



EA Engineering, Science, and Technology, Inc.

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31 March 2009

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

RE: February 2009 Air Sampling Event Comment Letter
Alvarez High School, 333 Adelaide Avenue, Providence, Rhode Island
Case No. 2005-029
EA Project No. 14613.01

Dear Mr. Martella:

On behalf of the City of Providence Department of Public Schools, EA Engineering, Science, and Technology, Inc. (EA) is providing this summary of data collected at the referenced Alvarez High School site (the Site) on 25 February 2009.

In accordance with the Order of Approval and amendments (Amended OA) for this Site, your office was notified via telephone that one compound, 1,1,1,2-Tetrachloroethane, was detected within a sample collected from the Gymnasium (Figure 1) at a concentration that exceeds the State of Connecticut's Draft Proposed Indoor Residential Targeted Air Concentrations ($0.320 \mu\text{g}/\text{m}^3$ vs. criteria of $0.082 \mu\text{g}/\text{m}^3$).

Upon receipt of this detection, EA referenced monitoring field notes and analytical results of subslab vapor sampling, which was conducted concurrently with the indoor air sampling. Analytical results indicate that 1,1,1,2-Tetrachloroethane was not detected in any samples collected from subslab vapor sampling points. On 25 February, subslab vapor sampling points IMP-1, located directly adjacent to the Gymnasium, and MP-1, located directly beneath the Gymnasium, were sampled. The absence of 1,1,1,2-Tetrachloroethane from these samples implies that subslab vapor intrusion is not occurring and causing the detection.

Prior to the February sampling event, a portion of the Gymnasium floor was repaired. According to Patrick Collins of contractor H.V. Collins Company, the adhesive securing squares of maple wood flooring to the plywood underlayment failed in an area adjacent to the vestibule. From 18 February through 21 February, the loose squares were removed; the old adhesive was scraped off the plywood; and new squares were glued down, sanded, and finished. Review of the MSDS sheets provided by H.V. Collins did not indicate the presence of 1,1,1,2-Tetrachloroethane.

1,1,1,2-Tetrachloroethane was detected within the indoor air sample collected in the Gymnasium in January 2009 as well. Please refer to the January 2009 Air Sampling Event Comment Letter dated 9 March 2009 for further information regarding this detection. Analytical results of the January sampling event indicated that 1,1,1,2-Tetrachloroethane was detected within one subslab vapor sample (MP-4) but was not found in the sample collected closest to the Gymnasium (IMP-1). An odor was noted by EA field sampling personnel during the January sampling event.

EA is currently investigating chemicals utilized for buffing and/or cleaning the Gymnasium floor. Although 1,1,1,2-Tetrachloroethane is not listed on the MSDS sheets reviewed to date, it may, however, be a constituent at a very low concentration and not be required to be listed on the MSDS.



To summarize, 1,1,1,2-Tetrachloroethane was detected within the Gymnasium during February 2009 indoor air sampling conducted at the Alvarez High School. However, this compound was not detected within subslab vapor samples collected from points located beneath and adjacent to the Gymnasium. EA will perform monthly sampling on 26 March 2009 and will review the results and determine if the presence of this compound persists. However, according to our monitoring data, the SSD System continues to operate effectively in accordance with design. A copy of the Analytical Report for February 2009 is provided in Attachment A.

No SSD system modifications or other actions to address current site conditions are warranted or proposed at this time. Your office will be notified if it is determined that this issue persists or if any other issues arise. If you have any questions or require additional information, please contact me at 401-736-3440, Ext. 202.

Sincerely,

EA ENGINEERING, SCIENCE,
AND TECHNOLOGY, INC.

Mark K. Speer, P.E.
Senior Engineer

MKS/rgm

Figures

- Figure 1: Indoor Air Sampling and Methane Monitoring Plan
Figure 2: As-Built Subslab Monitoring and Sampling Locations Plan

Attachments

- Attachment A: Indoor Air Analytical Report, 25 February 2009
Attachment B: Subslab Vapor Analytical Report, 25 February 2009

- | | |
|--|---|
| cc: M. Dunham, Prov. Dept. of Public Schools | A. Sepe, Prov. Dept. of Public Property |
| S. Rapport, City of Prov. Law Department | T. Deller, Prov. Redevelopment Agency |
| J. Fernandez, City of Prov. Law Department | J. Ryan, Partridge, Snow, & Hahn |
| J. Boehnert, Partridge, Snow, & Hahn | R. Dorr, Neighborhood Resident |
| T. Gray, RIDEM Bureau of Env. Protection | J. Langlois, RIDEM Legal Services |
| L. Hellested, RIDEM OWM | T. Slater, Representative |
| J. Pichardo, Senator | Knight Memorial Library Repository |
| S. Fischbach, RI Legal Services | Principal Torchon, Adelaide High School |
| G. Simpson, Textron | |

Figure 1

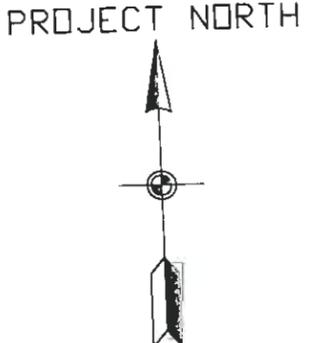
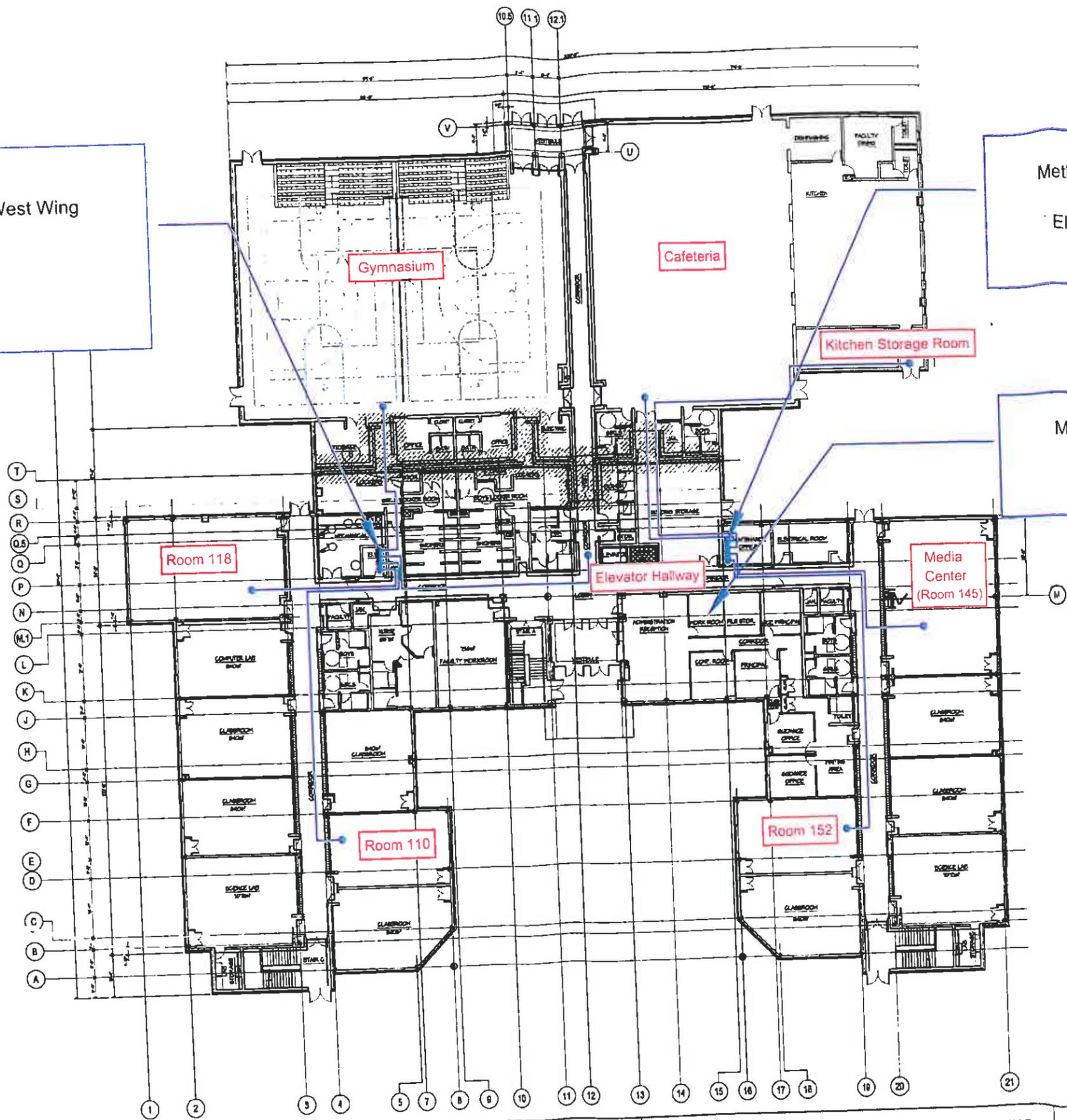
Indoor Air Sampling and
Methane Monitoring Plan

Methane Sensor Location in West Wing
Electrical Room Area

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

Methane System Controller Location
Administration Work Room

NOTE: NOT TO SCALE



DESIGNED BY PMG	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

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

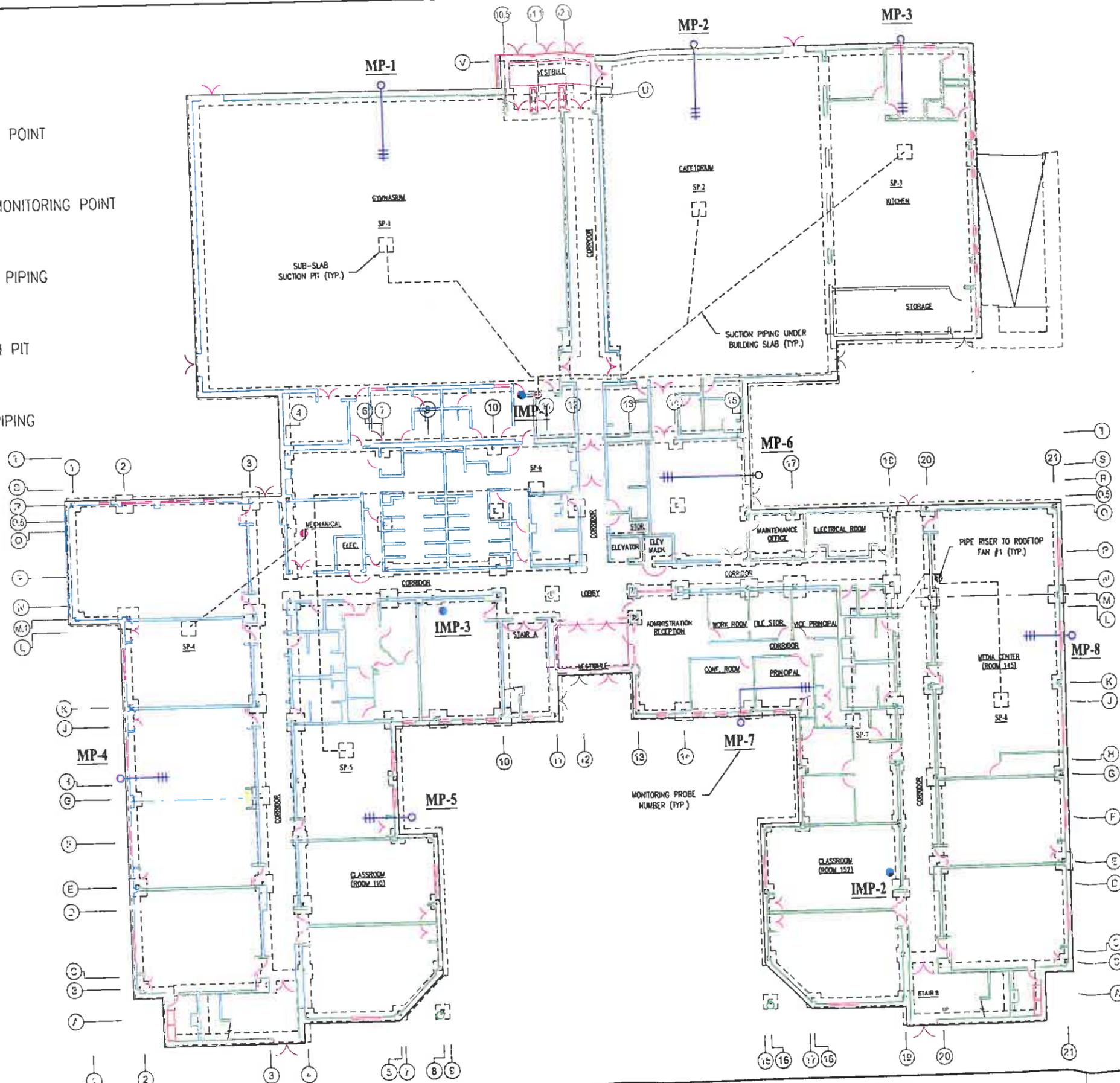
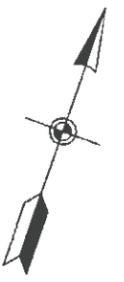
QUARTERLY STATUS REPORT
APPENDIX B

Figure 2

As-Built Subslab Monitoring and
Sampling Locations Plan

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 61965.01	FILE NAME AS-BUILT08-07
CHECKED BY PMG	PROJECT MGR. PMG	SCALE NTS	DRAWING NO 2 OF 3	FIGURE N/A

AS-BUILT
SUB SLAB MONITORING AND SAMPLING LOCATIONS
ADELAIDE AVE HIGH SCHOOL
PROVIDENCE, RHODE ISLAND

QUARTERLY STATUS REPORT
APPENDIX C

Attachment A

Indoor Air Analytical Report
25 February 2009



Friday, March 13, 2009

Ron Mack
EA Engineering
333 Turnpike Rd
Southborough, MA 01772

GeoLabs, Inc.
45 Johnson Lane
Braintree MA 02184
Tele: 781 848 7844
Fax: 781 848 7811

TEL: (401) 736-3440
FAX: (508) 485-5742

Project: 14613.01
Location:

Order No.: 0902356

Dear Ron Mack:

GeoLabs, Inc. received 9 sample(s) on 2/26/2009 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications, except when noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Jim Chen
Laboratory Director

For current certifications, please visit our website at www.geolabs.com

Certifications:

CT (PH-0148) - MA (M-MA015) - NH (2508) - NJ (MA009) - NY (11796) - RI (LA000252)

CLIENT: EA Engineering
Project: 14613.01
Lab Order: 0902356

CASE NARRATIVE

Physical Condition of Samples

The project was received by the laboratory in satisfactory condition. The sample(s) were received undamaged, in appropriate containers with the correct preservation.

Project Documentation

The project was accompanied by satisfactory Chain of Custody documentation.

Analysis of Sample(s)

All extractable samples were extracted and analyzed and any Volatile samples were analyzed within method specified holding times and according to GeoLabs documented Standard Operating Procedure.

The following analytical anomalies or non-conformances were noted by the laboratory during the processing of these samples:

Prior to analysis, it was discovered that the canister corresponding to Sample 004 (Elev. Hallway) was broken and the sample could therefore not be analyzed.

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-001
SAMPLE LOCATION: Gymnasium

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	ND	ND	0.50	2.70
1,1,1,2-Tetrachloroethane	0.0460	0.320	0.02	0.14
1,1,2,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2-Trichloroethane	ND	ND	0.02	0.11
1,1-Dichloroethane	ND	ND	0.50	2.00
1,1-Dichloroethene	ND	ND	0.50	2.00
1,2,4-Trimethylbenzene	0.800	3.90	0.50	2.50
1,2-Dibromoethane (EDB)	ND	ND	0.02	0.15
1,2-Dichlorobenzene	ND	ND	0.50	3.00
1,2-Dichloroethane	ND	ND	0.02	0.08
1,2-Dichloropropane	ND	ND	0.02	0.09
1,3,5-Trimethylbenzene	ND	ND	0.50	2.50
1,3-Dichlorobenzene	ND	ND	0.50	3.00
1,4-Dichlorobenzene	ND	ND	0.50	3.00
Benzene	ND	ND	0.500	1.60
Bromodichloromethane	ND	ND	0.020	0.13

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-001
SAMPLE LOCATION: Gymnasium

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Bromoform	ND	ND	0.04	0.41
Carbon Tetrachloride	0.0610	0.380	0.02	0.13
Chlorobenzene	ND	ND	0.50	2.30
Chloroethane	ND	ND	0.50	1.30
Chloroform	ND	ND	0.50	0.24
Chloromethane	ND	ND	0.50	1.00
cis-1,2-Dichloroethene	ND	ND	0.50	2.00
cis-1,3-Dichloropropene	ND	ND	0.04	0.18
Dibromochloromethane	ND	ND	0.50	4.20
Dichlorodifluoromethane	ND	ND	0.50	2.50
Ethylbenzene	0.800	3.60	0.50	2.20
Methylene Chloride	ND	ND	0.50	1.70
Methyl Tert-Butyl Ether	ND	ND	0.50	1.80
m,p-Xylene	3.50	15.3	1.00	4.30
o-Xylene	0.600	2.60	0.50	2.20
Styrene	ND	ND	0.50	2.10
Tetrachloroethylene	ND	ND	0.50	3.40

ND = NOT DETECTED

Method Reference:

EPA T015

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-001
SAMPLE LOCATION: Gymnasium

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Toluene	ND	ND	0.50	1.90
trans-1,2-Dichloroethene	ND	ND	0.50	2.00
trans-1,3-Dichloropropene	ND	ND	0.04	0.18
Trichloroethylene	ND	ND	0.02	0.11
Trichlorofluoromethane	ND	ND	0.50	2.80
Vinyl chloride	ND	ND	0.04	0.10
Acrylonitrile	ND	ND	1.00	2.20
n-Butylbenzene	1.20	6.30	1.00	5.50
sec-Butylbenzene	ND	ND	1.00	5.50
Isopropylbenzene	ND	ND	1.00	4.90
p-Isopropyltoluene	ND	ND	1.00	5.50
Acetone	ND	ND	1.00	2.40
2-Butanone	ND	ND	0.50	1.50
4-Methyl-2-Pentanone	ND	ND	0.50	2.00

ND = NOT DETECTED

Method Reference:

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME: EA Engineering
 SAMPLE TYPE: AIR
 COLLECTION DATE: 02/25/09
 REC'D BY LAB: 02/26/09
 COLLECTED BY: CLIENT

PROJECT ID: 14613.01
 REPORT DATE: 03/13/09
 ANALYZED BY: M-RI010
 ANALYSIS DATE: 03/11/09
 DIGESTION DATE: N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-002
SAMPLE LOCATION: Cafeteria

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	ND	ND	0.50	2.70
1,1,1,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2-Trichloroethane	ND	ND	0.02	0.11
1,1-Dichloroethane	ND	ND	0.50	2.00
1,1-Dichloroethene	ND	ND	0.50	2.00
1,2,4-Trimethylbenzene	ND	ND	0.50	2.50
1,2-Dibromoethane (EDB)	ND	ND	0.02	0.15
1,2-Dichlorobenzene	ND	ND	0.50	3.00
1,2-Dichloroethane	ND	ND	0.02	0.08
1,2-Dichloropropane	ND	ND	0.02	0.09
1,3,5-Trimethylbenzene	ND	ND	0.50	2.50
1,3-Dichlorobenzene	ND	ND	0.50	3.00
1,4-Dichlorobenzene	ND	ND	0.50	3.00
Benzene	ND	ND	0.500	1.60
Bromodichloromethane	ND	ND	0.020	0.13

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER:	0902356-002
SAMPLE LOCATION:	Cafeteria

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Bromoform	ND	ND	0.04	0.41
Carbon Tetrachloride	0.0300	0.190	0.02	0.13
Chlorobenzene	ND	ND	0.50	2.30
Chloroethane	ND	ND	0.50	1.30
Chloroform	ND	ND	0.50	0.24
Chloromethane	ND	ND	0.50	1.00
cis-1,2-Dichloroethene	ND	ND	0.50	2.00
cis-1,3-Dichloropropene	ND	ND	0.04	0.18
Dibromochloromethane	ND	ND	0.50	4.20
Dichlorodifluoromethane	ND	ND	0.50	2.50
Ethylbenzene	ND	ND	0.50	2.20
Methylene Chloride	ND	ND	0.50	1.70
Methyl Tert-Butyl Ether	0.800	2.70	0.50	1.80
m,p-Xylene	ND	ND	1.00	4.30
o-Xylene	ND	ND	0.50	2.20
Styrene	ND	ND	0.50	2.10
Tetrachloroethylene	ND	ND	0.50	3.40

ND = NOT DETECTED

Method Reference:

EPA T015

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-002
SAMPLE LOCATION: Cafeteria

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Toluene	ND	ND	0.50	1.90
trans-1,2-Dichloroethene	ND	ND	0.50	2.00
trans-1,3-Dichloropropene	ND	ND	0.04	0.18
Trichloroethylene	ND	ND	0.02	0.11
Trichlorofluoromethane	ND	ND	0.50	2.80
Vinyl chloride	ND	ND	0.04	0.10
Acrylonitrile	ND	ND	1.00	2.20
n-Butylbenzene	ND	ND	1.00	5.50
sec-Butylbenzene	ND	ND	1.00	5.50
Isopropylbenzene	ND	ND	1.00	4.90
p-Isopropyltoluene	ND	ND	1.00	5.50
Acetone	1.20	2.90	1.00	2.40
2-Butanone	ND	ND	0.50	1.50
4-Methyl-2-Pentanone	ND	ND	0.50	2.00

ND = NOT DETECTED

Method Reference:

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER:	0902356-003
SAMPLE LOCATION:	Kitchen Storage Room

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	ND	ND	0.50	2.70
1,1,1,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2-Trichloroethane	ND	ND	0.02	0.11
1,1-Dichloroethane	ND	ND	0.50	2.00
1,1-Dichloroethene	ND	ND	0.50	2.00
1,2,4-Trimethylbenzene	ND	ND	0.50	2.50
1,2-Dibromoethane (EDB)	ND	ND	0.02	0.15
1,2-Dichlorobenzene	ND	ND	0.50	3.00
1,2-Dichloroethane	ND	ND	0.02	0.08
1,2-Dichloropropane	ND	ND	0.02	0.09
1,3,5-Trimethylbenzene	ND	ND	0.50	2.50
1,3-Dichlorobenzene	ND	ND	0.50	3.00
1,4-Dichlorobenzene	ND	ND	0.50	3.00
Benzene	ND	ND	0.500	1.60
Bromodichloromethane	ND	ND	0.020	0.13

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-002
SAMPLE LOCATION: Kitchen Storage Room

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Bromoform	ND	ND	0.04	0.41
Carbon Tetrachloride	0.0580	0.360	0.02	0.13
Chlorobenzene	ND	ND	0.50	2.30
Chloroethane	ND	ND	0.50	1.30
Chloroform	ND	ND	0.50	0.24
Chloromethane	ND	ND	0.50	1.00
cis-1,2-Dichloroethene	ND	ND	0.50	2.00
cis-1,3-Dichloropropene	ND	ND	0.04	0.18
Dibromochloromethane	ND	ND	0.50	4.20
Dichlorodifluoromethane	ND	ND	0.50	2.50
Ethylbenzene	ND	ND	0.50	2.20
Methylene Chloride	ND	ND	0.50	1.70
Methyl Tert-Butyl Ether	ND	ND	0.50	1.80
m,p-Xylene	ND	ND	1.00	4.30
o-Xylene	ND	ND	0.50	2.20
Styrene	ND	ND	0.50	2.10
Tetrachloroethylene	ND	ND	0.50	3.40

ND = NOT DETECTED

Method Reference:

EPA T015

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-R1010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-003
SAMPLE LOCATION: Kitchen Storage Room

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Toluene	ND	ND	0.50	1.90
trans-1,2-Dichloroethene	ND	ND	0.50	2.00
trans-1,3-Dichloropropene	ND	ND	0.04	0.18
Trichloroethylene	ND	ND	0.02	0.11
Trichlorofluoromethane	ND	ND	0.50	2.80
Vinyl chloride	ND	ND	0.04	0.10
Acrylonitrile	ND	ND	1.00	2.20
n-Butylbenzene	ND	ND	1.00	5.50
sec-Butylbenzene	ND	ND	1.00	5.50
Isopropylbenzene	ND	ND	1.00	4.90
p-Isopropyltoluene	ND	ND	1.00	5.50
Acetone	ND	ND	1.00	2.40
2-Butanone	ND	ND	0.50	1.50
4-Methyl-2-Pentanone	ND	ND	0.50	2.00

ND = NOT DETECTED

Method Reference:

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-005
SAMPLE LOCATION: Room 110

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	ND	ND	0.50	2.70
1,1,1,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2-Trichloroethane	ND	ND	0.02	0.11
1,1-Dichloroethane	ND	ND	0.50	2.00
1,1-Dichloroethene	ND	ND	0.50	2.00
1,2,4-Trimethylbenzene	ND	ND	0.50	2.50
1,2-Dibromoethane (EDB)	ND	ND	0.02	0.15
1,2-Dichlorobenzene	ND	ND	0.50	3.00
1,2-Dichloroethane	ND	ND	0.02	0.08
1,2-Dichloropropane	ND	ND	0.02	0.09
1,3,5-Trimethylbenzene	ND	ND	0.50	2.50
1,3-Dichlorobenzene	ND	ND	0.50	3.00
1,4-Dichlorobenzene	ND	ND	0.50	3.00
Benzene	ND	ND	0.500	1.60
Bromodichloromethane	ND	ND	0.020	0.13

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-005
SAMPLE LOCATION: Room 110

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Bromoform	ND	ND	0.04	0.41
Carbon Tetrachloride	0.0640	0.400	0.02	0.13
Chlorobenzene	ND	ND	0.50	2.30
Chloroethane	ND	ND	0.50	1.30
Chloroform	ND	ND	0.50	0.24
Chloromethane	ND	ND	0.50	1.00
cis-1,2-Dichloroethene	ND	ND	0.50	2.00
cis-1,3-Dichloropropene	ND	ND	0.04	0.18
Dibromochloromethane	ND	ND	0.50	4.20
Dichlorodifluoromethane	ND	ND	0.50	2.50
Ethylbenzene	ND	ND	0.50	2.20
Methylene Chloride	ND	ND	0.50	1.70
Methyl Tert-Butyl Ether	0.800	2.70	0.50	1.80
m,p-Xylene	ND	ND	1.00	4.30
o-Xylene	ND	ND	0.50	2.20
Styrene	ND	ND	0.50	2.10
Tetrachloroethylene	ND	ND	0.50	3.40

ND = NOT DETECTED

Method Reference:

EPA T015

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-005
SAMPLE LOCATION: Room 110

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Toluene	ND	ND	0.50	1.90
trans-1,2-Dichloroethene	ND	ND	0.50	2.00
trans-1,3-Dichloropropene	ND	ND	0.04	0.18
Trichloroethylene	ND	ND	0.02	0.11
Trichlorofluoromethane	ND	ND	0.50	2.80
Vinyl chloride	ND	ND	0.04	0.10
Acrylonitrile	ND	ND	1.00	2.20
n-Butylbenzene	ND	ND	1.00	5.50
sec-Butylbenzene	ND	ND	1.00	5.50
Isopropylbenzene	ND	ND	1.00	4.90
p-Isopropyltoluene	ND	ND	1.00	5.50
Acetone	2.10	5.00	1.00	2.40
2-Butanone	ND	ND	0.50	1.50
4-Methyl-2-Pentanone	ND	ND	0.50	2.00

ND = NOT DETECTED

Method Reference:

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER:	0902356-006
SAMPLE LOCATION:	Room 118

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	ND	ND	0.50	2.70
1,1,1,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2-Trichloroethane	ND	ND	0.02	0.11
1,1-Dichloroethane	ND	ND	0.50	2.00
1,1-Dichloroethene	ND	ND	0.50	2.00
1,2,4-Trimethylbenzene	ND	ND	0.50	2.50
1,2-Dibromoethane (EDB)	ND	ND	0.02	0.15
1,2-Dichlorobenzene	ND	ND	0.50	3.00
1,2-Dichloroethane	ND	ND	0.02	0.08
1,2-Dichloropropane	ND	ND	0.02	0.09
1,3,5-Trimethylbenzene	ND	ND	0.50	2.50
1,3-Dichlorobenzene	ND	ND	0.50	3.00
1,4-Dichlorobenzene	ND	ND	0.50	3.00
Benzene	ND	ND	0.500	1.60
Bromodichloromethane	ND	ND	0.020	0.13

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-006
SAMPLE LOCATION: Room 118

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Bromoform	ND	ND	0.04	0.41
Carbon Tetrachloride	0.0640	0.400	0.02	0.13
Chlorobenzene	ND	ND	0.50	2.30
Chloroethane	ND	ND	0.50	1.30
Chloroform	ND	ND	0.50	0.24
Chloromethane	0.600	1.30	0.50	1.00
cis-1,2-Dichloroethene	ND	ND	0.50	2.00
cis-1,3-Dichloropropene	ND	ND	0.04	0.18
Dibromochloromethane	ND	ND	0.50	4.20
Dichlorodifluoromethane	ND	ND	0.50	2.50
Ethylbenzene	ND	ND	0.50	2.20
Methylene Chloride	ND	ND	0.50	1.70
Methyl Tert-Butyl Ether	ND	ND	0.50	1.80
m,p-Xylene	ND	ND	1.00	4.30
o-Xylene	ND	ND	0.50	2.20
Styrene	ND	ND	0.50	2.10
Tetrachloroethylene	ND	ND	0.50	3.40

ND = NOT DETECTED

Method Reference:

EPA T015

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-006
SAMPLE LOCATION: Room 118

	RESULTS		DETECTION LIMIT	
	(ppbv)	(µg/m ³)	(ppbv)	(µg/m ³)
Toluene	ND	ND	0.50	1.90
trans-1,2-Dichloroethene	ND	ND	0.50	2.00
trans-1,3-Dichloropropene	ND	ND	0.04	0.18
Trichloroethylene	ND	ND	0.02	0.11
Trichlorofluoromethane	ND	ND	0.50	2.80
Vinyl chloride	ND	ND	0.04	0.10
Acrylonitrile	ND	ND	1.00	2.20
n-Butylbenzene	ND	ND	1.00	5.50
sec-Butylbenzene	ND	ND	1.00	5.50
Isopropylbenzene	ND	ND	1.00	4.90
p-Isopropyltoluene	ND	ND	1.00	5.50
Acetone	4.10	9.60	1.00	2.40
2-Butanone	ND	ND	0.50	1.50
4-Methyl-2-Pentanone	0.600	2.60	0.50	2.00

ND = NOT DETECTED

Method Reference:

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME: EA Engineering
 SAMPLE TYPE: AIR
 COLLECTION DATE: 02/25/09
 REC'D BY LAB: 02/26/09
 COLLECTED BY: CLIENT

PROJECT ID: 14613.01
 REPORT DATE: 03/13/09
 ANALYZED BY: M-RI010
 ANALYSIS DATE: 03/11/09
 DIGESTION DATE: N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-007
SAMPLE LOCATION: Room 145

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	ND	ND	0.50	2.70
1,1,1,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2-Trichloroethane	ND	ND	0.02	0.11
1,1-Dichloroethane	ND	ND	0.50	2.00
1,1-Dichloroethene	ND	ND	0.50	2.00
1,2,4-Trimethylbenzene	ND	ND	0.50	2.50
1,2-Dibromoethane (EDB)	ND	ND	0.02	0.15
1,2-Dichlorobenzene	ND	ND	0.50	3.00
1,2-Dichloroethane	ND	ND	0.02	0.08
1,2-Dichloropropane	ND	ND	0.02	0.09
1,3,5-Trimethylbenzene	ND	ND	0.50	2.50
1,3-Dichlorobenzene	ND	ND	0.50	3.00
1,4-Dichlorobenzene	ND	ND	0.50	3.00
Benzene	ND	ND	0.500	1.60
Bromodichloromethane	ND	ND	0.020	0.13

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-007
SAMPLE LOCATION: Room 145

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Bromoform	ND	ND	0.04	0.41
Carbon Tetrachloride	0.0650	0.410	0.02	0.13
Chlorobenzene	ND	ND	0.50	2.30
Chloroethane	ND	ND	0.50	1.30
Chloroform	ND	ND	0.50	0.24
Chloromethane	ND	ND	0.50	1.00
cis-1,2-Dichloroethene	ND	ND	0.50	2.00
cis-1,3-Dichloropropene	ND	ND	0.04	0.18
Dibromochloromethane	ND	ND	0.50	4.20
Dichlorodifluoromethane	ND	ND	0.50	2.50
Ethylbenzene	ND	ND	0.50	2.20
Methylene Chloride	ND	ND	0.50	1.70
Methyl Tert-Butyl Ether	ND	ND	0.50	1.80
m,p-Xylene	ND	ND	1.00	4.30
o-Xylene	ND	ND	0.50	2.20
Styrene	ND	ND	0.50	2.10
Tetrachloroethylene	ND	ND	0.50	3.40

ND = NOT DETECTED

Method Reference:

EPA T015

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-007
SAMPLE LOCATION: Room 145

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Toluene	ND	ND	0.50	1.90
trans-1,2-Dichloroethene	ND	ND	0.50	2.00
trans-1,3-Dichloropropene	ND	ND	0.04	0.18
Trichloroethylene	ND	ND	0.02	0.11
Trichlorofluoromethane	ND	ND	0.50	2.80
Vinyl chloride	ND	ND	0.04	0.10
Acrylonitrile	ND	ND	1.00	2.20
n-Butylbenzene	ND	ND	1.00	5.50
sec-Butylbenzene	ND	ND	1.00	5.50
Isopropylbenzene	ND	ND	1.00	4.90
p-Isopropyltoluene	ND	ND	1.00	5.50
Acetone	1.60	3.80	1.00	2.40
2-Butanone	ND	ND	0.50	1.50
4-Methyl-2-Pentanone	ND	ND	0.50	2.00

ND = NOT DETECTED
Method Reference:

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME: **EA Engineering**
 SAMPLE TYPE: **AIR**
 COLLECTION DATE: **02/25/09**
 REC'D BY LAB: **02/26/09**
 COLLECTED BY: **CLIENT**

PROJECT ID: **14613.01**
 REPORT DATE: **03/11/09**
 ANALYZED BY: **M-RI010**
 ANALYSIS DATE: **03/13/09**
 DIGESTION DATE: **N/A**

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-008
SAMPLE LOCATION: Room 152

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	ND	ND	0.50	2.70
1,1,1,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2-Trichloroethane	ND	ND	0.02	0.11
1,1-Dichloroethane	ND	ND	0.50	2.00
1,1-Dichloroethene	ND	ND	0.50	2.00
1,2,4-Trimethylbenzene	ND	ND	0.50	2.50
1,2-Dibromoethane (EDB)	ND	ND	0.02	0.15
1,2-Dichlorobenzene	ND	ND	0.50	3.00
1,2-Dichloroethane	ND	ND	0.02	0.08
1,2-Dichloropropane	ND	ND	0.02	0.09
1,3,5-Trimethylbenzene	ND	ND	0.50	2.50
1,3-Dichlorobenzene	ND	ND	0.50	3.00
1,4-Dichlorobenzene	ND	ND	0.50	3.00
Benzene	ND	ND	0.500	1.60
Bromodichloromethane	ND	ND	0.020	0.13

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER:	0903256-009
SAMPLE LOCATION:	Ambient Outdoor

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	ND	ND	0.50	2.70
1,1,1,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2-Trichloroethane	ND	ND	0.02	0.11
1,1-Dichloroethane	ND	ND	0.50	2.00
1,1-Dichloroethene	ND	ND	0.50	2.00
1,2,4-Trimethylbenzene	ND	ND	0.50	2.50
1,2-Dibromoethane (EDB)	ND	ND	0.02	0.15
1,2-Dichlorobenzene	ND	ND	0.50	3.00
1,2-Dichloroethane	ND	ND	0.02	0.08
1,2-Dichloropropane	ND	ND	0.02	0.09
1,3,5-Trimethylbenzene	ND	ND	0.50	2.50
1,3-Dichlorobenzene	ND	ND	0.50	3.00
1,4-Dichlorobenzene	ND	ND	0.50	3.00
Benzene	ND	ND	0.500	1.60
Bromodichloromethane	ND	ND	0.020	0.13

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-009
SAMPLE LOCATION: Ambient Outdoor

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Bromoform	ND	ND	0.04	0.41
Carbon Tetrachloride	0.0710	0.440	0.02	0.13
Chlorobenzene	ND	ND	0.50	2.30
Chloroethane	ND	ND	0.50	1.30
Chloroform	ND	ND	0.50	0.24
Chloromethane	ND	ND	0.50	1.00
cis-1,2-Dichloroethene	ND	ND	0.50	2.00
cis-1,3-Dichloropropene	ND	ND	0.04	0.18
Dibromochloromethane	ND	ND	0.50	4.20
Dichlorodifluoromethane	ND	ND	0.50	2.50
Ethylbenzene	ND	ND	0.50	2.20
Methylene Chloride	ND	ND	0.50	1.70
Methyl Tert-Butyl Ether	ND	ND	0.50	1.80
m,p-Xylene	ND	ND	1.00	4.30
o-Xylene	ND	ND	0.50	2.20
Styrene	ND	ND	0.50	2.10
Tetrachloroethylene	ND	ND	0.50	3.40

ND = NOT DETECTED

Method Reference:

EPA T015

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/11/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/13/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902356-009
SAMPLE LOCATION: Ambient Outdoor

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Toluene	ND	ND	0.50	1.90
trans-1,2-Dichloroethene	ND	ND	0.50	2.00
trans-1,3-Dichloropropene	ND	ND	0.04	0.18
Trichloroethylene	0.0240	0.130	0.02	0.11
Trichlorofluoromethane	ND	ND	0.50	2.80
Vinyl chloride	ND	ND	0.04	0.10
Acrylonitrile	ND	ND	1.00	2.20
n-Butylbenzene	ND	ND	1.00	5.50
sec-Butylbenzene	ND	ND	1.00	5.50
Isopropylbenzene	ND	ND	1.00	4.90
p-Isopropyltoluene	ND	ND	1.00	5.50
Acetone	ND	ND	1.00	2.40
2-Butanone	ND	ND	0.50	1.50
4-Methyl-2-Pentanone	ND	ND	0.50	2.00

ND = NOT DETECTED

Method Reference:

CHAIN OF CUSTODY RECORD
 GeoLabs, Inc. Environmental Laboratories
 45 Johnson Lane, Braintree, MA 02184
 p 781.848.7844 • f 781.848.7811
 www.geolabs.com

Special Instructions
 CT Draft Proposed Residential TAC
 PLEASE REPORT NUMBER; SEPARATELY

Sample Handling: circle choice
 Done Not Needed
 Lab to do Lab to do Y/N
 Preservation

Turnaround: circle one
 1-day 3-day 5/7-days 2-day

Data Delivery: circle choice (s)
 Fax email PDF
 Format: Excel

MCP Methods
 DEP Other

Requirements: circle choice (s) 0902356
 CT RCP (Reasonable Confidence Protocols)
 State / Fed Program - Criteria

Client: EA Eganesis
 Address: 2350 Post Rd
 Pawtucket, RI 02886
 Contact: Ron Mack

Phone: (401) 736-3440
 Fax: (401) 736-3423
 email: rmack@eganesis.com

Project: 14613.01
 Project PO:
 Invoice to *:

DATE	COLLECTION TIME	SAMPLER ASSEMBLY	SAMPLE LOCATION / ID	CONTAINER			GeoLabs SAMPLE NUMBER	Preservative:	Analysis Requested									
				TYPE	QUANTITY	MATRIX			COMPO	GRAB	L	A	B	P	H			
2/25/09	7:07		Cyprusville	S	1	MX	2350-001											
	7:05		Cabotena				002											
	7:06		Kitchen Storage Dr				003											
	7:08		Elev. Hallway				004											
	7:16		Rm 110				005											
	7:15		Rm 118				006											
	7:10		Rm 145				007											
	7:12		Rm 152				008											
	8:37		Ambient Outdoor				009											

Matrix Codes:
 GW = Ground Water
 WW = Waste Water
 DW = Drinking Water
 SL = Sludge
 S = Soil
 O = Oil
 A = Air
 OT = Other

Received on Ice

Preservatives:
 1 = HCl
 2 = HNO3
 3 = H2SO4
 4 = Na2S2O3
 5 = NaOH
 6 = MEQH
 7 = Other

Containers:
 A = Amber
 G = Glass
 S = Summa
 B = Bag
 P = Plastic
 V = Voa
 0 = Other

Relinquished by: *[Signature]* Date / Time: 2/26/09 11:18

Received by: *[Signature]* Date / Time: 2/26/09 12:30

20024 JRPC of CR.01/12/09
 * Terms: Payment due within 30 days unless other arrangements are made. Past due balances subject to interest and collector cost. Note: Homeowners and Law Firms must pay when dropping off samples. We accept cash, check and credit cards.

MA (MA-015)
 PA (68-03417)
 CT (PH-0148)
 NY(11796)
 NH (2508) NJ (MA-009)
 RI (LA000252)

Attachment B

Subslab Vapor Analytical Report
25 February 2009



Friday, March 13, 2009

Ron Mack
EA Engineering
333 Turnpike Rd
Southborough, MA 01772

GeoLabs, Inc.
45 Johnson Lane
Braintree MA 02184
Tele: 781 848 7844
Fax: 781 848 7811

TEL: (401) 736-3440

FAX: (508) 485-5742

Project: 14613.01

Location:

Order No.: 0902357

Dear Ron Mack:

GeoLabs, Inc. received 4 sample(s) on 2/26/2009 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications, except when noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Jim Chen
Laboratory Director

For current certifications, please visit our website at www.geolabs.com

Certifications:

CT (PH-0148) - MA (M-MA015) - NH (2508) - NJ (MA009) - NY (11796) - RI (LA000252)

CLIENT: EA Engineering
Project: 14613.01
Lab Order: 0902357

CASE NARRATIVE

Physical Condition of Samples

The project was received by the laboratory in satisfactory condition. The sample(s) were received undamaged, in appropriate containers with the correct preservation.

Project Documentation

The project was accompanied by satisfactory Chain of Custody documentation.

Analysis of Sample(s)

All extractable samples were extracted and analyzed and any Volatile samples were analyzed within method specified holding times and according to GeoLabs documented Standard Operating Procedure. No analytical anomalies or non-conformances were noted by the laboratory during the processing of these samples.

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902357-001
SAMPLE LOCATION: IMP-1

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	ND	ND	0.50	2.70
1,1,1,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2-Trichloroethane	ND	ND	0.02	0.11
1,1-Dichloroethane	ND	ND	0.50	2.00
1,1-Dichloroethene	ND	ND	0.50	2.00
1,2,4-Trimethylbenzene	1.30	6.20	0.50	2.50
1,2-Dibromoethane (EDB)	ND	ND	0.02	0.15
1,2-Dichlorobenzene	ND	ND	0.50	3.00
1,2-Dichloroethane	ND	ND	0.02	0.08
1,2-Dichloropropane	ND	ND	0.02	0.09
1,3,5-Trimethylbenzene	ND	ND	0.50	2.50
1,3-Dichlorobenzene	ND	ND	0.50	3.00
1,4-Dichlorobenzene	ND	ND	0.50	3.00
Benzene	ND	ND	0.500	1.60
Bromodichloromethane	ND	ND	0.020	0.13

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902357-001
SAMPLE LOCATION: IMP-1

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Bromoform	ND	ND	0.04	0.41
Carbon Tetrachloride	0.0590	0.370	0.02	0.13
Chlorobenzene	ND	ND	0.50	2.30
Chloroethane	ND	ND	0.50	1.30
Chloroform	ND	ND	0.50	0.24
Chloromethane	ND	ND	0.50	1.00
cls-1,2-Dichloroethene	ND	ND	0.50	2.00
cls-1,3-Dichloropropene	ND	ND	0.04	0.18
Dibromochloromethane	ND	ND	0.50	4.20
Dichlorodifluoromethane	ND	ND	0.50	2.50
Ethylbenzene	ND	ND	0.50	2.20
Methylene Chloride	ND	ND	0.50	1.70
Methyl Tert-Butyl Ether	ND	ND	0.50	1.80
m,p-Xylene	1.90	8.00	1.00	4.30
o-Xylene	0.50	2.20	0.50	2.20
Styrene	ND	ND	0.50	2.10
Tetrachloroethylene	ND	ND	0.50	3.40

ND = NOT DETECTED

Method Reference:

EPA T015

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902357-001
SAMPLE LOCATION: IMP-1

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Toluene	ND	ND	0.50	1.90
trans-1,2-Dichloroethene	ND	ND	0.50	2.00
trans-1,3-Dichloropropene	ND	ND	0.04	0.18
Trichloroethylene	0.103	0.560	0.02	0.11
Trichlorofluoromethane	ND	ND	0.50	2.80
Vinyl chloride	ND	ND	0.04	0.10
Acrylonitrile	ND	ND	1.00	2.20
n-Butylbenzene	ND	ND	1.00	5.50
sec-Butylbenzene	ND	ND	1.00	5.50
Isopropylbenzene	ND	ND	1.00	4.90
p-Isopropyltoluene	ND	ND	1.00	5.50
Acetone	4.00	9.50	1.00	2.40
2-Butanone	ND	ND	0.50	1.50
4-Methyl-2-Pentanone	ND	ND	0.50	2.00

ND = NOT DETECTED

Method Reference:

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902357-002
SAMPLE LOCATION: IMP-2

	RESULTS		DETECTION LIMIT	
	(ppbv)	(µg/m ³)	(ppbv)	(µg/m ³)
1,1,1-Trichloroethane	ND	ND	0.50	2.70
1,1,1,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2-Trichloroethane	ND	ND	0.02	0.11
1,1-Dichloroethane	ND	ND	0.50	2.00
1,1-Dichloroethene	ND	ND	0.50	2.00
1,2,4-Trimethylbenzene	0.600	2.90	0.50	2.50
1,2-Dibromoethane (EDB)	ND	ND	0.02	0.15
1,2-Dichlorobenzene	ND	ND	0.50	3.00
1,2-Dichloroethane	ND	ND	0.02	0.08
1,2-Dichloropropane	ND	ND	0.02	0.09
1,3,5-Trimethylbenzene	ND	ND	0.50	2.50
1,3-Dichlorobenzene	ND	ND	0.50	3.00
1,4-Dichlorobenzene	ND	ND	0.50	3.00
Benzene	ND	ND	0.500	1.60
Bromodichloromethane	ND	ND	0.020	0.13

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902357-002
SAMPLE LOCATION: IMP-2

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Bromoform	ND	ND	0.04	0.41
Carbon Tetrachloride	0.0570	0.360	0.02	0.13
Chlorobenzene	ND	ND	0.50	2.30
Chloroethane	ND	ND	0.50	1.30
Chloroform	ND	ND	0.50	0.24
Chloromethane	0.600	1.20	0.50	1.00
cis-1,2-Dichloroethene	ND	ND	0.50	2.00
cis-1,3-Dichloropropene	ND	ND	0.04	0.18
Dibromochloromethane	ND	ND	0.50	4.20
Dichlorodifluoromethane	0.700	3.40	0.50	2.50
Ethylbenzene	ND	ND	0.50	2.20
Methylene Chloride	ND	ND	0.50	1.70
Methyl Tert-Butyl Ether	ND	ND	0.50	1.80
m,p-Xylene	2.20	9.30	1.00	4.30
o-Xylene	0.70	3.20	0.50	2.20
Styrene	ND	ND	0.50	2.10
Tetrachloroethylene	0.50	3.70	0.50	3.40

ND = NOT DETECTED

Method Reference:

EPA T015

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902357-002
SAMPLE LOCATION: IMP-2

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Toluene	3.70	13.8	0.50	1.90
trans-1,2-Dichloroethene	ND	ND	0.50	2.00
trans-1,3-Dichloropropene	ND	ND	0.04	0.18
Trichloroethylene	2.00	10.7	0.02	0.11
Trichlorofluoromethane	1.30	7.10	0.50	2.80
Vinyl chloride	ND	ND	0.04	0.10
Acrylonitrile	ND	ND	1.00	2.20
n-Butylbenzene	ND	ND	1.00	5.50
sec-Butylbenzene	ND	ND	1.00	5.50
Isopropylbenzene	ND	ND	1.00	4.90
p-Isopropyltoluene	ND	ND	1.00	5.50
Acetone	3.50	8.30	1.00	2.40
2-Butanone	ND	ND	0.50	1.50
4-Methyl-2-Pentanone	ND	ND	0.50	2.00

ND = NOT DETECTED

Method Reference:

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902357-003
SAMPLE LOCATION: MP-1

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	ND	ND	0.50	2.70
1,1,1,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2-Trichloroethane	ND	ND	0.02	0.11
1,1-Dichloroethane	ND	ND	0.50	2.00
1,1-Dichloroethene	ND	ND	0.50	2.00
1,2,4-Trimethylbenzene	3.60	17.5	0.50	2.50
1,2-Dibromoethane (EDB)	ND	ND	0.02	0.15
1,2-Dichlorobenzene	ND	ND	0.50	3.00
1,2-Dichloroethane	ND	ND	0.02	0.08
1,2-Dichloropropane	ND	ND	0.02	0.09
1,3,5-Trimethylbenzene	1.90	9.10	0.50	2.50
1,3-Dichlorobenzene	ND	ND	0.50	3.00
1,4-Dichlorobenzene	ND	ND	0.50	3.00
Benzene	ND	ND	0.500	1.60
Bromodichloromethane	ND	ND	0.020	0.13

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902357-003
SAMPLE LOCATION: MP-1

	RESULTS		DETECTION LIMIT	
	(ppbv)	(µg/m ³)	(ppbv)	(µg/m ³)
Bromoform	ND	ND	0.04	0.41
Carbon Tetrachloride	0.0620	0.390	0.02	0.13
Chlorobenzene	ND	ND	0.50	2.30
Chloroethane	ND	ND	0.50	1.30
Chloroform	ND	ND	0.50	0.24
Chloromethane	ND	ND	0.50	1.00
cis-1,2-Dichloroethene	ND	ND	0.50	2.00
cis-1,3-Dichloropropene	ND	ND	0.04	0.18
Dibromochloromethane	ND	ND	0.50	4.20
Dichlorodifluoromethane	ND	ND	0.50	2.50
Ethylbenzene	2.50	10.8	0.50	2.20
Methylene Chloride	ND	ND	0.50	1.70
Methyl Tert-Butyl Ether	1.70	5.80	0.50	1.80
m,p-Xylene	8.70	37.6	1.00	4.30
o-Xylene	2.10	8.90	0.50	2.20
Styrene	ND	ND	0.50	2.10
Tetrachloroethylene	ND	ND	0.50	3.40

ND = NOT DETECTED

Method Reference:

EPA T015

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902357-003
SAMPLE LOCATION: MP-1

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
Toluene	1.90	7.00	0.50	1.90
trans-1,2-Dichloroethene	ND	ND	0.50	2.00
trans-1,3-Dichloropropene	ND	ND	0.04	0.18
Trichloroethylene	0.0810	0.440	0.02	0.11
Trichlorofluoromethane	ND	ND	0.50	2.80
Vinyl chloride	ND	ND	0.04	0.10
Acrylonitrile	ND	ND	1.00	2.20
n-Butylbenzene	ND	ND	1.00	5.50
sec-Butylbenzene	ND	ND	1.00	5.50
Isopropylbenzene	ND	ND	1.00	4.90
p-Isopropyltoluene	ND	ND	1.00	5.50
Acetone	12.1	28.6	1.00	2.40
2-Butanone	10.2	30.0	0.50	1.50
4-Methyl-2-Pentanone	ND	ND	0.50	2.00

ND = NOT DETECTED

Method Reference:

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902357-004
SAMPLE LOCATION: MP-5

	RESULTS		DETECTION LIMIT	
	(ppbv)	($\mu\text{g}/\text{m}^3$)	(ppbv)	($\mu\text{g}/\text{m}^3$)
1,1,1-Trichloroethane	ND	ND	0.50	2.70
1,1,1,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2,2-Tetrachloroethane	ND	ND	0.02	0.14
1,1,2-Trichloroethane	ND	ND	0.02	0.11
1,1-Dichloroethane	ND	ND	0.50	2.00
1,1-Dichloroethene	ND	ND	0.50	2.00
1,2,4-Trimethylbenzene	0.800	4.00	0.50	2.50
1,2-Dibromoethane (EDB)	ND	ND	0.02	0.15
1,2-Dichlorobenzene	ND	ND	0.50	3.00
1,2-Dichloroethane	ND	ND	0.02	0.08
1,2-Dichloropropane	ND	ND	0.02	0.09
1,3,5-Trimethylbenzene	ND	ND	0.50	2.50
1,3-Dichlorobenzene	ND	ND	0.50	3.00
1,4-Dichlorobenzene	ND	ND	0.50	3.00
Benzene	ND	ND	0.500	1.60
Bromodichloromethane	ND	ND	0.020	0.13

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902357-004
SAMPLE LOCATION: MP-5

	RESULTS		DETECTION LIMIT	
	(ppbv)	(µg/m ³)	(ppbv)	(µg/m ³)
Bromoform	ND	ND	0.04	0.41
Carbon Tetrachloride	0.0580	0.360	0.02	0.13
Chlorobenzene	ND	ND	0.50	2.30
Chloroethane	ND	ND	0.50	1.30
Chloroform	ND	ND	0.50	0.24
Chloromethane	ND	ND	0.50	1.00
cis-1,2-Dichloroethene	ND	ND	0.50	2.00
cis-1,3-Dichloropropene	ND	ND	0.04	0.18
Dibromochloromethane	ND	ND	0.50	4.20
Dichlorodifluoromethane	3.90	19.4	0.50	2.50
Ethylbenzene	ND	ND	0.50	2.20
Methylene Chloride	ND	ND	0.50	1.70
Methyl Tert-Butyl Ether	ND	ND	0.50	1.80
m,p-Xylene	ND	ND	1.00	4.30
o-Xylene	ND	ND	0.50	2.20
Styrene	ND	ND	0.50	2.10
Tetrachloroethylene	1.20	8.30	0.50	3.40

ND = NOT DETECTED

Method Reference:

EPA T015

GeoLabs, Inc.
Environmental Laboratories

CLIENT NAME:	EA Engineering	PROJECT ID:	14613.01
SAMPLE TYPE:	AIR	REPORT DATE:	03/13/09
COLLECTION DATE:	02/25/09	ANALYZED BY:	M-RI010
REC'D BY LAB:	02/26/09	ANALYSIS DATE:	03/11/09
COLLECTED BY:	CLIENT	DIGESTION DATE:	N/A

VOLATILE ORGANICS

SAMPLE NUMBER: 0902357-004
SAMPLE LOCATION: MP-5

	RESULTS		DETECTION LIMIT	
	(ppbv)	(µg/m ³)	(ppbv)	(µg/m ³)
Toluene	ND	ND	0.50	1.90
trans-1,2-Dichloroethene	ND	ND	0.50	2.00
trans-1,3-Dichloropropene	ND	ND	0.04	0.18
Trichloroethylene	18.6	99.5	0.50	2.70
Trichlorofluoromethane	2.60	14.8	0.50	2.80
Vinyl chloride	ND	ND	0.04	0.10
Acrylonitrile	ND	ND	1.00	2.20
n-Butylbenzene	ND	ND	1.00	5.50
sec-Butylbenzene	ND	ND	1.00	5.50
Isopropylbenzene	ND	ND	1.00	4.90
p-Isopropyltoluene	ND	ND	1.00	5.50
Acetone	25.7	60.9	5.00	11.9
2-Butanone	67.4	198	2.50	7.40
4-Methyl-2-Pentanone	ND	ND	0.50	2.00

ND = NOT DETECTED
Method Reference:

