ND	0.500	ND	1.47		1
4-Methyl-2-pentanone	ND	0.500	ND	2.05		1



**Project Name:** ADELAIDE H.S.  
**Project Number:** 6196501

**Lab Number:** L0712224  
**Report Date:** 09/14/07

### SAMPLE RESULTS

Lab ID: L0712224-06  
 Client ID: ROOM 145  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 09/06/07 05:20  
 Analyst: RY

Date Collected: 08/22/07 11:45  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
1,1,1-Trichloroethane	0.022	0.020	0.120	0.109		1
1,1,1,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2-Trichloroethane	ND	0.020	ND	0.109		1
1,1-Dichloroethane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	0.027	0.020	0.133	0.098		1
1,2-Dibromoethane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroethane	ND	0.020	ND	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	ND	0.020	ND	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	ND	0.020	ND	0.120		1
Benzene	0.084	0.020	0.268	0.064		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.113	0.020	0.710	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	ND	0.020	ND	0.098		1
Chloromethane	ND	0.500	ND	2.44		1
cis-1,2-Dichloroethene	ND	0.020	ND	0.079		1
cis-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Dibromochloromethane	ND	0.020	ND	0.096		1



Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712224-06  
 Client ID: ROOM 145  
 Sample Location: PROVIDENCE, RI

Date Collected: 08/22/07 11:45  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
Dichlorodifluoromethane	0.487	0.050	2.41	0.247		1
Ethylbenzene	0.033	0.020	0.143	0.087		1
Methylene chloride	ND	0.800	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
p/m-Xylene	0.083	0.040	0.360	0.174		1
o-Xylene	0.029	0.020	0.126	0.087		1
Styrene	ND	0.020	ND	0.085		1
Tetrachloroethene	0.026	0.020	0.176	0.136		1
Toluene	0.427	0.020	1.61	0.075		1
trans-1,2-Dichloroethene	ND	0.020	ND	0.079		1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Trichloroethene	ND	0.020	ND	0.107		1
Trichlorofluoromethane	0.257	0.050	1.44	0.281		1
Vinyl chloride	ND	0.020	ND	0.051		1
Acrylonitrile	ND	0.500	ND	1.08		1
n-Butylbenzene	ND	0.500	ND	2.74		1
sec-Butylbenzene	ND	0.500	ND	2.74		1
Isopropylbenzene	ND	0.500	ND	2.46		1
p-Isopropyltoluene	ND	0.500	ND	2.74		1
Acetone	9.81	2.00	23.3	4.75		1
2-Butanone	ND	0.500	ND	1.47		1
4-Methyl-2-pentanone	ND	0.500	ND	2.05		1



**Project Name:** ADELAIDE H.S.  
**Project Number:** 6196501

**Lab Number:** L0712224  
**Report Date:** 09/14/07

**SAMPLE RESULTS**

**Lab ID:** L0712224-07  
**Client ID:** ROOM 152  
**Sample Location:** PROVIDENCE, RI  
**Matrix:** Air  
**Anaytical Method:** 48,TO-15-SIM  
**Analytical Date:** 09/06/07 05:59  
**Analyst:** RY

**Date Collected:** 08/22/07 11:48  
**Date Received:** 08/23/07  
**Field Prep:** Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
1,1,1-Trichloroethane	ND	0.020	ND	0.109		1
1,1,1,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2-Trichloroethane	ND	0.020	ND	0.109		1
1,1-Dichloroethane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	0.032	0.020	0.157	0.098		1
1,2-Dibromoethane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroethane	ND	0.020	ND	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	0.020	0.020	0.098	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	ND	0.020	ND	0.120		1
Benzene	0.079	0.020	0.252	0.064		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.120	0.020	0.754	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	ND	0.020	ND	0.098		1
Chloromethane	0.505	0.500	2.46	2.44		1
cis-1,2-Dichloroethene	ND	0.020	ND	0.079		1
cis-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Dibromochloromethane	ND	0.020	ND	0.096		1



Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712224-07  
 Client ID: ROOM 152  
 Sample Location: PROVIDENCE, RI

Date Collected: 08/22/07 11:48  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
Dichlorodifluoromethane	0.472	0.050	2.33	0.247		1
Ethylbenzene	0.025	0.020	0.108	0.087		1
Methylene chloride	ND	0.800	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
p/m-Xylene	0.066	0.040	0.286	0.174		1
o-Xylene	0.021	0.020	0.091	0.087		1
Styrene	ND	0.020	ND	0.085		1
Tetrachloroethene	0.027	0.020	0.183	0.136		1
Toluene	0.258	0.020	0.971	0.075		1
trans-1,2-Dichloroethene	ND	0.020	ND	0.079		1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Trichloroethene	ND	0.020	ND	0.107		1
Trichlorofluoromethane	0.263	0.050	1.48	0.281		1
Vinyl chloride	ND	0.020	ND	0.051		1
Acrylonitrile	ND	0.500	ND	1.08		1
n-Butylbenzene	ND	0.500	ND	2.74		1
sec-Butylbenzene	ND	0.500	ND	2.74		1
Isopropylbenzene	ND	0.500	ND	2.46		1
p-Isopropyltoluene	ND	0.500	ND	2.74		1
Acetone	4.74	2.00	11.2	4.75		1
2-Butanone	ND	0.500	ND	1.47		1
4-Methyl-2-pentanone	ND	0.500	ND	2.05		1





Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712224  
Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712224-08  
Client ID: ROOM 118  
Sample Location: PROVIDENCE, RI  
Matrix: Air  
Analytical Method: 48,TO-15-SIM  
Analytical Date: 09/06/07 06:38  
Analyst: RY

Date Collected: 08/22/07 12:28  
Date Received: 08/23/07  
Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
1,1,1-Trichloroethane	ND	0.020	ND	0.109		1
1,1,1,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2-Trichloroethane	ND	0.020	ND	0.109		1
1,1-Dichloroethane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	0.066	0.020	0.324	0.098		1
1,2-Dibromoethane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroethane	ND	0.020	ND	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	0.034	0.020	0.167	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	ND	0.020	ND	0.120		1
Benzene	0.055	0.020	0.176	0.064		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.117	0.020	0.735	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	ND	0.020	ND	0.098		1
Chloromethane	0.565	0.500	2.76	2.44		1
cis-1,2-Dichloroethene	ND	0.020	ND	0.079		1
cis-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Dibromochloromethane	ND	0.020	ND	0.096		1



Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712224  
Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712224-08  
Client ID: ROOM 118  
Sample Location: PROVIDENCE, RI

Date Collected: 08/22/07 12:28  
Date Received: 08/23/07  
Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
Dichlorodifluoromethane	0.459	0.050	2.27	0.247		1
Ethylbenzene	0.030	0.020	0.130	0.087		1
Methylene chloride	ND	0.800	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
p/m-Xylene	0.084	0.040	0.364	0.174		1
o-Xylene	0.029	0.020	0.126	0.087		1
Styrene	ND	0.020	ND	0.085		1
Tetrachloroethene	ND	0.020	ND	0.136		1
Toluene	0.246	0.020	0.926	0.075		1
trans-1,2-Dichloroethene	ND	0.020	ND	0.079		1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Trichloroethene	ND	0.020	ND	0.107		1
Trichlorofluoromethane	0.263	0.050	1.48	0.281		1
Vinyl chloride	ND	0.020	ND	0.051		1
Acrylonitrile	ND	0.500	ND	1.08		1
n-Butylbenzene	ND	0.500	ND	2.74		1
sec-Butylbenzene	ND	0.500	ND	2.74		1
Isopropylbenzene	ND	0.500	ND	2.46		1
p-Isopropyltoluene	ND	0.500	ND	2.74		1
Acetone	7.41	2.00	17.6	4.75		1
2-Butanone	ND	0.500	ND	1.47		1
4-Methyl-2-pentanone	ND	0.500	ND	2.05		1



**Project Name:** ADELAIDE H.S.  
**Project Number:** 6196501

**Lab Number:** L0712224  
**Report Date:** 09/14/07

### SAMPLE RESULTS

Lab ID: L0712224-09  
 Client ID: ROOM 110  
 Sample Location: PROVIDENCE, RI  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 09/06/07 11:49  
 Analyst: RY

Date Collected: 08/22/07 12:30  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
1,1,1-Trichloroethane	ND	0.020	ND	0.109		1
1,1,1,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2-Trichloroethane	ND	0.020	ND	0.109		1
1,1-Dichloroethane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	ND	0.098		1
1,2-Dibromoethane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroethane	ND	0.020	ND	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	ND	0.020	ND	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	ND	0.020	ND	0.120		1
Benzene	0.028	0.020	0.089	0.064		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.104	0.020	0.654	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	ND	0.020	ND	0.098		1
Chloromethane	ND	0.500	ND	2.44		1
cis-1,2-Dichloroethene	ND	0.020	ND	0.079		1
cis-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Dibromochloromethane	ND	0.020	ND	0.096		1



Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712224-09  
 Client ID: ROOM 110  
 Sample Location: PROVIDENCE, RI

Date Collected: 08/22/07 12:30  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
Dichlorodifluoromethane	0.472	0.050	2.33	0.247		1
Ethylbenzene	ND	0.020	ND	0.087		1
Methylene chloride	ND	0.800	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
p/m-Xylene	ND	0.040	ND	0.174		1
o-Xylene	ND	0.020	ND	0.087		1
Styrene	ND	0.020	ND	0.085		1
Tetrachloroethene	ND	0.020	ND	0.136		1
Toluene	0.141	0.020	0.531	0.075		1
trans-1,2-Dichloroethene	ND	0.020	ND	0.079		1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Trichloroethene	ND	0.020	ND	0.107		1
Trichlorofluoromethane	0.255	0.050	1.43	0.281		1
Vinyl chloride	ND	0.020	ND	0.051		1
Acrylonitrile	ND	0.500	ND	1.08		1
n-Butylbenzene	ND	0.500	ND	2.74		1
sec-Butylbenzene	ND	0.500	ND	2.74		1
Isopropylbenzene	ND	0.500	ND	2.46		1
p-Isopropyltoluene	ND	0.500	ND	2.74		1
Acetone	2.24	2.00	5.31	4.75		1
2-Butanone	ND	0.500	ND	1.47		1
4-Methyl-2-pentanone	ND	0.500	ND	2.05		1

Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 09/05/07 20:22

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM for sample(s): 01-09 Batch: WG292919-3						
1,1,1-Trichloroethane	ND	0.020	ND	0.109		1
1,1,1,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2-Trichloroethane	ND	0.020	ND	0.109		1
1,1-Dichloroethane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	ND	0.098		1
1,2-Dibromoethane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroethane	ND	0.020	ND	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	ND	0.020	ND	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	ND	0.020	ND	0.120		1
Benzene	ND	0.020	ND	0.064		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	ND	0.020	ND	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	ND	0.020	ND	0.098		1
Chloromethane	ND	0.500	ND	2.44		1
cis-1,2-Dichloroethene	ND	0.020	ND	0.079		1
cis-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Dibromochloromethane	ND	0.020	ND	0.096		1

Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 09/05/07 20:22

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM for sample(s): 01-09 Batch: WG292919-3						
Dichlorodifluoromethane	ND	0.050	ND	0.247		1
Ethylbenzene	ND	0.020	ND	0.087		1
Methylene chloride	ND	0.800	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
p/m-Xylene	ND	0.040	ND	0.174		1
o-Xylene	ND	0.020	ND	0.087		1
Styrene	ND	0.020	ND	0.085		1
Tetrachloroethene	ND	0.020	ND	0.136		1
Toluene	ND	0.020	ND	0.075		1
trans-1,2-Dichloroethene	ND	0.020	ND	0.079		1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Trichloroethene	ND	0.020	ND	0.107		1
Trichlorofluoromethane	ND	0.050	ND	0.281		1
Vinyl chloride	ND	0.020	ND	0.051		1
Acrylonitrile	ND	0.500	ND	1.08		1
n-Butylbenzene	ND	0.500	ND	2.74		1
sec-Butylbenzene	ND	0.500	ND	2.74		1
Isopropylbenzene	ND	0.500	ND	2.46		1
p-Isopropyltoluene	ND	0.500	ND	2.74		1
Acetone	ND	2.00	ND	4.75		1
2-Butanone	ND	0.500	ND	1.47		1
4-Methyl-2-pentanone	ND	0.500	ND	2.05		1



## Lab Control Sample Analysis

Batch Quality Control

Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712224  
Report Date: 09/14/07

Parameter	LCS %Recovery	LCS D %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organic Compounds in Air by SIM Associated sample(s): 01-09 Batch: WG292919-2					
1,1,1-Trichloroethane	107	-	70-130	-	-
1,1,1,2-Tetrachloroethane	87	-	70-130	-	-
1,1,2,2-Tetrachloroethane	88	-	70-130	-	-
1,1,2-Trichloroethane	89	-	70-130	-	-
1,1-Dichloroethane	76	-	70-130	-	-
1,1-Dichloroethene	73	-	70-130	-	-
1,2,4-Trimethylbenzene	91	-	70-130	-	-
1,2-Dibromoethane	75	-	70-130	-	-
1,2-Dichlorobenzene	89	-	70-130	-	-
1,2-Dichloroethane	77	-	70-130	-	-
1,2-Dichloropropane	89	-	70-130	-	-
1,3,5-Trimethylbenzene	85	-	70-130	-	-
1,3-Butadiene	81	-	70-130	-	-
1,3-Dichlorobenzene	85	-	70-130	-	-
1,4-Dichlorobenzene	83	-	70-130	-	-
Benzene	74	-	70-130	-	-
Bromodichloromethane	104	-	70-130	-	-
Bromoform	103	-	70-130	-	-
Bromomethane	85	-	70-130	-	-
Carbon tetrachloride	108	-	70-130	-	-
Chlorobenzene	70	-	70-130	-	-

# Lab Control Sample Analysis

Batch Quality Control

Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712224  
Report Date: 09/14/07

Parameter	LCS %Recovery	LCS %Recovery	LCS %Recovery	RPD	RPD Limits
Volatile Organic Compounds in Air by SIM Associated sample(s): 01-09 Batch: WG292919-2					
Chloroethane	83	-	70-130	-	-
Chloroform	86	-	70-130	-	-
Chloromethane	87	-	70-130	-	-
cis-1,2-Dichloroethene	70	-	70-130	-	-
cis-1,3-Dichloropropene	83	-	70-130	-	-
Dibromochloromethane	91	-	70-130	-	-
Dichlorodifluoromethane	101	-	70-130	-	-
Ethylbenzene	70	-	70-130	-	-
1,1,2-Trichloro-1,2,2-Trifluoroethane	76	-	70-130	-	-
1,2-Dichloro-1,1,2,2-tetrafluoroethane	88	-	70-130	-	-
Methylene chloride	84	-	70-130	-	-
Methyl tert butyl ether	64	-	70-130	-	-
Naphthalene	102	-	70-130	-	-
p/m-Xylene	77	-	70-130	-	-
o-Xylene	80	-	70-130	-	-
Styrene	66	-	70-130	-	-
Tetrachloroethene	70	-	70-130	-	-
Toluene	67	-	70-130	-	-
trans-1,2-Dichloroethene	68	-	70-130	-	-
trans-1,3-Dichloropropene	77	-	70-130	-	-
Trichloroethene	88	-	70-130	-	-



**Lab Control Sample Analysis**  
Batch Quality Control

Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712224  
Report Date: 09/14/07

Parameter	LCS %Recovery	LCS %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organic Compounds in Air by SIM Associated sample(s): 01-09 Batch: WG292919-2					
Trichlorofluoromethane	95	-	70-130	-	-
Vinyl chloride	86	-	70-130	-	-
Acrylonitrile	105	-	70-130	-	-
n-Butylbenzene	96	-	70-130	-	-
sec-Butylbenzene	87	-	70-130	-	-
Isopropylbenzene	81	-	70-130	-	-
p-Isopropyltoluene	82	-	70-130	-	-
Acetone	97	-	70-130	-	-
2-Butanone	92	-	70-130	-	-
4-Methyl-2-pentanone	122	-	70-130	-	-



## Lab Duplicate Analysis

Batch Quality Control

Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712224  
Report Date: 09/14/07

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organic Compounds in Air by SIM Associated sample(s): 01-09 QC Batch ID: WG292919-4 QC Sample: L0712224-01 Client ID: AMBIENT OUTDOOR					
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
Benzene	0.050	0.055	ppbV	10	25
Bromodichloromethane	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.107	0.120	ppbV	11	25
Chlorobenzene	ND	ND	ppbV	NC	25



**Lab Duplicate Analysis**  
Batch Quality Control

Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712224  
Report Date: 09/14/07

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organic Compounds in Air by SIM Associated sample(s): 01-09 QC Batch ID: WG292919-4 QC Sample: L0712224-01 Client ID: AMBIENT OUTDOOR					
Chloroethane	ND	ND	ppbV	NC	25
Chloroform	ND	ND	ppbV	NC	25
Chloromethane	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25
Dichlorodifluoromethane	0.435	0.455	ppbV	4	25
Ethylbenzene	ND	ND	ppbV	NC	25
Methylene chloride	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
p/m-Xylene	ND	ND	ppbV	NC	25
o-Xylene	ND	ND	ppbV	NC	25
Styrene	ND	ND	ppbV	NC	25
Tetrachloroethene	ND	ND	ppbV	NC	25
Toluene	0.139	0.161	ppbV	15	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
Trichloroethene	ND	ND	ppbV	NC	25
Trichlorofluoromethane	0.240	0.255	ppbV	6	25



**Lab Duplicate Analysis**  
Batch Quality Control

Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712224  
Report Date: 09/14/07

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organic Compounds in Air by SIM Associated sample(s): 01-09 QC Batch ID: WG292919-4 QC Sample: L0712224-01 Client ID: AMBIENT OUTDOOR					
Vinyl chloride	ND	ND	ppbV	NC	25
Acrylonitrile	ND	ND	ppbV	NC	25
n-Butylbenzene	ND	ND	ppbV	NC	25
sec-Butylbenzene	ND	ND	ppbV	NC	25
Isopropylbenzene	ND	ND	ppbV	NC	25
p-Isopropyltoluene	ND	ND	ppbV	NC	25
Acetone	3.42	3.70	ppbV	8	25
2-Butanone	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25



Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

## Cooler Information

Cooler	Custody Seal
NA	Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0712224-01A	Canister - 2.7 Liter	NA	NA	NA	NA	Absent	TO15-SIM
L0712224-02A	Canister - 2.7 Liter	NA	NA	NA	NA	Absent	TO15-SIM
L0712224-03A	Canister - 2.7 Liter	NA	NA	NA	NA	Absent	TO15-SIM
L0712224-04A	Canister - 2.7 Liter	NA	NA	NA	NA	Absent	TO15-SIM
L0712224-05A	Canister - 2.7 Liter	NA	NA	NA	NA	Absent	TO15-SIM
L0712224-06A	Canister - 2.7 Liter	NA	NA	NA	NA	Absent	TO15-SIM
L0712224-07A	Canister - 2.7 Liter	NA	NA	NA	NA	Absent	TO15-SIM
L0712224-08A	Canister - 2.7 Liter	NA	NA	NA	NA	Absent	TO15-SIM
L0712224-09A	Canister - 2.7 Liter	NA	NA	NA	NA	Absent	TO15-SIM

Project Name: ADELAIDE H.S.

Lab Number: L0712224

Project Number: 6196501

Report Date: 09/14/07

## GLOSSARY

### **Acronyms**

- EPA - Environmental Protection Agency.
- LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCSD- Laboratory Control Sample Duplicate: Refer to LCS.
- MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
- MSD - Matrix Spike Sample Duplicate: Refer to MS.
- NA - Not Applicable.
- NI - Not Ignitable.
- NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
- ND - Not detected at the reported detection limit for the sample.
- RDL - Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
- RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

### **Terms**

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

### **Data Qualifiers**

The following data qualifiers have been identified for use under the CT DEP Reasonable Confidence Protocols.

- A - Spectra identified as "Aldol Condensation Product".
- B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte.
- E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- J - Estimated value. The analyte was tentatively identified; the quantitation is an estimation. (Tentatively identified compounds only.)

### **Standard Qualifiers**

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

**Project Name:** ADELAIDE H.S.  
**Project Number:** 6196501

**Lab Number:** L0712224  
**Report Date:** 09/14/07

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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



**ALPHA ANALYTICAL**  
**CHAIN OF CUSTODY**  
 Eight Walkup Drive  
 Westborough, MA 01581  
 TEL: 508-898-9220 FAX: 508-898-9193

**AIR ANALYSIS** PAGE 1 OF 1  
**Project Information**  
 Project Name: Acadville H.S.  
 Project Location: Providence, RI  
 Project #: 6196501  
 Project Manager: Peter Grivers  
 ALPHA Quote #:  
**Turn-Around Time**

Date Rec'd in Lab:  
**Report Information - Data Deliverables**  
 FAX  
 ADEX  
 Criteria Checked: Client/Project Specific  
 (Default based on Regulatory Criteria Indicated)  
 Other Formats:  
 EMAIL (standard pdf report)  
 Additional Deliverables:  
 Report to: (if different than Project Manager)

Standard  RUSH (only confirmed if pre-approved)  
 TO-15: 10 DAYS  
 Date Due: 9/17 Time:  
 These samples have been previously analyzed by Alpha  
 Other Project Specific Requirements/Comments:

**ALPHA Job #:** 120712224  
**Billing Information**  
 Same as Client info PO #:  
**Regulatory Requirements/Report Limits**  
 State/Fed Program Criteria  
CT Proposes Draft Residential Target Air Compounds

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	ID Can	ID-Flow Controller	TO-15 SIM	TO-15	TO-14A	TO-13A	TO-15 SULPHUR DIOXIDE	TO-4/TO-10	Sample Comments (i.e. PID)
		Date	Start Time											
12224	1	8-22-07	1320	1353	A PMA	451	0309	X						PID=0.04 PPM
2	Gym	1000	1033			456	0151							PID=0.10 PPM
3	Kitchen Storage	1015	1045			190	0217							PID=0.07 PPM
4	Cafeteria	1040	1110			460	0418							PID=0.07 PPM
5	Elevator Hallway	1055	1122			477	0322							PID=0.40 PPM
6	Room 145	1115	1145			424	0331							PID=0.02 PPM
7	Room 152	1118	1148			370	0330							PID=0.05 PPM
8	Room 118	1155	1228			495	0154							PID=0.07 PPM
9	Room 110	1200	1230			395	0314							PID=0.01 PPM

**Shaded Gray Areas For Lab Use Only**

Relinquished By: [Signature] Date/Time: 9/23/07 1405  
 Received By: [Signature] Date/Time: 9/23/07 1405  
 Container Type: CS

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



**Sub-Slab Sampling Locations, Data Summary  
Table, and Laboratory Report**







**Summary of Sub-Slab Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds  
March - August 2007, continued**

Volatile Organic Compounds via TO-16	Sampling Date	MP-1		MP-2		MP-3		MP-4		MP-5		MP-6		MP-7		MP-8		MP-11		MP-12		MP-9		Other
		Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	Qual	Conc	
Tetrachloroethene	15-Mar-07	610	NS	880	U	490	U	590	U	580	U	230	U	100	U	250	U	NS	NS	NS	NS	NS	NS	NS
	22-Mar-07	84.7	U	84.7	U	84.7	U	84.7	U	84.7	U	84.7	U	84.7	U	84.7	U	NS	NS	NS	NS	NS	NS	NS
	26-Apr-07	33.0	U	33.0	U	33.0	U	33.0	U	33.0	U	33.0	U	33.0	U	33.0	U	NS	NS	NS	NS	NS	NS	NS
	21-May-07	61.7	U	33.0	U	33.0	U	33.0	U	33.0	U	33.0	U	33.0	U	33.0	U	NS	NS	NS	NS	NS	NS	NS
	29-Jun-07	0.88	U	0.75	U	0.75	U	2.2	U	6.7	U	1	U	1.0	U	0.88	U	NS	NS	NS	NS	NS	NS	NS
	30-Jul-07	0.81	U	NS	NS	NS	U	2.2	U	NS	NS	NS	U	3.4	U	NS	NS	NS	NS	NS	NS	NS	NS	NS
	22-Aug-07	NS	NS	1.35	U	480	U	480	U	480	U	480	U	480	U	480	U	NS	NS	NS	NS	NS	NS	NS
	15-Mar-07	450	U	660	U	480	U	470	U	470	U	480	U	480	U	480	U	NS	NS	NS	NS	NS	NS	NS
Toluene	22-Mar-07	67.1	U	67.1	U	67.1	U	67.1	U	67.1	U	67.1	U	67.1	U	67.1	U	NS	NS	NS	NS	NS	NS	NS
	26-Apr-07	26.8	U	26.8	U	26.8	U	26.8	U	26.8	U	26.8	U	26.8	U	26.8	U	NS	NS	NS	NS	NS	NS	NS
	21-May-07	46.9	U	26.8	U	26.8	U	47.2	U	26.8	U	26.8	U	26.8	U	26.8	U	NS	NS	NS	NS	NS	NS	NS
	29-Jun-07	0.54	U	0.54	U	0.54	U	2.2	U	1.00	U	1.1	U	0.62	U	0.54	U	NS	NS	NS	NS	NS	NS	NS
	30-Jul-07	0.54	U	NS	NS	NS	U	2.2	U	NS	NS	0.64	U	2.7	U	NS	NS	NS	NS	NS	NS	NS	NS	NS
	22-Aug-07	NS	NS	1.07	U	870	U	870	U	870	U	870	U	870	U	870	U	NS	NS	NS	NS	NS	NS	NS
	15-Mar-07	850	U	870	U	870	U	870	U	870	U	870	U	870	U	870	U	NS	NS	NS	NS	NS	NS	NS
	22-Mar-07	47.1	U	47.1	U	47.1	U	47.1	U	47.1	U	47.1	U	47.1	U	47.1	U	NS	NS	NS	NS	NS	NS	NS
Vinyl Chloride	15-Mar-07	18.8	U	18.8	U	18.8	U	18.8	U	18.8	U	18.8	U	18.8	U	18.8	U	NS	NS	NS	NS	NS	NS	NS
	22-Mar-07	34.3	U	26.2	U	19.8	U	57.3	U	47.4	U	16.8	U	1.92	U	16.8	U	NS	NS	NS	NS	NS	NS	NS
	26-Apr-07	26	U	3.3	U	3.3	U	4.3	U	4.1	U	3.0	U	5.0	U	4.2	U	NS	NS	NS	NS	NS	NS	NS
	29-Jun-07	5.3	U	NS	NS	NS	U	2.9	U	NS	NS	4.9	U	7.9	U	NS	NS	NS	NS	NS	NS	NS	NS	NS
	22-Aug-07	NS	NS	1.24	U	765	U	765	U	1.88	U	NS	U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	15-Mar-07	26	U	26	U	26	U	26	U	26	U	26	U	26	U	26	U	NS	NS	NS	NS	NS	NS	NS
	22-Mar-07	31.9	U	31.9	U	31.9	U	31.9	U	31.9	U	31.9	U	31.9	U	31.9	U	NS	NS	NS	NS	NS	NS	NS
	26-Apr-07	12.8	U	12.8	U	12.8	U	12.8	U	12.8	U	12.8	U	12.8	U	12.8	U	NS	NS	NS	NS	NS	NS	NS
Carbon tetrachloride	15-Mar-07	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	0.26	U	NS	NS	NS	NS	NS	NS	NS
	22-Mar-07	0.26	U	NS	NS	NS	U	0.51	U	NS	NS	0.26	U	1.3	U	NS	NS	NS	NS	NS	NS	NS	NS	NS
	26-Apr-07	NS	NS	0.511	U	540	U	540	U	540	U	540	U	540	U	540	U	NS	NS	NS	NS	NS	NS	NS
	21-May-07	78.6	U	78.6	U	78.6	U	78.6	U	78.6	U	78.6	U	78.6	U	78.6	U	NS	NS	NS	NS	NS	NS	NS
	29-Jun-07	31.4	U	31.4	U	31.4	U	31.4	U	31.4	U	31.4	U	31.4	U	31.4	U	NS	NS	NS	NS	NS	NS	NS
	30-Jul-07	0.83	U	0.83	U	0.83	U	0.83	U	0.83	U	0.83	U	0.83	U	0.83	U	NS	NS	NS	NS	NS	NS	NS
	22-Aug-07	0.83	U	NS	NS	NS	U	1.3	U	NS	NS	0.83	U	3.1	U	NS	NS	NS	NS	NS	NS	NS	NS	NS
	15-Mar-07	440	U	450	U	420	U	420	U	420	U	420	U	420	U	420	U	NS	NS	NS	NS	NS	NS	NS
Chloroform	15-Mar-07	61	U	61	U	61	U	61	U	61	U	61	U	61	U	61	U	NS	NS	NS	NS	NS	NS	NS
	22-Mar-07	24.4	U	24.4	U	24.4	U	24.4	U	24.4	U	24.4	U	24.4	U	24.4	U	NS	NS	NS	NS	NS	NS	NS
	26-Apr-07	44.4	U	24.4	U	24.4	U	45.8	U	24.4	U	24.4	U	24.4	U	24.4	U	NS	NS	NS	NS	NS	NS	NS
	21-May-07	0.49	U	0.49	U	0.49	U	0.49	U	0.49	U	0.49	U	0.49	U	0.49	U	NS	NS	NS	NS	NS	NS	NS
	29-Jun-07	0.49	U	NS	NS	NS	U	0.86	U	NS	NS	0.49	U	2.4	U	NS	NS	NS	NS	NS	NS	NS	NS	NS
	30-Jul-07	0.49	U	NS	NS	NS	U	0.86	U	NS	NS	0.49	U	2.4	U	NS	NS	NS	NS	NS	NS	NS	NS	NS
	22-Aug-07	NS	NS	0.88	U	888	U	888	U	888	U	888	U	888	U	888	U	NS	NS	NS	NS	NS	NS	NS
	15-Mar-07	NS	NS	2.44	U	2.44	U	2.44	U	2.44	U	2.44	U	2.44	U	2.44	U	NS	NS	NS	NS	NS	NS	NS

Notes:  
 All data presented in micrograms per cubic meter (µg/m<sup>3</sup>).  
 U, designation indicates that the compound was not detected by the laboratory. Reporting limit shown in the data column.  
 NS, not sampled.



## ANALYTICAL REPORT

Lab Number:	L0712221
Client:	EA Engineering, Science and Tech 2350 Post Road Warwick, RI 02886
ATTN:	Peter Grivers
Project Name:	ADELAIDE H.S.
Project Number:	6196501
Report Date:	09/14/07

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAO00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), US Army Corps of Engineers.

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



**Project Name:** ADELAIDE H.S.  
**Project Number:** 6196501

**Lab Number:** L0712221  
**Report Date:** 09/14/07

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>
L0712221-01	IMP-1	PROVIDENCE, RI
L0712221-02	IMP-2	PROVIDENCE, RI
L0712221-03	MP-3	PROVIDENCE, RI
L0712221-04	MP-5	PROVIDENCE, RI

Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712221  
Report Date: 09/14/07

### Case Narrative

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

#### Report Submission

This report replaces the report issued Sept. 10, 2007. The MeCl conversion factor was incorrect, and the report is being amended with corrected ug/m3 results.

#### TO-15 SIM

The Original analysis for sample L0712221-01 was performed on a 10x dilution. Re-analysis was lost due to an instrument issue and no sample remains for further analysis., therefore, the original analysis reported. L0712221-02 was re-analyzed due to over dilution of the original analysis. The results of the re-analysis are reported.

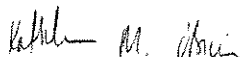
The original analysis for L0712221-04 had internal standard failure, re-analysis was performed and reported. L0712221-03 and -04R have elevated detection limits due to the dilutions required by the elevated concentrations of target compounds in the samples.

Re-analysis on dilution was required in order to quantitate sample L0712221-03R within the range of the calibration. The result is reported as a greater than value for the compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound which exceeded the range of the calibration.

The WG292919-2 LCS % recoveries for trans-1,2-Dichloroethene, Styrene, Toluene, and Methyl-tert-butyl-ether are below the individual acceptance criteria for the compounds, but within the overall method allowances.

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

Authorized Signature:



Title: Technical Director/Representative

Date: 09/14/07



**AIR**



Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712221  
Report Date: 09/14/07

### SAMPLE RESULTS

Lab ID: L0712221-01  
Client ID: IMP-1  
Sample Location: PROVIDENCE, RI  
Matrix: Soil\_Vapor  
Analytical Method: 48,TO-15-SIM  
Analytical Date: 09/05/07 22:56  
Analyst: RY

Date Collected: 08/22/07 10:10  
Date Received: 08/23/07  
Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
1,1,1-Trichloroethane	ND	0.200	ND	1.09		10
1,1,1,2-Tetrachloroethane	ND	0.200	ND	1.37		10
1,1,2,2-Tetrachloroethane	ND	0.200	ND	1.37		10
1,1,2-Trichloroethane	ND	0.200	ND	1.09		10
1,1-Dichloroethane	ND	0.200	ND	0.809		10
1,1-Dichloroethene	ND	0.200	ND	0.792		10
1,2,4-Trimethylbenzene	ND	0.200	ND	0.982		10
1,2-Dibromoethane	ND	0.200	ND	1.54		10
1,2-Dichlorobenzene	ND	0.200	ND	1.20		10
1,2-Dichloroethane	ND	0.200	ND	0.809		10
1,2-Dichloropropane	ND	0.200	ND	0.924		10
1,3,5-Trimethylbenzene	ND	0.200	ND	0.982		10
1,3-Dichlorobenzene	ND	0.200	ND	1.20		10
1,4-Dichlorobenzene	ND	0.200	ND	1.20		10
Benzene	ND	0.200	ND	0.638		10
Bromodichloromethane	ND	0.200	ND	1.34		10
Bromoform	ND	0.200	ND	2.06		10
Carbon tetrachloride	ND	0.200	ND	1.26		10
Chlorobenzene	ND	0.200	ND	0.920		10
Chloroethane	ND	0.200	ND	0.527		10
Chloroform	ND	0.200	ND	0.976		10
Chloromethane	ND	5.00	ND	24.4		10
cis-1,2-Dichloroethene	ND	0.200	ND	0.792		10
cis-1,3-Dichloropropene	ND	0.200	ND	0.907		10
Dibromochloromethane	ND	0.200	ND	0.960		10



Project Name: ADELAIDE H.S.

Lab Number: L0712221

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712221-01  
 Client ID: IMP-1  
 Sample Location: PROVIDENCE, RI

Date Collected: 08/22/07 10:10  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
Dichlorodifluoromethane	0.610	0.500	3.01	2.47		10
Ethylbenzene	ND	0.200	ND	0.868		10
Methylene chloride	ND	5.00	ND	17.4		10
Methyl tert butyl ether	ND	0.200	ND	0.720		10
p/m-Xylene	ND	0.400	ND	1.74		10
o-Xylene	ND	0.200	ND	0.868		10
Styrene	ND	0.200	ND	0.851		10
Tetrachloroethene	ND	0.200	ND	1.36		10
Toluene	3.49	0.200	13.1	0.753		10
trans-1,2-Dichloroethene	ND	0.200	ND	0.792		10
trans-1,3-Dichloropropene	ND	0.200	ND	0.907		10
Trichloroethene	ND	0.200	ND	1.07		10
Trichlorofluoromethane	ND	0.500	ND	2.81		10
Vinyl chloride	ND	0.200	ND	0.511		10
Acrylonitrile	ND	5.00	ND	10.8		10
n-Butylbenzene	ND	5.00	ND	27.4		10
sec-Butylbenzene	ND	5.00	ND	27.4		10
Isopropylbenzene	ND	5.00	ND	24.6		10
p-isopropyltoluene	ND	5.00	ND	27.4		10
Acetone	ND	20.0	ND	47.5		10
2-Butanone	ND	5.00	ND	14.7		10
4-Methyl-2-pentanone	ND	5.00	ND	20.5		10



Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712221  
Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712221-02 R  
Client ID: IMP-2  
Sample Location: PROVIDENCE, RI  
Matrix: Soil\_Vapor  
Analytical Method: 48,TO-15-SIM  
Analytical Date: 09/06/07 09:18  
Analyst: RY

Date Collected: 08/22/07 10:05  
Date Received: 08/23/07  
Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
1,1,1-Trichloroethane	0.087	0.020	0.474	0.109		1
1,1,1,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,1,2,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2-Trichloroethane	ND	0.020	ND	0.109		1
1,1-Dichloroethane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	0.275	0.020	1.35	0.098		1
1,2-Dibromoethane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroethane	0.020	0.020	ND	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	0.118	0.020	0.580	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	0.115	0.020	0.691	0.120		1
Benzene	0.118	0.020	0.377	0.064		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.120	0.020	0.754	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	0.022	0.020	0.058	0.053		1
Chloroform	0.037	0.020	0.180	0.098		1
Chloromethane	1.56	0.500	7.63	2.44		1
cis-1,2-Dichloroethene	ND	0.020	ND	0.079		1
cis-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Dibromochloromethane	ND	0.020	ND	0.096		1



Project Name: ADELAIDE H.S.

Lab Number: L0712221

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712221-02 R  
 Client ID: IMP-2  
 Sample Location: PROVIDENCE, RI

Date Collected: 08/22/07 10:05  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
Dichlorodifluoromethane	0.481	0.050	2.38	0.247		1
Ethylbenzene	0.137	0.020	0.594	0.087		1
Methylene chloride	ND	0.800	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
p/m-Xylene	0.424	0.040	1.84	0.174		1
o-Xylene	0.177	0.020	0.768	0.087		1
Styrene	0.088	0.020	0.374	0.085		1
Tetrachloroethene	0.274	0.020	1.86	0.136		1
Toluene	2.73	0.020	10.3	0.075		1
trans-1,2-Dichloroethene	ND	0.020	ND	0.079		1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Trichloroethene	1.52	0.020	8.14	0.107		1
Trichlorofluoromethane	1.99	0.050	11.2	0.281		1
Vinyl chloride	ND	0.020	ND	0.051		1
Acrylonitrile	ND	0.500	ND	1.08		1
n-Butylbenzene	ND	0.500	ND	2.74		1
sec-Butylbenzene	ND	0.500	ND	2.74		1
Isopropylbenzene	ND	0.500	ND	2.46		1
p-Isopropyltoluene	ND	0.500	ND	2.74		1
Acetone	13.8	2.00	32.7	4.75		1
2-Butanone	1.21	0.500	3.58	1.47		1
4-Methyl-2-pentanone	ND	0.500	ND	2.05		1



Project Name: ADELAIDE H.S.

Lab Number: L0712221

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712221-03  
 Client ID: MP-3  
 Sample Location: PROVIDENCE, RI  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 09/06/07 00:10  
 Analyst: RY

Date Collected: 08/22/07 15:55  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
1,1,1-Trichloroethane	ND	0.200	ND	1.09		10
1,1,1,2-Tetrachloroethane	ND	0.200	ND	1.37		10
1,1,2,2-Tetrachloroethane	ND	0.200	ND	1.37		10
1,1,2-Trichloroethane	ND	0.200	ND	1.09		10
1,1-Dichloroethane	ND	0.200	ND	0.809		10
1,1-Dichloroethene	ND	0.200	ND	0.792		10
1,2,4-Trimethylbenzene	ND	0.200	ND	0.982		10
1,2-Dibromoethane	ND	0.200	ND	1.54		10
1,2-Dichlorobenzene	ND	0.200	ND	1.20		10
1,2-Dichloroethane	ND	0.200	ND	0.809		10
1,2-Dichloropropane	ND	0.200	ND	0.924		10
1,3,5-Trimethylbenzene	ND	0.200	ND	0.982		10
1,3-Dichlorobenzene	ND	0.200	ND	1.20		10
1,4-Dichlorobenzene	ND	0.200	ND	1.20		10
Benzene	ND	0.200	ND	0.638		10
Bromodichloromethane	ND	0.200	ND	1.34		10
Bromoform	ND	0.200	ND	2.06		10
Carbon tetrachloride	ND	0.200	ND	1.26		10
Chlorobenzene	ND	0.200	ND	0.920		10
Chloroethane	ND	0.200	ND	0.527		10
Chloroform	ND	0.200	ND	0.976		10
Chloromethane	ND	5.00	ND	24.4		10
cis-1,2-Dichloroethene	ND	0.200	ND	0.792		10
cis-1,3-Dichloropropene	ND	0.200	ND	0.907		10
Dibromochloromethane	ND	0.200	ND	0.960		10



Project Name: ADELAIDE H.S.

Lab Number: L0712221

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712221-03

Date Collected: 08/22/07 15:55

Client ID: MP-3

Date Received: 08/23/07

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organic Compounds in Air by SIM					
Dichlorodifluoromethane	0.570	0.500	2.82	2.47	10
Ethylbenzene	ND	0.200	ND	0.868	10
Methylene chloride	ND	5.00	ND	17.4	10
Methyl tert butyl ether	ND	0.200	ND	0.720	10
p/m-Xylene	ND	0.400	ND	1.74	10
o-Xylene	ND	0.200	ND	0.868	10
Styrene	ND	0.200	ND	0.851	10
Tetrachloroethene	ND	0.200	ND	1.36	10
Toluene	0.330	0.200	1.24	0.753	10
trans-1,2-Dichloroethene	ND	0.200	ND	0.792	10
trans-1,3-Dichloropropene	ND	0.200	ND	0.907	10
Trichloroethene	ND	0.200	ND	1.07	10
Trichlorofluoromethane	ND	0.500	ND	2.81	10
Vinyl chloride	ND	0.200	ND	0.511	10
Acrylonitrile	ND	5.00	ND	10.8	10
n-Butylbenzene	ND	5.00	ND	27.4	10
sec-Butylbenzene	ND	5.00	ND	27.4	10
Isopropylbenzene	ND	5.00	ND	24.6	10
p-Isopropyltoluene	ND	5.00	ND	27.4	10
Acetone	189	20.0	448	47.5	10
2-Butanone	>1000	5	>2949	14.7	10
4-Methyl-2-pentanone	ND	5.00	ND	20.5	10



Project Name: ADELAIDE H.S.

Lab Number: L0712221

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712221-03 R  
 Client ID: MP-3  
 Sample Location: PROVIDENCE, RI  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 09/06/07 09:58  
 Analyst: RY

Date Collected: 08/22/07 15:55  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
2-Butanone	954	12.5	2810	36.8		25





Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712221  
Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712221-04 R  
Client ID: MP-5  
Sample Location: PROVIDENCE, RI  
Matrix: Soil\_Vapor  
Analytical Method: 48,TO-15-SIM  
Analytical Date: 09/06/07 10:33  
Analyst: RY

Date Collected: 08/22/07 14:34  
Date Received: 08/23/07  
Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
1,1,1-Trichloroethane	ND	0.500	ND	2.72		25
1,1,1,2-Tetrachloroethane	ND	0.500	ND	3.43		25
1,1,2,2-Tetrachloroethane	ND	0.500	ND	3.43		25
1,1,2-Trichloroethane	ND	0.500	ND	2.72		25
1,1-Dichloroethane	ND	0.500	ND	2.02		25
1,1-Dichloroethene	ND	0.500	ND	1.98		25
1,2,4-Trimethylbenzene	ND	0.500	ND	2.46		25
1,2-Dibromoethane	ND	0.500	ND	3.84		25
1,2-Dichlorobenzene	ND	0.500	ND	3.00		25
1,2-Dichloroethane	ND	0.500	ND	2.02		25
1,2-Dichloropropane	ND	0.500	ND	2.31		25
1,3,5-Trimethylbenzene	ND	0.500	ND	2.46		25
1,3-Dichlorobenzene	ND	0.500	ND	3.00		25
1,4-Dichlorobenzene	ND	0.500	ND	3.00		25
Benzene	ND	0.500	ND	1.60		25
Bromodichloromethane	ND	0.500	ND	3.35		25
Bromoform	ND	0.500	ND	5.16		25
Carbon tetrachloride	ND	0.500	ND	3.14		25
Chlorobenzene	ND	0.500	ND	2.30		25
Chloroethane	ND	0.500	ND	1.32		25
Chloroform	ND	0.500	ND	2.44		25
Chloromethane	ND	12.5	ND	61.0		25
cis-1,2-Dichloroethene	ND	0.500	ND	1.98		25
cis-1,3-Dichloropropene	ND	0.500	ND	2.27		25
Dibromochloromethane	ND	0.500	ND	2.40		25



Project Name: ADELAIDE H.S.

Lab Number: L0712221

Project Number: 6196501

Report Date: 09/14/07

## SAMPLE RESULTS

Lab ID: L0712221-04 R  
 Client ID: MP-5  
 Sample Location: PROVIDENCE, RI

Date Collected: 08/22/07 14:34  
 Date Received: 08/23/07  
 Field Prep: Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM						
Dichlorodifluoromethane	ND	1.25	ND	6.18		25
Ethylbenzene	ND	0.500	ND	2.17		25
Methylene chloride	13.1	12.5	45.5	43.4		25
Methyl tert butyl ether	ND	0.500	ND	1.80		25
p/m-Xylene	ND	1.00	ND	4.34		25
o-Xylene	ND	0.500	ND	2.17		25
Styrene	ND	0.500	ND	2.13		25
Tetrachloroethene	ND	0.500	ND	3.39		25
Toluene	ND	0.500	ND	1.88		25
trans-1,2-Dichloroethene	ND	0.500	ND	1.98		25
trans-1,3-Dichloropropene	ND	0.500	ND	2.27		25
Trichloroethene	ND	0.500	ND	2.68		25
Trichlorofluoromethane	ND	1.25	ND	7.02		25
Vinyl chloride	ND	0.500	ND	1.28		25
Acrylonitrile	ND	12.5	ND	27.1		25
n-Butylbenzene	ND	12.5	ND	68.6		25
sec-Butylbenzene	ND	12.5	ND	68.6		25
Isopropylbenzene	ND	12.5	ND	61.4		25
p-Isopropyltoluene	ND	12.5	ND	68.6		25
Acetone	162	50.0	386	119		25
2-Butanone	1220	12.5	3600	36.8		25
4-Methyl-2-pentanone	ND	12.5	ND	51.2		25



Project Name: ADELAIDE H.S.

Lab Number: L0712221

Project Number: 6196501

Report Date: 09/14/07

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 48,TO-15-SIM

Analytical Date: 09/05/07 20:22

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM for sample(s): 01-04 Batch: WG292919-3						
1,1,1-Trichloroethane	ND	0.020	ND	0.109		1
1,1,1,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2-Trichloroethane	ND	0.020	ND	0.109		1
1,1-Dichloroethane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	ND	0.020	ND	0.098		1
1,2-Dibromoethane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroethane	ND	0.020	ND	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	ND	0.020	ND	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	ND	0.020	ND	0.120		1
Benzene	ND	0.020	ND	0.064		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	ND	0.020	ND	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	ND	0.020	ND	0.098		1
Chloromethane	ND	0.500	ND	2.44		1
cis-1,2-Dichloroethene	ND	0.020	ND	0.079		1
cis-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Dibromochloromethane	ND	0.020	ND	0.096		1



Project Name: ADELAIDE H.S.

Lab Number: L0712221

Project Number: 6196501

Report Date: 09/14/07

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 09/05/07 20:22

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organic Compounds in Air by SIM for sample(s): 01-04 Batch: WG292919-3						
Dichlorodifluoromethane	ND	0.050	ND	0.247		1
Ethylbenzene	ND	0.020	ND	0.087		1
Methylene chloride	ND	0.800	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
p/m-Xylene	ND	0.040	ND	0.174		1
o-Xylene	ND	0.020	ND	0.087		1
Styrene	ND	0.020	ND	0.085		1
Tetrachloroethene	ND	0.020	ND	0.136		1
Toluene	ND	0.020	ND	0.075		1
trans-1,2-Dichloroethene	ND	0.020	ND	0.079		1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Trichloroethene	ND	0.020	ND	0.107		1
Trichlorofluoromethane	ND	0.050	ND	0.281		1
Vinyl chloride	ND	0.020	ND	0.051		1
Acrylonitrile	ND	0.500	ND	1.08		1
n-Butylbenzene	ND	0.500	ND	2.74		1
sec-Butylbenzene	ND	0.500	ND	2.74		1
Isopropylbenzene	ND	0.500	ND	2.46		1
p-Isopropyltoluene	ND	0.500	ND	2.74		1
Acetone	ND	2.00	ND	4.75		1
2-Butanone	ND	0.500	ND	1.47		1
4-Methyl-2-pentanone	ND	0.500	ND	2.05		1

# Lab Control Sample Analysis

Batch Quality Control

Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712221  
Report Date: 09/14/07

Parameter	LCS %Recovery	LCS D %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organic Compounds in Air by SIM Associated sample(s): 01-04 Batch: WG292919-2					
1,1,1-Trichloroethane	107	-	70-130	-	-
1,1,1,2-Tetrachloroethane	87	-	70-130	-	-
1,1,2,2-Tetrachloroethane	88	-	70-130	-	-
1,1,2-Trichloroethane	89	-	70-130	-	-
1,1-Dichloroethane	76	-	70-130	-	-
1,1-Dichloroethene	73	-	70-130	-	-
1,2,4-Trimethylbenzene	91	-	70-130	-	-
1,2-Dibromoethane	75	-	70-130	-	-
1,2-Dichlorobenzene	89	-	70-130	-	-
1,2-Dichloroethane	77	-	70-130	-	-
1,2-Dichloropropane	89	-	70-130	-	-
1,3,5-Trimethylbenzene	85	-	70-130	-	-
1,3-Butadiene	81	-	70-130	-	-
1,3-Dichlorobenzene	85	-	70-130	-	-
1,4-Dichlorobenzene	83	-	70-130	-	-
Benzene	74	-	70-130	-	-
Bromodichloromethane	104	-	70-130	-	-
Bromoform	103	-	70-130	-	-
Bromomethane	85	-	70-130	-	-
Carbon tetrachloride	108	-	70-130	-	-
Chlorobenzene	70	-	70-130	-	-

# Lab Control Sample Analysis

Batch Quality Control

Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712221  
Report Date: 09/14/07

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organic Compounds in Air by SIM Associated sample(s): 01-04 Batch: WG292919-2					
Chloroethane	83	-	70-130	-	-
Chloroform	86	-	70-130	-	-
Chloromethane	87	-	70-130	-	-
cis-1,2-Dichloroethene	70	-	70-130	-	-
cis-1,3-Dichloropropene	83	-	70-130	-	-
Dibromochloromethane	91	-	70-130	-	-
Dichlorodifluoromethane	101	-	70-130	-	-
Ethylbenzene	70	-	70-130	-	-
1,1,2-Trichloro-1,2,2-Trifluoroethane	76	-	70-130	-	-
1,2-Dichloro-1,1,2,2-tetrafluoroethane	88	-	70-130	-	-
Methylene chloride	84	-	70-130	-	-
Methyl tert butyl ether	64	-	70-130	-	-
Naphthalene	102	-	70-130	-	-
p/m-Xylene	77	-	70-130	-	-
o-Xylene	80	-	70-130	-	-
Styrene	66	-	70-130	-	-
Tetrachloroethene	70	-	70-130	-	-
Toluene	67	-	70-130	-	-
trans-1,2-Dichloroethene	68	-	70-130	-	-
trans-1,3-Dichloropropene	77	-	70-130	-	-
Trichloroethene	88	-	70-130	-	-

**Lab Control Sample Analysis**  
Batch Quality Control

Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712221  
Report Date: 09/14/07

Parameter	LCS %Recovery	LCS %Recovery	LCS %Recovery	RPD	RPD Limits
Volatile Organic Compounds in Air by SIM Associated sample(s): 01-04 Batch: WG292919-2					
Trichlorofluoromethane	95	-	70-130	-	
Vinyl chloride	86	-	70-130	-	
Acrylonitrile	105	-	70-130	-	
n-Butylbenzene	96	-	70-130	-	
sec-Butylbenzene	87	-	70-130	-	
Isopropylbenzene	81	-	70-130	-	
p-Isopropyltoluene	82	-	70-130	-	
Acetone	97	-	70-130	-	
2-Butanone	92	-	70-130	-	
4-Methyl-2-pentanone	122	-	70-130	-	



## Lab Duplicate Analysis Batch Quality Control

Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712221  
Report Date: 09/14/07

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organic Compounds in Air by SIM Associated sample(s): 01-04 QC Batch ID: WG292919-4 QC Sample: L0712224-01 Client ID: DUP_Sample					
1,1,1-Trichloroethane	ND	ND	ppbV	NC	25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	ND	ND	ppbV	NC	25
Benzene	0.050	0.055	ppbV	10	25
Bromodichloromethane	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.107	0.120	ppbV	11	25
Chlorobenzene	ND	ND	ppbV	NC	25

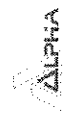


## Lab Duplicate Analysis Batch Quality Control

Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712221  
Report Date: 09/14/07

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organic Compounds in Air by SIM Associated sample(s): 01-04 QC Batch ID: WG292919-4 QC Sample: L0712224-01 Client ID: DUP Sample					
Chloroethane	ND	ND	ppbv	NC	25
Chloroform	ND	ND	ppbv	NC	25
Chloromethane	ND	ND	ppbv	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbv	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbv	NC	25
Dibromochloromethane	ND	ND	ppbv	NC	25
Dichlorodifluoromethane	0.435	0.455	ppbv	4	25
Ethylbenzene	ND	ND	ppbv	NC	25
Methylene chloride	ND	ND	ppbv	NC	25
Methyl tert butyl ether	ND	ND	ppbv	NC	25
p/m-Xylene	ND	ND	ppbv	NC	25
o-Xylene	ND	ND	ppbv	NC	25
Styrene	ND	ND	ppbv	NC	25
Tetrachloroethene	ND	ND	ppbv	NC	25
Toluene	0.139	0.161	ppbv	15	25
trans-1,2-Dichloroethene	ND	ND	ppbv	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbv	NC	25
Trichloroethene	ND	ND	ppbv	NC	25
Trichlorofluoromethane	0.240	0.255	ppbv	6	25



**Lab Duplicate Analysis**  
Batch Quality Control

Project Name: ADELAIDE H.S.  
Project Number: 6196501

Lab Number: L0712221  
Report Date: 09/14/07

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organic Compounds in Air by SIM Associated sample(s): 01-04 QC Batch ID: WG292919-4 QC Sample: L0712224-01 Client ID: DUP Sample					
Vinyl chloride	ND	ND	ppbV	NC	25
Acrylonitrile	ND	ND	ppbV	NC	25
n-Butylbenzene	ND	ND	ppbV	NC	25
sec-Butylbenzene	ND	ND	ppbV	NC	25
isopropylbenzene	ND	ND	ppbV	NC	25
p-Isopropyltoluene	ND	ND	ppbV	NC	25
Acetone	3.42	3.70	ppbV	8	25
2-Butanone	ND	ND	ppbV	NC	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25



Project Name: ADELAIDE H.S.

Lab Number: L0712221

Project Number: 6196501

Report Date: 09/14/07

**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information**

Cooler	Custody Seal
NA	Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp	Pres	Seal	Analysis
L0712221-01A	Canister - 2.7 Liter	NA	NA	NA	NA	Absent	TO15-SIM
L0712221-02A	Canister - 2.7 Liter	NA	NA	NA	NA	Absent	TO15-SIM
L0712221-03A	Canister - 2.7 Liter	NA	NA	NA	NA	Absent	TO15-SIM
L0712221-04A	Canister - 2.7 Liter	NA	NA	NA	NA	Absent	TO15-SIM

**Project Name:** ADELAIDE H.S.

**Lab Number:** L0712221

**Project Number:** 6196501

**Report Date:** 09/14/07

## GLOSSARY

### Acronyms

- EPA - Environmental Protection Agency.
- LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
- LCSD- Laboratory Control Sample Duplicate: Refer to LCS.
- MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
- MSD - Matrix Spike Sample Duplicate: Refer to MS.
- NA - Not Applicable.
- NI - Not Ignitable.
- NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
- ND - Not detected at the reported detection limit for the sample.
- RDL - Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
- RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

### Terms

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

### Data Qualifiers

The following data qualifiers have been identified for use under the CT DEP Reasonable Confidence Protocols.

- A - Spectra identified as "Aldol Condensation Product".
- B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte.
- E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- J - Estimated value. The analyte was tentatively identified; the quantitation is an estimation. (Tentatively identified compounds only.)

### Standard Qualifiers

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

**Project Name:** ADELAIDE H.S.  
**Project Number:** 6196501

**Lab Number:** L0712221  
**Report Date:** 09/14/07

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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



