



EA Engineering, Science, and Technology, Inc.

Airport Professional Park
2374 Post Road, Suite 102
Warwick, Rhode Island 02886
Telephone: 401-736-3440
Fax: 401-736-3423
www.eaest.com

20 April 2011

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. 14*
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 2010 and February 2011.

If you have any questions or require additional information, please contact me at (401) 736-3440, Ext. 203.

Sincerely,

EA ENGINEERING, SCIENCE,
AND TECHNOLOGY, INC.

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

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



Quarterly O&M Status Report No. 14

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.
2374 Post Road, Suite 102
Warwick, Rhode Island 02886
(401) 736-3440

EA Project No. 14687.01
April 2011

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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. 14 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 2010 through February 2011 (Quarterly Reporting Period No. 14) 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 Quarterly O&M Status Reports No. 1 through No. 13 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 provided as Figure 3.
- 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 -0.01 and greater than -0.25 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 continuously monitored by an indoor methane monitoring system (equipped with automatic alarm notification via audible signal and phone notification) within the school at eight RIDEM-approved locations (refer to the Indoor Air Sampling and Methane Monitoring System Diagram provided as Figure 2) during this reporting period. In addition, the methane monitoring system was inspected and filters are replaced on a regular basis. The indoor methane monitoring system operated continuously throughout this reporting period with no equipment shutdowns, failures, alarms, or interruptions of any type, and no methane was detected during any of the supplemental monthly indoor methane monitoring events.

In November 2010, filter discs at each of the eight continuous methane sensors were replaced in accordance with a quarterly frequency schedule. The next filter replacement was scheduled for March 2011.

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 26 January 2011. The outdoor ambient sample was collected from the north side 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 as Figure 2. 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 are provided in Appendix B.

EA routinely measures the vacuum at 11 soil vapor monitoring points throughout the school using a Magnahelic vacuum gauge capable of measuring to 0.01 in. of water. The results indicate that a vacuum is being maintained by the SSD system at each sampling point. Therefore, controlled prevention of the soil vapors from entering the school is being maintained.

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 $\mu\text{g}/\text{m}^3$. Similarly, during this reporting period the ambient outdoor and indoor air concentrations of carbon tetrachloride ranged between 0.472 and 0.567 $\mu\text{g}/\text{m}^3$. 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.

In July 2010, one compound, methylene chloride, was detected within all indoor and outdoor ambient air samples collected from the Alvarez High School at concentrations that exceed the CT RTACs. The methylene chloride concentrations ranged from 13.9 to 48.2 $\mu\text{g}/\text{m}^3$. Methylene chloride was detected in the ambient outdoor air at a concentration of 20.6 $\mu\text{g}/\text{m}^3$. Review of the

analytical report indicated that the LCS recovery for methylene chloride (132%) was outside of the acceptable range (70% - 130%) which would bias the data high. Additionally, the presence of methylene chloride in the outdoor air indicated the source is unrelated to the subsurface impacts.

In October 2010, methylene chloride was again detected within three rooms (Cafeteria, Gymnasium, and Room 145) at concentrations exceeding the CT RTACs of $3.0 \mu\text{g}/\text{m}^3$. The methylene chloride concentrations ranged from 4.44 to $5.84 \mu\text{g}/\text{m}^3$. Based on this data, Alpha Analytical laboratory offered to analyze additional samples to confirm the presence or absence of methylene chloride in these areas.

EA developed a program to determine if the concentrations of methylene chloride detected in these sampling events by Alpha Analytical Laboratories were indeed related to the Site or some other contaminating factor. The data validation program entailed the inclusion of split indoor air samples from three locations where methylene chloride had exceeded the applicable standards. Additionally, EA solicited the assistance of RIDEM to collect co-located air samples at four of the indoor sampling points. The collected air samples were analyzed at Alpha Analytical Laboratory (Alpha), Con-Test Analytical Laboratory (Con-Test), and the RIDEM Office of Air Resources Laboratory (RIDEM Lab). The laboratory reports from the sampling event are presented in Appendix B.

Concurrently, EA held discussions with Alpha concerning elevated detection limits. Alpha acknowledged that issues had been discovered in its heating, ventilation, and air conditioning (HVAC) system. Alpha responded by upgrading its HVAC system to reduce their detection limits. A letter attesting to this admission is provided in Appendix F.

The analytical results obtain from Alpha again identified exceedances of the proposed CT RTACs for methylene chloride ($3.0 \mu\text{g}/\text{m}^3$) in three of the rooms sampled during the sampling event. Specifically, methylene chloride was detected in Room 145, Room 149, and the kitchen storage room.

**SUMMARY OF METHYLENE CHLORIDE CONCENTRATIONS
ALVAREZ HIGH SCHOOL - PROVIDENCE, RI
26 JANUARY 2011 SAMPLING EVENT**

<i>Sample Area</i>	<i>Alpha</i>	<i>Con-Test</i>	<i>RIDEM Lab</i>	<i>Standard</i>
Room 145	$5.29 \mu\text{g}/\text{m}^3$	$1.6 \mu\text{g}/\text{m}^3$	$0.50 \mu\text{g}/\text{m}^3$	$3.0 \mu\text{g}/\text{m}^3$
Room 149	$4.88 \mu\text{g}/\text{m}^3$	NA	NA	$3.0 \mu\text{g}/\text{m}^3$
Kitchen Storage	$4.53 \mu\text{g}/\text{m}^3$	NA	NA	$3.0 \mu\text{g}/\text{m}^3$
Ambient Outdoor	ND ($2.95 \mu\text{g}/\text{m}^3$)	NA	$0.49 \mu\text{g}/\text{m}^3$	$3.0 \mu\text{g}/\text{m}^3$
Gymnasium	ND ($2.96 \mu\text{g}/\text{m}^3$)	$1.7 \mu\text{g}/\text{m}^3$	$0.50 \mu\text{g}/\text{m}^3$	$3.0 \mu\text{g}/\text{m}^3$
Cafeteria	ND ($2.95 \mu\text{g}/\text{m}^3$)	$1.6 \mu\text{g}/\text{m}^3$	$0.63 \mu\text{g}/\text{m}^3$	$3.0 \mu\text{g}/\text{m}^3$
NA = Not Analyzed, ND= Not Detected				

The data generated by the three laboratories indicates that methylene chloride continues to be an issue at Alpha. Neither Con-Test nor the RIDEM lab were able to reproduce the concentrations detected by Alpha. These analytical results were shared with Barbara Morin of RIDEM's Office of Air Resources. Ms. Morin concurred that the presence and levels of methylene chloride reported by Alpha were typical of contamination of the sampling equipment and not related to vapor intrusion from the subsurface contamination. A copy of Ms. Moran's letter is provided in Appendix G.

Analytical results indicate methylene chloride was not detected in any subslab samples. However, reporting limits were elevated for several subslab samples due to the laboratory providing flow controllers set to an inappropriate flow rate. Subslab samples collected below the areas of methylene chloride detection include MP-3 and MP-8. MP-3 was sampled but not analyzed due to moisture infiltrating the flow controller and preventing sample collection. MP-3 was sampled in February 2011, and methylene chloride was not detected due to an elevated reporting limit (34.7 $\mu\text{g}/\text{m}^3$). MP-8 was sampled and analyzed, but the reporting limit is 17.4 $\mu\text{g}/\text{m}^3$. A common rule of thumb borne out by the Johnson Ettinger Air Dispersion Model suggests there is an approximately 2000-fold dilution factor between soil vapor and indoor air in buildings with a competent concrete floor. Therefore, the methylene chloride subslab soil vapor concentration supports that the indoor air detections are not related to impacts emanating from the subsurface contamination.

Benzene was also detected above the regulatory threshold in Rooms 152 and 110. However, the ambient outdoor air concentration of benzene is consistent with the indoor air concentrations. Therefore, the detection of benzene in the building is not indicative of impacts from the subsurface contamination but rather the result of the ambient air quality.

EA also collected indoor air samples in the two chemistry laboratories within the school to determine if the methylene chloride detection may be resultant from experiments being conducted in the school. Analytical results indicate a methylene chloride concentration in Room 149 was similar to the other detections in Room 145 and the kitchen storage room. Therefore, EA does not believe the school's chemistry laboratories are source areas for the methylene chloride detections.

Methylene chloride is a common laboratory contaminant as it is used to perform extractions for analysis of semi-volatile organic compounds. This fact, coupled with the absence of methylene chloride in historical groundwater analytical data and in subslab vapor data, indicates that vapor intrusion is not occurring from the underlying soils and the detections originate from a source within the laboratory.

2.4 SUBSLAB VAPOR SAMPLING AND EVALUATION OF POTENTIAL VOC REBOUND EFFECT

A total of 11 RIDEM-approved subslab sampling locations are installed at the Site. 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 26 January and

28 February 2011 in accordance with the Amended OA. The subslab data is summarized in Appendix C, along with copies of the laboratory data reports associated with these sampling events.

Quarterly Report No. 13 indicated that "*VOC rebound may be occurring. Historical maximum concentrations of tetrachloroethene have been identified in 7 of 11 of the subslab vapor points in the most recent sampling of the respective sampling point (July or October 2010)*". Review of analytical data from the subslab vapor sampling and analysis indicate greatly reduced concentrations of tetrachloroethene. The maximum concentration observed this sampling event ($8.3 \mu\text{g}/\text{m}^3$ at IMP-2) is less than the minimum value observed in the previous sampling round (October 2010). EA will continue to monitor VOC concentrations within subslab vapor to ensure subslab vapor intrusion is not occurring within the Alvarez High School.

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 July 2010 and was summarized in correspondence submitted to RIDEM in October 2010. Please refer to the previously-submitted Quarterly Status Report No. 12 (dated October 2010) for more details regarding the rooftop VOC data. The 2011 annual rooftop effluent VOC sampling event is scheduled for July 2011 to accommodate the revised quarterly sampling schedule.

Previous rooftop effluent sampling rounds conducted in March 2007 (immediately after SSD system startup), June 2007, June 2008, and September 2009 indicated compliance with all Air Pollution Control Permit Applicability Thresholds. In general, the VOC concentrations in the rooftop effluent associated with the July 2010 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 D.

2.6 CONCLUSIONS

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

- The collection of split samples from several locations within Alvarez High School indicate that previous methylene chloride detections within the indoor air are attributable to laboratory contamination and not a result of subslab vapor intrusion.
- Benzene was detected above the project standards during the January 2011 sampling event. However, these detections are attributable to ambient benzene concentrations in the outdoor air.
- The consistent negative pressure maintained below the floor slab indicates that soil vapor intrusion into the Alvarez High School is not occurring.

- The subslab vapor data has indicated historic high concentrations of tetrachloroethene within the soil vapor at the school. However, tetrachloroethene concentrations from the January 2011 subslab vapor sampling indicate a significant decrease in the tetrachloroethene concentrations.
- 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.
- No SSD System modifications or other actions to address current site conditions are warranted or proposed at this time.

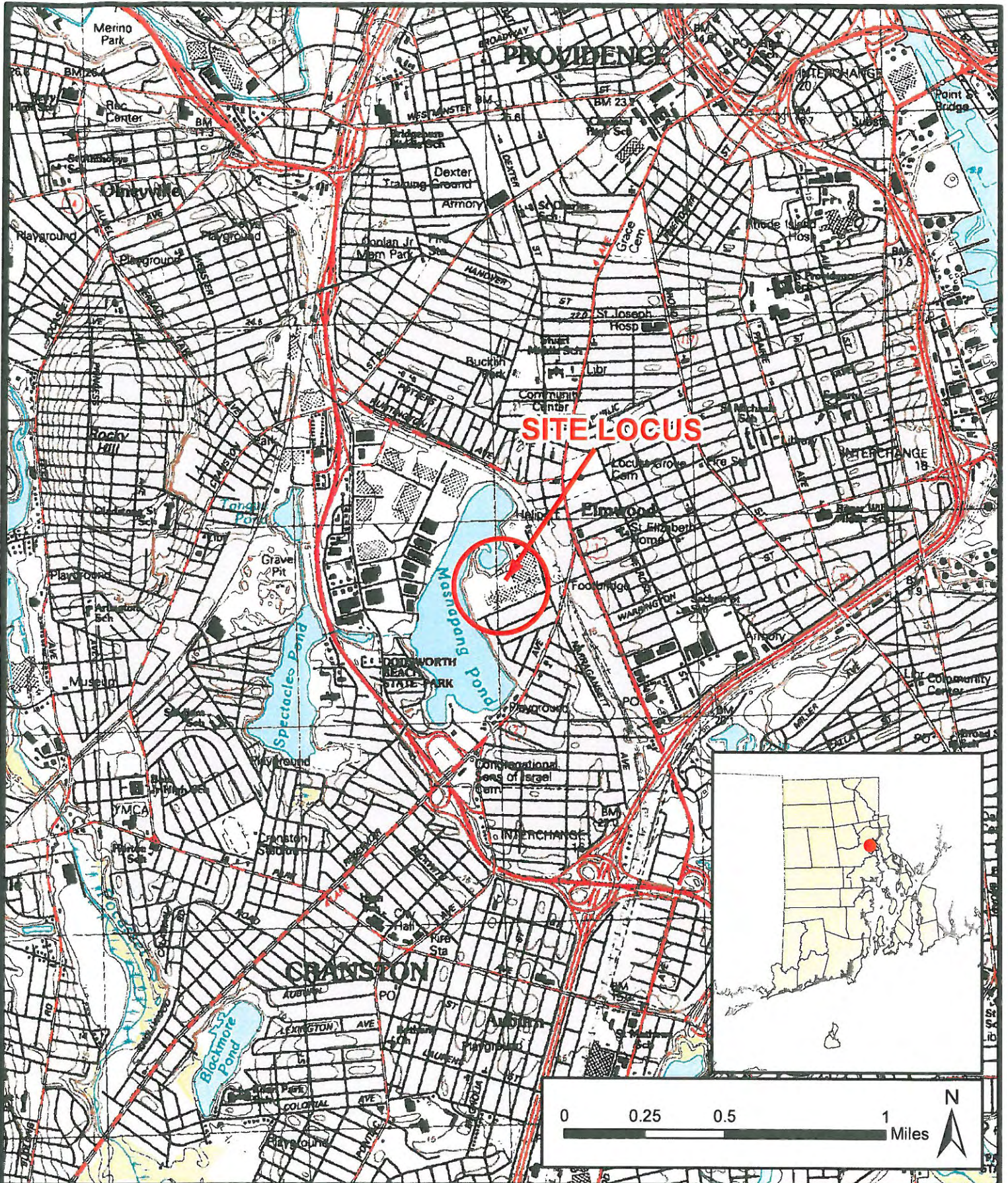
3. FUTURE ACTIVITIES AND NEXT QUARTERLY SUMMARY REPORT

The following activities will be completed in accordance with the Amended OA during the next quarterly status reporting period ending 31 May 2011:

- 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 2011.

These activities will be summarized in the next status report (Quarterly Status Report No. 15), expected to be submitted by the end of June 2011.

Figures



ALVAREZ HIGH SCHOOL
 333 ADELAIDE AVENUE
 PROVIDENCE, RHODE ISLAND

FIGURE 1
 SITE LOCUS

PROJECT MGR:
 FP

DESIGNED BY:
 PT

CREATED BY:
 PT

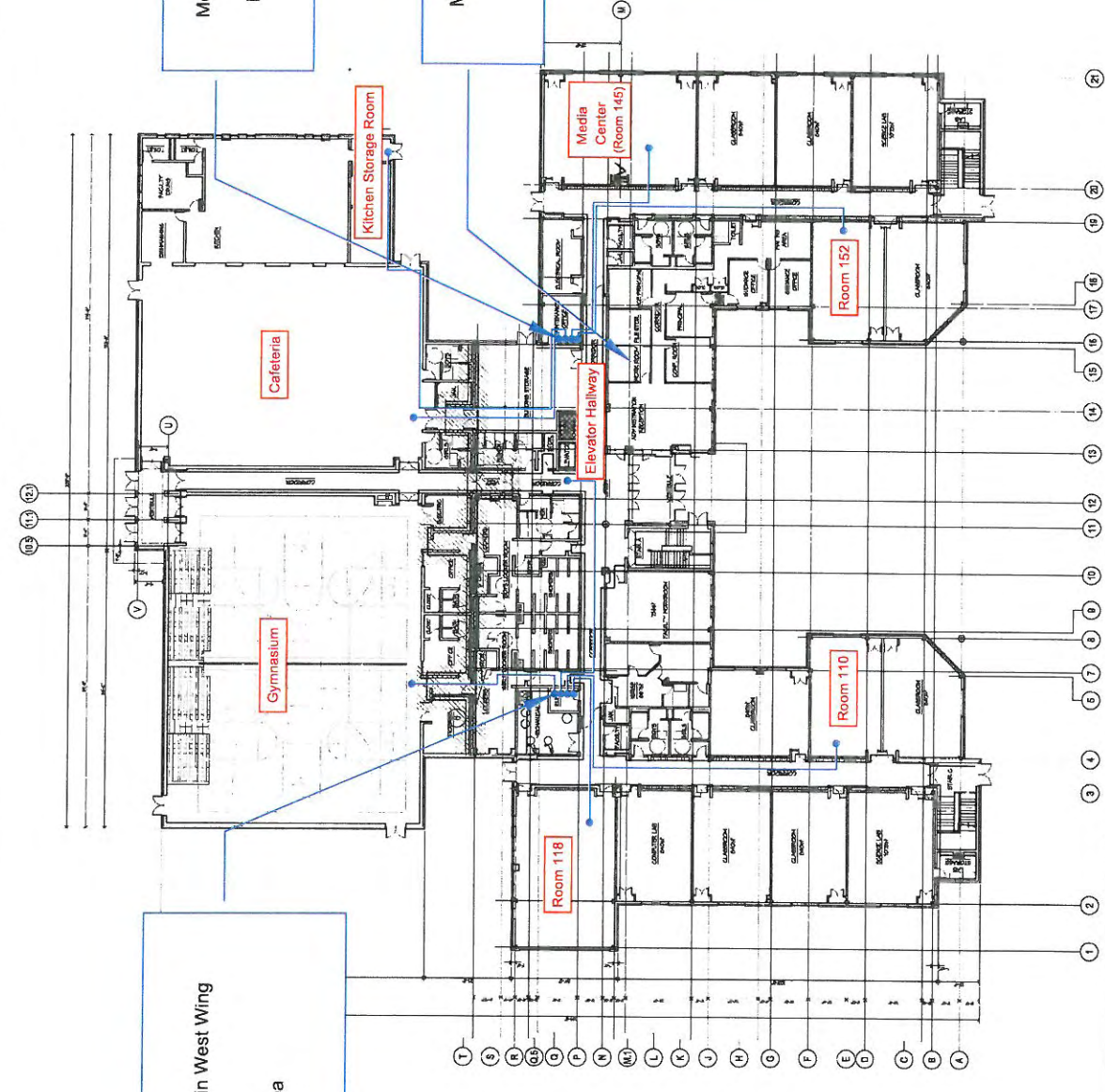
CHECKED BY:
 FP

SCALE:
 1:24,000

DATE:
 FEBRUARY 2010

PROJECT NO:
 14687.01

FILE NO:
 SITE_LOCUS.MXD

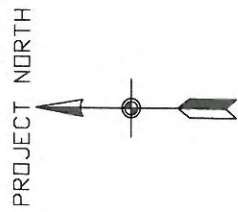


Methane Sensor Location in East Wing
Electrical Room/Maintenance Office Area.

Methane System Controller Location
Administration Work Room

NOTE: NOT TO SCALE

Methane Sensor Location in West Wing
Electrical Room Area



INDOOR AIR SAMPLING AND METHANE MONITORING
SYSTEM DIAGRAM - GORHAM HIGH SCHOOL
PROVIDENCE, RHODE ISLAND

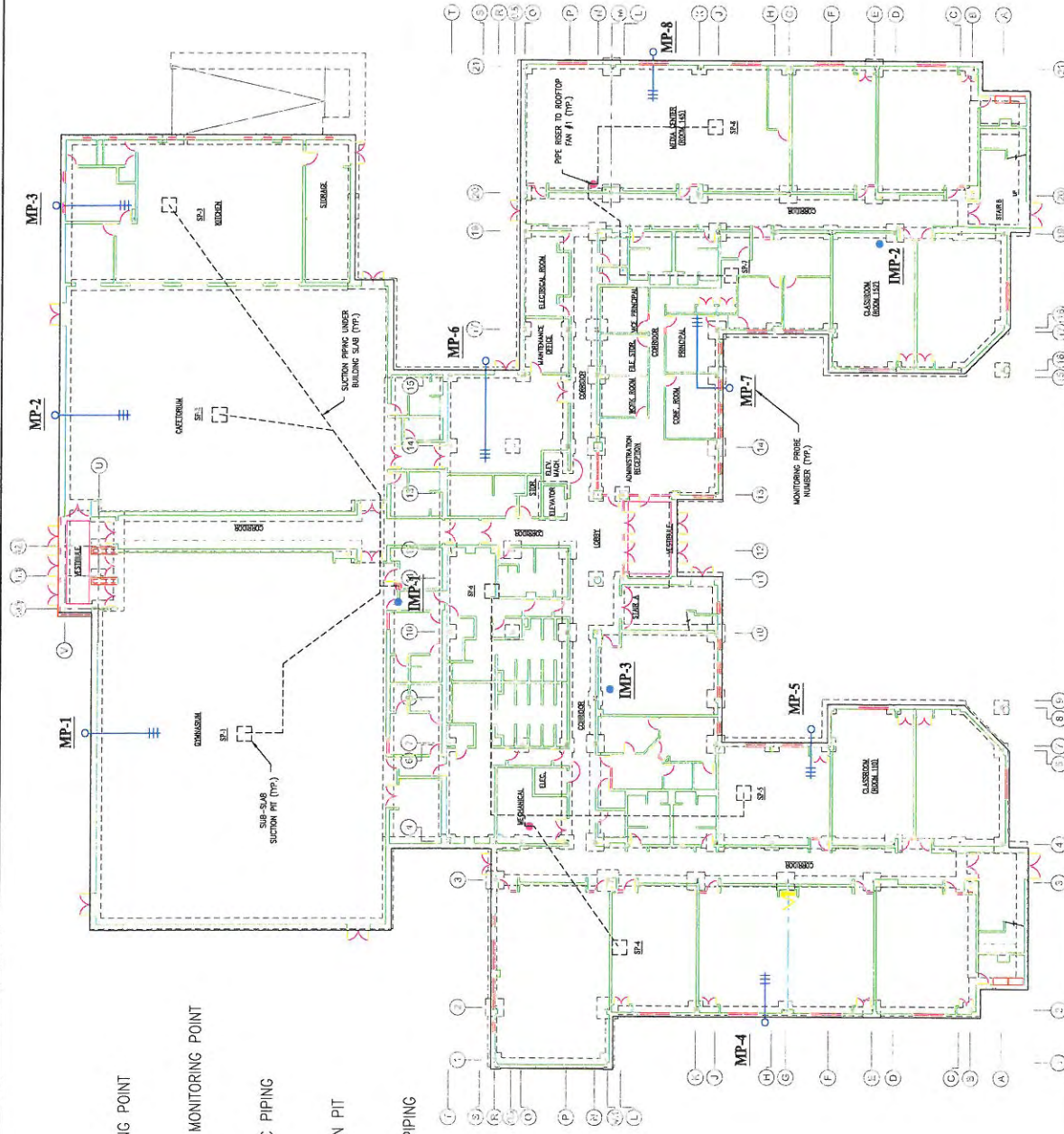
QUARTERLY STATUS REPORT
FIGURE 2

DESIGNED BY	PMG	DRAWN BY	PMG	DATE	4-3-07	PROJECT NO.	61965.01	FILE NAME	Gorham Layout
CHECKED BY	PMG	PROJECT MGR.	PMG	SCALE	NTS	DRAWING NO.	-	FIGURE	N/A



LEGEND:

- MP-1** SUB-SLAB MONITORING POINT
- IMP-1** INTERIOR SUB-SLAB MONITORING POINT
- SLOTTED 1 INCH PVC PIPING
- SSD SYSTEM SUCTION PIT
- SOLID 4 INCH PVC PIPING



DESIGNED BY	PMG	DRAWN BY	DMA	DATE	AUG 27 2007	PROJECT NO.	14687.01	FILE NAME	AS-BUILT
CHECKED BY	PMG	PROJECT MGR.	PMG	SCALE	NTS	DRAWING NO.	N/A	FIGURE	FIG 3
									QUARTERLY STATUS REPORT
									FIGURE 3
									SUB SLAB MONITORING AND SAMPLING LOCATIONS
									ALVAREZ HIGH SCHOOL
									PROVIDENCE, RHODE ISLAND

Appendix A
O&M Field Forms

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

Date of O&M: 12/23/2010

Performed by: P. Theroux

PID/Methane Calibration? US Environmental

(yes/no) No (yes/no) No

Date of last Methane Sensor Filter Replacement: Nov-10

Replaced this O&M Visit? No (yes/no) No

General Status of SSD System: Operational

General Status of Methane Monitoring System: Operational

Eng. Cap/Fence Inspection Performed/Notes: Stakes inserted for plowing

Monitoring/ Sampling Location	Sub-slab or gauge vacuum	Air Velocity (fpm)	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 (ppb)	Indoor Sensor (ppm)	(% Gas)	(% LEL)*	Summa Can ID	Controller ID	Start Time (inches Hg)	End Time (inches Hg)		End Vac (inches Hg)
Gymnasium	NA	NA	0	0	0	0						Snowy
Cafeteria	NA	NA	0	0	0	0						
Kitchen Storage Room	NA	NA	0	0	0	0						
Elevator Hallway	NA	NA	0	0	0	0						
Room 145	NA	NA	0	0	0	0						
Room 152	NA	NA	0	0	0	0						
Room 118	NA	NA	0	0	0	0						
Room 110	NA	NA	0	0	0	0						
MP-1	0.12	NA	0	NA	0	0						Pulled water with Landtec
MP-2	0.08	NA	5,966	NA	0	0						
MP-3	>0.25	NA	2874	NA	0	0						
MP-4	0.06	NA	98	NA	0	0						
MP-5	0.06	NA	178	NA	0	0						
MP-6	0.06	NA	871	NA	0	0						
MP-7	0.02	NA	171	NA	0	0						
MP-8	0.11	NA	753	NA	0	0						
IMP-1	0.01	NA	43	NA	0	0						
IMP-2	0.02	NA	0	NA	0	0						
IMP-3	0.02	NA	8	NA	0	0						
Roof-Top Fan 1	2	2,618	0	NA	0	0						
Roof-Top Fan 2	1.8	2,019	0	NA	0	0						
Roof-Top Fan 3	2.6	1,705	0	NA	0	0						
Ambient Outdoor Air	NA	NA	0	NA	0	0						

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: 26 January 2011
 PID/Methane Calibration? US Environmental
 Date of last Methane Sensor Filter Replacement: Nov-10

Performed by: R. Mack/M. Travers
 Replaced this O&M Visit? No (yes/no)

General Status of SSD System: Operational
 General Status of Methane Monitoring System: Operational

Eng. Cap/Fence Inspection Performed/Notes: Fence in good condition - snow cover prevented adequate inspection

Monitoring/Sampling Location	Sub-slab or Gauge Vacuum	Air Velocity (fpm)	VOC Monitoring PID (ppb)	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)		
				Indoor Sensor (ppm)	% Gas	% LEL*	Summa Can ID	Controller ID	Start Time (inches Hg)	Start Vac (inches Hg)		End Time	End Vac (inches Hg)
Gymnasium	NA	NA	6	0	0	0	630	0283	0741		0812	18.71	
Gymnasium	NA	NA	6	0	0	0	1038	4081	0741		0812	4.80	Analyzed by Con-Test
Cafeteria	NA	NA	8	0	0	0	1052	0391	0741		0812	18.62	
Cafeteria	NA	NA	8	0	0	0	1496	4088	0741		0812		Analyzed by Con-Test
Kitchen Storage Room	NA	NA	11	0	0	0	710	211	0910	13.6	0942	3.46	
Elevator Hallway	NA	NA	4	0	0	0	962	0396	0819	29.99	0853	18.04	
Room 145	NA	NA	0	0	0	0	619	0467	0739	29.12	0809	17.75	
Room 145	NA	NA	0	0	0	0	1649	BC4100	0739		0809	4.80	Analyzed by Con-Test
Room 152	NA	NA	179	0	0	0	1615	0078	0823	29.38	0859	16.64	
Room 118	NA	NA	6	0	0	0	1592	0140	0759	29.59	0833	17.24	
Room 110	NA	NA	258	0	0	0	613	0085	0821	29.64	0855	18.03	
Room 234	NA	NA	8	0	0	0	1667	0155	0809	29.27	0845	16.19	
Room 149	NA	NA	20	0	0	0	968	0477	0825	29.57	0858	18.70	
MP-1	0.10	NA	4263	NA	0	0	235	0037	1207	29.09	1240	2.97	
MP-2	0.03	NA		NA	0	0	469	0265	1218	28.49	1246	0.00	PID Not Functioning (Moisture)
MP-3	0.12	NA		NA	0	0	371	0014	1229	28.91	1259	27.16	PID Not Functioning (Moisture)/Flow Controller clogged w/ moisture
MP-4	0.02	NA		NA	0	0	399	0271	1232	28.89	1306	0.00	PID Not Functioning (Moisture)
MP-5	0.03	NA		NA	0	0							PID Not Functioning (Moisture)
MP-6	0.02	NA		NA	0	0	355	0446	1253	28.84	1328	5.90	PID Not Functioning (Moisture)
MP-7	0.02	NA		NA	0	0							PID Not Functioning (Moisture)
MP-8	0.06	NA		NA	0	0	401	0412	1239	28.9	1311	3.37	PID Not Functioning (Moisture)
IMP-1	0.02	NA	4030	NA	0	0	554	0332	1131	27.89	1209	0.00	PID Not Functioning (Moisture)
IMP-2	0.02	NA	4312	NA	0	0	241	0045	1122	29.54	1207	0.00	PID Not Functioning (Moisture)
IMP-3	0.02	NA	3962	NA	0	0							
Roof-Top Fan 1	3.10	1205	0	NA	0	0							PID Not Functioning (Moisture)
Roof-Top Fan 2	2.50	1312	0	NA	0	0							PID Not Functioning (Moisture)
Roof-Top Fan 3	2.70	1157	60	NA	0	0							PID Not Functioning (Moisture)
Ambient Outdoor Air	NA	NA	0	NA	0	0	1619	0194	0743	21.56	0815	1736.00	

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: 2/28/2011 Performed by: P. Theroux
 PID/Methane Calibration? US Environmental (yes/no)
 Date of last Methane Sensor Filter Replacement: Nov-10 Replaced this O&M Visit? No (yes/no)

General Status of SSD System: Operational
 General Status of Methane Monitoring System: Operational

Eng. Cap/Fence Inspection Performed/Notes: Intact

Monitoring/Sampling Location	Sub-slab or Gauge Vacuum	Air Velocity (fpm)	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 (ppb)	Indoor Sensor (ppm)	(% Gas)	(% LEL)*	Summa Can ID	Controller ID	Start Time (inches Hg)	End Time (inches Hg)	End Vac (inches Hg)	
Gymnasium	NA	NA	0.2	0	0	0						
Cafeteria	NA	NA	0.2	0	0	0						
Kitchen Storage Room	NA	NA	0.3	0	0	0						
Elevator Hallway	NA	NA	0.2	0	0	0						
Room 145	NA	NA	0.1	0	0	0						
Room 152	NA	NA	0.1	0	0	0						
Room 118	NA	NA	0.1	0	0	0						
Room 110	NA	NA	0.1	0	0	0						
MP-1	0.20	NA	1.9	NA	0	0						
MP-2	0.05	NA	0.7	NA	0	0						
MP-3	0.08	NA	4.3	NA	0	0	1744	0332	0950	1017		Pressure Gage Not Functioning
MP-4	0.05	NA	0	NA	0	0						PID Malfunctioning
MP-5	0.08	NA	0	NA	0	0						PID Malfunctioning
MP-6	0.06	NA	2.6	NA	0	0						
MP-7	0.11	NA	0	NA	0	0						
MP-8	0.07	NA	1	NA	0	0						
IMP-1	0.01	NA	0.5	NA	0	0						
IMP-2	0.02	NA	0.5	NA	0	0						
IMP-3	0.01	NA	0.4	NA	0	0						
Roof-Top Fan 1	2.00	2860	0.4	NA	0	0						
Roof-Top Fan 2	1.80	2061	0.5	NA	0	0						
Roof-Top Fan 3	2.60	1915	0.5	NA	0	0						
Ambient Outdoor Air	NA	NA	0	NA	0	0						

NA: Not applicable
 NM: Not monitored on this date
 NS: Not sampled on this date
 * RIDEEM 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.

Appendix B

Indoor and Ambient Outdoor Air Analytical Summary and Lab Report

Table 1: Summary of Indoor and Ambient Outdoor Air Sampling Data - Alvarez School Project - Volatile Organic Compounds - February 2008 - January 2011

Compound	Sampling Date	CT Data Private	Indoor Concentration	Indoor Method	Calibration	Compliance	CEM Facility	Room 118	Room 119	Class	Room 103	Room 104	Room 234	Ambient Outdoor
		Concentration	Level		Curve	Level	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Ethylbenzene	27-Mar-08	1.960	2.400	U	1.900	2.300	2.110	2.440	2.400	2.440	2.400	2.400	2.400	2.440
	27-Mar-08	2.420	2.900	U	2.300	2.700	2.170	2.400	2.400	2.440	2.400	2.400	2.400	2.440
	30-Mar-08	2.000	2.100	U	2.000	2.000	2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100
	27-Jun-08	2.300	2.700	U	2.300	2.700	2.700	2.700	2.700	2.700	2.700	2.700	2.700	2.700
	31-Jul-08	2.070	2.070	U	2.070	2.070	1.910	2.070	2.070	2.070	2.070	2.070	2.070	2.070
	31-Aug-08	3.600	3.600	U	3.600	3.600	2.870	3.600	3.600	3.600	3.600	3.600	3.600	3.600
	27-Oct-08	2.900	2.900	U	2.900	2.900	2.900	2.900	2.900	2.900	2.900	2.900	2.900	2.900
	25-Nov-08	2.500	2.500	U	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500
	18-Dec-08	2.500	2.500	U	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500
	24-Feb-09	2.320	2.320	U	2.320	2.320	2.320	2.320	2.320	2.320	2.320	2.320	2.320	2.320
	29-Apr-09	2.500	2.500	U	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500	2.500
02-Jul-09	2.100	2.100	U	2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100	
15-Jan-10	2.700	2.700	U	2.700	2.700	3.060	2.700	2.700	2.700	2.700	2.700	2.700	2.700	
18-Jul-10	2.680	2.680	U	2.680	2.680	2.680	2.680	2.680	2.680	2.680	2.680	2.680	2.680	
30-Nov-10	2.410	2.410	U	2.410	2.410	2.410	2.410	2.410	2.410	2.410	2.410	2.410	2.410	
25-Jan-11	2.490	2.490	U	2.490	2.490	2.490	2.490	2.490	2.490	2.490	2.490	2.490	2.490	
26-Jan-11*	NS	NS	U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Dichloromethane	8-Feb-08	2.100	2.440	U	2.440	2.440	2.440	2.440	2.440	2.440	2.440	2.440	2.440	2.440
	27-Mar-08	2.450	2.450	U	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450
	27-Apr-08	2.610	2.610	U	2.610	2.610	2.610	2.610	2.610	2.610	2.610	2.610	2.610	2.610
	30-May-08	2.760	2.760	U	2.760	2.760	2.760	2.760	2.760	2.760	2.760	2.760	2.760	2.760
	27-Jun-08	2.620	2.620	U	2.620	2.620	2.620	2.620	2.620	2.620	2.620	2.620	2.620	2.620
	31-Jul-08	2.650	2.650	U	2.650	2.650	2.650	2.650	2.650	2.650	2.650	2.650	2.650	2.650
	28-Aug-08	2.460	2.460	U	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460
	30-Sep-08	3.190	3.190	U	3.190	3.190	3.190	3.190	3.190	3.190	3.190	3.190	3.190	3.190
	30-Sep-08	1.400	1.400	U	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400
	27-Oct-08	1.000	1.000	U	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	18-Dec-08	1.000	1.000	U	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
27-Jan-09	1.100	1.100	U	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	
29-Feb-09	1.000	1.000	U	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
26-Mar-09	1.200	1.200	U	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	1.200	
22-Jul-09	2.400	2.400	U	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	
15-Oct-09	2.710	2.710	U	2.710	2.710	2.710	2.710	2.710	2.710	2.710	2.710	2.710	2.710	
30-Oct-09	3.650	3.650	U	3.650	3.650	3.650	3.650	3.650	3.650	3.650	3.650	3.650	3.650	
15-Jan-10	2.850	2.850	U	2.850	2.850	2.850	2.850	2.850	2.850	2.850	2.850	2.850	2.850	
21-Apr-10	2.440	2.440	U	2.440	2.440	2.440	2.440	2.440	2.440	2.440	2.440	2.440	2.440	
15-Jun-10	1.600	1.600	U	1.600	1.600	1.600	1.600	1.600	1.600	1.600	1.600	1.600	1.600	
15-Oct-10	1.240	1.240	U	1.240	1.240	1.240	1.240	1.240	1.240	1.240	1.240	1.240	1.240	
30-Nov-10	NS	NS	U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
25-Jan-11	1.760	1.760	U	1.760	1.760	1.760	1.760	1.760	1.760	1.760	1.760	1.760	1.760	
26-Jan-11*	NS	NS	U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Vinyl Chloride	8-Feb-08	0.050	0.050	U	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
	27-Mar-08	0.051	0.051	U	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051
	25-Apr-08	0.051	0.051	U	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051
	28-May-08	0.050	0.050	U	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
	28-May-08	0.050	0.050	U	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
	31-Jul-08	0.050	0.050	U	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
	28-Aug-08	0.051	0.051	U	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051
	30-Sep-08	0.050	0.050	U	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
	30-Sep-08	0.050	0.050	U	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
	27-Oct-08	0.050	0.050	U	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
	18-Dec-08	0.050	0.050	U	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
27-Jan-09	0.050	0.050	U	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	
29-Feb-09	0.051	0.051	U	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	
22-Jul-09	0.051	0.051	U	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	
15-Oct-09	0.051	0.051	U	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	
21-Apr-10	0.051	0.051	U	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	
15-Jun-10	0.051	0.051	U	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	0.051	
15-Oct-10	NS	NS	U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
25-Jan-11	NS	NS	U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
26-Jan-11*	NS	NS	U	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
Chloroethane	8-Feb-08	0.080	0.080	U	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080
	27-Mar-08	0.080	0.080	U	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080
	25-Apr-08	0.083	0.083	U	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083
	27-Jun-08	0.080	0.080	U	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080	0.080
	30-Jul-08	0.083	0.083	U	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083
	28-Aug-08	0.083	0.083	U	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083
	30-Sep-08	1.300	1.300	U	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300
	27-Oct-08	1.300	1.300	U	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300
	18-Dec-08	1.300	1.300	U	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300
	27-Jan-09	1.300	1.300	U	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300
	29-Feb-09	1.300	1.300	U	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300	1.300
22-Jul-09	0.083	0.083	U	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	
15-Oct-09	0.083	0.083	U	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	
22-Jul-10	0.083	0.083	U	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	
9-Oct-10	0.083	0.083	U	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	
21-Apr-10	0.083	0.083	U	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	0.083	
15-Jun-10	0.083	0.083	U	0.083	0.083	0.083								

Table 1: Summary of Indoor and Ambient Outdoor Air Sampling Data - Alvarez School Project - Volatile Organic Compounds
February 2008 - January 2011

Volatile Organic Compounds via TO-15 1,2-Dichlorobenzene (ED3)	Sampling Date (M/D/YY)	CT Data Provided (Indoor Residential Target Air Concentration (ppm) REEEL Approval Action Level	Kitchen (Target: 0.5) Unit	Classrooms Unit	Gymnasium Unit	Elementary Hallway Unit	Room 111 Unit	Room 110 Unit	Mech. Cnt. (Rm. 145) Unit	Room 102 Unit	From 142 Unit	Room 234 Unit	Ambient Outdoor Unit	
														0.150
1,1,1,2,2-Tetrachloroethane	17-Mar-08	0.00010015	U	U	U	U	U	U	U	U	U	U	U	
	15-Apr-08	0.154	U	U	U	U	U	U	U	U	U	U	U	
	25-Apr-08	0.154	U	U	U	U	U	U	U	U	U	U	U	
	27-May-08	0.150	U	U	U	U	U	U	U	U	U	U	U	
	21-Jun-08	0.154	U	U	U	U	U	U	U	U	U	U	U	
	21-Jul-08	0.154	U	U	U	U	U	U	U	U	U	U	U	
	28-Aug-08	0.154	U	U	U	U	U	U	U	U	U	U	U	
	27-Oct-08	0.150	U	U	U	U	U	U	U	U	U	U	U	
	27-Nov-08	0.150	U	U	U	U	U	U	U	U	U	U	U	
	25-Dec-08	0.150	U	U	U	U	U	U	U	U	U	U	U	
	18-Jan-09	0.150	U	U	U	U	U	U	U	U	U	U	U	
	17-Feb-09	0.150	U	U	U	U	U	U	U	U	U	U	U	
	17-Mar-09	0.154	U	U	U	U	U	U	U	U	U	U	U	
	21-Apr-09	0.154	U	U	U	U	U	U	U	U	U	U	U	
	27-May-09	0.154	U	U	U	U	U	U	U	U	U	U	U	
	30-Jun-09	0.154	U	U	U	U	U	U	U	U	U	U	U	
	14-Jul-09	0.154	U	U	U	U	U	U	U	U	U	U	U	
	15-Aug-09	0.154	U	U	U	U	U	U	U	U	U	U	U	
	15-Sep-09	0.154	U	U	U	U	U	U	U	U	U	U	U	
	15-Oct-09	0.154	U	U	U	U	U	U	U	U	U	U	U	
	20-Nov-09	0.154	U	U	U	U	U	U	U	U	U	U	U	
	20-Jan-11	0.252	U	U	U	U	U	U	U	U	U	U	U	U
	20-Jan-11	0.250	U	U	U	U	U	U	U	U	U	U	U	U
	Chloroform	17-Mar-08	0.150	U	U	U	U	U	U	U	U	U	U	U
		15-Apr-08	0.150	U	U	U	U	U	U	U	U	U	U	U
25-Apr-08		0.154	U	U	U	U	U	U	U	U	U	U	U	
27-May-08		0.150	U	U	U	U	U	U	U	U	U	U	U	
21-Jun-08		0.154	U	U	U	U	U	U	U	U	U	U	U	
21-Jul-08		0.154	U	U	U	U	U	U	U	U	U	U	U	
28-Aug-08		0.154	U	U	U	U	U	U	U	U	U	U	U	
27-Oct-08		0.150	U	U	U	U	U	U	U	U	U	U	U	
27-Nov-08		0.150	U	U	U	U	U	U	U	U	U	U	U	
25-Dec-08		0.150	U	U	U	U	U	U	U	U	U	U	U	
18-Jan-09		0.150	U	U	U	U	U	U	U	U	U	U	U	
17-Feb-09		0.150	U	U	U	U	U	U	U	U	U	U	U	
21-Apr-09		0.154	U	U	U	U	U	U	U	U	U	U	U	
27-May-09		0.154	U	U	U	U	U	U	U	U	U	U	U	
30-Jun-09		0.154	U	U	U	U	U	U	U	U	U	U	U	
14-Jul-09		0.154	U	U	U	U	U	U	U	U	U	U	U	
15-Aug-09		0.154	U	U	U	U	U	U	U	U	U	U	U	
15-Sep-09		0.154	U	U	U	U	U	U	U	U	U	U	U	
15-Oct-09		0.154	U	U	U	U	U	U	U	U	U	U	U	
20-Nov-09		0.154	U	U	U	U	U	U	U	U	U	U	U	
20-Jan-11		0.156	U	U	U	U	U	U	U	U	U	U	U	
20-Jan-11		0.220	U	U	U	U	U	U	U	U	U	U	U	

Table 1: Summary of Indoor and Ambient Outdoor Air Sampling Data - Alvarez School Project - Volatile Organic Compounds
February 2008 - January 2011

Volatile Organic Compounds via TO-15 1,1,2,2-Tetrachloroethane	Specific Date	CI Data Provided Indoor Residential Target Air Concentration (ppm) RUCM Analytical Action Level	Kitchen Storage Bin	Office	Classroom	Elevator Hallways	Room 118	Room 110	Media Ctr. (rm 142)	Room 127	Room 214	Ambient Outdoor	
													0.140
1,1,2,2-Tetrachloroethane	8-Feb-08	0.270	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	
	15-Feb-08	0.270	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	
	27-Apr-08	0.824	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	
	27-May-08	0.120	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	
	27-Jun-08	0.463	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	
	31-Jul-08	0.117	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	
	31-Aug-08	0.715	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	
	27-Sep-08	2.200	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	27-Oct-08	2.200	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	26-Nov-08	2.200	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	26-Dec-08	2.200	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	21-Jan-09	2.200	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	22-Feb-09	2.200	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	22-Mar-09	1.080	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	22-Apr-09	0.345	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	30-Apr-09	0.196	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	30-May-09	0.724	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	15-Jun-10	0.494	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	15-Jul-10	0.425	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	15-Aug-10	0.172	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	15-Sep-10	0.225	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	20-Jan-11	1.300	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	20-Jan-11*	NS	0.340	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
	1,2-Dichloroethane	8-Feb-08	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460
		15-Feb-08	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460
27-Apr-08		2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
27-May-08		2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
27-Jun-08		2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
31-Jul-08		2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
28-Aug-08		2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
30-Sep-08		4.000	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
30-Oct-08		4.000	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
23-Nov-08		4.000	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
23-Dec-08		4.000	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
21-Jan-09		4.000	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
21-Feb-09		4.000	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
21-Mar-09		4.000	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
21-Apr-09		4.000	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
21-May-09		4.000	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
18-Jun-09		4.000	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
18-Jul-09		4.000	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
15-Oct-10		2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
15-Nov-10		2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
20-Jan-11		4.190	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	
20-Jan-11*		NS	NS	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460	2.460
1,2,3-Trimethylbenzene		8-Feb-08	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660
		15-Feb-08	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660
		27-Apr-08	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660
	27-May-08	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	27-Jun-08	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	31-Jul-08	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	28-Aug-08	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	27-Oct-08	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	27-Nov-08	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	21-Jan-09	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	21-Feb-09	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	21-Mar-09	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	21-Apr-09	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	18-Jun-09	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	18-Jul-09	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	15-Oct-10	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	15-Nov-10	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	20-Jan-11	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	
	20-Jan-11*	NS	NS	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660	0.660

Table 1: Summary of Indoor and Ambient Outdoor Air Sampling Data - Alvarez School Project - Volatile Organic Compounds
February 2008 - January 2011

Compound	Sample Date	CT Data Reported (in Use) Residential Target for Concentration/Status (RUE/Approved Action Level)	Admission Storage (in)	Caterers	Lympharium	Elevator Lobby	Room 118	Room 119	Music Ctr. (Rm. 140)	Room 145	Room 224	Ambient Outdoor	
1,4-Dichlorobenzene	8-Feb-04		0.900	0.770	2.500	1.620	0.110	0.110	0.210			0.210	
	7-Mar-04		1.330	1.250	2.340	1.590	0.210	0.170	0.310			0.108	
	25-Mar-04		0.098	0.300	1.170	0.820	0.050	0.120	0.150			0.105	
	27-Mar-04		0.198	0.900	1.170	1.640	0.050	0.120	0.150			0.105	
	31-Mar-04		1.650	0.443	2.120	6.000	0.270	0.960	0.620			0.175	
	30-Sep-04		0.488	1.930	1.330	2.900	0.168	0.248	0.208			0.157	
	27-Oct-04		2.700	3.000	3.000	3.340	0.642	0.890	0.142			0.254	
	25-Nov-04		2.500	2.500	3.000	3.000	2.500	2.500	2.500			2.500	
	15-Dec-04		2.500	2.500	3.000	3.000	2.500	2.500	2.500			2.500	
	25-Feb-07	9.3		2.500	2.500	2.500	2.500	2.500	2.500			2.500	
	30-Apr-09			0.840	1.000	1.000	0.691	0.737	0.854			0.730	
	8-Oct-09			1.500	1.240	1.200	0.720	0.865	0.805			0.142	
	15-Jan-10			0.600	1.140	0.339	0.794	0.164	0.166			0.084	
	21-Apr-10			1.080	1.500	1.460	0.786	0.786	0.172			0.185	
	15-Jul-10			0.300	0.571	0.208	0.198	0.198	0.169			0.169	
	15-Jul-10			0.354	0.545	0.271	0.250	0.250	0.407			0.108	
	30-Nov-10			0.389	0.262	0.344	0.118	0.118	0.098			0.108	
	26-Jan-11			1.120	0.980	1.150	0.850	0.850	0.319			0.850	
	20-Jan-11			10.0	1.000	1.000	0.937	0.937	1.000		1.000	0.944	
	8-Feb-08			0.120	0.120	0.120	0.120	0.120	0.120			0.120	
	27-Mar-08			0.120	0.120	0.120	0.120	0.120	0.120			0.120	
	29-Apr-08			0.120	0.120	0.120	0.120	0.120	0.120			0.120	
	25-May-08			0.120	0.120	0.120	0.120	0.120	0.120			0.120	
	31-Jul-08			0.120	0.120	0.120	0.120	0.120	0.120			0.120	
	26-Aug-08			0.120	0.120	0.120	0.120	0.120	0.120			0.120	
30-Sep-08			0.120	0.120	0.120	0.120	0.120	0.120			0.120		
25-Oct-08			3.000	3.000	3.000	3.000	3.000	3.000			3.000		
19-Nov-08			3.000	3.000	3.000	3.000	3.000	3.000			3.000		
18-Dec-08			3.000	3.000	3.000	3.000	3.000	3.000			3.000		
25-Feb-09			3.000	3.000	3.000	3.000	3.000	3.000			3.000		
25-Mar-09			3.000	3.000	3.000	3.000	3.000	3.000			3.000		
25-Apr-09			3.000	3.000	3.000	3.000	3.000	3.000			3.000		
22-Jun-09			0.100	0.100	0.100	0.100	0.100	0.100			0.100		
15-Jan-10			0.100	0.100	0.100	0.100	0.100	0.100			0.100		
21-Apr-10			0.100	0.100	0.100	0.100	0.100	0.100			0.100		
15-Jul-10			0.100	0.100	0.100	0.100	0.100	0.100			0.100		
15-Oct-10			0.100	0.100	0.100	0.100	0.100	0.100			0.100		
30-Nov-10			0.100	0.100	0.100	0.100	0.100	0.100			0.100		
26-Jan-11			0.200	0.200	0.200	0.200	0.200	0.200		0.200	0.200		
20-Jan-11			0.300	0.300	0.300	0.300	0.300	0.300		0.300	0.300		
1,4-Dichlorobenzene	8-Feb-08		0.120	0.120	0.120	0.120	0.120	0.120				0.120	
	27-Mar-08		0.282	0.272	0.206	0.120	0.120	0.120				0.120	
	29-Apr-08		0.415	0.287	0.206	0.120	0.120	0.120				0.120	
	25-May-08		0.596	0.290	0.126	0.347	0.281	0.281				0.120	
	31-Jul-08		0.309	0.126	0.126	0.120	0.120	0.120				0.120	
	26-Aug-08		0.514	0.308	0.126	0.120	0.120	0.120				0.120	
	30-Sep-08		0.168	0.272	0.272	0.315	0.120	0.273				0.120	
	25-Oct-08		3.000	3.000	3.000	3.000	3.000	3.000				3.000	
	19-Nov-08		3.000	3.000	3.000	3.000	3.000	3.000				3.000	
	18-Dec-08		3.000	3.000	3.000	3.000	3.000	3.000				3.000	
	25-Feb-09		3.000	3.000	3.000	3.000	3.000	3.000				3.000	
	25-Mar-09		3.000	3.000	3.000	3.000	3.000	3.000				3.000	
	25-Apr-09		3.000	3.000	3.000	3.000	3.000	3.000				3.000	
	22-Jun-09			0.100	0.100	0.100	0.100	0.100	0.100			0.100	
	15-Jan-10			0.100	0.100	0.100	0.100	0.100	0.100			0.100	
	21-Apr-10			0.100	0.100	0.100	0.100	0.100	0.100			0.100	
	15-Jul-10			0.100	0.100	0.100	0.100	0.100	0.100			0.100	
	15-Oct-10			0.100	0.100	0.100	0.100	0.100	0.100			0.100	
	30-Nov-10			0.100	0.100	0.100	0.100	0.100	0.100			0.100	
	26-Jan-11			0.200	0.200	0.200	0.200	0.200	0.200		0.200	0.200	
	20-Jan-11			0.300	0.300	0.300	0.300	0.300	0.300		0.300	0.300	
	1,4-Dichlorobenzene	8-Feb-08		0.120	0.120	0.120	0.120	0.120	0.120				0.120
		27-Mar-08		0.282	0.272	0.206	0.120	0.120	0.120				0.120
		29-Apr-08		0.415	0.287	0.206	0.347	0.281	0.281				0.120
		25-May-08		0.596	0.290	0.126	0.120	0.120	0.120				0.120
31-Jul-08			0.309	0.126	0.126	0.120	0.120	0.120				0.120	
26-Aug-08			0.514	0.308	0.126	0.120	0.120	0.120				0.120	
30-Sep-08			0.168	0.272	0.272	0.315	0.120	0.273				0.120	
25-Oct-08			3.000	3.000	3.000	3.000	3.000	3.000				3.000	
19-Nov-08			3.000	3.000	3.000	3.000	3.000	3.000				3.000	
18-Dec-08			3.000	3.000	3.000	3.000	3.000	3.000				3.000	
25-Feb-09			3.000	3.000	3.000	3.000	3.000	3.000				3.000	
25-Mar-09			3.000	3.000	3.000	3.000	3.000	3.000				3.000	
25-Apr-09			3.000	3.000	3.000	3.000	3.000	3.000				3.000	
22-Jun-09				0.100	0.100	0.100	0.100	0.100	0.100			0.100	
15-Jan-10				0.100	0.100	0.100	0.100	0.100	0.100			0.100	
21-Apr-10				0.100	0.100	0.100	0.100	0.100	0.100			0.100	
15-Jul-10				0.100	0.100	0.100	0.100	0.100	0.100			0.100	
15-Oct-10				0.100	0.100	0.100	0.100	0.100	0.100			0.100	
30-Nov-10				0.100	0.100	0.100	0.100	0.100	0.100			0.100	
26-Jan-11				0.200	0.200	0.200	0.200	0.200	0.200		0.200	0.200	
20-Jan-11				0.300	0.300	0.300	0.300	0.300	0.300		0.300	0.300	

Table 1: Summary of Indoor and Ambient Outdoor Air Sampling Data - Alvarez School Project - Volatile Organic Compounds
February 2008 - January 2011

Volatile Organic Compound Name	Sample Date	CT Data Proposed Indoor Residential Target Air Concentration/Minimum Recommended Action Level	Residence (3hr)	Classroom	Commensal	Other Buildings	Room 118	Q-11	Room 110	Q-10	Class	Room 152	Q-13	Room 154	Q-14	Amount Outdoor	Q-15	
1,2-Dichlorobenzene	8-Feb-08		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	27-Mar-08		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	29-Apr-08		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	23-May-08		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	31-Jul-08		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	26-Aug-08		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	30-Sep-08		5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	U	
	30-Sep-08		5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	U	
	25-Nov-08		5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	U	
	18-Dec-08	67.0	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	U	
	21-Jan-09		5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	U	
	25-Feb-09		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	23-Mar-09		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	9-May-09		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	21-Jun-10		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	16-Jul-10		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	15-Oct-10		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	20-Jan-11		0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	U	
	20-Jan-11		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	U	
	1,2-Dichloroethane	8-Feb-08		0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	U
27-Mar-08			0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	U	
29-Apr-08			0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	U	
23-May-08			0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	U	
31-Jul-08			0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	U	
26-Aug-08			3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	U	
30-Sep-08			3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	U	
30-Sep-08			3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	U	
25-Nov-08			3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	U	
18-Dec-08		71.0	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	U	
21-Jan-09			3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000	U	
25-Feb-09			0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	U	
9-May-09			0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	U	
21-Jun-10			0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	U	
16-Jul-10			0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	U	
15-Oct-10			0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	U	
20-Jan-11			0.205	0.205	0.205	0.205	0.205	0.205	0.205	0.205	0.205	0.205	0.205	0.205	0.205	0.205	U	
20-Jan-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	U	
1,2-Dichloroethane		8-Feb-08		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U
		27-Mar-08		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U
	29-Apr-08		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	23-May-08		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	31-Jul-08		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	26-Aug-08		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	30-Sep-08		5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	U	
	30-Sep-08		5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	U	
	25-Nov-08		5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	U	
	18-Dec-08	73.0	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	U	
	21-Jan-09		5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	5.900	U	
	25-Feb-09		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	9-May-09		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	21-Jun-10		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	16-Jul-10		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	15-Oct-10		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	U	
	20-Jan-11		0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	0.658	U	
	20-Jan-11		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	U	

Note: NS = not detected by the laboratory. Reporting limit shown on the data table.
 U = detection peak(s) that the compound was not detected by the laboratory. Reporting limit shown on the data table.
 NS = not sampled.
 * = Site Specific Compound of Concern per ASR Health Consultation, December 4, 2008
 ** = Analyzed by Cohn Test Analytical Laboratory
 1 = Elevated, Tetrahydrozinc and Acetone data collected on 27-Mar-09, was determined to be the result of cleaning products (e.g., graffiti remover, stainless steel polish, etc.) introduced to the school in February and March, and not the result of soil vapor intrusion. Re-sampling effort on 28-Apr-09, indicates no exceedance of any lab's airborne action levels.
 2 = Elevated, Tetrahydrozinc and Acetone data collected on 27-Mar-09, was determined to be the result of cleaning products (e.g., graffiti remover, stainless steel polish, etc.) introduced to the school in February and March, and not the result of soil vapor intrusion. Re-sampling effort on 28-Apr-09, indicates no exceedance of any lab's airborne action levels.



ANALYTICAL REPORT

Lab Number: L1101200
Client: EA Engineering, Science and Tech
2374 Post Road
Suite 102
Warwick, RI 02886
ATTN: Frank Postma
Phone: (401) 736-3440
Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01
Report Date: 02/11/11

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

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: L1101200
Report Date: 02/11/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1101200-01	GYMNASIUM	PROVIDENCE, RI	01/26/11 08:12
L1101200-02	CAFETERIA	PROVIDENCE, RI	01/26/11 08:12
L1101200-03	ROOM 145	PROVIDENCE, RI	01/26/11 08:09
L1101200-04	KITCHEN STORAGE RM	PROVIDENCE, RI	01/26/11 09:42
L1101200-05	ELEVATOR HALLWAY	PROVIDENCE, RI	01/26/11 08:53
L1101200-06	ROOM 152	PROVIDENCE, RI	01/26/11 08:59
L1101200-07	ROOM 118	PROVIDENCE, RI	01/26/11 08:33
L1101200-08	ROOM 110	PROVIDENCE, RI	01/26/11 08:55
L1101200-09	AMBIENT OUTDOOR	PROVIDENCE, RI	01/26/11 08:15

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1101200
Report Date: 02/11/11

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. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of 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.

The canister certification results are provided as an addendum.

Volatile Organics in Air (SIM)

L1101200-01 through -09 and WG454618-5 Duplicate: Prior to sample analysis, the canisters were pressurized with UHP Nitrogen due to low sample volume upon sample receipt. The pressurization resulted in a dilution of the samples. The reporting limits have been elevated accordingly.

The WG454618-3 LCS recovery for Methyl tert butyl ether (68%) is outside the 70%-130% acceptance limit. The LCS was within overall method allowances, therefore the analysis proceeded.

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:  Kathleen O'Brien

Title: Technical Director/Representative

Date: 02/11/11

AIR

Project Name: ALVAREZ HIGH SCHOOL**Project Number:** 14687.01**Lab Number:** L1101200**Report Date:** 02/11/11**SAMPLE RESULTS**

Lab ID: L1101200-01 D
 Client ID: GYMNASIUM
 Sample Location: PROVIDENCE, RI
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 02/10/11 20:39
 Analyst: RY

Date Collected: 01/26/11 08:12
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.474	0.085	--	2.34	0.421	--		1.705
Chloromethane	ND	0.852	--	ND	1.76	--		1.705
Vinyl chloride	ND	0.034	--	ND	0.087	--		1.705
Chloroethane	ND	0.034	--	ND	0.090	--		1.705
Acetone	4.87	3.41	--	11.6	8.09	--		1.705
Trichlorofluoromethane	0.307	0.085	--	1.72	0.478	--		1.705
Acrylonitrile	ND	0.852	--	ND	1.85	--		1.705
1,1-Dichloroethene	ND	0.034	--	ND	0.135	--		1.705
Methylene chloride	ND	0.852	--	ND	2.96	--		1.705
trans-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.705
1,1-Dichloroethane	ND	0.034	--	ND	0.138	--		1.705
Methyl tert butyl ether	ND	0.034	--	ND	0.123	--		1.705
2-Butanone	ND	0.852	--	ND	2.51	--		1.705
cis-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.705
Chloroform	ND	0.034	--	ND	0.166	--		1.705
1,2-Dichloroethane	ND	0.034	--	ND	0.138	--		1.705
1,1,1-Trichloroethane	ND	0.034	--	ND	0.186	--		1.705
Benzene	0.929	0.170	--	2.97	0.544	--		1.705
Carbon tetrachloride	0.080	0.034	--	0.504	0.214	--		1.705
1,2-Dichloropropane	ND	0.034	--	ND	0.157	--		1.705
Bromodichloromethane	ND	0.034	--	ND	0.228	--		1.705
Trichloroethene	0.099	0.034	--	0.531	0.183	--		1.705
cis-1,3-Dichloropropene	ND	0.034	--	ND	0.155	--		1.705
4-Methyl-2-pentanone	ND	0.852	--	ND	3.49	--		1.705
trans-1,3-Dichloropropene	ND	0.034	--	ND	0.155	--		1.705

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1101200
Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-01 D
 Client ID: GYMNASIUM
 Sample Location: PROVIDENCE, RI

Date Collected: 01/26/11 08:12
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,2-Trichloroethane	ND	0.034	--	ND	0.186	--		1.705
Toluene	1.50	0.085	--	5.64	0.321	--		1.705
Dibromochloromethane	ND	0.034	--	ND	0.290	--		1.705
1,2-Dibromoethane	ND	0.034	--	ND	0.262	--		1.705
Tetrachloroethene	0.055	0.034	--	0.370	0.231	--		1.705
1,1,1,2-Tetrachloroethane	ND	0.034	--	ND	0.234	--		1.705
Chlorobenzene	ND	0.034	--	ND	0.157	--		1.705
Ethylbenzene	0.254	0.034	--	1.10	0.148	--		1.705
p/m-Xylene	0.670	0.068	--	2.91	0.296	--		1.705
Bromoform	ND	0.034	--	ND	0.352	--		1.705
Styrene	0.041	0.034	--	0.174	0.145	--		1.705
1,1,2,2-Tetrachloroethane	ND	0.034	--	ND	0.234	--		1.705
o-Xylene	0.235	0.034	--	1.02	0.148	--		1.705
Isopropylbenzene	ND	0.852	--	ND	4.19	--		1.705
1,3,5-Trimethylbenzene	0.073	0.034	--	0.360	0.168	--		1.705
1,2,4-Trimethylbenzene	0.225	0.034	--	1.10	0.168	--		1.705
1,3-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.705
1,4-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.705
sec-Butylbenzene	ND	0.852	--	ND	4.68	--		1.705
p-Isopropyltoluene	ND	0.852	--	ND	4.68	--		1.705
1,2-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.705
n-Butylbenzene	ND	0.852	--	ND	4.68	--		1.705

Serial_No:02111115:40

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1101200

Project Number: 14687.01

Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-01 D
Client ID: GYMNASIUM
Sample Location: PROVIDENCE, RI

Date Collected: 01/26/11 08:12
Date Received: 01/28/11
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	90		60-140



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1101200
Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-02 D
 Client ID: CAFETERIA
 Sample Location: PROVIDENCE, RI
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 02/10/11 21:17
 Analyst: RY

Date Collected: 01/26/11 08:12
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.534	0.085	--	2.64	0.420	--		1.7
Chloromethane	ND	0.850	--	ND	1.75	--		1.7
Vinyl chloride	ND	0.034	--	ND	0.087	--		1.7
Chloroethane	ND	0.034	--	ND	0.090	--		1.7
Acetone	8.78	3.40	--	20.8	8.07	--		1.7
Trichlorofluoromethane	0.348	0.085	--	1.96	0.477	--		1.7
Acrylonitrile	ND	0.850	--	ND	1.84	--		1.7
1,1-Dichloroethene	ND	0.034	--	ND	0.135	--		1.7
Methylene chloride	ND	0.850	--	ND	2.95	--		1.7
trans-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.7
1,1-Dichloroethane	ND	0.034	--	ND	0.138	--		1.7
Methyl tert butyl ether	ND	0.034	--	ND	0.122	--		1.7
2-Butanone	1.08	0.850	--	3.19	2.50	--		1.7
cis-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.7
Chloroform	0.070	0.034	--	0.340	0.166	--		1.7
1,2-Dichloroethane	ND	0.034	--	ND	0.138	--		1.7
1,1,1-Trichloroethane	ND	0.034	--	ND	0.185	--		1.7
Benzene	0.906	0.170	--	2.89	0.543	--		1.7
Carbon tetrachloride	0.080	0.034	--	0.502	0.214	--		1.7
1,2-Dichloropropane	ND	0.034	--	ND	0.157	--		1.7
Bromodichloromethane	ND	0.034	--	ND	0.228	--		1.7
Trichloroethene	0.094	0.034	--	0.502	0.182	--		1.7
cis-1,3-Dichloropropene	ND	0.034	--	ND	0.154	--		1.7
4-Methyl-2-pentanone	ND	0.850	--	ND	3.48	--		1.7
trans-1,3-Dichloropropene	ND	0.034	--	ND	0.154	--		1.7

Project Name: ALVAREZ HIGH SCHOOL**Lab Number:** L1101200**Project Number:** 14687.01**Report Date:** 02/11/11**SAMPLE RESULTS**

Lab ID: L1101200-02 D
 Client ID: CAFETERIA
 Sample Location: PROVIDENCE, RI

Date Collected: 01/26/11 08:12
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,2-Trichloroethane	ND	0.034	--	ND	0.185	--		1.7
Toluene	1.59	0.085	--	5.97	0.320	--		1.7
Dibromochloromethane	ND	0.034	--	ND	0.289	--		1.7
1,2-Dibromoethane	ND	0.034	--	ND	0.261	--		1.7
Tetrachloroethene	0.071	0.034	--	0.484	0.230	--		1.7
1,1,1,2-Tetrachloroethane	ND	0.034	--	ND	0.233	--		1.7
Chlorobenzene	ND	0.034	--	ND	0.156	--		1.7
Ethylbenzene	0.231	0.034	--	1.00	0.148	--		1.7
p/m-Xylene	0.600	0.068	--	2.60	0.295	--		1.7
Bromoform	ND	0.034	--	ND	0.351	--		1.7
Styrene	0.053	0.034	--	0.224	0.145	--		1.7
1,1,2,2-Tetrachloroethane	ND	0.034	--	ND	0.233	--		1.7
o-Xylene	0.226	0.034	--	0.981	0.148	--		1.7
Isopropylbenzene	ND	0.850	--	ND	4.18	--		1.7
1,3,5-Trimethylbenzene	0.066	0.034	--	0.326	0.167	--		1.7
1,2,4-Trimethylbenzene	0.228	0.034	--	1.12	0.167	--		1.7
1,3-Dichlorobenzene	ND	0.034	--	ND	0.204	--		1.7
1,4-Dichlorobenzene	0.078	0.034	--	0.470	0.204	--		1.7
sec-Butylbenzene	ND	0.850	--	ND	4.66	--		1.7
p-Isopropyltoluene	ND	0.850	--	ND	4.66	--		1.7
1,2-Dichlorobenzene	ND	0.034	--	ND	0.204	--		1.7
n-Butylbenzene	ND	0.850	--	ND	4.66	--		1.7

Serial_No:02111115:40

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1101200

Project Number: 14687.01

Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-02 D

Date Collected: 01/26/11 08:12

Client ID: CAFETERIA

Date Received: 01/28/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		

Volatile Organics in Air by SIM - Mansfield Lab

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	84		60-140



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1101200
Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-03 D
 Client ID: ROOM 145
 Sample Location: PROVIDENCE, RI
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 02/10/11 21:54
 Analyst: RY

Date Collected: 01/26/11 08:09
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.479	0.085	--	2.37	0.420	--		1.7
Chloromethane	ND	0.850	--	ND	1.75	--		1.7
Vinyl chloride	ND	0.034	--	ND	0.087	--		1.7
Chloroethane	ND	0.034	--	ND	0.090	--		1.7
Acetone	5.31	3.40	--	12.6	8.07	--		1.7
Trichlorofluoromethane	0.291	0.085	--	1.63	0.477	--		1.7
Acrylonitrile	ND	0.850	--	ND	1.84	--		1.7
1,1-Dichloroethene	ND	0.034	--	ND	0.135	--		1.7
Methylene chloride	1.52	0.850	--	5.29	2.95	--		1.7
trans-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.7
1,1-Dichloroethane	ND	0.034	--	ND	0.138	--		1.7
Methyl tert butyl ether	ND	0.034	--	ND	0.122	--		1.7
2-Butanone	0.894	0.850	--	2.64	2.50	--		1.7
cis-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.7
Chloroform	ND	0.034	--	ND	0.166	--		1.7
1,2-Dichloroethane	ND	0.034	--	ND	0.138	--		1.7
1,1,1-Trichloroethane	ND	0.034	--	ND	0.185	--		1.7
Benzene	0.802	0.170	--	2.56	0.543	--		1.7
Carbon tetrachloride	0.077	0.034	--	0.481	0.214	--		1.7
1,2-Dichloropropane	ND	0.034	--	ND	0.157	--		1.7
Bromodichloromethane	ND	0.034	--	ND	0.228	--		1.7
Trichloroethene	0.080	0.034	--	0.429	0.182	--		1.7
cis-1,3-Dichloropropene	ND	0.034	--	ND	0.154	--		1.7
4-Methyl-2-pentanone	ND	0.850	--	ND	3.48	--		1.7
trans-1,3-Dichloropropene	ND	0.034	--	ND	0.154	--		1.7

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1101200
Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-03 D
 Client ID: ROOM 145
 Sample Location: PROVIDENCE, RI

Date Collected: 01/26/11 08:09
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,2-Trichloroethane	ND	0.034	--	ND	0.185	--		1.7
Toluene	1.55	0.085	--	5.83	0.320	--		1.7
Dibromochloromethane	ND	0.034	--	ND	0.289	--		1.7
1,2-Dibromoethane	ND	0.034	--	ND	0.261	--		1.7
Tetrachloroethene	0.051	0.034	--	0.346	0.230	--		1.7
1,1,1,2-Tetrachloroethane	ND	0.034	--	ND	0.233	--		1.7
Chlorobenzene	ND	0.034	--	ND	0.156	--		1.7
Ethylbenzene	0.219	0.034	--	0.951	0.148	--		1.7
p/m-Xylene	0.585	0.068	--	2.54	0.295	--		1.7
Bromoform	ND	0.034	--	ND	0.351	--		1.7
Styrene	ND	0.034	--	ND	0.145	--		1.7
1,1,2,2-Tetrachloroethane	ND	0.034	--	ND	0.233	--		1.7
o-Xylene	0.212	0.034	--	0.922	0.148	--		1.7
Isopropylbenzene	ND	0.850	--	ND	4.18	--		1.7
1,3,5-Trimethylbenzene	0.060	0.034	--	0.292	0.167	--		1.7
1,2,4-Trimethylbenzene	0.177	0.034	--	0.868	0.167	--		1.7
1,3-Dichlorobenzene	ND	0.034	--	ND	0.204	--		1.7
1,4-Dichlorobenzene	ND	0.034	--	ND	0.204	--		1.7
sec-Butylbenzene	ND	0.850	--	ND	4.66	--		1.7
p-Isopropyltoluene	ND	0.850	--	ND	4.66	--		1.7
1,2-Dichlorobenzene	ND	0.034	--	ND	0.204	--		1.7
n-Butylbenzene	ND	0.850	--	ND	4.66	--		1.7

Serial_No:02111115:40

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1101200

Project Number: 14687.01

Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-03 D
Client ID: ROOM 145
Sample Location: PROVIDENCE, RI

Date Collected: 01/26/11 08:09
Date Received: 01/28/11
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	88		60-140



Project Name: ALVAREZ HIGH SCHOOL**Lab Number:** L1101200**Project Number:** 14687.01**Report Date:** 02/11/11**SAMPLE RESULTS**

Lab ID: L1101200-04 D
 Client ID: KITCHEN STORAGE RM
 Sample Location: PROVIDENCE, RI
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 02/10/11 22:32
 Analyst: RY

Date Collected: 01/26/11 09:42
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.543	0.085	--	2.68	0.422	--		1.707
Chloromethane	ND	0.854	--	ND	1.76	--		1.707
Vinyl chloride	ND	0.034	--	ND	0.087	--		1.707
Chloroethane	ND	0.034	--	ND	0.090	--		1.707
Acetone	12.0	3.41	--	28.5	8.10	--		1.707
Trichlorofluoromethane	0.318	0.085	--	1.78	0.479	--		1.707
Acrylonitrile	ND	0.854	--	ND	1.85	--		1.707
1,1-Dichloroethene	ND	0.034	--	ND	0.135	--		1.707
Methylene chloride	1.30	0.854	--	4.53	2.96	--		1.707
trans-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.707
1,1-Dichloroethane	ND	0.034	--	ND	0.138	--		1.707
Methyl tert butyl ether	ND	0.034	--	ND	0.123	--		1.707
2-Butanone	0.922	0.854	--	2.72	2.52	--		1.707
cis-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.707
Chloroform	0.072	0.034	--	0.350	0.166	--		1.707
1,2-Dichloroethane	ND	0.034	--	ND	0.138	--		1.707
1,1,1-Trichloroethane	ND	0.034	--	ND	0.186	--		1.707
Benzene	0.915	0.171	--	2.92	0.545	--		1.707
Carbon tetrachloride	0.089	0.034	--	0.558	0.215	--		1.707
1,2-Dichloropropane	ND	0.034	--	ND	0.158	--		1.707
Bromodichloromethane	ND	0.034	--	ND	0.228	--		1.707
Trichloroethene	0.106	0.034	--	0.568	0.183	--		1.707
cis-1,3-Dichloropropene	ND	0.034	--	ND	0.155	--		1.707
4-Methyl-2-pentanone	ND	0.854	--	ND	3.49	--		1.707
trans-1,3-Dichloropropene	ND	0.034	--	ND	0.155	--		1.707

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1101200
Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-04 D
Client ID: KITCHEN STORAGE RM
Sample Location: PROVIDENCE, RI

Date Collected: 01/26/11 09:42
Date Received: 01/28/11
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,2-Trichloroethane	ND	0.034	--	ND	0.186	--		1.707
Toluene	1.56	0.085	--	5.86	0.321	--		1.707
Dibromochloromethane	ND	0.034	--	ND	0.291	--		1.707
1,2-Dibromoethane	ND	0.034	--	ND	0.262	--		1.707
Tetrachloroethene	0.094	0.034	--	0.636	0.231	--		1.707
1,1,1,2-Tetrachloroethane	ND	0.034	--	ND	0.234	--		1.707
Chlorobenzene	ND	0.034	--	ND	0.157	--		1.707
Ethylbenzene	0.241	0.034	--	1.04	0.148	--		1.707
p/m-Xylene	0.649	0.068	--	2.81	0.296	--		1.707
Bromofom	ND	0.034	--	ND	0.353	--		1.707
Styrene	0.077	0.034	--	0.327	0.145	--		1.707
1,1,2,2-Tetrachloroethane	ND	0.034	--	ND	0.234	--		1.707
o-Xylene	0.230	0.034	--	1.00	0.148	--		1.707
Isopropylbenzene	ND	0.854	--	ND	4.19	--		1.707
1,3,5-Trimethybenzene	0.060	0.034	--	0.293	0.168	--		1.707
1,2,4-Trimethylbenzene	0.205	0.034	--	1.01	0.168	--		1.707
1,3-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.707
1,4-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.707
sec-Butylbenzene	ND	0.854	--	ND	4.68	--		1.707
p-Isopropyltoluene	ND	0.854	--	ND	4.68	--		1.707
1,2-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.707
n-Butylbenzene	ND	0.854	--	ND	4.68	--		1.707



Serial_No:02111115:40

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1101200

Project Number: 14687.01

Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-04 D
Client ID: KITCHEN STORAGE RM
Sample Location: PROVIDENCE, RI

Date Collected: 01/26/11 09:42
Date Received: 01/28/11
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	89		60-140



Project Name: ALVAREZ HIGH SCHOOL**Lab Number:** L1101200**Project Number:** 14687.01**Report Date:** 02/11/11**SAMPLE RESULTS**

Lab ID: L1101200-05 D
 Client ID: ELEVATOR HALLWAY
 Sample Location: PROVIDENCE, RI
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 02/10/11 23:09
 Analyst: RY

Date Collected: 01/26/11 08:53
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.538	0.085	--	2.66	0.421	--		1.703
Chloromethane	ND	0.852	--	ND	1.76	--		1.703
Vinyl chloride	ND	0.034	--	ND	0.087	--		1.703
Chloroethane	ND	0.034	--	ND	0.090	--		1.703
Acetone	6.29	3.41	--	14.9	8.08	--		1.703
Trichlorofluoromethane	0.310	0.085	--	1.74	0.478	--		1.703
Acrylonitrile	ND	0.852	--	ND	1.85	--		1.703
1,1-Dichloroethene	ND	0.034	--	ND	0.135	--		1.703
Methylene chloride	ND	0.852	--	ND	2.96	--		1.703
trans-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.703
1,1-Dichloroethane	ND	0.034	--	ND	0.138	--		1.703
Methyl tert butyl ether	ND	0.034	--	ND	0.123	--		1.703
2-Butanone	ND	0.852	--	ND	2.51	--		1.703
cis-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.703
Chloroform	0.049	0.034	--	0.241	0.166	--		1.703
1,2-Dichloroethane	ND	0.034	--	ND	0.138	--		1.703
1,1,1-Trichloroethane	ND	0.034	--	ND	0.186	--		1.703
Benzene	1.03	0.170	--	3.29	0.544	--		1.703
Carbon tetrachloride	0.090	0.034	--	0.567	0.214	--		1.703
1,2-Dichloropropane	ND	0.034	--	ND	0.157	--		1.703
Bromodichloromethane	ND	0.034	--	ND	0.228	--		1.703
Trichloroethene	0.112	0.034	--	0.604	0.183	--		1.703
cis-1,3-Dichloropropene	ND	0.034	--	ND	0.154	--		1.703
4-Methyl-2-pentanone	ND	0.852	--	ND	3.48	--		1.703
trans-1,3-Dichloropropene	ND	0.034	--	ND	0.154	--		1.703

Project Name: ALVAREZ HIGH SCHOOL**Lab Number:** L1101200**Project Number:** 14687.01**Report Date:** 02/11/11**SAMPLE RESULTS**

Lab ID: L1101200-05 D
 Client ID: ELEVATOR HALLWAY
 Sample Location: PROVIDENCE, RI

Date Collected: 01/26/11 08:53
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,2-Trichloroethane	ND	0.034	--	ND	0.186	--		1.703
Toluene	1.72	0.085	--	6.49	0.321	--		1.703
Dibromochloromethane	ND	0.034	--	ND	0.290	--		1.703
1,2-Dibromoethane	ND	0.034	--	ND	0.261	--		1.703
Tetrachloroethene	0.083	0.034	--	0.566	0.231	--		1.703
1,1,1,2-Tetrachloroethane	ND	0.034	--	ND	0.234	--		1.703
Chlorobenzene	ND	0.034	--	ND	0.157	--		1.703
Ethylbenzene	0.281	0.034	--	1.22	0.148	--		1.703
p/m-Xylene	0.766	0.068	--	3.32	0.296	--		1.703
Bromoform	ND	0.034	--	ND	0.352	--		1.703
Styrene	0.051	0.034	--	0.217	0.145	--		1.703
1,1,2,2-Tetrachloroethane	ND	0.034	--	ND	0.234	--		1.703
o-Xylene	0.266	0.034	--	1.15	0.148	--		1.703
Isopropylbenzene	ND	0.852	--	ND	4.18	--		1.703
1,3,5-Trimethylbenzene	0.083	0.034	--	0.410	0.167	--		1.703
1,2,4-Trimethylbenzene	0.245	0.034	--	1.20	0.167	--		1.703
1,3-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.703
1,4-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.703
sec-Butylbenzene	ND	0.852	--	ND	4.67	--		1.703
p-Isopropyltoluene	ND	0.852	--	ND	4.67	--		1.703
1,2-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.703
n-Butylbenzene	ND	0.852	--	ND	4.67	--		1.703

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Project Name: ALVAREZ HIGH SCHOOL

Project Number: 14687.01

Lab Number: L1101200

Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-05 D
Client ID: ELEVATOR HALLWAY
Sample Location: PROVIDENCE, RI

Date Collected: 01/26/11 08:53
Date Received: 01/28/11
Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	84		60-140
chlorobenzene-d5	82		60-140



Project Name: ALVAREZ HIGH SCHOOL**Lab Number:** L1101200**Project Number:** 14687.01**Report Date:** 02/11/11**SAMPLE RESULTS**

Lab ID: L1101200-06 D
 Client ID: ROOM 152
 Sample Location: PROVIDENCE, RI
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 02/11/11 00:23
 Analyst: RY

Date Collected: 01/26/11 08:59
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.517	0.085	--	2.56	0.422	--		1.707
Chloromethane	ND	0.854	--	ND	1.76	--		1.707
Vinyl chloride	ND	0.034	--	ND	0.087	--		1.707
Chloroethane	ND	0.034	--	ND	0.090	--		1.707
Acetone	10.1	3.41	--	24.0	8.10	--		1.707
Trichlorofluoromethane	0.348	0.085	--	1.95	0.479	--		1.707
Acrylonitrile	ND	0.854	--	ND	1.85	--		1.707
1,1-Dichloroethene	ND	0.034	--	ND	0.135	--		1.707
Methylene chloride	ND	0.854	--	ND	2.96	--		1.707
trans-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.707
1,1-Dichloroethane	ND	0.034	--	ND	0.138	--		1.707
Methyl tert butyl ether	ND	0.034	--	ND	0.123	--		1.707
2-Butanone	0.920	0.854	--	2.71	2.52	--		1.707
cis-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.707
Chloroform	0.034	0.034	--	0.166	0.166	--		1.707
1,2-Dichloroethane	ND	0.034	--	ND	0.138	--		1.707
1,1,1-Trichloroethane	ND	0.034	--	ND	0.186	--		1.707
Benzene	1.15	0.171	--	3.66	0.545	--		1.707
Carbon tetrachloride	0.089	0.034	--	0.558	0.215	--		1.707
1,2-Dichloropropane	ND	0.034	--	ND	0.158	--		1.707
Bromodichloromethane	ND	0.034	--	ND	0.228	--		1.707
Trichloroethene	0.102	0.034	--	0.550	0.183	--		1.707
cis-1,3-Dichloropropene	ND	0.034	--	ND	0.155	--		1.707
4-Methyl-2-pentanone	1.65	0.854	--	6.76	3.49	--		1.707
trans-1,3-Dichloropropene	ND	0.034	--	ND	0.155	--		1.707

Project Name: ALVAREZ HIGH SCHOOL**Project Number:** 14687.01**Lab Number:** L1101200**Report Date:** 02/11/11**SAMPLE RESULTS**

Lab ID: L1101200-06 D
 Client ID: ROOM 152
 Sample Location: PROVIDENCE, RI

Date Collected: 01/26/11 08:59
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,2-Trichloroethane	ND	0.034	--	ND	0.186	--		1.707
Toluene	1.92	0.085	--	7.23	0.321	--		1.707
Dibromochloromethane	ND	0.034	--	ND	0.291	--		1.707
1,2-Dibromoethane	ND	0.034	--	ND	0.262	--		1.707
Tetrachloroethene	0.085	0.034	--	0.578	0.231	--		1.707
1,1,1,2-Tetrachloroethane	ND	0.034	--	ND	0.234	--		1.707
Chlorobenzene	ND	0.034	--	ND	0.157	--		1.707
Ethylbenzene	0.306	0.034	--	1.32	0.148	--		1.707
p/m-Xylene	0.795	0.068	--	3.45	0.296	--		1.707
Bromoform	ND	0.034	--	ND	0.353	--		1.707
Styrene	0.043	0.034	--	0.182	0.145	--		1.707
1,1,2,2-Tetrachloroethane	ND	0.034	--	ND	0.234	--		1.707
o-Xylene	0.294	0.034	--	1.27	0.148	--		1.707
Isopropylbenzene	ND	0.854	--	ND	4.19	--		1.707
1,3,5-Trimethylbenzene	0.061	0.034	--	0.302	0.168	--		1.707
1,2,4-Trimethylbenzene	0.210	0.034	--	1.03	0.168	--		1.707
1,3-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.707
1,4-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.707
sec-Butylbenzene	ND	0.854	--	ND	4.68	--		1.707
p-Isopropyltoluene	ND	0.854	--	ND	4.68	--		1.707
1,2-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.707
n-Butylbenzene	ND	0.854	--	ND	4.68	--		1.707

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Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1101200

Project Number: 14687.01

Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-06 D

Date Collected: 01/26/11 08:59

Client ID: ROOM 152

Date Received: 01/28/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	86		60-140
chlorobenzene-d5	83		60-140



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1101200
Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-07 D
 Client ID: ROOM 118
 Sample Location: PROVIDENCE, RI
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 02/11/11 00:59
 Analyst: RY

Date Collected: 01/26/11 08:33
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.435	0.085	--	2.15	0.422	--		1.707
Chloromethane	ND	0.854	--	ND	1.76	--		1.707
Vinyl chloride	ND	0.034	--	ND	0.087	--		1.707
Chloroethane	ND	0.034	--	ND	0.090	--		1.707
Acetone	5.69	3.41	--	13.5	8.10	--		1.707
Trichlorofluoromethane	0.288	0.085	--	1.62	0.479	--		1.707
Acrylonitrile	ND	0.854	--	ND	1.85	--		1.707
1,1-Dichloroethene	ND	0.034	--	ND	0.135	--		1.707
Methylene chloride	ND	0.854	--	ND	2.96	--		1.707
trans-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.707
1,1-Dichloroethane	ND	0.034	--	ND	0.138	--		1.707
Methyl tert butyl ether	ND	0.034	--	ND	0.123	--		1.707
2-Butanone	ND	0.854	--	ND	2.52	--		1.707
cis-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.707
Chloroform	ND	0.034	--	ND	0.166	--		1.707
1,2-Dichloroethane	ND	0.034	--	ND	0.138	--		1.707
1,1,1-Trichloroethane	ND	0.034	--	ND	0.186	--		1.707
Benzene	0.922	0.171	--	2.94	0.545	--		1.707
Carbon tetrachloride	0.075	0.034	--	0.472	0.215	--		1.707
1,2-Dichloropropane	ND	0.034	--	ND	0.158	--		1.707
Bromodichloromethane	ND	0.034	--	ND	0.228	--		1.707
Trichloroethene	0.094	0.034	--	0.504	0.183	--		1.707
cis-1,3-Dichloropropene	ND	0.034	--	ND	0.155	--		1.707
4-Methyl-2-pentanone	ND	0.854	--	ND	3.49	--		1.707
trans-1,3-Dichloropropene	ND	0.034	--	ND	0.155	--		1.707

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1101200
Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-07 D
 Client ID: ROOM 118
 Sample Location: PROVIDENCE, RI

Date Collected: 01/26/11 08:33
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,2-Trichloroethane	ND	0.034	--	ND	0.186	--		1.707
Toluene	1.55	0.085	--	5.84	0.321	--		1.707
Dibromochloromethane	ND	0.034	--	ND	0.291	--		1.707
1,2-Dibromoethane	ND	0.034	--	ND	0.262	--		1.707
Tetrachloroethene	0.065	0.034	--	0.440	0.231	--		1.707
1,1,1,2-Tetrachloroethane	ND	0.034	--	ND	0.234	--		1.707
Chlorobenzene	ND	0.034	--	ND	0.157	--		1.707
Ethylbenzene	0.230	0.034	--	1.00	0.148	--		1.707
p/m-Xylene	0.597	0.068	--	2.59	0.296	--		1.707
Bromoform	ND	0.034	--	ND	0.353	--		1.707
Styrene	0.043	0.034	--	0.182	0.145	--		1.707
1,1,1,2-Tetrachloroethane	ND	0.034	--	ND	0.234	--		1.707
o-Xylene	0.218	0.034	--	0.948	0.148	--		1.707
Isopropylbenzene	ND	0.854	--	ND	4.19	--		1.707
1,3,5-Trimethylbenzene	0.053	0.034	--	0.260	0.168	--		1.707
1,2,4-Trimethylbenzene	0.159	0.034	--	0.780	0.168	--		1.707
1,3-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.707
1,4-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.707
sec-Butylbenzene	ND	0.854	--	ND	4.68	--		1.707
p-Isopropyltoluene	ND	0.854	--	ND	4.68	--		1.707
1,2-Dichlorobenzene	ND	0.034	--	ND	0.205	--		1.707
n-Butylbenzene	ND	0.854	--	ND	4.68	--		1.707

Serial_No:02111115:40

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1101200

Project Number: 14687.01

Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-07 D

Date Collected: 01/26/11 08:33

Client ID: ROOM 118

Date Received: 01/28/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140



Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1101200
Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-08 D
 Client ID: ROOM 110
 Sample Location: PROVIDENCE, RI
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 02/11/11 01:36
 Analyst: RY

Date Collected: 01/26/11 08:55
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.523	0.085	--	2.58	0.420	--		1.698
Chloromethane	ND	0.849	--	ND	1.75	--		1.698
Vinyl chloride	ND	0.034	--	ND	0.087	--		1.698
Chloroethane	ND	0.034	--	ND	0.090	--		1.698
Acetone	14.0	3.40	--	33.2	8.06	--		1.698
Trichlorofluoromethane	0.350	0.085	--	1.96	0.477	--		1.698
Acrylonitrile	ND	0.849	--	ND	1.84	--		1.698
1,1-Dichloroethene	ND	0.034	--	ND	0.134	--		1.698
Methylene chloride	ND	0.849	--	ND	2.95	--		1.698
trans-1,2-Dichloroethene	ND	0.034	--	ND	0.134	--		1.698
1,1-Dichloroethane	ND	0.034	--	ND	0.137	--		1.698
Methyl tert butyl ether	ND	0.034	--	ND	0.122	--		1.698
2-Butanone	ND	0.849	--	ND	2.50	--		1.698
cis-1,2-Dichloroethene	ND	0.034	--	ND	0.134	--		1.698
Chloroform	0.037	0.034	--	0.182	0.166	--		1.698
1,2-Dichloroethane	ND	0.034	--	ND	0.137	--		1.698
1,1,1-Trichloroethane	ND	0.034	--	ND	0.185	--		1.698
Benzene	1.07	0.170	--	3.43	0.542	--		1.698
Carbon tetrachloride	0.090	0.034	--	0.566	0.213	--		1.698
1,2-Dichloropropane	ND	0.034	--	ND	0.157	--		1.698
Bromodichloromethane	ND	0.034	--	ND	0.227	--		1.698
Trichloroethene	0.109	0.034	--	0.584	0.182	--		1.698
cis-1,3-Dichloropropene	ND	0.034	--	ND	0.154	--		1.698
4-Methyl-2-pentanone	14.5	0.849	--	59.5	3.48	--		1.698
trans-1,3-Dichloropropene	ND	0.034	--	ND	0.154	--		1.698

Project Name: ALVAREZ HIGH SCHOOL**Lab Number:** L1101200**Project Number:** 14687.01**Report Date:** 02/11/11**SAMPLE RESULTS**

Lab ID: L1101200-08 D
 Client ID: ROOM 110
 Sample Location: PROVIDENCE, RI

Date Collected: 01/26/11 08:55
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,2-Trichloroethane	ND	0.034	--	ND	0.185	--		1.698
Toluene	1.61	0.085	--	6.05	0.320	--		1.698
Dibromochloromethane	ND	0.034	--	ND	0.289	--		1.698
1,2-Dibromoethane	ND	0.034	--	ND	0.261	--		1.698
Tetrachloroethene	0.107	0.034	--	0.725	0.230	--		1.698
1,1,1,2-Tetrachloroethane	ND	0.034	--	ND	0.233	--		1.698
Chlorobenzene	ND	0.034	--	ND	0.156	--		1.698
Ethylbenzene	0.255	0.034	--	1.10	0.147	--		1.698
p/m-Xylene	0.644	0.068	--	2.79	0.295	--		1.698
Bromoform	ND	0.034	--	ND	0.351	--		1.698
Styrene	0.048	0.034	--	0.202	0.144	--		1.698
1,1,2,2-Tetrachloroethane	ND	0.034	--	ND	0.233	--		1.698
o-Xylene	0.238	0.034	--	1.03	0.147	--		1.698
Isopropylbenzene	ND	0.849	--	ND	4.17	--		1.698
1,3,5-Trimethylbenzene	0.054	0.034	--	0.267	0.167	--		1.698
1,2,4-Trimethylbenzene	0.187	0.034	--	0.917	0.167	--		1.698
1,3-Dichlorobenzene	ND	0.034	--	ND	0.204	--		1.698
1,4-Dichlorobenzene	0.053	0.034	--	0.316	0.204	--		1.698
sec-Butylbenzene	ND	0.849	--	ND	4.66	--		1.698
p-Isopropyltoluene	ND	0.849	--	ND	4.66	--		1.698
1,2-Dichlorobenzene	ND	0.034	--	ND	0.204	--		1.698
n-Butylbenzene	ND	0.849	--	ND	4.66	--		1.698

Serial_No:02111115:40

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1101200

Project Number: 14687.01

Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-08 D

Date Collected: 01/26/11 08:55

Client ID: ROOM 110

Date Received: 01/28/11

Sample Location: PROVIDENCE, RI

Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		

Volatile Organics in Air by SIM - Mansfield Lab

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	78		60-140
bromochloromethane	83		60-140
chlorobenzene-d5	82		60-140



Project Name: ALVAREZ HIGH SCHOOL**Lab Number:** L1101200**Project Number:** 14687.01**Report Date:** 02/11/11**SAMPLE RESULTS**

Lab ID: L1101200-09 D
 Client ID: AMBIENT OUTDOOR
 Sample Location: PROVIDENCE, RI
 Matrix: Air
 Analytical Method: 48.TO-15-SIM
 Analytical Date: 02/11/11 02:13
 Analyst: RY

Date Collected: 01/26/11 08:15
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	0.493	0.085	--	2.44	0.420	--		1.7
Chloromethane	ND	0.850	--	ND	1.75	--		1.7
Vinyl chloride	ND	0.034	--	ND	0.087	--		1.7
Chloroethane	ND	0.034	--	ND	0.090	--		1.7
Acetone	4.15	3.40	--	9.85	8.07	--		1.7
Trichlorofluoromethane	0.318	0.085	--	1.78	0.477	--		1.7
Acrylonitrile	ND	0.850	--	ND	1.84	--		1.7
1,1-Dichloroethene	ND	0.034	--	ND	0.135	--		1.7
Methylene chloride	ND	0.850	--	ND	2.95	--		1.7
trans-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.7
1,1-Dichloroethane	ND	0.034	--	ND	0.138	--		1.7
Methyl tert butyl ether	ND	0.034	--	ND	0.122	--		1.7
2-Butanone	ND	0.850	--	ND	2.50	--		1.7
cis-1,2-Dichloroethene	ND	0.034	--	ND	0.135	--		1.7
Chloroform	ND	0.034	--	ND	0.166	--		1.7
1,2-Dichloroethane	ND	0.034	--	ND	0.138	--		1.7
1,1,1-Trichloroethane	ND	0.034	--	ND	0.185	--		1.7
Benzene	1.05	0.170	--	3.35	0.543	--		1.7
Carbon tetrachloride	0.077	0.034	--	0.481	0.214	--		1.7
1,2-Dichloropropane	ND	0.034	--	ND	0.157	--		1.7
Bromodichloromethane	ND	0.034	--	ND	0.228	--		1.7
Trichloroethene	0.143	0.034	--	0.767	0.182	--		1.7
cis-1,3-Dichloropropene	ND	0.034	--	ND	0.154	--		1.7
4-Methyl-2-pentanone	ND	0.850	--	ND	3.48	--		1.7
trans-1,3-Dichloropropene	ND	0.034	--	ND	0.154	--		1.7

Project Name: ALVAREZ HIGH SCHOOL**Lab Number:** L1101200**Project Number:** 14687.01**Report Date:** 02/11/11**SAMPLE RESULTS**

Lab ID: L1101200-09 D
 Client ID: AMBIENT OUTDOOR
 Sample Location: PROVIDENCE, RI

Date Collected: 01/26/11 08:15
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,1,2-Trichloroethane	ND	0.034	--	ND	0.185	--		1.7
Toluene	1.91	0.085	--	7.21	0.320	--		1.7
Dibromochloromethane	ND	0.034	--	ND	0.289	--		1.7
1,2-Dibromoethane	ND	0.034	--	ND	0.261	--		1.7
Tetrachloroethene	0.063	0.034	--	0.426	0.230	--		1.7
1,1,1,2-Tetrachloroethane	ND	0.034	--	ND	0.233	--		1.7
Chlorobenzene	ND	0.034	--	ND	0.156	--		1.7
Ethylbenzene	0.299	0.034	--	1.30	0.148	--		1.7
p/m-Xylene	0.802	0.068	--	3.48	0.295	--		1.7
Bromoform	ND	0.034	--	ND	0.351	--		1.7
Styrene	0.044	0.034	--	0.188	0.145	--		1.7
1,1,2,2-Tetrachloroethane	ND	0.034	--	ND	0.233	--		1.7
o-Xylene	0.294	0.034	--	1.28	0.148	--		1.7
Isopropylbenzene	ND	0.850	--	ND	4.18	--		1.7
1,3,5-Trimethylbenzene	0.070	0.034	--	0.342	0.167	--		1.7
1,2,4-Trimethylbenzene	0.202	0.034	--	0.994	0.167	--		1.7
1,3-Dichlorobenzene	ND	0.034	--	ND	0.204	--		1.7
1,4-Dichlorobenzene	ND	0.034	--	ND	0.204	--		1.7
sec-Butylbenzene	ND	0.850	--	ND	4.66	--		1.7
p-Isopropyltoluene	ND	0.850	--	ND	4.66	--		1.7
1,2-Dichlorobenzene	ND	0.034	--	ND	0.204	--		1.7
n-Butylbenzene	ND	0.850	--	ND	4.66	--		1.7

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1101200
Report Date: 02/11/11

SAMPLE RESULTS

Lab ID: L1101200-09 D
 Client ID: AMBIENT OUTDOOR
 Sample Location: PROVIDENCE, RI

Date Collected: 01/26/11 08:15
 Date Received: 01/28/11
 Field Prep: Not Specified

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140



Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1101200

Project Number: 14687.01

Report Date: 02/11/11

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 02/10/11 15:40

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-09 Batch: WG454618-4								
Dichlorodifluoromethane	ND	0.050	--	ND	0.247	--		1
Chloromethane	ND	0.500	--	ND	1.03	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
Chloroethane	ND	0.020	--	ND	0.053	--		1
Acetone	ND	2.00	--	ND	4.75	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.08	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.020	--	ND	0.072	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1

Project Name: ALVAREZ HIGH SCHOOL

Lab Number: L1101200

Project Number: 14687.01

Report Date: 02/11/11

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 02/10/11 15:40

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-09 Batch: WG454618-4								
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.020	--	ND	0.092	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.206	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.500	--	ND	2.46	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-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
sec-Butylbenzene	ND	0.500	--	ND	2.74	--		1
p-Isopropyltoluene	ND	0.500	--	ND	2.74	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.500	--	ND	2.74	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1101200
Report Date: 02/11/11

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits			
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-09 Batch: WG454618-3									
Dichlorodifluoromethane	98	-	-	-	70-130	-	-	-	25
Chloromethane	79	-	-	-	70-130	-	-	-	25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	90	-	-	-	70-130	-	-	-	25
Vinyl chloride	90	-	-	-	70-130	-	-	-	25
1,3-Butadiene	87	-	-	-	70-130	-	-	-	25
Bromomethane	87	-	-	-	70-130	-	-	-	25
Chloroethane	85	-	-	-	70-130	-	-	-	25
Acetone	75	-	-	-	70-130	-	-	-	25
Trichlorofluoromethane	92	-	-	-	70-130	-	-	-	25
Acrylonitrile	74	-	-	-	70-130	-	-	-	25
1,1-Dichloroethene	88	-	-	-	70-130	-	-	-	25
Methylene chloride	85	-	-	-	70-130	-	-	-	25
1,1,2-Trichloro-1,2,2-Trifluoroethane	90	-	-	-	70-130	-	-	-	25
Haloethane	82	-	-	-	70-130	-	-	-	25
trans-1,2-Dichloroethene	82	-	-	-	70-130	-	-	-	25
1,1-Dichloroethane	87	-	-	-	70-130	-	-	-	25
Methyl tert butyl ether	68	-	-	-	70-130	-	-	-	25
2-Butanone	74	-	-	-	70-130	-	-	-	25
cis-1,2-Dichloroethene	81	-	-	-	70-130	-	-	-	25
Chloroform	87	-	-	-	70-130	-	-	-	25
1,2-Dichloroethane	81	-	-	-	70-130	-	-	-	25

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1101200
Report Date: 02/11/11

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits			
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-09 Batch: WG454618-3									
1,1,1-Trichloroethane	90		-		70-130		-		25
Benzene	77		-		70-130		-		25
Carbon tetrachloride	95		-		70-130		-		25
1,2-Dichloropropane	88		-		70-130		-		25
Bromodichloromethane	89		-		70-130		-		25
Trichloroethene	87		-		70-130		-		25
1,4-Dioxane	67	Q	-		70-130		-		25
cis-1,3-Dichloropropene	85		-		70-130		-		25
4-Methyl-2-pentanone	82		-		70-130		-		25
trans-1,3-Dichloropropene	70		-		70-130		-		25
1,1,2-Trichloroethane	92		-		70-130		-		25
Toluene	76		-		70-130		-		25
Dibromochloromethane	92		-		70-130		-		25
1,2-Dibromoethane	89		-		70-130		-		25
Tetrachloroethene	91		-		70-130		-		25
1,1,1,2-Tetrachloroethane	90		-		70-130		-		25
Chlorobenzene	88		-		70-130		-		25
Ethylbenzene	75		-		70-130		-		25
p/m-Xylene	80		-		70-130		-		25
Bromoform	90		-		70-130		-		25
Styrene	77		-		70-130		-		25



Lab Control Sample Analysis

Batch Quality Control

Project Name: ALVAREZ HIGH SCHOOL
Project Number: 14687.01

Lab Number: L1101200
Report Date: 02/11/11

Parameter	LCS		LCSD		%Recovery		RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual	%Recovery	Limits			
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-09 Batch: WG454618-3									
1,1,2,2-Tetrachloroethane	91	-	-	-	70-130	-	-	25	25
o-Xylene	81	-	-	-	70-130	-	-	25	25
Isopropylbenzene	80	-	-	-	70-130	-	-	25	25
1,3,5-Trimethylbenzene	84	-	-	-	70-130	-	-	25	25
1,2,4-Trimethylbenzene	88	-	-	-	70-130	-	-	25	25
1,3-Dichlorobenzene	90	-	-	-	70-130	-	-	25	25
1,4-Dichlorobenzene	87	-	-	-	70-130	-	-	25	25
sec-Butylbenzene	86	-	-	-	70-130	-	-	25	25
p-Isopropyltoluene	78	-	-	-	70-130	-	-	25	25
1,2-Dichlorobenzene	88	-	-	-	70-130	-	-	25	25
n-Butylbenzene	82	-	-	-	70-130	-	-	25	25
1,2,4-Trichlorobenzene	86	-	-	-	70-130	-	-	25	25
Naphthalene	84	-	-	-	70-130	-	-	25	25
1,2,3-Trichlorobenzene	90	-	-	-	70-130	-	-	25	25
Hexachlorobutadiene	92	-	-	-	70-130	-	-	25	25