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31 March 2010

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

RE: Quarterly O&M Status Report No. 10
Alvarez High School, 333 Adelaide Avenue, Providence, Rhode Island
Case No. 2005-029
EA Project No. 14687.01

Dear Mr. Martella:

On behalf of the City of Providence School Department (City), EA Engineering, Science, and Technology, Inc. (EA) is providing this Quarterly Operations and Maintenance (O&M) Status Report in accordance with Provision 6(f) of the Order of Approval and amendments (Amended OA) for the referenced Alvarez High School site (the Site, formerly Adelaide Avenue High School).

This O&M Report summarizes recently completed Site activities related to compliance subslab vapor and indoor air sampling from the period between December 2009 and February 2010.

If you have any questions or require additional information, please contact me at 401-736-3440, Ext. 202.

Sincerely,

EA ENGINEERING, SCIENCE,
AND TECHNOLOGY, INC.

Frank B. Postma, LSP, LEP, PG
Project Manager

cc: C. Jones, Prov. Dept. of Public Schools	A. Sepe, Prov. Dept. of Public Property
T. Deller, Prov. Redevelopment Agency	S. Fischbach, RI Legal Services
J. Fernandez, City of Prov. Law Department	J. Ryan, Partridge, Snow, & Hahn
J. Boehnert, Partridge, Snow, & Hahn	R. Dorr, Neighborhood Resident
Rep. Scott Slater	J. Pichardo, Senator
Knight Memorial Library Repository	Principal Torchon, Alvarez High School



Quarterly O&M Status Report No. 10

Summarizing Subslab Depressurization and Indoor Air Monitoring and Sampling Activities

**Alvarez High School Site
(Formerly Adelaide Avenue High School)
Providence, Rhode Island**

Prepared for

City of Providence School Department
797 Westminster Street
Providence, Rhode Island 02903

Prepared by

EA Engineering, Science, and Technology, Inc.
2350 Post Road
Warwick, Rhode Island 02886
(401) 736-3440

March 2010
EA Project No. 14687.01

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FIGURES

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FIGURE 2: INDOOR AIR SAMPLING AND METHANE MONITORING LOCATIONS

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APPENDIX A: O&M FIELD FORMS

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1. INTRODUCTION AND BACKGROUND

On behalf of the City of Providence School Department (the City), EA Engineering, Science, and Technology, Inc. (EA) has prepared this Quarterly Operations and Maintenance (O&M) Status Report No. 10 for the Parcel B area of the former Gorham Manufacturing site in Providence, Rhode Island, formerly referred to as the Adelaide Avenue High School and now referred to as the Alvarez High School site (the Site). A Site Location Map is provided as Figure 1. This report has been prepared to satisfy provision 6(f) of the Rhode Island Department of Environmental Management (RIDEM) Order of Approval (OA) issued in June 2006, as amended in February 2007, July 2007, and July 2009. For the purposes of this report, the original and the amended Orders of Approval will collectively be referred to as the Amended OA.

The Amended OA specifies the details of the approved remedy for the Site including, but not limited to, the installation of a subslab depressurization (SSD) system, installation of a continuous indoor air methane monitoring system, and implementation of an associated periodic monitoring and sampling program. In August 2007, the RIDEM-approved remedy for the Site was completed and a Remedial Action Closure Report (RACR) was submitted to RIDEM. In July 2009, the periodic indoor air and subslab vapor sampling schedule was reduced to quarterly sampling from previously required monthly sampling.

This report summarizes the O&M, monitoring, and sampling activities completed at the Site for the 3-month period from December 2009 through February 2010 (Quarterly Reporting Period No. 10) and also includes an overall evaluation of volatile organic compound (VOC) concentrations within soil gas as they pertain to a potential rebound effect at the Site. Please refer to the Quarterly O&M Status Reports No. 1 through No. 9 for information regarding monitoring and sampling at the Site during the previous quarters. The RACR and previously submitted monthly correspondence contain details regarding the results of the monitoring and sampling program for the period between March and August 2007.

2. SUMMARY OF SSD SYSTEM AND INDOOR METHANE MONITORING SYSTEM PERFORMANCE

2.1 SSD SYSTEM

The following SSD System performance parameters were inspected and/or monitored at the frequencies indicated below in accordance with the Amended OA to evaluate system performance:

- Monthly subslab vacuum monitoring at 11 monitoring locations, as illustrated on the As-Built Subslab Monitoring and Sampling Plan included in Appendix C.
- Monthly inspections and monitoring of rooftop fans (air velocity and vacuum) to verify proper operation.
- Continuous electronic monitoring (with automatic alarm notification via audible signal and phone notification) at each of three SSD System extraction fans to ensure continuous operation.

All vacuum measurements taken at each interior and perimeter subslab monitoring/sampling location were between -0.02 and -0.11 in. of water column, indicating continuous negative pressure values beneath the building slab.

Inspections and monitoring of all other system equipment revealed proper system operation, and no equipment shutdowns, failures, alarms, or interruptions of any type occurred during this reporting period. The continuous, verified zone of negative pressure beneath the school's concrete slab, along with the monthly inspections and continuous monitoring of both the indoor air monitoring system and the subslab depressurization system, confirms proper operation of the SSD System during this reporting period.

Copies of O&M field forms summarizing SSD System monitoring data collected during this reporting period are provided in Appendix A.

2.2 INDOOR METHANE MONITORING SYSTEM

Indoor methane concentrations were monitored continuously by the indoor methane monitoring system from 7 January 2010 to the end of February 2010. The system is equipped with automatic alarm notification via audible signal and phone notification. However, during the September, October, and November 2009 sampling/monitoring events, EA observed that the indoor methane monitoring system power was off. EA noted the power outage, manually restarted the power during these inspections, and recorded the initial readings. The methane monitoring system was then inspected further for any other abnormalities. EA identified the uninterrupted power supply (UPS) as the cause of the temporary power outages. The UPS is a secondary power source that provides backup power to the monitoring system during primary power loss events. The UPS was replaced by EA on 7 January 2010. EA verified that the

methane monitoring system ran continuously for the following week and then mounted the UPS to the existing enclosure on 15 January 2010 during the quarterly sampling event.

In December 2009, filter discs at each of the eight continuous methane sensors were replaced in accordance with a quarterly frequency schedule. The next filter replacement is scheduled for March 2010.

EA conducted a methane reading check to each channel sensor for system reading verification during the February 2010 Monitoring Event. Each sensor was manually placed into the "Maintenance" mode and then 100 parts per million (ppm) methane calibration gas was applied to verify functionality and accuracy. All 8 location readings were satisfactory and read within \pm 90% of the calibration gas.

No other maintenance or repairs to the methane monitoring system or components were performed or required during this reporting period.

2.3 AMBIENT OUTDOOR AND INDOOR AIR SAMPLING

One outdoor ambient air sample and eight indoor air samples within the school at RIDEM-approved sampling locations were collected and analyzed for VOCs via Method TO-15 SIM (Selective Ion Monitoring) on 15 January 2010. [The outdoor ambient sample was collected from the northwest corner of the school (upwind) to ensure that system effluent was not captured in the sample.] The sampling frequency has been reduced to quarterly sampling, per Order of Approval Addendum 3 prepared by RIDEM and dated 19 July 2009. Sampling locations are shown on the Indoor Air Sampling and Methane Monitoring System Diagram provided in Appendix B. The indoor air sampling results were compared to the State of Connecticut's Draft Proposed Indoor Residential Targeted Air Concentrations (CT RTACs) in accordance with the Amended OA. The laboratory reporting limits (RLs) for several VOCs reported via TO-15 analysis, even though analyzed via the SIM procedure were greater than the respective CT RTACs. In accordance with the Amended OA, EA contacted the laboratory prior to sample analysis to verify that the RLs provided would be the lowest currently achievable limits. An RL verification letter from Alpha Analytical Laboratory is provided in Appendix E. A data summary table and copies of the laboratory data reports associated with this sampling event is provided in Appendix B. One contaminant was detected above the CT RTACs in each month of this quarter. All other compounds analyzed were below the applicable CT RTACs for all samples collected on 15 January 2010.

Carbon tetrachloride, a documented background ambient compound present at the Site, has consistently been detected in ambient outdoor air and inside the school during every sampling event completed at the Site at concentrations ranging between 0.19 to 0.77 ug/m³. Similarly, during this reporting period the ambient outdoor and indoor air concentrations of carbon tetrachloride ranged between 0.578 and 0.616 ug/m³. Discussions and guidance provided by the Rhode Island Department of Health, RIDEM Office of Waste Management, and RIDEM Office of Air Resources resulted in an understanding that these carbon tetrachloride results do not constitute Indoor Air Action Level exceedances for the Site since they are consistent with documented background concentrations.

2.4 SUBSLAB VAPOR SAMPLING AND EVALUATION OF POTENTIAL VOC REBOUND EFFECT

A total of 11 RIDEM-approved subslab sampling locations exist at the Site. In accordance with the Amended OA, six subslab vapor samples were collected in accordance with a RIDEM-approved (Amended OA) rotating sampling schedule and analyzed for VOCs via Method TO-15 SIM on 15 January 2010. The subslab data is summarized in Appendix D, along with copies of the laboratory data reports associated with these sampling events.

The subslab data has been evaluated and there is no evidence of increasing VOCs (i.e., VOC rebound) beneath the school in accordance with the Amended OA.

2.5 SUMMARY OF ROOFTOP VOC EMISSIONS

The Amended OA requires that rooftop VOC sampling be completed on an annual basis. The latest rooftop VOC sampling event was completed in September 2009 and was summarized in correspondence submitted to RIDEM in December 2009. Please refer to the previously submitted Quarterly Status Report No. 9 (dated December 2009) for more details regarding the rooftop VOC data. The 2010 annual rooftop effluent VOC sampling event is scheduled for July 2010 to accommodate the revised quarterly sampling schedule.

Previous rooftop effluent sampling rounds conducted in March 2007 (immediately after SSD system startup), June 2007, and June 2008 indicated compliance with all Air Pollution Control Permit Applicability Thresholds. In general, the VOC concentrations in the rooftop effluent associated with the September 2009 sampling round indicate continuance of the decreasing trend of VOC concentrations in subsurface soils and do not exceed the Air Pollution Control Permit Applicability Thresholds. Tabulation of the data and the rooftop sampling analytical report is provided as Appendix E.

2.6 CONCLUSIONS

The following conclusions are made based upon the completed inspections, monitoring, and sampling performed during this reporting period:

- Analytical results from indoor air sampling conducted this quarter indicate no contaminants present above the CT RTACs other than carbon tetrachloride, a documented background contaminant.
- Analytical results from rooftop fan effluent sampling indicate continuance of decreasing trends of subslab VOC concentrations.
- There is no evidence that soil vapor intrusion into the Alvarez High School is occurring.
- There is no evidence of VOC rebound in soil gas beneath the school.

- The continuous operation of the SSD System, with no equipment malfunctions or alarm conditions, and confirmation of continuous subslab vacuum beneath the school illustrates ongoing, effective operation of the SSD System. No soil vapor intrusion pathway exists at the school while the SSD System is operational.
- EA has investigated and resolved the periodic power outages of the indoor air methane monitoring system. EA has noted the applicable equipment maintenance, replacements, or other course of action taken to maintain effective operation of the continuous indoor methane monitoring system.
- No SSD System modifications or other actions to address current site conditions are warranted or proposed at this time.

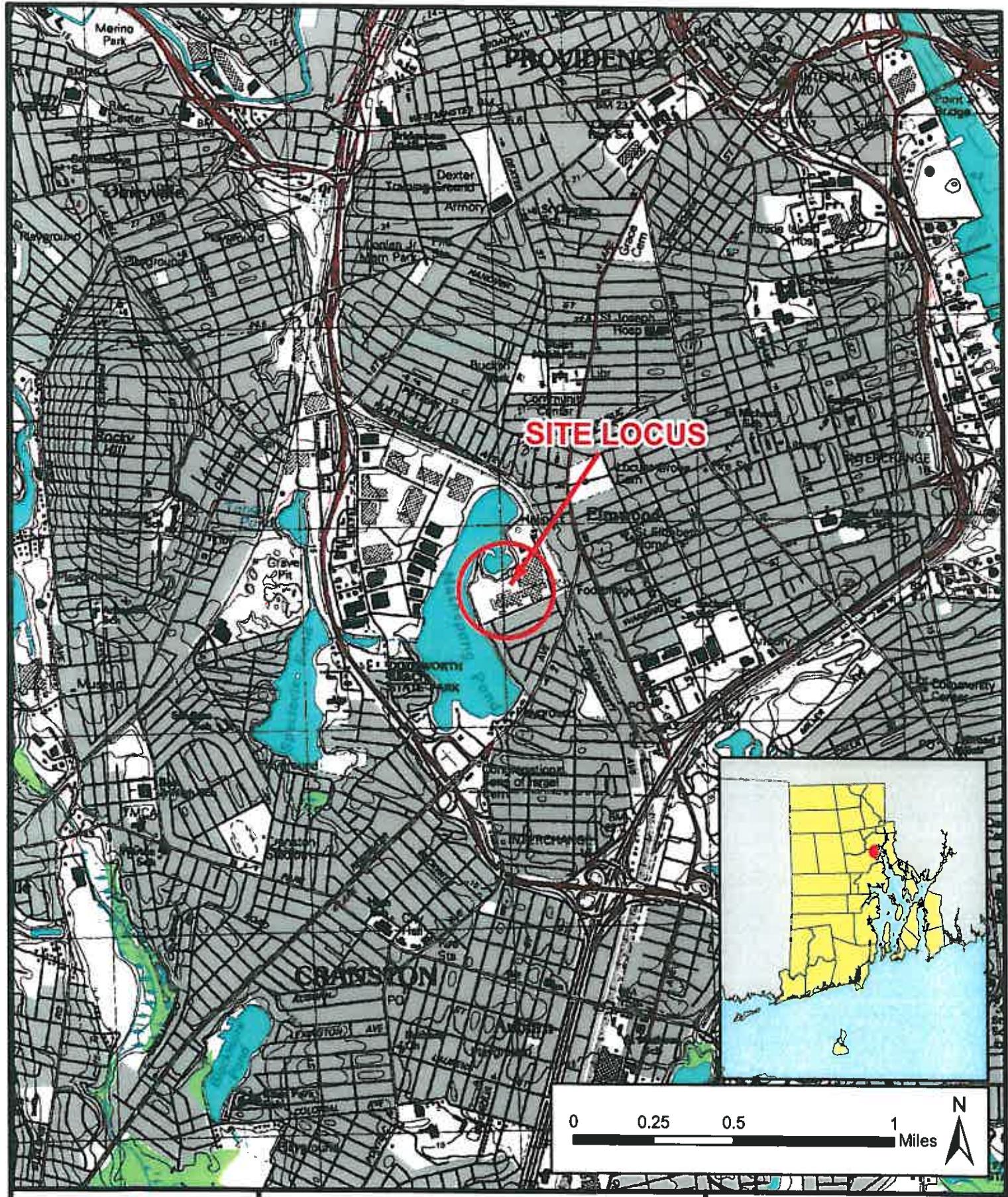
3. FUTURE ACTIVITIES AND NEXT QUARTERLY SUMMARY REPORT

During the next quarterly status reporting period ending 31 May 2010, the following activities will be completed in accordance with the Amended OA:

- Continuous monitoring of the operational status of the three rooftop fans
- Monthly site inspections and monitoring using a photoionization detector with part-per-billion sensitivity
- Collection of air samples from eight indoor locations, one ambient location, and six subslab monitoring points in April 2010.

These activities will be summarized in the next status report (Quarterly Status Report No. 11), expected to be submitted by the end of June 2010.

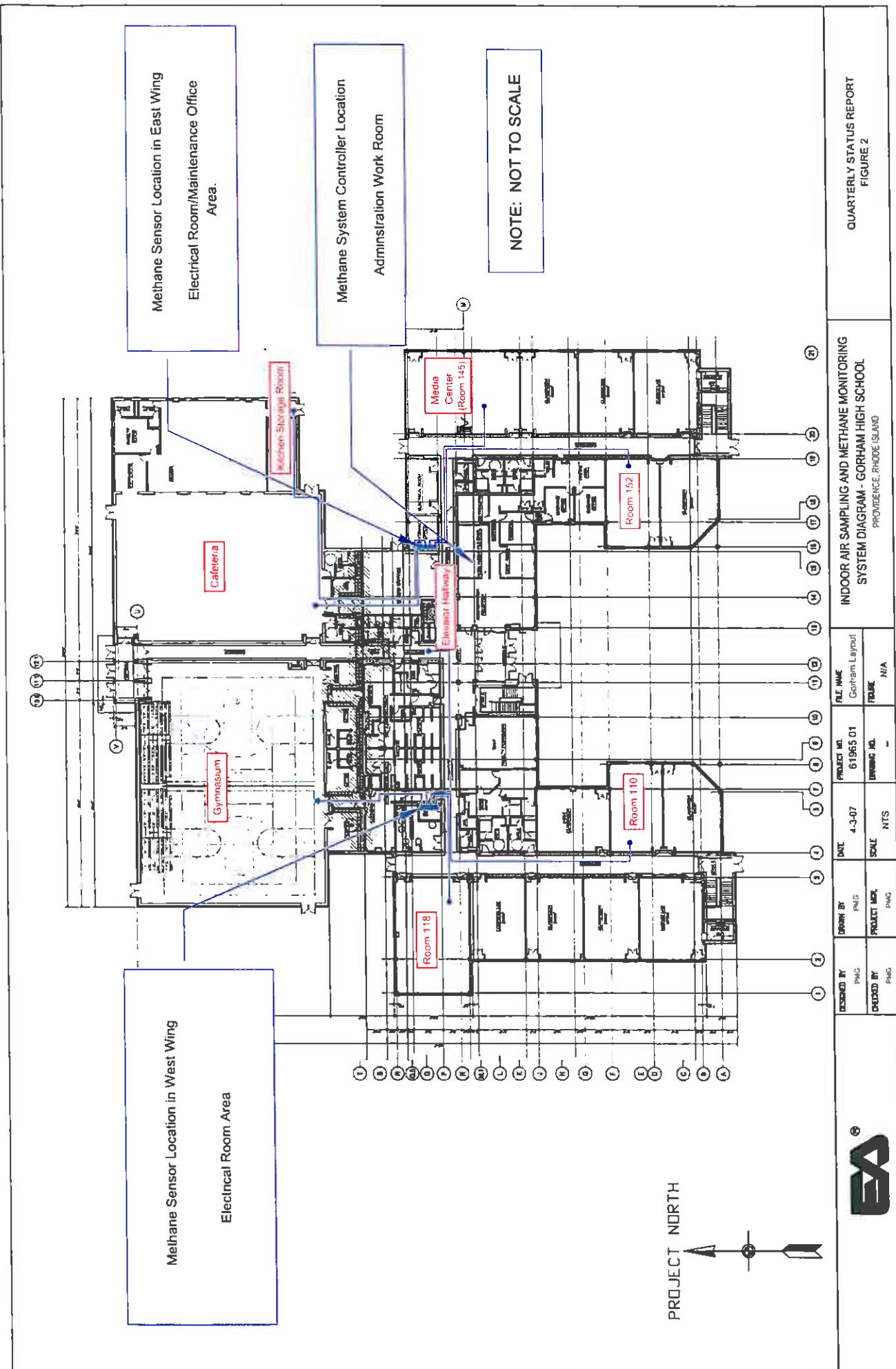
Figures

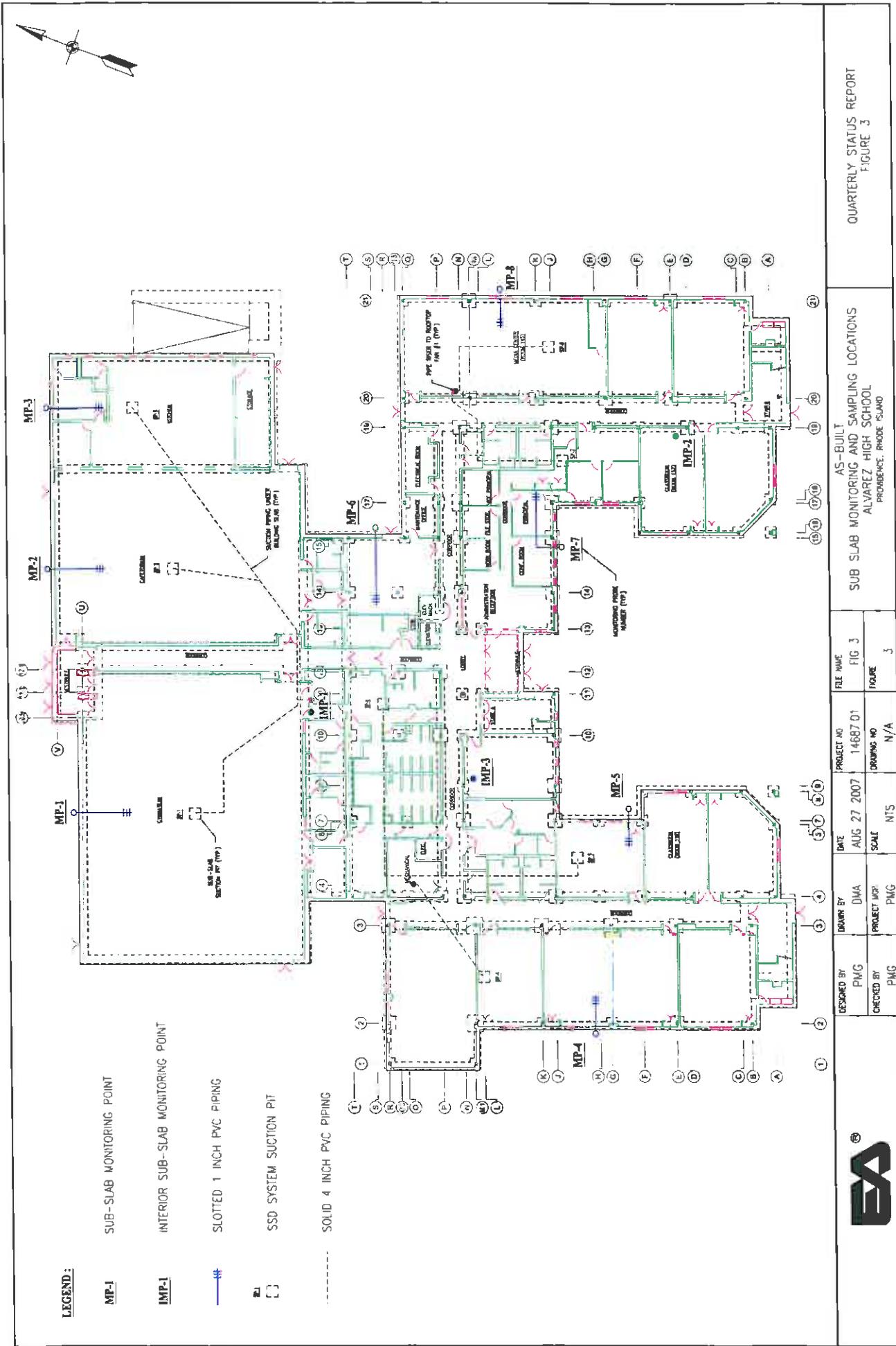


ALVAREZ HIGH SCHOOL
333 ADELAIDE AVENUE
PROVIDENCE, RHODE ISLAND

FIGURE 1 SITE LOCUS

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
FP	PT	PT	FP	1:24,000	FEBRUARY 2010	14687.01	SITE_LOCUS.MXD





Appendix A

O&M Field Forms

Alvarez High School - SSD & Interior Methane Monitoring System O&M Form

Date of O&M _____ 12/16/2009
 PID/Methane Calibration? _____ US Environmental _____
 (yes/no)
 Date of last Methane Sensor Filter Replacement: _____ Sept. 2009 _____

Performed by _____ DMA _____
 Replaced this O&M Visit? _____ Yes _____ (yes/no)

General Status of SSD System: On-line

General Status of Methane Monitoring System: Methane monitoring system was off, EA personnel restarted the monitoring system and recorded initial readings.

Eng. Cap/Fence Inspection Performed/Notes: Crack in concrete floor adjacent to IMP-1.

Monitoring/ Sampling Location	Sub-slab or Gauge vacuum	Air Velocity (ft/min)	VOC Monitoring	Methane Monitoring			Air/Vapor Sample Collection			Comments/Notes (Ambient weather conditions, status of HVAC, possible monitoring/sampling interferences, etc ... continue on separate sheet if needed)
				PID (ppm)	Indoor Sensor (ppm)	% Gas	% LEL*	Summa Can ID	Controller ID	
Gymnasium	NA	NA	0.002	0						Occupied
Cafeteria	NA	NA	0.008	0						Food preparations taking place
Kitchen Storage Room	NA	NA	0.004	0						
Elevator Hallway	NA	NA	0.000	0						
Room 145	NA	NA	0.000	0						
Room 152	NA	NA	0.082	0						
Room 118	NA	NA	0.000	0						
Room 110	NA	NA	0.004	0						
MP-1	0.10	NA	0.082	NA						
MP-2	0.11	NA	0.363	NA						
MP-3	0.05	NA	0.017	NA						
MP-4	0.04	NA	1.260	NA						
MP-5	0.04	NA	1.330	NA						
MP-6	0.06	NA	2.670	NA						
MP-7	0.03	NA	0.086	NA						
MP-8	0.07	NA	0.032	NA						
IMP-1	0.03	NA	0.022	NA						
IMP-2	0.03	NA	0.026	NA						
IMP-3	0.03	NA	0.037	NA						
Roof-Top Fan 1	2.10	2010	0.016	NA						
Roof-Top Fan 2	3.60	2186	0.020	NA						
Roof-Top Fan 3	2.20	1840	0.000	NA						
Ambient Outdoor Air	NA	NA	0.000	NA						

NA: not applicable.

NM: not monitored on this date.

NS: not sampled on this date.

* RIDEM Action Level for methane %LEL beneath the building is 10% and within the building is 1%. If these methane levels are exceeded, immediately notify EA Project Manager to initiate response protocol.

Alvarez High School - SSD & Interior Methane Monitoring System O&M Form

Date of O&M 1/15/2010 PID/Methane Calibration? US Environmental Date of last Methane Sensor Filter Replacement Dec. 2009

Performed by DMA/JPT Replaced this O&M Visit? No (yes/no)

General Status of SSD System: On-line

General Status of Methane Monitoring System: On-line. EA installed replacement UPS (Uninterrupted Power Supply) on 7 January 2010. Mounted UPS to enclosure today.

Eng Cap/Fence Inspection Performed/Notes: Crack in concrete floor adjacent to IMP-1

Monitoring/ Sampling Location	Sub-slab or gauge vacuum	VOC Monitoring	Methane Monitoring			Air/Water Sample Collection				Comments/Notes (Ambient weather conditions, status of HVAC, possible monitoring/sampling interferences, etc.... continue on separate sheet if needed)
			Air Velocity (fpm)	Indoor Sensor (ppm)	(% Gas)	Summ. Can ID	Controller ID	Start Time [Inches Hg]	Start Vac	
Gymnasium	NA	NA	0.000	0		1733	0132	0737	-30+	0807 -10
Cafeteria	NA	NA	0.000	0		185	0235	0733	-30	0802 -3
Kitchen Storage Room	NA	NA	0.035	0		1738	0224	0735	-30+	0803 -4
Elevator Hallway	NA	NA	0.000	0		398	0432	0735	-30+	0805 -2
Room 145	NA	NA	0.000	0		342	0256	0720	-30+	0752 -8
Room 152	NA	NA	0.306	0		329	0074	0722	-30+	0752 -7 Occupied
Room 118	NA	NA	0.029	0		221	0176	0725	-30+	0755 -6 Occupied
Room 110	NA	NA	0.035	0		404	0094	0726	-30+	0757 -7 Occupied
IMP-1	0.05	NA	7.668	NA		395	0325	1209	-30	1238 -3
MP-2	0.04	NA	0.038	NA		-	-	-	-	-
MP-3	0.04	NA	0.874	NA		552	0182	1217	-30+	1247 -9
MP-4	0.02	NA	0.018	NA		494	0315	1231	-30	1302 0
MP-5	0.07	NA	0.106	NA		-	-	-	-	-
MP-6	0.05	NA	0.148	NA		187	0288	1221	-30+	1251 -9
MP-7	0.02	NA	0.936	NA		-	-	-	-	-
MP-8	0.10	NA	1.776	NA		-	-	-	-	-
IMP-1	0.02	NA	118.300	NA		469	0364	0755	-29	0827 -4 Crack in concrete floor
IMP-2	0.02	NA	66.700	NA		460	0172	0750	-30+	0820 -11
IMP-3	0.02	NA	253.400	NA		-	-	-	-	-
Roof-Top Fan 1	0.60	983	0.330	NA		-	-	-	-	-
Roof-Top Fan 2	NM	1841	0.402	NA		-	-	-	-	-
Roof-Top Fan 3	NM	1142	1.305	NA		-	-	-	-	-
Ambient Outdoor Air	NA	NA	0.000	NA		456	0298	1200	-30+	1230 -5

NA: not applicable.

NM: not monitored on this date.

NS : not sampled on this date.

* RIDEM Action Level for methane %LEL beneath the building is 10% and within the building is 1%. If these methane levels are exceeded, immediately notify EA Project Manager to initiate response protocol.

Alvarez High School - SSD & Interior Methane Monitoring System O&M Form

Date of O&M 2/12/2010 PID/Methane Calibration? US Environmental
 Date of last Methane Sensor Filter Replacement Dec 2009

Performed by DMA
 Replaced this O&M Visit? Yes (yes/no)

General Status of SSD System: On-line EA personnel manually switched sensors to maintenance mode and applied 100ppm methane calibration gas to sensors to verify system functionality and recorded readings (Bump Test).

Eng Cap/Fence Inspection Performed/Notes: Crack in concrete floor adjacent to IMP-1.

Monitoring Sampling Location	Sub-slab or gauge vacuum	Air Velocity (Ifpm)	VOC Monitoring PID (ppm)	Indoor Sensor (ppm)	Maint. Mode	100 ppm gas rdg	Summa Can ID	Alt/Vapor Sample Collection			Comments/Notes (Ambient weather conditions, status of HVAC, possible monitoring/sampling interferences, etc ... continue on separate sheet if needed)
								Controller ID	Start Time (Inches HG)	Start Vac End Time (Inches HG)	
Gymnasium	NA	NA	0.002	0	-20	85					
Cafeteria	NA	NA	0.002	0	-50	40					
Kitchen Storage Room	NA	NA	0.003	0	-10	95					
Elevator Hallway	NA	NA	0.000	0	-15	90					
Room 145	NA	NA	0.002	0	-50	45					
Room 152	NA	NA	0.006	0	-10	90					
Room 118	NA	NA	0.010	0	-50	50					
Room 110	NA	NA	0.004	0	-20	90					
IMP-1	0.08	NA	0.082	NA	NA	NA	NA				
IMP-2	0.10	NA	0.363	NA	NA	NA	NA				
IMP-3	0.06	NA	0.017	NA	NA	NA	NA				
IMP-4	0.05	NA	1.260	NA	NA	NA	NA				
IMP-5	0.04	NA	1.330	NA	NA	NA	NA				
IMP-6	0.07	NA	2.670	NA	NA	NA	NA				
IMP-7	0.04	NA	0.086	NA	NA	NA	NA				
IMP-8	0.07	NA	0.032	NA	NA	NA	NA				
IMP-1	0.02	NA	64.450	NA	NA	NA	NA				
IMP-2	0.03	NA	52.760	NA	NA	NA	NA				
IMP-3	0.02	NA	82.380	NA	NA	NA	NA				
Root-Top Fan 1	1.80	1460	0.016	NA	NA	NA	NA				
Root-Top Fan 2	1.70	1740	0.020	NA	NA	NA	NA				
Root-Top Fan 3	2.10	1820	0.000	NA	NA	NA	NA				
Ambient Outdoor Air	NA	NA	0.000	NA	NA	NA	NA				

NA = not applicable.

NM = not monitored on this date.

NS = not sampled on this date.

* RIDEM Action Level for methane %EL beneath the building is 10% and within the building is 1%. If these methane levels are exceeded, immediately notify EA Project Manager to initiate response protocol.

Appendix B

Indoor and Ambient Outdoor Air Analytical Summary and Lab Report

Summary of Indoor Ambient Outdoor Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds
March 2007 - January 2010

March 2007 • Journal 2010

Summary of Indoor Ambient Outdoor Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds

WILEY 2007 - 2010

Summary of Indoor Ambient Outdoor Air Sampling Data - Adelais Avenue School Project - Volatile Organic Compounds

March 2007 - January 2010

Summary of Indoor Ambient Outdoor Air Sampling Data - Adelkida Avenue School Project - Volatile Organic Compounds
March 2007 - January 2010

March 2017 • תמרן מודע

Summary of Indoor Ambient Outdoor Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds
March 2007 - January 2010

March 2007 • January 2010

Summary of Indoor Ambient Outdoor Air Sampling Data - Adelaida Avenue School Project - Volatile Organic Compounds

March 2007 - Volume 30 Number 3

Summary of Indoor Ambient Outdoor Air Sampling Data - Adelaidia Avenue School Project - Volatile Organic Compounds
March 2007 - January 2010

Spring Data - Adelaide Avenue
March 2007 - January 2010

Summary of Indoor Ambient Outdoor Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds
March 2007 - January 2010

Supply Data - Adelaidia Avenue
March 2007 - January 2010

Summary of Indoor Ambient Outdoor Air Sampling Data - Adelais Avenue School Project - Volatile Organic Compounds
March 2007 - January 2010

MAY 2007 - JUNE 2010

Summary of Indoor Ambient Outdoor Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds

March 2007 - January 2010

Summary of Indoor Ambient Outdoor Air Sampling Data - Adelaido Avenue School Project - Volatile Organic Compounds
March 2007 - January 2010

March 2007 • January 2010

Summary of Indoor Ambient Outdoor Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds
March 2007 - January 2010

Vehicle Organic Compounds w/o TOC's	Sample Date	CT Draft Proposed indoor Residential Impact Air Concentration Action Points & Approved Action Level	KfValue, Sampling Rate	C-Absolute	C-Relative	C-Relative	Residence 1.0		Residence 1.1		Residence 1.2		Ambient Outside	Other
							Count	Count	Count	Count	Count	Count		
7-Acetone	15-Jan-07	22-Nov-07	110,000	14,100	18,600	18,600	130,000	18,000	23,000	23,000	94,000	84,200	17,000	2,000
	74-Apr-07	19-Apr-07	8,500	1,940	1,940	1,940	12,000	2,300	18,100	18,100	18,000	18,000	8,177	
	7-Apr-07	7-Apr-07	7,400	1,640	1,640	1,640	8,700	2,300	8,000	8,000	8,000	8,000	8,470	
	21-Jun-07	21-Jun-07	8,000	1,620	1,620	1,620	4,100	2,000	1,600	1,600	2,000	2,000	8,270	
	20-Jul-07	8-Jul-07	8,400	1,650	1,650	1,650	4,200	2,000	1,600	1,600	2,000	2,000	8,270	
	21-Aug-07	21-Aug-07	1,400	1,200	1,200	1,200	1,770	9,800	9,740	9,740	9,740	9,740	1,100	
	21-Sep-07	21-Sep-07	4,120	2,110	2,110	2,110	1,770	9,800	9,740	9,740	9,740	9,740	1,100	
	28-Aug-07	28-Aug-07	1,100	1,000	1,000	1,000	1,770	9,800	9,740	9,740	9,740	9,740	1,100	
	6-Oct-07	7-Oct-07	1,100	1,000	1,000	1,000	1,770	9,800	9,740	9,740	9,740	9,740	1,100	
	7-Nov-07	7-Nov-07	2,200	1,470	1,470	1,470	1,870	1,870	1,720	1,720	1,720	1,720	1,715	
	6-Dec-07	6-Dec-07	8,000	2,000	2,000	2,000	8,000	8,000	8,000	8,000	8,000	8,000	8,177	
	8-Jan-08	8-Jan-08	2,200	2,200	2,200	2,200	8,000	8,000	8,000	8,000	8,000	8,000	8,177	
	1-Feb-08	1-Feb-08	1,200	1,140	1,140	1,140	1,120	1,120	1,120	1,120	1,120	1,120	1,100	
	21-Mar-08	6-Apr-08	6,450	4,640	4,640	4,640	4,120	4,120	4,120	4,120	4,120	4,120	4,041	
	21-Apr-08	21-Apr-08	4,800	4,800	4,800	4,800	4,000	4,000	3,900	3,900	3,900	3,900	3,944	
	21-May-08	21-May-08	3,100	1,970	1,970	1,970	1,970	1,970	1,970	1,970	1,970	1,970	1,970	
	21-Jun-08	21-Jun-08	2,000	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	
	21-Jul-08	21-Jul-08	2,200	1,470	1,470	1,470	1,870	1,870	1,720	1,720	1,720	1,720	1,715	
	21-Aug-08	21-Aug-08	2,200	1,470	1,470	1,470	1,870	1,870	1,720	1,720	1,720	1,720	1,715	
	21-Sep-08	21-Sep-08	2,200	1,470	1,470	1,470	1,870	1,870	1,720	1,720	1,720	1,720	1,715	
	21-Oct-08	21-Oct-08	2,200	1,470	1,470	1,470	1,870	1,870	1,720	1,720	1,720	1,720	1,715	
	18-Nov-08	18-Nov-08	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Dec-08	15-Dec-08	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Jan-09	15-Jan-09	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Feb-09	15-Feb-09	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Mar-09	15-Mar-09	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Apr-09	15-Apr-09	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-May-09	15-May-09	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Jun-09	15-Jun-09	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Jul-09	15-Jul-09	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Aug-09	15-Aug-09	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Sep-09	15-Sep-09	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Oct-09	15-Oct-09	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Nov-09	15-Nov-09	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Dec-09	15-Dec-09	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Jan-10	15-Jan-10	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Feb-10	15-Feb-10	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Mar-10	15-Mar-10	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Apr-10	15-Apr-10	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-May-10	15-May-10	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Jun-10	15-Jun-10	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Jul-10	15-Jul-10	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Aug-10	15-Aug-10	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Sep-10	15-Sep-10	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Oct-10	15-Oct-10	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Nov-10	15-Nov-10	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Dec-10	15-Dec-10	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Jan-11	15-Jan-11	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Feb-11	15-Feb-11	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Mar-11	15-Mar-11	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Apr-11	15-Apr-11	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-May-11	15-May-11	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Jun-11	15-Jun-11	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Jul-11	15-Jul-11	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Aug-11	15-Aug-11	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Sep-11	15-Sep-11	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Oct-11	15-Oct-11	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Nov-11	15-Nov-11	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Dec-11	15-Dec-11	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Jan-12	15-Jan-12	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Feb-12	15-Feb-12	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Mar-12	15-Mar-12	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Apr-12	15-Apr-12	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-May-12	15-May-12	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Jun-12	15-Jun-12	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Jul-12	15-Jul-12	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Aug-12	15-Aug-12	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Sep-12	15-Sep-12	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Oct-12	15-Oct-12	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Nov-12	15-Nov-12	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Dec-12	15-Dec-12	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Jan-13	15-Jan-13	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700	1,700	1,691	
	15-Feb-13	15-Feb-13	1,800	1,000	1,000	1,000	1,800	1,800	1,700	1,700	1,700			

Summary of Indoor Ambient Outdoor Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds

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Summary of Indoor Ambient Outdoor Air Sampling Data - Adelaid Avenue School Project - Volatile Organic Compounds

Spring Data - ADO.NET Average March 2007 - January 2010

Summary of Indoor Ambient Outdoor Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds

March 2007 - January 2010



ANALYTICAL REPORT

Lab Number:	L1000747
Client:	EA Engineering, Science and Tech 2350 Post Road Warwick, RI 02886
ATTN:	Mark Speer
Project Name:	ALVAREZ HIGH SCHOOL
Project Number:	14687.01
Report Date:	01/20/10

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LA000299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), US Army Corps of Engineers

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



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000747
Report Date: 01/20/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1000747-01	GYMNASIUM	PROVIDENCE, RI	01/15/10 08:07
L1000747-02	CAFETERIA	PROVIDENCE, RI	01/15/10 08:02
L1000747-03	KITCHEN STORAGE ROOM	PROVIDENCE, RI	01/15/10 08:03
L1000747-04	ELEVATOR HALLWAY	PROVIDENCE, RI	01/15/10 08:05
L1000747-05	ROOM 145	PROVIDENCE, RI	01/15/10 07:52
L1000747-06	ROOM 152	PROVIDENCE, RI	01/15/10 07:52
L1000747-07	ROOM 118	PROVIDENCE, RI	01/15/10 07:55
L1000747-08	ROOM 110	PROVIDENCE, RI	01/15/10 07:57
L1000747-09	AMBIENT OUTDOOR AIR	PROVIDENCE, RI	01/15/10 12:30



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000747
Report Date: 01/20/10

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report.

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

For additional information, please contact Client Services at 800-624-9220.

Volatile Organics in Air (SIM)

L1000747-02, -03 and WG397186-5: Results for Acetone should be considered estimated due to co-elution with a non-target peak.

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: 01/20/10

AIR



01201016:43

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000747
Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-01	Date Collected:	01/15/10 08:07
Client ID:	GYMNASIUM	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	01/18/10 22:28		
Analyst:	BS		

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
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	0.092	0.020	0.452	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	0.039	0.020	0.192	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	ND	0.020	ND	0.120		1
Benzene	0.421	0.100	1.34	0.319		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.092	0.020	0.578	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	0.025	0.020	0.122	0.098		1
Chloromethane	0.578	0.500	2.82	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



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Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1000747

Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-01	Date Collected:	01/15/10 08:07
Client ID:	GYMNASIUM	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
Dichlorodifluoromethane	0.501	0.050	2.48	0.247	1
Ethylbenzene	0.089	0.020	0.386	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	0.240	0.040	1.04	0.174	1
o-Xylene	0.082	0.020	0.356	0.087	1
Styrene	ND	0.020	ND	0.085	1
Tetrachloroethene	0.050	0.020	0.339	0.136	1
Toluene	0.404	0.020	1.52	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	0.021	0.020	0.113	0.107	1
Trichlorofluoromethane	0.215	0.050	1.21	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
Acelone	2.14	2.00	5.08	4.75	1
2-Bulanone	ND	0.500	ND	1.47	1
4-Methyl-2-pentanone	ND	0.500	ND	2.05	1



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000747
Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-02	Date Collected:	01/15/10 08:02
Client ID:	CAFETERIA	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	01/18/10 23:02		
Analyst:	BS		

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
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-Trichloroelthane	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	0.112	0.020	0.550	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	0.053	0.020	0.260	0.098	1
1,3-Dichlorobenzene	ND	0.020	ND	0.120	1
1,4-Dichlorobenzene	0.031	0.020	0.186	0.120	1
Benzene	0.472	0.100	1.51	0.319	1
Bromodichloromethane	ND	0.020	ND	0.134	1
Bromoform	ND	0.020	ND	0.206	1
Carbon tetrachloride	0.096	0.020	0.603	0.126	1
Chlorobenzene	ND	0.020	ND	0.092	1
Chloroethane	ND	0.020	ND	0.053	1
Chloroform	0.097	0.020	0.473	0.098	1
Chloromethane	0.756	0.500	3.69	2.44	1
cis-1,2-Dichloroelthane	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



01201016:43

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000747

Project Number: 14687.01

Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-02	Date Collected:	01/15/10 08:02
Client ID:	CAFETERIA	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
Dichlorodifluoromethane	0.517	0.050	2.55	0.247	1
Ethylbenzene	0.077	0.020	0.334	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	0.211	0.040	0.915	0.174	1
o-Xylene	0.074	0.020	0.321	0.087	1
Styrene	0.052	0.020	0.221	0.085	1
Tetrachloroethylene	0.051	0.020	0.346	0.136	1
Toluene	0.420	0.020	1.58	0.075	1
trans-1,2-Dichloroethylene	ND	0.020	ND	0.079	1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091	1
Trichloroethylene	0.020	0.020	0.107	0.107	1
Trichlorofluoromethane	0.225	0.050	1.26	0.281	1
Vinyl chloride	ND	0.020	ND	0.051	1
Acrylonitrile	ND	0.500	ND	1.08	1
n-Buylbenzene	ND	0.500	ND	2.74	1
sec-Buylbenzene	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	3.44	2.00	8.16	4.75	1
2-Bulanone	ND	0.500	ND	1.47	1
4-Methyl-2-pentanone	ND	0.500	ND	2.05	1



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Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000747
Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-03	Date Collected:	01/15/10 08:03
Client ID:	KITCHEN STORAGE ROOM	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	01/18/10 23:37		
Analyst:	BS		

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
1,1,1-Trichloroethane	ND	0.020	ND	0.109	1
1,1,2-Tetrachloroelthane	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-Dichloroelhene	ND	0.020	ND	0.079	1
1,2,4-Trimethylbenzene	0.124	0.020	0.609	0.098	1
1,2-Dibromoelthane	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	0.054	0.020	0.265	0.098	1
1,3-Dichlorobenzene	ND	0.020	ND	0.120	1
1,4-Dichlorobenzene	0.026	0.020	0.156	0.120	1
Benzene	0.522	0.100	1.67	0.319	1
Bromodichloromethane	ND	0.020	ND	0.134	1
Bromoform	ND	0.020	ND	0.206	1
Carbon tetrachloride	0.093	0.020	0.585	0.126	1
Chlorobenzene	ND	0.020	ND	0.092	1
Chloroethane	ND	0.020	ND	0.053	1
Chloroform	0.108	0.020	0.527	0.098	1
Chloromethane	0.789	0.500	3.85	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



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Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000747

Project Number: 14687.01

Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-03	Date Collected:	01/15/10 08:03
Client ID:	KITCHEN STORAGE ROOM	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
Dichlorodifluoromethane	5.63	0.050	27.8	0.247	1
Ethylbenzene	0.103	0.020	0.447	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	0.250	0.040	1.08	0.174	1
o-Xylene	0.093	0.020	0.404	0.087	1
Styrene	0.259	0.020	1.10	0.085	1
Tetrachloroethylene	0.053	0.020	0.359	0.136	1
Toluene	0.509	0.020	1.92	0.075	1
trans-1,2-Dichloroethylene	ND	0.020	ND	0.079	1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091	1
Trichloroethylene	0.020	0.020	0.107	0.107	1
Trichlorofluoromethane	2.12	0.050	11.9	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	5.02	2.00	11.9	4.75	1
2-Butanone	2.24	0.500	6.61	1.47	1
4-Methyl-2-pentanone	ND	0.500	ND	2.05	1



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Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000747
Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-04	Date Collected:	01/15/10 08:05
Client ID:	ELEVATOR HALLWAY	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	01/19/10 00:45		
Analyst:	BS		

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
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	0.106	0.020	0.521	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	0.042	0.020	0.206	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	0.072	0.020	0.432	0.120		1
Benzene	0.456	0.100	1.46	0.319		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.095	0.020	0.597	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	0.027	0.020	0.132	0.098		1
Chloromethane	0.652	0.500	3.18	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



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Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000747

Project Number: 14687.01

Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-04	Date Collected:	01/15/10 08:05
Client ID:	ELEVATOR HALLWAY	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
Dichlorodifluoromethane	0.524	0.050	2.59	0.247	1
Ethylbenzene	0.081	0.020	0.351	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	0.218	0.040	0.946	0.174	1
o-Xylene	0.078	0.020	0.338	0.087	1
Styrene	0.021	0.020	0.089	0.085	1
Tetrachloroethylene	0.055	0.020	0.373	0.136	1
Toluene	0.450	0.020	1.69	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
Trichloroethylene	ND	0.020	ND	0.107	1
Trichlorofluoromethane	0.230	0.050	1.29	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
Acelone	2.82	2.00	6.70	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: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000747
Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-05	Date Collected:	01/15/10 07:52
Client ID:	ROOM 145	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	01/19/10 01:19		
Analyst:	BS		

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
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	0.044	0.020	0.216	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	0.024	0.020	0.144	0.120	1
Benzene	0.484	0.100	1.54	0.319	1
Bromodichloromethane	ND	0.020	ND	0.134	1
Bromoform	ND	0.020	ND	0.206	1
Carbon tetrachloride	0.098	0.020	0.616	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	0.639	0.500	3.12	2.44	1
cis-1,2-Dichloroethylene	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



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Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000747

Project Number: 14687.01

Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-05	Date Collected:	01/15/10 07:52
Client ID:	ROOM 145	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
Dichlorodifluoromethane	0.496	0.050	2.45	0.247	1
Ethylbenzene	0.063	0.020	0.273	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	0.155	0.040	0.672	0.174	1
o-Xylene	0.059	0.020	0.256	0.087	1
Styrene	ND	0.020	ND	0.085	1
Tetrachloroethene	0.051	0.020	0.346	0.136	1
Toluene	0.430	0.020	1.62	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	0.217	0.050	1.22	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
Acelone	2.22	2.00	5.26	4.75	1
2-Butanone	ND	0.500	ND	1.47	1
4-Methyl-2-pentanone	ND	0.500	ND	2.05	1



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Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000747
Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-06	Date Collected:	01/15/10 07:52
Client ID:	ROOM 152	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	01/19/10 01:54		
Analyst:	BS		

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
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	0.040	0.020	0.196	0.098	1
1,2-Dibromoelthane	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	0.485	0.100	1.55	0.319	1
Bromodichloromethane	ND	0.020	ND	0.134	1
Bromoform	ND	0.020	ND	0.206	1
Carbon tetrachloride	0.097	0.020	0.610	0.126	1
Chlorobenzene	ND	0.020	ND	0.092	1
Chloroethane	ND	0.020	ND	0.053	1
Chloroform	0.037	0.020	0.180	0.098	1
Chloromethane	0.768	0.500	3.75	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



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Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1000747

Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-06	Date Collected:	01/15/10 07:52
Client ID:	ROOM 152	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
Dichlorodifluoromethane	0.488	0.050	2.41	0.247	1
Ethybenzene	0.058	0.020	0.252	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	0.140	0.040	0.607	0.174	1
o-Xylene	0.053	0.020	0.230	0.087	1
Styrene	ND	0.020	ND	0.085	1
Tetrachloroelhene	0.046	0.020	0.312	0.136	1
Toluene	0.433	0.020	1.63	0.075	1
trans-1,2-Dichloroelhene	ND	0.020	ND	0.079	1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091	1
Trichloroelhene	ND	0.020	ND	0.107	1
Trichlorofluoromethane	0.226	0.050	1.27	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



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Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000747
Report Date: 01/20/10

SAMPLE RESULTS

Lab ID: L1000747-07 Date Collected: 01/15/10 07:55
Client ID: ROOM 118 Date Received: 01/15/10
Sample Location: PROVIDENCE, RI Field Prep: Not Specified
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 01/19/10 02:28
Analyst: BS

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
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-Tetrachloroelthane	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	0.042	0.020	0.206	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-Dichloroelthane	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	0.025	0.020	0.150	0.120		1
Benzene	0.446	0.100	1.42	0.319		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.093	0.020	0.585	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	0.665	0.500	3.24	2.44		1
cis-1,2-Dichloroelhene	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



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Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000747

Project Number: 14687.01

Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-07	Date Collected:	01/15/10 07:55
Client ID:	ROOM 118	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
Dichlorodifluoromethane	0.488	0.050	2.41	0.247	1
Ethylbenzene	0.074	0.020	0.321	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	0.167	0.040	0.724	0.174	1
o-Xylene	0.063	0.020	0.273	0.087	1
Styrene	0.046	0.020	0.196	0.085	1
Tetrachloroethylene	0.046	0.020	0.312	0.136	1
Toluene	0.449	0.020	1.69	0.075	1
trans-1,2-Dichloroethylene	ND	0.020	ND	0.079	1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091	1
Trichloroethylene	ND	0.020	ND	0.107	1
Trichlorofluoromethane	0.216	0.050	1.21	0.281	1
Vinyl chloride	ND	0.020	ND	0.051	1
Acrylonitrile	ND	0.500	ND	1.08	1
n-Buylbenzene	ND	0.500	ND	2.74	1
sec-Buylbenzene	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	3.08	2.00	7.32	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: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000747
Report Date: 01/20/10

SAMPLE RESULTS

Lab ID: L1000747-08 Date Collected: 01/15/10 07:57
Client ID: ROOM 110 Date Received: 01/15/10
Sample Location: PROVIDENCE, RI Field Prep: Not Specified
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 01/19/10 03:02
Analyst: BS

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
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	0.040	0.020	0.196	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	0.033	0.020	0.198	0.120		1
Benzene	0.455	0.100	1.45	0.319		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.097	0.020	0.610	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	0.745	0.500	3.63	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



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Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000747

Project Number: 14687.01

Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-08	Date Collected:	01/15/10 07:57
Client ID:	ROOM 110	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
Dichlorodifluoromethane	0.515	0.050	2.54	0.247	1
Ethylbenzene	0.059	0.020	0.256	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	0.139	0.040	0.603	0.174	1
o-Xylene	0.053	0.020	0.230	0.087	1
Styrene	0.023	0.020	0.098	0.085	1
Tetrachloroethene	0.051	0.020	0.346	0.136	1
Toluene	0.410	0.020	1.54	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	0.230	0.050	1.29	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	3.06	2.00	7.27	4.75	1
2-Butanone	ND	0.500	ND	1.47	1
4-Methyl-2-pentanone	ND	0.500	ND	2.05	1



01201016:43

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000747

Project Number: 14687.01

Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-09	Date Collected:	01/15/10 12:30
Client ID:	AMBIENT OUTDOOR AIR	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	01/19/10 12:19		
Analyst:	BS		

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
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-Dichloroelhene	ND	0.020	ND	0.079	1
1,2,4-Trimethylbenzene	0.040	0.020	0.196	0.098	1
1,2-Dibromoelthane	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	0.023	0.020	0.138	0.120	1
Benzene	0.428	0.100	1.37	0.319	1
Bromodichloromethane	ND	0.020	ND	0.134	1
Bromoform	ND	0.020	ND	0.206	1
Carbon tetrachloride	0.101	0.020	0.635	0.126	1
Chlorobenzene	ND	0.020	ND	0.092	1
Chloroelthane	ND	0.020	ND	0.053	1
Chloroform	0.022	0.020	0.107	0.098	1
Chloromethane	0.533	0.500	2.60	2.44	1
cis-1,2-Dichloroelhene	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



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Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000747

Project Number: 14687.01

Report Date: 01/20/10

SAMPLE RESULTS

Lab ID:	L1000747-09	Date Collected:	01/15/10 12:30
Client ID:	AMBIENT OUTDOOR AIR	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
Dichlorodifluoromethane	0.491	0.050	2.43	0.247		1
Ethylbenzene	0.066	0.020	0.286	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	0.155	0.040	0.672	0.174		1
o-Xylene	0.063	0.020	0.273	0.087		1
Styrene	ND	0.020	ND	0.085		1
Tetrachloroethylene	0.361	0.020	2.45	0.136		1
Toluene	0.495	0.020	1.86	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
Trichloroethylene	ND	0.020	ND	0.107		1
Trichlorofluoromethane	0.221	0.050	1.24	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
Acelone	2.61	2.00	6.19	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: ALVAREZ HIGH SCHOOL

Lab Number: L1000747

Project Number: 14687.01

Report Date: 01/20/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 01/18/10 17:22

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-09 Batch: WG397186-4						
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-Dichloroethylene	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	0.100	ND	0.319		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-Dichloroethylene	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



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Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1000747

Report Date: 01/20/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 01/18/10 17:22

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-09 Batch: WG397186-4						
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
Tetrachloroethylene	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
Trichloroethylene	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
Acelone	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: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000747
Report Date: 01/20/10

Parameter	LCS	%Recovery	LCSD	%Recovery	%Recovery	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-09 Batch: WG397186-3								
1,1,1-Trichloroethane	94	-	70-130	-	-	-	-	-
1,1,1,2-Tetrachloroethane	94	-	70-130	-	-	-	-	-
1,1,2,2-Tetrachloroethane	94	-	70-130	-	-	-	-	-
1,1,2-Trichloroethane	94	-	70-130	-	-	-	-	-
1,1-Dichloroethane	93	-	70-130	-	-	-	-	-
1,1-Dichloroethene	99	-	70-130	-	-	-	-	-
1,2,4-Trimethylbenzene	95	-	70-130	-	-	-	-	-
1,2-Dibromoethane	90	-	70-130	-	-	-	-	-
1,2-Dichlorobenzene	94	-	70-130	-	-	-	-	-
1,2-Dichloroethane	94	-	70-130	-	-	-	-	-
1,2-Dichloropropane	118	-	70-130	-	-	-	-	-
1,3,5-Trimethylbenzene	95	-	70-130	-	-	-	-	-
1,3-Dichlorobenzene	90	-	70-130	-	-	-	-	-
1,4-Dichlorobenzene	92	-	70-130	-	-	-	-	-
Benzene	108	-	70-130	-	-	-	-	-
Bromodichloromethane	73	-	70-130	-	-	-	-	-
Bromoform	73	-	70-130	-	-	-	-	-
Carbon tetrachloride	86	-	70-130	-	-	-	-	-
Chlorobenzene	195	-	70-130	-	-	-	-	-
Chloroethane	195	-	70-130	-	-	-	-	-
Chloroform	188	-	70-130	-	-	-	-	-



Lab Control Sample Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL
 Project Number: 14687.01

Lab Number: L10000747
 Report Date: 01/20/10

Parameter	LCS % Recovery	LCS Qual	LCSD % Recovery	LCSD Qual	% Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-09 Batch: WG397186-3								
Chloromethane	94		-	-	70-130	-	-	-
cis-1,2-Dichloroethene	102		-	-	70-130	-	-	-
cis-1,3-Dichloropropene	125		-	-	70-130	-	-	-
Dibromochloromethane	95		-	-	70-130	-	-	-
Dichlorodifluoromethane	91		-	-	70-130	-	-	-
Ethylbenzene	91		-	-	70-130	-	-	-
Methylene chloride	90		-	-	70-130	-	-	-
Methyl tert butyl ether	90		-	-	70-130	-	-	-
p/m-Xylene	94		-	-	70-130	-	-	-
o-Xylene	94		-	-	70-130	-	-	-
Styrene	101		-	-	70-130	-	-	-
Tetrachloroethene	77		-	-	70-130	-	-	-
Toluene	87		-	-	70-130	-	-	-
Trans-1,2-Dichloroethene	97		-	-	70-130	-	-	-
Trans-1,3-Dichloropropene	103		-	-	70-130	-	-	-
Trichloroethene	100		-	-	70-130	-	-	-
Trichlorofluoromethane	83		-	-	70-130	-	-	-
Vinyl chloride	108		-	-	70-130	-	-	-
Acrylonitrile	100		-	-	70-130	-	-	-
n-Butylbenzene	94		-	-	70-130	-	-	-
sec-Butylbenzene	85		-	-	70-130	-	-	-



Project Name: ALVAREZ HIGH SCHOOL
 Project Number: 14687.01

Lab Control Sample Analysis

Batch Quality Control

Lab Number: L1000747
 Report Date: 01/20/10

Parameter	LCS	%Recovery	LCSD	%Recovery	%Recovery	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-09 Batch: WG397186-3								
Isopropylbenzene	-	-	-	-	-	70-130	-	-
p-Isopropyltoluene	80	-	-	-	-	70-130	-	-
Acalone	-	-	-	-	-	70-130	-	-
2-Butanone	74	-	-	-	-	70-130	-	-
4-Methyl-2-pentanone	105	-	-	-	-	70-130	-	-



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1000747
 Report Date: 01/20/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics In Air by SIM - Mansfield Lab Associated sample(s): 01-09	QC Sample	L1000747-03	Client ID: KITCHEN			
STORAGE ROOM	GC Batch ID: WG397188-5					
1,1,1-Trichloroethane	ND	ND	ppbV	NC	NC	25
1,1,1,2-Tetrachloroethane	ND	ND	ppbV	NC	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	NC	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	NC	25
1,1-Dichloroethane	ND	ND	ppbV	NC	NC	25
1,1-Dichloroethene	ND	ND	ppbV	NC	NC	25
1,2,4-Trimethylbenzene	0.124	0.112	ppbV	10	10	25
1,2-Dibromoethane	ND	ND	ppbV	NC	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	NC	25
1,2-Dichloroethane	ND	ND	ppbV	NC	NC	25
1,2-Dichloropropane	ND	ND	ppbV	NC	NC	25
1,3,5-Trimethylbenzene	0.054	0.047	ppbV	14	14	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	NC	25
1,4-Dichlorobenzene	0.026	0.027	ppbV	4	4	25
Benzene	0.522	0.506	ppbV	3	3	25
Bromodichloromethane	ND	ND	ppbV	NC	NC	25
Bromoform	ND	ND	ppbV	NC	NC	25
Carbon tetrachloride	0.093	0.091	ppbV	2	2	25
Chlorobenzene	ND	ND	ppbV	NC	NC	25



Project Name: ALVAREZ HIGH SCHOOL
 Project Number: 14687.01

Lab Duplicate Analysis

Lab Number: L1000747
 Report Date: 01/20/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG397186-5 QC Sample: L1000747-03 Client ID: KITCHEN STORAGE ROOM					
Chloroethane	ND	ND	ppbV	NC	25
Chloroform	0.108	0.106	ppbV	2	25
Chloromethane	0.789	0.781	ppbV	1	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	1	25
Dichlorodifluoromethane	5.63	5.67	ppbV	3	25
Ethylbenzene	0.103	0.093	ppbV	10	25
Methylene chloride	ND	ND	ppbV	12	25
Methyl tert butyl ether	ND	ND	ppbV	14	25
p/m-Xylene	0.250	0.222	ppbV	12	25
o-Xylene	0.093	0.081	ppbV	7	25
Styrene	0.259	0.242	ppbV	2	25
Tetrachloroethene	0.053	0.052	ppbV	3	25
Toluene	0.509	0.472	ppbV	NC	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	0.020	0.020	ppbV	10	25
Trichloroethene	2.12	2.09	ppbV	2	25
Trichlorofluoromethane					



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Duplicate Analysis

Lab Number: L1000747
 Report Date: 01/20/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG397186-5 QC Sample: L1000747-03 Client ID: KITCHEN STORAGE ROOM					
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	5.02	4.27	ppbV	16	25
2-Butanone	2.24	2.22	ppbV	1	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

01201016:43
Lab Number: L1000747
Report Date: 01/20/10

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L1000747-01	GYMNASIUM	0132	#90 AMB		-	-	71	63	12
L1000747-01	GYMNASIUM	1733	2.7L Can	I0918756	-29.4	-6.9	-	-	-
L1000747-02	CAFETERIA	0235	#90 AMB		-	-	72	74	3
L1000747-02	CAFETERIA	185	2.7L Can	I0918755	-29.4	-0.6	-	-	-
L1000747-03	KITCHEN STORAGE ROOM	0224	#90 AMB		-	-	72	76	5
L1000747-03	KITCHEN STORAGE ROOM	1738	2.7L Can	I0918756	-29.2	1.2	-	-	-
L1000747-04	ELEVATOR HALLWAY	0432	#20 AMB		-	-	71	77	8
L1000747-04	ELEVATOR HALLWAY	398	2.7L Can	I0918755	-29.4	0.9	-	-	-
L1000747-05	ROOM 145	0256	#90 AMB		-	-	70	68	3
L1000747-05	ROOM 145	342	2.7L Can	I0918756	-29.1	-2.2	-	-	-
L1000747-06	ROOM 152	0074	#90 AMB		-	-	71	75	5
L1000747-06	ROOM 152	329	2.7L Can	I0918755	-29.4	-2.9	-	-	-
L1000747-07	ROOM 118	0176	#90 AMB		-	-	71	69	3
L1000747-07	ROOM 118	221	2.7L Can	I0918756	-29.4	-0.7	-	-	-
L1000747-08	ROOM 110	0094	#90 AMB		-	-	71	72	1
L1000747-08	ROOM 110	404	2.7L Can	I0918755	-29.3	-3.0	-	-	-
L1000747-09	AMBIENT OUTDOOR AIR	0298	#90 AMB		-	-	72	70	3



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

01201016:43
Lab Number: L1000747
Report Date: 01/20/10

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L1000747-09	AMBIENT OUTDOOR AIR	456	2.7L Can	I0918755	-29.3	-1.8	-	-	-



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000747
Report Date: 01/20/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
N/A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp			Analysis
				deg C	Pres	Seal	
L1000747-01A	Canister - 2.7 Liter	N/A	N/A		NA	Absent	TO15-SIM(30)
L1000747-02A	Canister - 2.7 Liter	N/A	N/A		NA	Absent	TO15-SIM(30)
L1000747-03A	Canister - 2.7 Liter	N/A	N/A		NA	Absent	TO15-SIM(30)
L1000747-04A	Canister - 2.7 Liter	N/A	N/A		NA	Absent	TO15-SIM(30)
L1000747-05A	Canister - 2.7 Liter	N/A	N/A		NA	Absent	TO15-SIM(30)
L1000747-06A	Canister - 2.7 Liter	N/A	N/A		NA	Absent	TO15-SIM(30)
L1000747-07A	Canister - 2.7 Liter	N/A	N/A		NA	Absent	TO15-SIM(30)
L1000747-08A	Canister - 2.7 Liter	N/A	N/A		NA	Absent	TO15-SIM(30)
L1000747-09A	Canister - 2.7 Liter	N/A	N/A		NA	Absent	TO15-SIM(30)

*Hold days indicated by values in parentheses

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000747
Report Date: 01/20/10

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.
- 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.
- NI · Not Ignitable.
- 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

- A · Spectra identified as "Aldol Condensation Product".
- B · The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.
- D · Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E · Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- H · The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- P · The RPD between the results for the two columns exceeds the method-specified criteria.
- Q · The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RDL. (Metals only.)
- R · Analytical results are from sample re-analysis.
- RE · Analytical results are from sample re-extraction.
- J · Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1000747

Report Date: 01/20/10

REFERENCES

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

LIMITATION OF LIABILITIES

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



Certificate/Approval Program Summary

Last revised December 15, 2009 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held. For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. **Organic Parameters:** PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. **Organic Parameters:** PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. NELAP Accredited.

Non-Potable Water (Inorganic Parameters: SM2320B, EPA 120.1, SM2510B, EPA 245.1, EPA 150.1, EPA 160.2, SM2540D, EPA 335.2, SM2540G, EPA 180.1. **Organic Parameters:** EPA 625, 608.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045, 9014. **Organic Parameters:** EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. NELAP Accredited.

Non-Potable Water (Inorganic Parameters: EPA 120.1, 150.1, 160.2, 180.1, 200.8, 245.1, 310.1, 335.2, 608, 625, 1631, 3010, 3015, 3020, 6020, 9010, 9014, 9040, SM2320B, 2510B, 2540D, 2540G, 4500CN-E, 4500H-B, **Organic Parameters:** EPA 3510, 3580, 3630, 3640, 3660, 3665, 5030, 8015 (mod), 3570, 8081, 8082, 8260, 8270,)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7196, 7470, 7471, 7474, 9010, 9014, 9040, 9045, 9060. **Organic Parameters:** EPA 8015 (mod), EPA 3570, 1311, 3050, 3051, 3060, 3580, 3630, 3640, 3660, 3665, 5035, 8081, 8082, 8260, 8270.)

Biological Tissue (Inorganic Parameters: EPA 6020. **Organic Parameters:** EPA 3570, 3510, 3610, 3630, 3640, 8270.)

Maine Department of Human Services Certificate/Lab ID: MA0030.

Wastewater (Inorganic Parameters: EPA 120.1, 300.0, SM 2320, 2510B, 2540C, 2540D, EPA 245.1. **Organic Parameters:** 608, 624.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030.

Non-Potable Water (Inorganic Parameters: SM4500H+B. **Organic Parameters:** EPA 624.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. NELAP Accredited.

Non-Potable Water (Inorganic Parameters: EPA 200.8, 245.1, 1631E, 120.1, 150.1, 180.1, 310.1, 335.2, 160.2, SM2540D, 2540G, 4500CN-E, 4500H+B, 2320B, 2510B. **Organic Parameters:** EPA 625, 608.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, 6020, SM2320B, EPA 200.8, SM2540C, 2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 9040B, 6020, 9010B, 9014 **Organic Parameters:** EPA 608, 625, SW-846 3510C, 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9045C, 9060. **Organic Parameters:** SW-846 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 3570, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 **Organic Parameters:** SW-846 8270C, 3510C, 3570, 3610B, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 310.1, SM2320B, EPA 365.2, 160.1, EPA 160.2, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 335.2, 9014, 150.1, 9040B, 120.1, SM2510B, EPA 376.2, 180.1, 9010B. **Organic Parameters:** EPA 624, 8260B, 8270C, 608, 8081A, 625, 8082, 3510C, 3511, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, SW-846 Ch7 Sec 7.3, EPA 6020, 7196A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. **Organic Parameters:** EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 3050B, 3580, 3050B, 3035, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Pennsylvania Department of Environmental Protection Certificate/Lab ID: 68-02089. **NELAP Accredited.**

Non-Potable Water (Organic Parameters: EPA 5030B, EPA 8260)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. **NELAP Accredited via LA-DEQ.**

Refer to MA-DEP Certificate for Non-Potable Water.

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. **Organic Parameters:** EPA 8015, 8270, 8260, 8081, 8082.)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 3005A, 3020, 6020, 245.1, 245.7, 1631E, 7470A, 7474, 9014, 120.1, 9050A, 180.1, SM4500H-B, 2320B, 2510B, 2540D, 9040. **Organic Parameters:** EPA 3510C, 5030B, 9010B, 624, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 3051, 6020, 747A, 7474, 9045C, 9060, SM 2540G, ASTM D422-63. **Organic Parameters:** EPA 3580, 3570, 3540C, 5035, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: 8270C: Biphenyl.

AIR ANALYSISPAGE 1 OF 1ALPHA Job #: L4000747

Project Information		Date Rec'd In Lab:		ALPHA Job #:																																																																																																																																																																																																																																																												
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Samples can not be logged in and turnaround time clock will not start until any sample bottles are received. All samples submitted are subject to Alpha's Terms and Conditions.</i></td> </tr> <tr> <td colspan="2">*SAMPLE MATRIX CODES</td> <td colspan="2">Container Type</td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> </tr> <tr> <td colspan="2">AA = Ambient Air (Indoor/Outdoor) SV = Soil Vapor/Landfill Gas/SVE Other = Please Specify</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">Rerlinquished By:</td> <td colspan="2">Date/Time</td> <td colspan="2">Received By</td> <td colspan="2">Date/Time:</td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> </tr> <tr> <td colspan="2"><u>EE</u></td> <td colspan="2"><u>1/15/10 12:06</u></td> <td colspan="2"><u>J. James</u></td> <td colspan="2"><u>1/15/10 17:06</u></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> </tr> </tbody> </table>						Alpha Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix ^a	Sampler's Initials	Can Size	ID-From Can	ID-From Controller	Regulatory Requirements/Report Limits		Date	Start Time	End Time	Vacuum	Vacuum	State/Fed	Program	Criteria	101441	Gymnasium	1/16/10	0737	0807	-30+	-10	AA	PT/BA 2/2	1733	6132	X	TO-14A by TO-15	TO-15	TO-15 SIM	APR		Cafeteria		0733	0802	-30	-3			185	6235							Kitchen Storage Room		0735	0803	-30+	-4			1738	6224							Hinter Hallway		0735	0805	-30+	-2			394	0432							Room 145		0740	0752	-30+	-8			342	0256							Room 152		0722	0752	-30+	-7			324	0074							Room 119		0725	0755	-30+	-6			221	0176							Room 110		0726	0757	-30+	-7			404	0094							Ambient Outdoor Air	↓	1200	1230	-30+	-5	↓	↓	456	0299	↓	= 0.0				<i>PED Reg = 0.0 ppm</i>												<i>Please print clearly/legibly and completely. 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Appendix C

Sub-Slab Air Analytical Summary and Lab Report

Summary of Sub-Slab Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds

March 2007 - January 2010

Summary of Sub-Slab Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds
March 2007 - January 2010

March 2007 - January 2010

Category	Series	Series ID	Series Name	Market Data								Market Data							
				Market 1	Market 2	Market 3	Market 4	Market 5	Market 6	Market 7	Market 8	Market 9	Market 10	Market 11	Market 12	Market 13	Market 14	Market 15	
1.2.1. Volatile Organic Compounds (VOC) 16	Benzene	BenZ	15-Mar-07	440,000	U	420,000	U	400,000	U	380,000	U	360,000	U	340,000	U	320,000	U	300,000	U
			22-Mar-07	61,400	U	61,400	U	61,400	U	61,400	U	61,400	U	61,400	U	61,400	U	61,400	U
			26-Apr-07	2,000	U	2,000	U	1,800	U	1,600	U	1,400	U	1,200	U	1,000	U	800	U
			24-May-07	44,700	U	20,000	U	1,000	U	1,000	U	1,000	U	1,000	U	1,000	U	1,000	U
			25-Jun-07	2,400	U	1,500	U	1,200	U	1,000	U	1,000	U	1,000	U	1,000	U	1,000	U
			26-Jul-07	1,500	U	1,000	U	1,000	U	1,000	U	1,000	U	1,000	U	1,000	U	1,000	U
			22-Aug-07	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
			20-Sep-07	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
			8-Oct-07	2,400	U	1,800	U	1,200	U	1,200	U	1,200	U	1,200	U	1,200	U	1,200	U
			7-Nov-07	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
			6-Dec-07	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
			5-Jan-08	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
			4-Feb-08	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
			3-Mar-08	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
			29-Apr-08	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
			27-May-08	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
			25-Jun-08	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
			23-Jul-08	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
			21-Aug-08	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
			19-Sep-08	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
			17-Oct-08	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
			15-Nov-08	175	U	175	U	175	U	175	U	175	U	175	U	175	U	175	U
1.2.2. Benzene Derivatives	Toluene	Tolu	15-Mar-07	300,000	U	280,000	U	260,000	U	240,000	U	220,000	U	200,000	U	180,000	U	160,000	U
			22-Mar-07	60,000	U	60,000	U	60,000	U	60,000	U	60,000	U	60,000	U	60,000	U	60,000	U
			28-Apr-07	30,000	U	30,000	U	30,000	U	30,000	U	30,000	U	30,000	U	30,000	U	30,000	U
			24-May-07	15,000	U	15,000	U	15,000	U	15,000	U	15,000	U	15,000	U	15,000	U	15,000	U
			21-Jun-07	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			17-Jul-07	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			13-Aug-07	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			9-Sep-07	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			5-Oct-07	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			1-Nov-07	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			7-Dec-07	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			3-Jan-08	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			28-Feb-08	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			24-Mar-08	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			20-Apr-08	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			16-May-08	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			12-Jun-08	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			8-Jul-08	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			4-Aug-08	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			30-Sep-08	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			26-Oct-08	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			22-Nov-08	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			18-Dec-08	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			14-Jan-09	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			10-Feb-09	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			6-Mar-09	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			22-Apr-09	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			18-May-09	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			14-Jun-09	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			10-Jul-09	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			6-Aug-09	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			22-Sep-09	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			18-Oct-09	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			14-Nov-09	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			10-Dec-09	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			6-Jan-10	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			2-Feb-10	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			1-Mar-10	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			7-Apr-10	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			3-May-10	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			9-Jun-10	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			5-Jul-10	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			1-Aug-10	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			7-Sep-10	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			3-Oct-10	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			9-Nov-10	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			5-Dec-10	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			1-Jan-11	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			7-Feb-11	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			3-Mar-11	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			9-Apr-11	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U	10,000	U
			5-May-11	10,000	U	10,000	U</												

Summary of Sub-Slab Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds
March 2007 - January 2010

March 2007 - January 2010

Summary of Sub-Slab Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds

March 2007 - January 2010

Summary of Sub-Slab Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds

Maret 2007 - Februari 2010

March 2007 - January 2010

Summary of Sub-Slab Air Sampling Data - Adelaide Avenue School Project - Volatile Organic Compounds
March 2007 - January 2010

March 2007 • January 2010

Summary of Sub-Slab Air Sampling Data - Adelaiside Avenue School Project - Volatile Organic Compounds

March 2007 - January 2010

Summary of Sub-Slab Air Sampling Data - Adelais Avenue School Project - Volatile Organic Compounds

March 2007 - January 2010

Summary of Sub-Slab Air Sampling Data - Adelaida Avenue School Project - Volatile Organic Compounds

March 2007 - January 2010

Summary of Sub-Slab Air Sampling Data - Adelaidé Avenue School Project - Volatile Organic Compounds

March 2007 • January 2010

Summary of Sub-Slab Air Sampling Data - Adelaide Avenue School Project : Volume One - Site Components

March 2007 - January 2010

Summary of Sub-Slab Air Sampling Data - Adelaisde Avenue School Project - Volatile Organic Compounds

Maret 2007 - Januari 2010

Summary of Sub-Slab Air Sampling Data - Adelaide Avenue School Project : Volatile Organic Compounds

March 2007 - January 2010

All data is estimated in thousands of cubic meter (m³)
A minimum guarantee that the company will not decrease its quantity. Reporting level shown in the data columns.

National Health Survey [Volume 1] 1973

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ANALYTICAL REPORT

Lab Number: L1000748
Client: EA Engineering, Science and Tech
2350 Post Road
Warwick, RI 02886
ATTN: Mark Speer
Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01
Report Date: 01/22/10

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LA000299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), US Army Corps of Engineers

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



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1000748-01	MP-1	PROVIDENCE, RI	01/15/10 12:38
L1000748-02	MP-3	PROVIDENCE, RI	01/15/10 12:47
L1000748-03	MP-4	PROVIDENCE, RI	01/15/10 13:02
L1000748-04	MP-6	PROVIDENCE, RI	01/15/10 12:51
L1000748-05	IMP-1	PROVIDENCE, RI	01/15/10 08:27
L1000748-06	IMP-2	PROVIDENCE, RI	01/15/10 08:20



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report.

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

For additional information, please contact Client Services at 800-624-9220.

Volatile Organics in Air (SIM)

L1000748-02 was re-analyzed on dilution in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

L1000748-02 results for Chloromethane should be considered estimated due to co-elution with a non-target peak.

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

Case Narrative (continued)

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

Authorized Signature:



Title: Technical Director/Representative

Date: 01/22/10

AIR



01221014:06

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000748

Project Number: 14687.01

Report Date: 01/22/10

SAMPLE RESULTS

Lab ID:	L1000748-01	Date Collected:	01/15/10 12:38
Client ID:	MP-1	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	01/20/10 02:19		
Analyst:	RY		

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
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-Dichloroethylene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	0.584	0.020	2.87	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	0.437	0.020	2.15	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	ND	0.020	ND	0.120		1
Benzene	0.239	0.100	0.763	0.319		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.068	0.020	0.427	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	0.036	0.020	0.176	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



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Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

SAMPLE RESULTS

Lab ID:	L1000748-01	Date Collected:	01/15/10 12:38
Client ID:	MP-1	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
Dichlorodifluoromethane	0.507	0.050	2.50	0.247	1
Ethylbenzene	1.60	0.020	6.95	0.087	1
Methylene chloride	ND	0.800	ND	1.74	1
Methyl tert butyl ether	0.022	0.020	0.079	0.072	1
p/m-Xylene	4.25	0.040	18.4	0.174	1
o-Xylene	1.04	0.020	4.51	0.087	1
Styrene	0.025	0.020	0.106	0.085	1
Tetrachloroelhene	0.193	0.020	1.31	0.136	1
Toluene	3.41	0.020	12.8	0.075	1
trans-1,2-Dichloroelhene	ND	0.020	ND	0.079	1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091	1
Trichloroelhene	0.110	0.020	0.591	0.107	1
Trichlorofluoromethane	0.248	0.050	1.39	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	14.1	2.00	33.6	4.75	1
2-Butanone	10.1	0.500	29.8	1.47	1
4-Methyl-2-pentanone	ND	0.500	ND	2.05	1



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Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000748

Project Number: 14687.01

Report Date: 01/22/10

SAMPLE RESULTS

Lab ID:	L1000748-02	Date Collected:	01/15/10 12:47
Client ID:	MP-3	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	01/20/10 08:43		
Analyst:	RY		

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
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-Dichloroethylene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	0.072	0.020	0.354	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	0.024	0.020	0.118	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	0.177	0.020	1.06	0.120		1
Benzene	0.278	0.100	0.887	0.319		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.103	0.020	0.647	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	0.028	0.020	0.074	0.053		1
Chloroform	1.48	0.020	7.22	0.098		1
Chloromethane	0.569	0.500	2.78	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



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Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

SAMPLE RESULTS

Lab ID:	L1000748-02	Date Collected:	01/15/10 12:47
Client ID:	MP-3	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
Dichlorodifluoromethane	0.723	0.050	3.57	0.247		1
Ethylbenzene	0.131	0.020	0.568	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	0.351	0.040	1.52	0.174		1
o-Xylene	0.113	0.020	0.490	0.087		1
Styrene	0.028	0.020	0.119	0.085		1
Tetrachloroethene	0.095	0.020	0.644	0.136		1
Toluene	1.11	0.020	4.17	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	0.045	0.020	0.242	0.107		1
Trichlorofluoromethane	0.375	0.050	2.10	0.281		1
Vinyl chloride	0.024	0.020	0.061	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
Acelone	38.3	2.00	90.9	4.75		1
2-Butanone	280	0.500	826	1.47	E	1
4-Methyl-2-pentanone	ND	0.500	ND	2.05		1



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Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000748

Project Number: 14687.01

Report Date: 01/22/10

SAMPLE RESULTS

Lab ID:	L1000748-02 R\D	Date Collected:	01/15/10 12:47
Client ID:	MP-3	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	01/20/10 14:28		
Analyst:	RY		

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
2-Butanone	201	5.00	594	14.7		10

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Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

SAMPLE RESULTS

Lab ID:	L1000748-03	Date Collected:	01/15/10 13:02
Client ID:	MP-4	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	01/20/10 09:22		
Analyst:	RY		

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
1,1,1-Trichloroelthane	ND	0.020	ND	0.109		1
1,1,1,2-Tetrachloroelthane	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-Dichloroelthane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	0.059	0.020	0.290	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	0.119	0.020	0.715	0.120		1
Benzene	0.307	0.100	0.980	0.319		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.081	0.020	0.509	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	0.025	0.020	0.066	0.053		1
Chloroform	0.030	0.020	0.146	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: ALVAREZ HIGH SCHOOL

Lab Number: L1000748

Project Number: 14687.01

Report Date: 01/22/10

SAMPLE RESULTS

Lab ID:	L1000748-03	Date Collected:	01/15/10 13:02
Client ID:	MP-4	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
Dichlorodifluoromethane	0.510	0.050	2.52	0.247	1
Ethylbenzene	0.125	0.020	0.542	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	0.340	0.040	1.48	0.174	1
o-Xylene	0.113	0.020	0.490	0.087	1
Styrene	0.021	0.020	0.089	0.085	1
Tetrachloroethene	0.199	0.020	1.35	0.136	1
Toluene	1.15	0.020	4.33	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	3.29	0.020	17.7	0.107	1
Trichlorofluoromethane	2.95	0.050	16.6	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
Acelone	9.62	2.00	22.8	4.75	1
2-Butanone	21.8	0.500	64.1	1.47	1
4-Methyl-2-pentanone	ND	0.500	ND	2.05	1



01221014:06

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

SAMPLE RESULTS

Lab ID:	L1000748-04	Date Collected:	01/15/10 12:51
Client ID:	MP-6	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	01/20/10 10:01		
Analyst:	RY		

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
1,1,1-Trichloroethane	ND	0.020	ND	0.109	1
1,1,1,2-Tetrachloroelthane	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-Dichloroelhene	ND	0.020	ND	0.079	1
1,2,4-Trimethylbenzene	0.064	0.020	0.314	0.098	1
1,2-Dibromoelthane	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	0.022	0.020	0.108	0.098	1
1,3-Dichlorobenzene	ND	0.020	ND	0.120	1
1,4-Dichlorobenzene	0.137	0.020	0.823	0.120	1
Benzene	0.396	0.100	1.26	0.319	1
Bromodichloromethane	ND	0.020	ND	0.134	1
Bromoform	ND	0.020	ND	0.206	1
Carbon tetrachloride	0.086	0.020	0.541	0.126	1
Chlorobenzene	ND	0.020	ND	0.092	1
Chloroethane	ND	0.020	ND	0.053	1
Chloroform	0.039	0.020	0.190	0.098	1
Chloromethane	ND	0.500	ND	2.44	1
cis-1,2-Dichloroelhene	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



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Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000748

Project Number: 14687.01

Report Date: 01/22/10

SAMPLE RESULTS

Lab ID:	L1000748-04	Date Collected:	01/15/10 12:51
Client ID:	MP-6	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
Dichlorodifluoromethane	0.529	0.050	2.61	0.247	1
Ethylbenzene	0.152	0.020	0.659	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	0.406	0.040	1.76	0.174	1
o-Xylene	0.129	0.020	0.560	0.087	1
Styrene	0.023	0.020	0.098	0.085	1
Tetrachloroethene	0.102	0.020	0.691	0.136	1
Toluene	1.54	0.020	5.81	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	0.032	0.020	0.172	0.107	1
Trichlorofluoromethane	0.318	0.050	1.78	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	11.1	2.00	26.3	4.75	1
2-Butanone	13.0	0.500	38.4	1.47	1
4-Methyl-2-pentanone	ND	0.500	ND	2.05	1



01221014:06

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

SAMPLE RESULTS

Lab ID: L1000748-05 Date Collected: 01/15/10 08:27
Client ID: IMP-1 Date Received: 01/15/10
Sample Location: PROVIDENCE, RI Field Prep: Not Specified
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 01/20/10 10:40
Analyst: RY

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
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-Tetrachloroelthane	ND	0.020	ND	0.137		1
1,1,2-Trichloroethane	ND	0.020	ND	0.109		1
1,1-Dichloroelthane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	0.217	0.020	1.06	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-Dichloroelthane	ND	0.020	ND	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	0.059	0.020	0.290	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	0.333	0.020	2.00	0.120		1
Benzene	0.302	0.100	0.964	0.319		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.086	0.020	0.541	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



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Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000748

Project Number: 14687.01

Report Date: 01/22/10

SAMPLE RESULTS

Lab ID:	L1000748-05	Date Collected:	01/15/10 08:27
Client ID:	IMP-1	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
Dichlorodifluoromethane	0.464	0.050	2.29	0.247	1
Ethylbenzene	0.164	0.020	0.712	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	0.541	0.040	2.35	0.174	1
o-Xylene	0.192	0.020	0.833	0.087	1
Styrene	0.030	0.020	0.128	0.085	1
Tetrachloroethene	0.066	0.020	0.447	0.136	1
Toluene	1.28	0.020	4.81	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
Trichloroelhene	ND	0.020	ND	0.107	1
Trichlorofluoromethane	0.239	0.050	1.34	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	5.29	2.00	12.5	4.75	1
2-Butanone	0.897	0.500	2.64	1.47	1
4-Methyl-2-pentanone	ND	0.500	ND	2.05	1



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Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

SAMPLE RESULTS

Lab ID:	L1000748-06	Date Collected:	01/15/10 08:20
Client ID:	IMP-2	Date Received:	01/15/10
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Air		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	01/20/10 11:57		
Analyst:	RY		

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
1,1,1-Trichloroethane	0.127	0.020	0.692	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	0.238	0.020	1.17	0.098		1
1,2-Dibromoelthane	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	0.068	0.020	0.334	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	0.330	0.020	1.98	0.120		1
Benzene	0.302	0.100	0.964	0.319		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.084	0.020	0.528	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	0.038	0.020	0.185	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: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

SAMPLE RESULTS

Lab ID: L1000748-06 Date Collected: 01/15/10 08:20
Client ID: IMP-2 Date Received: 01/15/10
Sample Location: PROVIDENCE, RI Field Prep: Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
Dichlorodifluoromethane	0.456	0.050	2.25	0.247	1
Ethylbenzene	0.166	0.020	0.720	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	0.611	0.040	2.65	0.174	1
o-Xylene	0.195	0.020	0.846	0.087	1
Styrene	0.052	0.020	0.221	0.085	1
Tetrachloroethylene	0.740	0.020	5.01	0.136	1
Toluene	1.29	0.020	4.85	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	3.44	0.020	18.5	0.107	1
Trichlorofluoromethane	2.74	0.050	15.4	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	4.70	2.00	11.2	4.75	1
2-Butanone	0.544	0.500	1.60	1.47	1
4-Methyl-2-pentanone	ND	0.500	ND	2.05	1



01221014:06

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000748

Project Number: 14687.01

Report Date: 01/22/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 01/20/10 01:40

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-06 Batch: WG397368-4						
1,1,1-Trichloroethane	ND	0.020	ND	0.109		1
1,1,1,2-Tetrachloroelthane	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-Dichloroelthane	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-Dibromoelthane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroelthane	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	0.100	ND	0.319		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
Chloroelthane	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-Dichloroelthane	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



01221014:06

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1000748

Project Number: 14687.01

Report Date: 01/22/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 01/20/10 01:40

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SiM - Mansfield Lab for sample(s): 01-06 Batch: WG397368-4						
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: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

Parameter	LCS	%Recovery	LCSD	%Recovery	Qual	%Recovery	Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG397368-3										
1,1,1-Trichloroethane	97	-	-	-	-	-	70-130	-	-	-
1,1,1,2-Tetrachloroethane	96	-	-	-	-	-	70-130	-	-	-
1,1,2,2-Tetrachloroethane	99	-	-	-	-	-	70-130	-	-	-
1,1,2-Trichloroethane	95	-	-	-	-	-	70-130	-	-	-
1,1-Dichloroethane	100	-	-	-	-	-	70-130	-	-	-
1,1-Dichloroethylene	98	-	-	-	-	-	70-130	-	-	-
1,2,4-Trimethylbenzene	97	-	-	-	-	-	70-130	-	-	-
1,2-Dibromoethane	99	-	-	-	-	-	70-130	-	-	-
1,2-Dichlorobenzene	108	-	-	-	-	-	70-130	-	-	-
1,2-Dichloroethane	94	-	-	-	-	-	70-130	-	-	-
1,2-Dichloropropane	99	-	-	-	-	-	70-130	-	-	-
1,3,5-Trimethylbenzene	104	-	-	-	-	-	70-130	-	-	-
1,3-Dichlorobenzene	102	-	-	-	-	-	70-130	-	-	-
1,4-Dichlorobenzene	105	-	-	-	-	-	70-130	-	-	-
Benzene	91	-	-	-	-	-	70-130	-	-	-
Bromodichloromethane	91	-	-	-	-	-	70-130	-	-	-
Bromoform	95	-	-	-	-	-	70-130	-	-	-
Carbon tetrachloride	89	-	-	-	-	-	70-130	-	-	-
Chlorobenzene	93	-	-	-	-	-	70-130	-	-	-
Chloroethane	93	-	-	-	-	-	70-130	-	-	-
Chloroform	93	-	-	-	-	-	70-130	-	-	-



Lab Control Sample Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

Parameter	LCS % Recovery	LCSD % Recovery	Qual	% Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: W/G397368-3							
Chloromethane	-	-	-	70-130	-	-	-
cis-1,2-Dichloroethene	95	-	-	70-130	-	-	-
cis-1,3-Dichloropropene	91	-	-	70-130	-	-	-
Dibromoethane	98	-	-	70-130	-	-	-
Dichlorodifluoromethane	-	-	-	70-130	-	-	-
Ethylbenzene	98	-	-	70-130	-	-	-
Methyl chloride	92	-	-	70-130	-	-	-
Methyl tert butyl ether	90	-	-	70-130	-	-	-
p/m-Xylene	99	-	-	70-130	-	-	-
o-Xylene	99	-	-	70-130	-	-	-
Styrene	101	-	-	70-130	-	-	-
Tetrachloroethene	98	-	-	70-130	-	-	-
Toluene	92	-	-	70-130	-	-	-
trans-1,2-Dichloroethene	94	-	-	70-130	-	-	-
trans-1,3-Dichloropropene	78	-	-	70-130	-	-	-
Trichloroethene	97	-	-	70-130	-	-	-
Trichlorofluoromethane	64	-	-	70-130	-	-	-
Vinyl chloride	102	-	-	70-130	-	-	-
Acrylonitrile	-	-	-	70-130	-	-	-
n-Butylbenzene	-	-	-	70-130	-	-	-
sec-Butylbenzene	-	-	-	70-130	-	-	-



Lab Control Sample Analysis
Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

Parameter	LCS	%Recovery	LCSD	%Recovery	Qual	%Recovery	Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 Batch: WG397368-3										
Isopropylbenzene	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-
p-Isopropyltoluene	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-
Acetone	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-
2-Butanone	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-
4-Methyl-2-pentanone	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-	[REDACTED]	-



Project Name: ALVAREZ HIGH SCHOOL
 Project Number: 14687.01

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1000748
 Report Date: 01/22/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics In Air by SIM - Mansfield Lab	Associated sample(s): 01-06	QC Batch ID: WG39736B-5	QC Sample: L1000748-05			IMP-1
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	0.216	0.217	ppbV	0		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	0.054	0.059	ppbV	9		25
1,3,5-Trimethylbenzene	ND	ND	ppbV		NC	25
1,3-Dichlorobenzene	0.333	0.343	ppbV	3		25
1,4-Dichlorobenzene	0.302	0.298	ppbV	1		25
Benzene	ND	ND	ppbV		NC	25
Bromodichlormethane	ND	ND	ppbV		NC	25
Bromoform	0.086	0.081	ppbV	6		25
Carbon tetrachloride	ND	ND	ppbV		NC	25
Chlorobenzene						



Project Name: ALVAREZ HIGH SCHOOL
 Project Number: 14687.01

Lab Duplicate Analysis

Batch Quality Control
 Lab Number: L1000748
 Report Date: 01/22/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG397368-5 QC Sample: L1000748-05 Client ID: IMP-1					
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	0.464	0.466	ppbV	NC	25
Ethylbenzene	0.164	0.163	ppbV	1	25
Methylene chloride	ND	ND	ppbV	NC	25
p/m-Xylene	0.541	0.561	ppbV	NC	25
o-Xylene	0.192	0.191	ppbV	1	25
Styrene	0.030	0.030	ppbV	0	25
Tetrachloroethene	0.066	0.070	ppbV	0	25
Toluene	1.28	1.27	ppbV	1	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	0.239	0.225	ppbV	16	25



Project Name: ALVAREZ HIGH SCHOOL
 Project Number: 14687.01

Lab Duplicate Analysis

Lab Number: L1000748
 Report Date: 01/22/10

Batch Quality Control

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-06 QC Batch ID: WG397368-5 QC Sample: L1000748-05 Client ID: IMP-1					
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	5.29	5.45	ppbV	NC	25
2-Butanone	0.697	0.829	ppbV	8	25
4-Methyl-2-pentanone	ND	ND	ppbV	NC	25



Project Name: ALVAREZ HIGH SCHOOL

01221014:06

Lab Number: L1000748

Project Number: 14687.01

Report Date: 01/22/10

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L1000748-01	MP-1	0325	#90 SV		-	-	71	71	0
L1000748-01	MP-1	395	2.7L Can	I0918756	-29.2	-2.0	-	-	-
L1000748-02	MP-3	0182	#16 AMB		-	-	70	69	1
L1000748-02	MP-3	552	2.7L Can	I0918756	-29.1	-4.2	-	-	-
L1000748-03	MP-4	0315	#90 SV		-	-	72	77	7
L1000748-03	MP-4	494	2.7L Can	I0918755	-29.4	1.8	-	-	-
L1000748-04	MP-6	0288	#90 SV		-	-	72	73	1
L1000748-04	MP-6	187	2.7L Can	I0918756	-29.4	-3.0	-	-	-
L1000748-05	IMP-1	0364	#90 SV		-	-	68	67	1
L1000748-05	IMP-1	468	2.7L Can	I0918756	-29.4	-5.8	-	-	-
L1000748-06	IMP-2	0172	#90 SV		-	-	69	70	1
L1000748-06	IMP-2	460	2.7L Can	I0918755	-29.4	-5.6	-	-	-



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

Sample Receipt and Container Information

Were project specific reporting limits specified? **YES**

Cooler Information

Cooler	Custody Seal
N/A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp		Pres	Seal	Analysis
				deg C	NA			
L1000748-01A	Canister - 2.7 Liter	N/A	N/A		NA	Absent		TO15-SIM(30)
L1000748-02A	Canister - 2.7 Liter	N/A	N/A		NA	Absent		TO15-SIM(30)
L1000748-03A	Canister - 2.7 Liter	N/A	N/A		NA	Absent		TO15-SIM(30)
L1000748-04A	Canister - 2.7 Liter	N/A	N/A		NA	Absent		TO15-SIM(30)
L1000748-05A	Canister - 2.7 Liter	N/A	N/A		NA	Absent		TO15-SIM(30)
L1000748-06A	Canister - 2.7 Liter	N/A	N/A		NA	Absent		TO15-SIM(30)

*Hold days indicated by values in parentheses



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

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.
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.
NI	· Not Ignitable.
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

A	· Spectra identified as "Aldol Condensation Product".
B	· The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.
D	· Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	· Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
H	· The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
P	· The RPD between the results for the two columns exceeds the method-specified criteria.
Q	· The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RDL. (Metals only.)
R	· Analytical results are from sample re-analysis.
RE	· Analytical results are from sample re-extraction.
J	· Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

Report Format: Data Usability Report



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1000748
Report Date: 01/22/10

REFERENCES

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

LIMITATION OF LIABILITIES

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



Certificate/Approval Program Summary

Last revised December 15, 2009 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. NELAP Accredited.

Non-Potable Water (Inorganic Parameters: SM2320B, EPA 120.1, SM2510B, EPA 245.1, EPA 150.1, EPA 160.2, SM2540D, EPA 335.2, SM2540G, EPA 180.1. Organic Parameters: EPA 625, 608.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045, 9014. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. NELAP Accredited.

Non-Potable Water (Inorganic Parameters: EPA 120.1, 150.1, 160.2, 180.1, 200.8, 245.1, 310.1, 335.2, 608, 625, 1631, 3010, 3015, 3020, 6020, 9010, 9014, 9040, SM2320B, 2510B, 2540D, 2540G, 4500CN-E, 4500H-B, Organic Parameters: EPA 3510, 3580, 3630, 3640, 3660, 3665, 5030, 8015 (mod), 3570, 8081, 8082, 8260, 8270,)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7196, 7470, 7471, 7474, 9010, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015 (mod), EPA 3570, 1311, 3050, 3051, 3060, 3580, 3630, 3640, 3660, 3665, 5035, 8081, 8082, 8260, 8270.)

Biological Tissue (Inorganic Parameters: EPA 6020. Organic Parameters: EPA 3570, 3510, 3610, 3630, 3640, 8270.)

Maine Department of Human Services Certificate/Lab ID: MA0030.

Wastewater (Inorganic Parameters: EPA 120.1, 300.0, SM 2320, 2510B, 2540C, 2540D, EPA 245.1. Organic Parameters: 608, 624.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030.

Non-Potable Water (Inorganic Parameters: SM4500H+B. Organic Parameters: EPA 624.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. NELAP Accredited.

Non-Potable Water (Inorganic Parameters: EPA 200.8, 245.1, 1631E, 120.1, 150.1, 180.1, 310.1, 335.2, 160.2, SM2540D, 2540G, 4500CN-E, 4500H+B, 2320B, 2510B. Organic Parameters: EPA 625, 608.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. NELAP Accredited.

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, 6020, SM2320B, EPA 200.8, SM2540C, 2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 9040B, 6020, 9010B, 9014 **Organic Parameters:** EPA 608, 625, SW-846 3510C, 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9045C, 9060. **Organic Parameters:** SW-846 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 3570, 8015B.)

Aerospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 **Organic Parameters:** SW-846 8270C, 3510C, 3570, 3610B, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. NELAP Accredited.

Non-Potable Water (Inorganic Parameters: EPA 310.1, SM2320B, EPA 365.2, 160.1, EPA 160.2, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 335.2, 9014, 150.1, 9040B, 120.1, SM2510B, EPA 376.2, 180.1, 9010B. **Organic Parameters:** EPA 624, 8260B, 8270C, 608, 8081A, 625, 8082, 3510C, 3511, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, SW-846 Ch7 Sec 7.3, EPA 6020, 7196A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. **Organic Parameters:** EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 3050B, 3580, 3050B, 3035, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Pennsylvania Department of Environmental Protection Certificate/Lab ID: 68-02089. NELAP Accredited.

Non-Potable Water (Organic Parameters: EPA 5030B, EPA 8260)

Rhode Island Department of Health Certificate/Lab ID: LA000299. NELAP Accredited via LA-DEQ.

Refer to MA-DEP Certificate for Non-Potable Water.

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. NELAP Accredited.

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. **Organic Parameters:** EPA 8015, 8270, 8260, 8081, 8082.)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 3005A, 3020, 6020, 245.1, 245.7, 1631E, 7470A, 7474, 9014, 120.1, 9050A, 180.1, SM4500H-B, 2320B, 2510B, 2540D, 9040. **Organic Parameters:** EPA 3510C, 5030B, 9010B, 624, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 3051, 6020, 747A, 7474, 9045C, 9060, SM 2540G, ASTM D422-63. **Organic Parameters:** EPA 3580, 3570, 3540C, 5035, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).)

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C: Biphenyl.**



AIR ANALYSIS

PAGE 1 of 1

ALPHA Job # 4400748

Alpha Chain of Custody
 320 Forbes Blvd, Mansfield MA 02048
 TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: EPA Engineering
 Address: 2350 Post Rd
 Phone: 401-236-3440
 Fax: 401-736-3223
 Email:

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Date Due:

Standard RUSH (very expedited if pre-approved)
 Times:

Turn-Around Time

Date Rec'd in Lab:

Report Information - Data Deliverables

FAX

ADEX

Criteria Checker:

(Default based on Regulatory Criteria indicated)

Other Formats:

EMAIL (standard pdf report)

Additional Deliverables:

Report to: (if different than Project Manager)

Comments:

Request:

insecr@Request.com

CTD Project Lead

ATR Concentrators

Regulatory Requirements/Report Limits:

State/Eco

Program

Criteria

Sample Comments (i.e. PD)

TO-14A by TO-15

TO-15

TO-15 SIM

APH

FIXED GASES

TO-13A

TO-4 TO-10

PD Rate = 2668 ppm

= 0.824

= 0.018

= 0.148

= 118.3

= 66.7

Appendix D

Rooftop Effluent Analytical Summary and Lab Report

Volatile Organic Compounds	ROOFTOP FAN 1 (Measured air flow = 108 te)			CUMULATIVE EMISSIONS (3 fans combined)		
	Concentration (ug/m ³)	Hourly Emission (lbs/hour)	Daily Emission (lbs/day)	Hourly Emission (lbs/hour)	Daily Emission (lbs/day)	Yearly Emission (lbs/year)
1,1,1,2-Tetrachloroethane	0.14	U	5.26E-08	1.26E-06	3.78E-06	1.30E-03
1,1,1-Trichloroethane	3.580		1.38E-06	3.30E-05	8.54E-05	3.12E-02
1,1,2,2-Tetrachloroethane	0.137	U	5.26E-08	1.26E-06	3.78E-06	1.30E-03
1,1,2-Trichloroethane	0.109	U	4.19E-08	1.01E-06	3.03E-06	1.03E-03
1,1-Dichloroethane	0.117		4.50E-08	1.08E-06	3.24E-06	8.89E-04
1,1-Dichloroethene	0.079	U	3.04E-08	7.29E-07	2.18E-06	7.49E-04
1,2,4-Trimethylbenzene	0.840		3.23E-07	7.75E-06	2.31E-05	9.91E-03
1,2-Dibromoethane	0.154	U	5.92E-08	1.42E-06	4.24E-06	1.46E-03
1,2-Dichlorobenzene	0.120	U	4.61E-08	1.11E-06	3.33E-06	1.14E-03
1,2-Dichloroethane	0.109		4.19E-08	1.01E-06	3.03E-06	8.62E-04
1,2-Dichloropropane	0.092	U	3.54E-08	8.49E-07	2.54E-06	8.72E-04
1,3,5-Trimethylbenzene	0.378		1.45E-07	3.49E-06	1.15E-05	4.20E-03
1,3-Dichlorobenzene	0.120	U	4.61E-08	1.11E-06	3.12E-06	1.14E-03
1,4-Dichlorobenzene	6.010		2.31E-06	5.54E-05	1.38E-04	4.72E-02
2-Butanone	0.791		3.04E-07	7.30E-06	2.22E-05	1.54E-02
4-Methyl-2-pentanone	0.500	U	1.92E-07	4.61E-06	1.62E-05	1.42E-02
Acetone	10.600		4.07E-06	9.78E-05	4.66E-04	1.70E-01
Acrylonitrile	0.500	U	1.92E-07	4.61E-06	2.27E-05	8.29E-03
Benzene	0.495		1.90E-07	4.57E-06	1.33E-05	4.84E-03
Bromodichloromethane	0.134	U	5.15E-08	1.24E-06	3.48E-06	1.27E-03
Bromoform	0.206	U	7.92E-08	1.90E-06	5.35E-06	1.95E-03
Carbon tetrachloride	0.616		2.37E-07	5.68E-06	1.62E-05	5.90E-03
Chlorobenzene	0.092	U	3.54E-08	8.49E-07	9.60E-08	8.72E-04
Chloroethane	0.161		6.19E-08	1.48E-06	1.33E-07	1.17E-03
Chloroform	0.439		1.69E-07	4.05E-06	5.83E-07	5.11E-03
Chloromethane	2.440	U	9.38E-07	2.25E-05	6.34E-05	2.31E-02
cis-1,2-Dichloroethene	0.127		4.88E-08	1.17E-06	1.04E-07	9.11E-04
cis-1,3-Dichloropropene	0.091	U	3.50E-08	8.39E-07	9.85E-08	8.63E-04
Dibromochloromethane	0.096	U	3.69E-08	8.85E-07	1.04E-07	9.10E-04
Dichlorodifluoromethane	2.660		1.02E-06	2.45E-05	2.93E-06	2.57E-02
Ethylbenzene	0.226		8.68E-08	2.08E-06	5.03E-07	4.41E-03
Isopropylbenzene	2.460	U	9.45E-07	2.27E-05	2.66E-06	2.33E-02
Methyl tert butyl ether	0.072	U	2.77E-08	6.64E-07	7.79E-08	6.83E-04
Methylene chloride	1.740	U	6.69E-07	1.60E-05	1.88E-06	1.65E-02
n-Butylbenzene	2.740	U	1.05E-06	2.53E-05	2.97E-06	2.60E-02
o-Xylene	0.273		1.05E-07	2.52E-06	3.77E-07	3.30E-03
p-Isopropyltoluene	2.740	U	1.05E-06	2.53E-05	2.97E-06	2.60E-02
p/m-Xylene	0.764		2.94E-07	7.05E-06	1.26E-06	1.10E-02
sec-Butylbenzene	2.740	U	1.05E-06	2.53E-05	2.97E-06	2.60E-02
Styrene	0.179		6.88E-08	1.65E-06	1.51E-07	1.33E-03
Tetrachloroethene	33.000		1.27E-05	3.04E-04	5.44E-05	1.31E-03
Toluene	0.956		3.67E-07	8.82E-06	1.42E-06	3.42E-05
trans-1,2-Dichloroethene	0.079	U	3.04E-08	7.29E-07	8.55E-08	7.49E-04
trans-1,3-Dichloropropene	0.091	U	3.50E-08	8.39E-07	9.85E-08	8.63E-04
Trichloroethene	100.000		3.84E-05	9.22E-04	8.91E-05	2.14E-03
Trichlorofluoromethane	119.000		4.57E-05	1.10E-03	1.57E-04	3.76E-03
Vinyl chloride	0.051	U	1.96E-08	4.70E-07	5.52E-08	1.33E-06
Total VOCs	2.99E+02	Not Applicable	Not Applicable	Not Applicable	Not Applicable	3.17E+00
RIDEM Air Pollution Control Permit Applicability Thresholds (lbs) *		10	100	all VOCs) (VOCs)	10	100
						20,000 (Individual VOCs) 50,000 (Total VOCs)

U indicates that chemical was not detected by the laboratory. To be conservative, the n

Hourly Emissions (lbs/hour) = VOC concentration (ug/m³) x measured flow rate (cfm) x

Daily Emissions (lbs/day) = Hourly Emissions x 24 hours/day

Yearly Emissions (lbs/year) = Daily Emissions x 365 days/year

* RIDEM Air Pollution Control Regulation No 9 [August 1971, Amended April 2004]



ANALYTICAL REPORT

Lab Number:	L0912807
Client:	EA Engineering, Science and Tech 2350 Post Road Warwick, RI 02886
ATTN:	Mark Speer
Project Name:	ALVAREZ HIGH SCHOOL
Project Number:	14687.01
Report Date:	09/21/09

Certifications & Approvals MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LA000299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), US Army Corps of Engineers

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



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L0912807
Report Date: 09/21/09

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L0912807-01	ROOFTOP FAN 1	PROVIDENCE, RI	09/11/09 11:30
L0912807-02	ROOFTOP FAN 2	PROVIDENCE, RI	09/11/09 11:25
L0912807-03	ROOFTOP FAN 3	PROVIDENCE, RI	09/11/09 10:32

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L0912807
Report Date: 09/21/09

Case Narrative

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

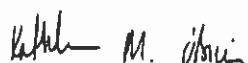
Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report.

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

For additional information, please contact Client Services at 800-624-9220.

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: 09/21/09

AIR

09210915:19

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L0912807

Project Number: 14687.01

Report Date: 09/21/09

SAMPLE RESULTS

Lab ID:	L0912807-01	Date Collected:	09/11/09 11:30
Client ID:	ROOFTOP FAN 1	Date Received:	09/14/09
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	09/18/09 22:29		
Analyst:	RY		

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
1,1,1-Trichloroethane	0.656	0.020	3.58	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	0.029	0.020	0.117	0.081		1
1,1-Dichloroelthene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	0.171	0.020	0.840	0.098		1
1,2-Dibromoelthane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroethane	0.027	0.020	0.109	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	0.077	0.020	0.378	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	1.00	0.020	6.01	0.120		1
Benzene	0.155	0.070	0.495	0.223		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.098	0.020	0.616	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	0.061	0.020	0.161	0.053		1
Chloroform	0.090	0.020	0.439	0.098		1
Chloromethane	ND	0.500	ND	2.44		1
cis-1,2-Dichloroethene	0.032	0.020	0.127	0.079		1
cis-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Dibromochloromethane	ND	0.020	ND	0.096		1

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L0912807
Report Date: 09/21/09

SAMPLE RESULTS

Lab ID:	L0912807-01	Date Collected:	09/11/09 11:30
Client ID:	ROOFTOP FAN 1	Date Received:	09/14/09
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Dilution Factor
	Results	RDL	Results	RDL	
Volatile Organics in Air by SIM - Mansfield Lab					
Dichlorodifluoromethane	0.538	0.050	2.66	0.247	1
Ethylbenzene	0.052	0.020	0.226	0.087	1
Methylene chloride	ND	0.500	ND	1.74	1
Methyl tert butyl ether	ND	0.020	ND	0.072	1
p/m-Xylene	0.176	0.040	0.764	0.174	1
o-Xylene	0.063	0.020	0.273	0.087	1
Styrene	0.042	0.020	0.179	0.085	1
Tetrachloroethylene	4.87	0.020	33.0	0.136	1
Toluene	0.254	0.020	0.956	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
Trichloroethylene	18.7	0.020	100	0.107	1
Trichlorofluoromethane	21.2	0.050	119	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
Acelone	10.6	2.00	25.2	4.75	1
2-Butanone	0.791	0.500	2.33	1.47	1
4-Methyl-2-pentanone	ND	0.500	ND	2.05	1

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Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L0912807

Project Number: 14687.01

Report Date: 09/21/09

SAMPLE RESULTS

Lab ID:	L0912807-02	Date Collected:	09/11/09 11:25
Client ID:	ROOFTOP FAN 2	Date Received:	09/14/09
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	09/18/09 23:46		
Analyst:	RY		

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
1,1,1-Trichloroethane	0.577	0.020	3.14	0.109		1
1,1,1,2-Tetrachloroethane	ND	0.020	ND	0.137		1
1,1,2,2-Tetrachloroelthane	ND	0.020	ND	0.137		1
1,1,2-Trichloroethane	ND	0.020	ND	0.109		1
1,1-Dichloroelthane	ND	0.020	ND	0.081		1
1,1-Dichloroethene	ND	0.020	ND	0.079		1
1,2,4-Trimethylbenzene	0.170	0.020	0.835	0.098		1
1,2-Dibromoelthane	ND	0.020	ND	0.154		1
1,2-Dichlorobenzene	ND	0.020	ND	0.120		1
1,2-Dichloroelthane	ND	0.020	ND	0.081		1
1,2-Dichloropropane	ND	0.020	ND	0.092		1
1,3,5-Trimethylbenzene	0.058	0.020	0.285	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	1.35	0.020	8.10	0.120		1
Benzene	0.184	0.070	0.587	0.223		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.098	0.020	0.616	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroelthane	0.055	0.020	0.145	0.053		1
Chloroform	0.119	0.020	0.580	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

09210915:19

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L0912807

Project Number: 14687.01

Report Date: 09/21/09

SAMPLE RESULTS

Lab ID:	L0912807-02	Date Collected:	09/11/09 11:25
Client ID:	ROOFTOP FAN 2	Date Received:	09/14/09
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
Dichlorodifluoromethane	0.537	0.050	2.65	0.247		1
Ethylbenzene	0.049	0.020	0.212	0.087		1
Methylene chloride	ND	0.500	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
p/m-Xylene	0.175	0.040	0.759	0.174		1
o-Xylene	0.062	0.020	0.269	0.087		1
Slyrene	0.032	0.020	0.136	0.085		1
Tetrachloroelhene	1.90	0.020	12.8	0.136		1
Toluene	0.217	0.020	0.817	0.075		1
trans-1,2-Dichloroelhene	ND	0.020	ND	0.079		1
trans-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Trichloroelhene	18.7	0.020	100	0.107		1
Trichlorofluoromethane	41.7	0.050	234	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	6.34	2.00	15.0	4.75		1
2-Butanone	ND	0.500	ND	1.47		1
4-Methyl-2-penlanone	ND	0.500	ND	2.05		1

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Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L0912807
Report Date: 09/21/09

SAMPLE RESULTS

Lab ID:	L0912807-03	Date Collected:	09/11/09 10:32
Client ID:	ROOFTOP FAN 3	Date Received:	09/14/09
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified
Matrix:	Soil_Vapor		
Anaytical Method:	48,TO-15-SIM		
Analytical Date:	09/19/09 00:25		
Analyst:	RY		

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
1,1,1-Trichloroethane	0.571	0.020	3.11	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	0.311	0.020	1.53	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	0.143	0.020	0.702	0.098		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	1.58	0.020	9.51	0.120		1
Benzene	0.138	0.070	0.440	0.223		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Carbon tetrachloride	0.101	0.020	0.635	0.126		1
Chlorobenzene	ND	0.020	ND	0.092		1
Chloroethane	ND	0.020	ND	0.053		1
Chloroform	0.125	0.020	0.610	0.098		1
Chloromethane	ND	0.500	ND	2.44		1
cis-1,2-Dichloroelhene	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

09210915:19

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L0912807

Project Number: 14687.01

Report Date: 09/21/09

SAMPLE RESULTS

Lab ID:	L0912807-03	Date Collected:	09/11/09 10:32
Client ID:	ROOFTOP FAN 3	Date Received:	09/14/09
Sample Location:	PROVIDENCE, RI	Field Prep:	Not Specified

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab						
Dichlorodifluoromethane	0.572	0.050	2.83	0.247		1
Ethylbenzene	0.239	0.020	1.04	0.087		1
Methylene chloride	ND	0.500	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
p/m-Xylene	0.486	0.040	2.11	0.174		1
o-Xylene	0.122	0.020	0.529	0.087		1
Styrene	0.023	0.020	0.098	0.085		1
Tetrachloroelhene	16.9	0.020	114	0.136		1
Toluene	0.617	0.020	2.32	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	7.62	0.020	40.9	0.107		1
Trichlorofluoromethane	12.8	0.050	72.1	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
Acelone	12.7	2.00	30.1	4.75		1
2-Butanone	0.946	0.500	2.79	1.47		1
4-Methyl-2-penlanone	ND	0.500	ND	2.05		1

09210915:19

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L0912807
Report Date: 09/21/09

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 09/18/09 15:39

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG380459-4						
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-Butadiene	ND	0.020	ND	0.044		1
1,3-Dichlorobenzene	ND	0.020	ND	0.120		1
1,4-Dichlorobenzene	ND	0.020	ND	0.120		1
Benzene	ND	0.070	ND	0.223		1
Bromodichloromethane	ND	0.020	ND	0.134		1
Bromoform	ND	0.020	ND	0.206		1
Bromomethane	ND	0.020	ND	0.078		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

09210915:19

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L0912807

Project Number: 14687.01

Report Date: 09/21/09

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 09/18/09 15:39

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG380459-4						
cis-1,3-Dichloropropene	ND	0.020	ND	0.091		1
Dibromochloromethane	ND	0.020	ND	0.096		1
Dichlorodifluoromethane	ND	0.050	ND	0.247		1
Ethylbenzene	ND	0.020	ND	0.087		1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	ND	0.383		1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.050	ND	0.349		1
Methylene chloride	ND	0.500	ND	1.74		1
Methyl tert butyl ether	ND	0.020	ND	0.072		1
Naphthalene	ND	0.050	ND	0.262		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
1,2,4-Trichlorobenzene	ND	0.050	ND	0.371		1
Trichlorofluoromethane	ND	0.050	ND	0.281		1
Hexachlorobutadiene	ND	0.050	ND	0.192		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

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Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L0912807
Report Date: 09/21/09

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 09/18/09 15:39

Parameter	ppbV		ug/m3		Qualifier	Dilution Factor
	Results	RDL	Results	RDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG380459-4						
p-Isopropyloluene	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
Halohane	ND	0.050	ND	0.403		1
1,2,3-Trichlorobenzene	ND	0.050	ND	0.371		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L0912807
Report Date: 09/21/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG380459-3					
1,1,1-Trichloroethane	116	-	70-130	-	-
1,1,1,2-Tetrachloroethane	105	-	70-130	-	-
1,1,2,2-Tetrachloroethane	103	-	70-130	-	-
1,1,2-Trichloroethane	113	-	70-130	-	-
1,1-Dichloroethane	105	-	70-130	-	-
1,1-Dichloroethylene	99	-	70-130	-	-
1,2,4-Trimethylbenzene	100	-	70-130	-	-
1,2-Dibromoethane	98	-	70-130	-	-
1,2-Dichlorobenzene	101	-	70-130	-	-
1,2-Dichloroethane	123	-	70-130	-	-
1,2-Dichloropropane	105	-	70-130	-	-
1,3,5-Trimethylbenzene	100	-	70-130	-	-
1,3-Butadiene	98	-	70-130	-	-
1,3-Dichlorobenzene	102	-	70-130	-	-
1,4-Dichlorobenzene	99	-	70-130	-	-
Benzene	92	-	70-130	-	-
Bromodichloromethane	106	-	70-130	-	-
Bromoform	107	-	70-130	-	-
Bromomethane	91	-	70-130	-	-
Carbon tetrachloride	120	-	70-130	-	-
Chlorobenzene	107	-	70-130	-	-

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L0912807
Report Date: 09/21/09

Parameter	LCS	LCSD	%Recovery	%Recovery	%Recovery	RPD	RPD Limits
Volatile Organics in Air by SiM - Mansfield Lab Associated sample(s): 01-03 Batch: WG380459-3							
Chloroethane	102	-	-	-	-	70-130	
Chloroform	117	-	-	-	-	70-130	
Chloromethane	100	-	-	-	-	70-130	
cis-1,2-Dichloroethene	104	-	-	-	-	70-130	
cis-1,3-Dichloropropene	93	-	-	-	-	70-130	
Dibromochloromethane	106	-	-	-	-	70-130	
Dichlorodifluoromethane	121	-	-	-	-	70-130	
Ethylbenzene	104	-	-	-	-	70-130	
1,1,2-Trichloro-1,2,2-Trifluoroethane	105	-	-	-	-	70-130	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	118	-	-	-	-	70-130	
Methylene chloride	96	-	-	-	-	70-130	
Methyl tert butyl ether	99	-	-	-	-	70-130	
Naphthalene	70	-	-	-	-	70-130	
p/m-Xylene	106	-	-	-	-	70-130	
o-Xylene	105	-	-	-	-	70-130	
Styrene	100	-	-	-	-	70-130	
Tetrachloroethene	104	-	-	-	-	70-130	
Toluene	92	-	-	-	-	70-130	
Trans-1,2-Dichloroethene	96	-	-	-	-	70-130	
trans-1,3-Dichloropropene	78	-	-	-	-	70-130	
Trichloroethene	101	-	-	-	-	70-130	

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L0912807
Report Date: 09/21/09

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab					
Associated sample(s):	01-03	Batch:	WG380459-3		
1,2,4-Trichlorobenzene	79	-	70-130	-	
Trichlorofluoromethane	126	-	70-130	-	
Hexachlorobutadiene	88	-	70-130	-	
Vinyl chloride	105	-	70-130	-	
Acrylonitrile	92	-	70-130	-	
n-Butylbenzene	75	-	70-130	-	
sec-Butylbenzene	83	-	70-130	-	
Isopropylbenzene	89	-	70-130	-	
p-Isopropyltoluene	74	-	70-130	-	
Acetone	91	-	70-130	-	
2-Butanone	88	-	70-130	-	
4-Methyl-2-pentanone	100	-	70-130	-	
Halohane	120	-	70-130	-	
1,2,3-Trichlorobenzene	77	-	70-130	-	

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Duplicate Analysis

Batch Quality Control

Lab Number: L0912807
 Report Date: 09/21/09

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): FAN 1	01-03	QC Batch ID: WG380459-5	QC Sample: L0912807-01	Client ID: ROOFTOP	
1,1,1-Trichloroethane	0.656	0.660	ppbV	1	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	0.029	0.031	ppbV	7	25
1,1-Dichloroethene	ND	ND	ppbV	NC	25
1,2,4-Trimethylbenzene	0.171	0.163	ppbV	5	25
1,2-Dibromoethane	ND	ND	ppbV	NC	25
1,2-Dichlorobenzene	ND	ND	ppbV	NC	25
1,2-Dichloroethane	0.027	0.026	ppbV	4	25
1,2-Dichloropropane	ND	ND	ppbV	NC	25
1,3,5-Trimethylbenzene	0.077	0.071	ppbV	8	25
1,3-Dichlorobenzene	ND	ND	ppbV	NC	25
1,4-Dichlorobenzene	1.00	0.951	ppbV	5	25
Benzene	0.155	0.195	ppbV	23	25
Bromodichloromethane	ND	ND	ppbV	NC	25
Bromoform	ND	ND	ppbV	NC	25
Carbon tetrachloride	0.098	0.099	ppbV	1	25
Chlorobenzene	ND	ND	ppbV	NC	25

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Duplicate Analysis

Lab Number: L0912807
 Report Date: 09/21/09

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG380459-5 QC Sample: L0912807-01 Client ID: ROOFTOP FAN 1					
Chloroethane	0.061	0.059	ppbV	3	25
Chloroform	0.090	0.090	ppbV	0	25
Chloromethane	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	0.032	0.033	ppbV	3	25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC	25
Dibromochloromethane	ND	ND	ppbV	NC	25
Dichlorodifluoromethane	0.538	0.549	ppbV	2	25
Ethylbenzene	0.052	0.049	ppbV	6	25
Methylene chloride	ND	ND	ppbV	NC	25
Methyl tert butyl ether	ND	ND	ppbV	NC	25
p/m-Xylene	0.176	0.167	ppbV	5	25
o-Xylene	0.063	0.059	ppbV	7	25
Styrene	0.042	0.041	ppbV	2	25
Tetrachloroethene	4.87	4.83	ppbV	1	25
Toluene	0.254	0.250	ppbV	2	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC	25
Trichloroethene	18.7	18.7	ppbV	0	25
Trichlorofluoromethane	21.2	22.0	ppbV	4	25

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Duplicate Analysis

Batch Quality Control
 Lab Number: L0912807
 Report Date: 09/21/09

Parameter	Native Sample		Duplicate Sample		Units	RPD	RPD Limits
	Associated sample(s):	01-03	Associated sample(s):	WG380459-5			
Volatile Organics in Air by SIM - Mansfield Lab FAN 1							
Vinyl chloride	ND	ND	ppbV	ppbV	NC	25	25
Acrylonitrile	ND	ND	ppbV	ppbV	NC	25	25
n-Butylbenzene	ND	ND	ppbV	ppbV	NC	25	25
sec-Butylbenzene	ND	ND	ppbV	ppbV	NC	25	25
Isopropylbenzene	ND	ND	ppbV	ppbV	NC	25	25
p-Isopropyltoluene	ND	ND	ppbV	ppbV	NC	25	25
Acetone	10.6	10.4	ppbV	ppbV	2	25	25
2-Butanone	0.791	0.768	ppbV	ppbV	3	25	25
4-Methyl-2-pentanone	ND	ND	ppbV	ppbV	NC		

Project Name: ALVAREZ HIGH SCHOOL

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Lab Number: L0912807

Project Number: 14687.01

Report Date: 09/21/09

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Cleaning Batch ID	Initial Pressure (In. Hg)	Pressure on Receipt (In. Hg)	Flow Out mL/min	Flow In mL/min	% RSD
L0912807-01	ROOFTOP FAN 1	139	2.7L Can	I0912468	-29.8	-3.3	-	-	-
L0912807-02	ROOFTOP FAN 2	455	2.7L Can	I0912468	-29.8	-1.6	-	-	-
L0912807-03	ROOFTOP FAN 3	231	2.7L Can	I0912468	-29.8	-1.7	-	-	-



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L0912807
Report Date: 09/21/09

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
N/A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp		Pres	Seal	Analysis
				deg C	 			
L0912807-01A	Canister - 2.7 Liter	N/A	N/A			NA	Absent	TO15-SIM(30)
L0912807-02A	Canister - 2.7 Liter	N/A	N/A			NA	Absent	TO15-SIM(30)
L0912807-03A	Canister - 2.7 Liter	N/A	N/A			NA	Absent	TO15-SIM(30)

*Hold days indicated by values in parentheses

Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L0912807

Report Date: 09/21/09

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.
- 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.
- NI · Not Ignitable.
- 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

- A · Spectra identified as "Aldol Condensation Product".
- B · The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.
- D · Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E · Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- H · The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- P · The RPD between the results for the two columns exceeds the method-specified criteria.
- Q · The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RDL. (Metals only.)
- R · Analytical results are from sample re-analysis.
- RE · Analytical results are from sample re-extraction.
- J · Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L0912807
Report Date: 09/21/09

REFERENCES

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

LIMITATION OF LIABILITIES

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



Certificate/Approval Program Summary

Last revised June 17, 2009 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. **Organic Parameters:** PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. **Organic Parameters:** PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. NELAP Accredited.

Non-Potable Water (Inorganic Parameters: SM2320B, 4500NH3-F, EPA 120.1, SM2510B, 2340B, EPA 245.1, EPA 150.1, EPA 160.2, SM2540D, EPA 335.2, 420.1, SM2540G, EPA 180.1. **Organic Parameters:** EPA 625, 608.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045, 9014. **Organic Parameters:** EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. NELAP Accredited.

Non-Potable Water (Inorganic Parameters: EPA 120.1, 150.1, 160.2, 180.1, 200.8, 245.1, 310.1, 335.2, 608, 625, 1631, 3010, 3015, 3020, 6020, 9010, 9014, 9040, SM2320B, 2510B, 2540D, 2540G, 4500CN-E, 4500H-B, **Organic Parameters:** EPA 3510, 3580, 3630, 3640, 3660, 3665, 5030, 8015 (mod), 3570, 8081, 8082, 8260, 8270,)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7196, 7470, 7471, 7474, 9010, 9014, 9040, 9045, 9060. **Organic Parameters:** EPA 8015 (mod), EPA 3570, 1311, 3050, 3051, 3060, 3580, 3630, 3640, 3660, 3665, 5035, 8081, 8082, 8260, 8270.)

Biological Tissue (Inorganic Parameters: EPA 6020. **Organic Parameters:** EPA 3570, 3510, 3610, 3630, 3640, 8270.)

Maine Department of Human Services Certificate/Lab ID: MA0030.

Wastewater (Inorganic Parameters: EPA 120.1, 300.0, SM 2320, 2510B, 2540C, 2540D, EPA 245.1. **Organic Parameters:** 608, 624.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030.

Non-Potable Water (Inorganic Parameters: SM4500H+B. **Organic Parameters:** EPA 624.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. NELAP Accredited.

Non-Potable Water (Inorganic Parameters: EPA 200.8, 245.1, 1631E, 120.1, 150.1, 180.1, 310.1, 335.2, 160.2, SM2540D, 2540G, 4500CN-E, 4500H+B, 2320B, 2510B. **Organic Parameters:** EPA 625, 608.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, 6020, SM2320B, EPA 200.8, SM2540C, 2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 9040B, 6020, 9010B, 9014 **Organic Parameters:** EPA 608, 625, SW-846 3510C, 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9045C, 9060. **Organic Parameters:** SW-846 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 3570, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 **Organic Parameters:** SW-846 8270C, 3510C, 3570, 3610B, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. **NELAP Accredited.**

Non-Potable Water (Inorganic Parameters: EPA 310.1, SM2320B, EPA 365.2, 160.1, EPA 160.2, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 335.2, 9014, 150.1, 9040B, 120.1, SM2510B, EPA 376.2, 180.1, 9010B. **Organic Parameters:** EPA 624, 8260B, 8270C, 608, 8081A, 625, 8082, 3510C, 3511, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, SW-846 Ch7 Sec 7.3, EPA 6020, 7196A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. **Organic Parameters:** EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 3050B, 3580, 3050B, 3035, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Pennsylvania Department of Environmental Protection Certificate/Lab ID: 68-02089. **NELAP Accredited.**

Non-Potable Water (Organic Parameters: EPA 5030B, EPA 8260)

Rhode Island Department of Health Certificate/Lab ID: LA000299. **NELAP Accredited via LA-DEQ.**

Refer to MA-DEP Certificate for Non-Potable Water.

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. **NELAP Accredited.**

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7471. **Organic Parameters:** EPA 8015, 8270.)

U.S. Army Corps of Engineers

AIR ANALYSIS

PAGE 1 OF 1

Date Rec'd In Lab:

ALPHA Job # 0912807

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-8300 FAX: 508-822-3288

Client Information

Client: EA ENGINEERING

Address: 2350 Post Road

Phone: 401-736-3440 x218

Fax:

Email: Mack.Casey@comcast.net

Project Name: ALUMINUM FLUXT EATER
Project Location: PROVIDENCE RI
Project #: 14687.01
Project Manager: MARK SPERALPHA Quote #: Turn-Around Time
 Standard RUSH (any confirmed if pre-approved)
Date Due: Time: These samples have been previously analyzed by Alpha
Other Project Specific Requirements/Comments:

Project Information

Report Information - Data Deliverables

 FAX
 DADEX

Criteria Checker

PROJECT SPECIFIC
(default based on Regulatory Criteria indicated)

Other Formats:

EMAIL (Standard pdf report)
Additional Deliverables:

Report To:

Project Manager

TO-14A by TO-15
TO-15
TO-15 SIM
APH
FIXED GASES
TO-13A
TO-4 / TO-10TO-14A by TO-15
TO-15
TO-15 SIM
APH
FIXED GASES
TO-13A
TO-4 / TO-10TO-14A by TO-15
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*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)

SV = Soil Vapor/Landfill/Gas/SVE

Other - Please Specify

Relinquished By:

Date/Time:

Received By:

Date/Time:

Container Type

Please print clearly, legibly and
completely. Samples can not be
accepted if handwritten or
illegible. Not start until any ambient
air samples are taken. All samples
submitted are subject to Alphas
specifications.

<i>Mack Casey</i>	<i>11/16/04</i>	<i>Mark Sper</i>	<i>11/16/04</i>
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Appendix E

Laboratory Reporting Limits Correspondence



January 20, 2010

To: Ron Mack
EA Engineering, Science, & Technology
2350 Post Road
Warwick, RI 02886

From: Katie O'Brien
Alpha Analytical
320 Forbes Blvd
Mansfield, MA 01581

Re: TO15 SIM Reporting Limits

Dear Ron,

As we communicated prior to the TO-15 SIM analyses completed for the Alvarez High School air samples collected on January 15th; the SIM Reporting Limits achieved for the following compounds are the lowest that we can currently achieve at Alpha. Please note that these reporting limits are above the Draft Proposed CT RSR (Residential) Criteria for these compounds:

1,2-Dichloroethane SIM RL = 0.08 ug/m³
Ethylene Dibromide (a.k.a. 1,2-Dibromoethane) SIM RL = 0.15 ug/m³
1,1,1,2-Tetrachloroethane SIM RL = 0.14 ug/m³
1,1,2,2-Tetrachloroethane SIM RL = 0.14 ug/m³
Bromodichloromethane SIM RL = 0.13 ug/m³

Please don't hesitate to contact me at 508-844-4156 if you have any questions.

Best Regards,

Katie O'Brien