

February 3, 2014

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

**RE: Air Monitoring Report
Fourth Quarter, 2013
Retail Complex, Active Sub-Slab Depressurization System
Former Gorham Manufacturing Facility
333 Adelaide Avenue, Providence, Rhode Island
AMEC Project No. 3650080114**

Dear Mr. Martella:

This letter report presents the results of quarterly compliance sampling and analysis conducted by AMEC Environment and Infrastructure, Inc. (AMEC) at the retail complex located at the Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island (the Site). The reporting period is from October 2013 through December 2013 and includes one quarterly compliance sampling event (December 13, 2013).

The sampling, analysis and reporting are being conducted consistent with the Short Term Response Action Order of Approval dated July 24, 2008 and the Addendum to the Order of Approval dated August 7, 2008 (collectively referred to as the Orders of Approval).

Background

The active sub-slab depressurization (ASD) system, also called a vapor mitigation system, in the large retail space consists of four extraction wells connected to a 3 hp Rotron regenerative blower. The blower is located in an enclosure located at the north, or rear, of the large retail space.

The small retail spaces consist of the eastern, central, and western retail spaces (Figure 1). The mitigation systems in the small retail spaces consist of one extraction well in each space connected to an individual radon-type fan, located at the north, or rear, of each small retail space.

Small Retail Spaces

The quarterly monitoring event for the three small retail spaces, consistent with the requirements of the Orders of Approval, was completed on December 13, 2013.

Table 1 summarizes the analytical results at the small retail spaces for the baseline sampling event conducted prior to system start-up and all subsequent sampling events conducted after system start-up. Results of the indoor air samples were compared to the Draft Connecticut Industrial/Commercial Indoor Target Air Concentrations (TAC), which were identified as action levels in the Orders of Approval. The laboratory report (13L0600) associated with the December 13, 2013 quarterly sampling event is provided in Appendix A of this letter report. The analytical laboratory's detection limits are provided in Appendix B.

The sampling event included an indoor air sample from each of the small retail spaces (locations IA-5, IA-6, and IA-7), one outdoor air reference sample (location AA-1), and one air sample collected from each of the three vapor extraction wells (EW-5, EW-6, and EW-7). The sampling locations are shown in Figure 1. The outdoor reference air sample (AA-1) was located north of the property, upwind of the small retail space. Sub-slab vacuum monitoring (pressure differential measurements) was also conducted at locations VMW-5, VMW-6, and VMW-7 in conjunction with the quarterly air sampling program. The vacuum monitoring results are tabulated in Table 2.

The following conclusions are based on Site observations and the data from Table 1.

- Indoor air sample results were in compliance with action levels for the December 2013 quarterly sampling event in the small retail space (sample locations IA-5 through IA-7).
- The eastern small retail space (indoor air sample location IA-5) remains unoccupied.
- The center small retail space (sample location IA-6) remains unoccupied.
- The western small retail space (sample location IA-7) is intermittently occupied.
- The mitigation systems are functioning as designed.

Large Retail Space

The quarterly monitoring event for the large retail space, consistent with the requirements of the Orders of Approval, was completed on December 13, 2013. Table 3 summarizes the analytical results for the large retail space for the baseline sampling event conducted prior to system start-up and all subsequent sampling events conducted after system start-up. Results of the indoor air samples were compared to the Draft Connecticut Industrial/Commercial Indoor Target Air Concentrations (TAC), which were identified as action levels in the Orders of Approval. The laboratory report (13L0600) associated with the December 13, 2013 quarterly sampling event is provided in Appendix A of this letter report. The analytical laboratory's detection limits are provided in Appendix B.

The sampling event included collection of samples from each of the indoor air sampling points in the large retail space (locations IA-1 through IA-4), one outdoor air reference sample (location AA-1), and one air sample collected from the manifold where air from the four vapor extraction wells is collected (EW-Combined). The sampling locations are shown in Figure 1. The outdoor reference air sample (AA-1) was located at an outdoor upwind location. Sub-slab vacuum monitoring (pressure differential measurements) was also conducted at locations VMW-1 through VMW-4 in conjunction with the air sampling program. The vacuum monitoring results for the large retail space are tabulated in Table 4.

The following conclusions are based on Site observations and the data from Table 3.

- Indoor air sample results were in compliance with action levels for the December 2013 quarterly sampling event in the large retail space (sample locations IA-1 through IA-4).
- The mitigation system is functioning as designed and is achieving desired results with respect to indoor air quality in the large retail space.
- The large retail space was recently subdivided into two spaces. The eastern section is currently occupied by a health fitness club which opened in January of 2013. This space includes indoor air sample locations IA-2 and IA-4 and sub-slab vacuum monitoring well VMW-2.
- The western side of the large retail space remains vacant and includes indoor air locations IA-1 and IA-3, vapor extraction well (EW-5) and sub-slab vacuum monitoring VMW-1, VMW-3, and VMW-4.

ASD System Monitoring/Maintenance

The ASD system performance is monitored and maintained monthly by Clean Harbors Environmental Services. A system shutdown occurred on November 15 due to a high water in the knockout. It remained down until November 18, when a Clean Harbors technician was able to clear the lines on-site. There were several low flow conditions reported on radon fan 2. There was no identified cause for the alarms and the alarm was successfully reset remotely each time by Clean Harbors. Clean Harbors verified that radon fan 2 was operational during every monthly maintenance visit. It is suspected that the current relay sensor for radon fan 2 was likely the cause for the alarms. Clean Harbors will continue to monitor radon fan 2 during each maintenance visits.

Next Reporting Period

The next quarterly report (first quarter 2014) will cover the monitoring period from January 2014 through March 2014. The report will be prepared and submitted to the Rhode Island Department of Environmental Management (RIDEM) in April 2014.

Please contact the undersigned at (978) 692-9090 if we can provide additional information or answer any questions concerning these monitoring events and system adjustments.

Sincerely,
AMEC Environment & Infrastructure, Inc.



Mark Maggiore
Environmental Scientist



Charles Collet, P.E.
Senior Principal/Senior Project Manager

Enclosures: Table 1. Summary of Analytical Results – Air Sampling for Small Retail Spaces
 Table 2. Vacuum Monitoring Results – Small Retail Spaces
 Table 3. Summary of Analytical Results – Air Sampling for Large Retail Space
 Table 4. Vacuum Monitoring Results – Large Retail Space

Figure 1 Vapor Mitigation Sample Locations

Appendix A – Laboratory Reports
Appendix B – Analytical Laboratory Detection Limits

cc: Stuart MacDonald, City of Providence
 G. Simpson, Textron, Inc. (Electronic)
 Knight Memorial Library Repository
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 Joseph P. Salvetti, Norfolk Ram Group, LLC
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TABLES

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Outdoor Air Reference Locations																			
	AA-1 011609 1/16/2009	AA-1- 020309 2/3/2009	AA-1- 021109 2/11/2009	AA-1- 021809 2/18/2009	AA-1- 022609 2/26/2009	AA-1- 030609 3/6/2009	AA-1- 033109 3/31/2009	AA-1- 041409 4/14/2009	AA-1- 042409 4/24/2009	AA-1- 051509 5/15/2009	AA-1- 061109 6/11/2009	AA-1- 091709 9/17/2009	AA-1- 092409 9/24/2009	AA-1- 100109 10/1/2009	AA-1- 100809 10/8/2009	AA-1- 122909 12/29/2009	AA-1- 012810 1/28/2010	AA-1- 020510 2/5/2010	AA-1- 021210 2/12/2010	
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U									
1,1,1,2-Tetrachloroethane																				
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U								
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U									
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U									
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U									
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U									
1,2,4-Trimethylbenzene	0.25 U	0.28	0.52	1.8	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.29	0.30	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U									
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U									
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U									
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U									
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.50	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U									
1,3-Butadiene	0.11 U	0.11 U	0.17	1.3	0.11 U	0.11 U	0.11 U	0.080 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U									
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.53	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U									
1,4-Dioxane																				
2-Butanone	0.58	1.2	2.4	3.2	1.6	0.67	1.7	0.11 U	1.6	1.6	1.6	1.1	1.7	0.84	1.2	1.2	2.0	0.81	1.6	1.6
2-Hexanone	0.20 U	0.22	0.57	0.35	0.20 U	0.20 U	0.20 U	0.14 U	0.26	0.39	0.20 U	0.34	0.20 U	0.33	0.23	0.20 U	0.20 U	0.32	0.20 U	
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.6	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U								
4-Methyl-2-pentanone	0.20 U	0.20 U	0.27	0.63	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U									
Acetone	7.3	8.0	15	22	8.4	5.9	12	1.1	27	9.5	10	10	9.6	5.4	17	11	3.5	7.6	5.0	
Benzene	0.69	0.62	1.3	4.7	0.43	0.69	0.46	0.12 U	0.30	0.40	0.49	0.38	0.35	0.25	0.20	0.42	0.79	0.68	0.63	
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U								
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U								
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U								
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U								
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U								
Carbon tetrachloride	0.38	0.44	0.52	0.56	0.43	0.61	0.47	0.22 U	0.41	0.78	0.43	0.40	0.40	0.43	0.46	0.39	0.42	0.39	0.31 U	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U								
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U	0.13 U								
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U									
Chloromethane	1.1	0.90	1.4	1.5	1.1	1.1	1.3	1.1	1.2	1.1	0.85	1.1	0.97	0.96	1.6	1.1	1.2	1.3		
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U									
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U								
Cyclohexane	0.17 U	0.17 U	0.35	1.1	0.17 U	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U									
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U								
Dichlorodifluoromethane	2.0	2.2	2.6	2.7	2.6	2.6	2.8	2.0	2.5	2.7	2.6	2.1	2.2	2.1	2.1	2.3	2.4	2.5		
Ethanol	4.0	5.4	10	47	4.3	3.5	4.7	0.81	4.9	4.8	8.6	6.6	4.6	3.9	4.9	3.8	5.4	5.1	7.2	
Ethyl acetate	0.37 U	0.37 U	0.18 U	0.31	0.37 U	0.18 U	0.18 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U							
Ethylbenzene	0.22 U	0.25	0.52	2.0	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.24	0.22 U	0.23	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
Hexachlorobutadiene	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	
Hexane	1.5	0.75	1.1	2.9	0.38	2.8	2.2	0.13 U	0.56	0.37	0.59	0.48	1.4	0.45	4.5	0.62	0.36	0.53	0.91	
Isopropyl alcohol	1.4	1.4	1.8	4.3	1.4	0.67	1.4	0.18 U	14	1.0	2.5	2.8	0.87	0.63	0.25 U	0.54	0.56	2.7	1.5	
m,p-Xylene	0.43 U	0.72	1.4	6.4	0.44	0.43 U	0.43 U	0.31 U	0.43 U	0.49	0.73	0.62	0.59	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.47	

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Outdoor Air Reference Locations																		
	AA-1 011609 1/16/2009	AA-1- 020309 2/3/2009	AA-1- 021109 2/11/2009	AA-1- 021809 2/18/2009	AA-1- 022609 2/26/2009	AA-1- 030609 3/6/2009	AA-1- 033109 3/31/2009	AA-1- 041409 4/14/2009	AA-1- 042409 4/24/2009	AA-1- 051509 5/15/2009	AA-1- 061109 6/11/2009	AA-1- 091709 9/17/2009	AA-1- 092409 9/24/2009	AA-1- 100109 10/1/2009	AA-1- 100809 10/8/2009	AA-1- 122909 12/29/2009	AA-1- 012810 1/28/2010	AA-1- 020510 2/5/2010	AA-1- 021210 2/12/2010
Methyl methacrylate	5.5	3.1	0.65	1.5	0.78	7.4	15	2.1	2.8	1.7	1.9	0.70 U	4.2	0.70 U	23	4.6	1.3	1.9	1.7
Methylene chloride	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U									
Methyl-t-butyl ether	0.20 U	0.27	0.92	1.6	0.20 U	0.20 U	0.14 U	0.20 U	0.40	0.23	0.20 U	0.26	0.20 U	0.20 U					
n-Heptane	0.22 U	0.27	0.53	2.2	0.22 U	0.22 U	0.16 U	0.22 U	0.24	0.27	0.23	0.22 U	0.22 U	0.22 U					
o-Xylene	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.090 U	0.13 U	0.18 U	0.090 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	
Propylene (Propene)	0.21 U	0.21 U	0.21 U	0.28	0.21 U	0.21 U	0.15 U	0.21 U	0.21 U	0.21 U									
Styrene	0.34 U	0.34 U	0.73	0.77	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.52	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
Tetrachloroethene	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U	0.15 U	0.15 U	0.15 U									
Toluene	0.94	1.5	3.2	14	0.71	0.99	0.82	0.14 U	0.72	2.6	2.1	1.9	2.0	0.61	0.50	0.78	0.94	0.64	0.97
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U									
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U								
Trichloroethene	0.27 U	0.27 U	0.27 U	0.39	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U								
Trichlorofluoromethane	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.50 U	0.71 U	0.18 U	0.18 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.71 U	0.71 U	
Vinyl acetate	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U								
Vinyl chloride	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.50 U	0.71 U	0.18 U	0.18 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.71 U	0.71 U	

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Parameter (ug/m ³)	Outdoor Air Reference Locations																				
	AA-1-021910 2/19/2010	AA-1-032610 3/26/2010	AA-1-043010 4/30/2010	AA-1-052810 5/28/2010	AA-1-070110 7/1/2010	AA-1-091610 9/16/2010	AA-1-120710 12/7/2010	AA-1-021711 2/17/2011	AA-1-060211 6/2/2011	AA-1-091511 9/15/2011	AA-1-120811 12/8/2011	AA-1-030812 3/8/2012	AA-1-061412 6/14/2012	AA-1-091312 9/13/2012	AA-1-010313 1/3/2013	AA-1-031513 3/15/2013	AA-1-060713 6/7/2013	AA-1-090613 9/6/2013	AA-1-100313 10/3/2013	AA-1-121313 12/13/2013	
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.29	0.082 U	0.10	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U		
1,1,1,2-Tetrachloroethane										0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.42 U	0.44 U	
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.10 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.24 U		
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U		
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.063	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U		
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U		
1,2,4-Trichlorobenzene	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.62 U	0.45 U	0.12	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U		
1,2,4-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.16	0.15 U	0.15 U	0.26	0.17 U	0.069	0.21	0.17 U	0.19	0.17 U		
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.26 U	0.27 U		
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.34	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 U	0.21 U		
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.066	0.061 U	0.046	0.14 U	0.14 U	0.057	0.14 U	0.14 U	0.14 U	0.14 U		
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U		
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U															
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.28	0.25 U	0.33	0.25 U	0.068	0.15 U	0.15 U	0.16	0.17 U	0.17 U	0.17 U	0.17 U	0.047	0.17 U		
1,3-Butadiene	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.29	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.075 U	0.078 U			
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 U	0.21 U			
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U											
1,4-Dioxane																					
2-Butanone	0.88	1.5	1.4	2.4	2.3	2.7	0.37	1.8 B	2.9 U	5.9 U	0.35	1.4	1.1	2.0	0.89	1.9	3.9	3.7	0.94	0.82	
2-Hexanone	0.20 U	0.29	0.29	0.49	0.49	0.41	0.20 U	0.20 U	4.1 U	0.67	0.12 U	0.34	0.14	0.27	0.14 U	0.13	0.49	0.32	0.14 U	0.14 U	
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.30	0.25 U	0.34	0.25 U	0.25 U	0.053	0.15 U	0.15 U	0.093	0.17 U	0.17 U	0.17 U	0.063	0.17 U		
4-Methyl-2-pentanone	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	2.8	0.20 U	0.20 U	0.20 U	0.12 U	0.12 U	0.23	0.10	0.14 U	0.083	0.24	0.14 U	0.14 U	0.14 U		
Acetone	3.7	9.5	12	20	13	14	5.7 B	19 B	8.7 B	20	4.9	9.4	10	12	8.7	18	28	16	12	26	
Benzene	0.41	0.69	0.35	0.19	0.16 U	1.2	0.28	2.3	0.16 U	0.19	0.40	0.29	0.20	0.68	0.42	1.0	0.31	0.7	0.95	0.43	
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U		
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.20 U	0.10 U	0.20 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23	0.24 U			
Bromoforform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.35 U	0.36 U		
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U			
Carbon disulfide	0.44	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.38	0.16 U	0.16 U	1.6 U	0.058	0.93 U	0.11	1.1 U	1.1 U	0.052	1.1 U	1.1 U	1.1 U		
Carbon tetrachloride	0.43	0.49	0.47	0.52	0.51	0.43	0.42	0.48	0.53	0.48	0.49	0.43	0.43	0.36	0.52	0.41	0.55	0.47	0.43	0.45	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U		
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.089 U	0.093 U			
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.094	0.073 U	0.067	0.096	0.17 U	0.21	0.17 U	0.17 U	0.10	0.17 U	
Chloromethane	1.1	1.4	0.78	1.1	0.96	0.99	0.94	1.0	0.96	1.4	0.062 U	1.1	1.5	1.1	1.0	1.6	1.4	1.1	0.96	1.1	
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12	0.059 U	0.12 U	0.14 U	0.14 U	0.092	0.14 U	0.16	0.13 U	0.14 U		
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U			
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.46	0.17 U	0.17 U	0.17 U	0.17 U	0.10 U	0.10 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U		
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U		
Dichlorodifluoromethane	2.9	1.8	2.1	2.5	2.4	2.9	1.9	3.1	1.7	2.5	2.0	2.4	2.8	2.5	1.7	3.0	2.0	1.8	2.7		
Ethanol	1.2	4.9	4.0	3.3	4.0	14	2.3	12	2.7	5.8	1.5	4.1	7.4	5.2	2.7	1.2	6.1	6.7	6.7	5.4	
Ethyl acetate	1.1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.46	0.56	0.43	0.67	0.35	1.1	0.56	17	0.12 U	0.13 U	
Ethylbenzene	0.22 U	0.22 U	0.22 U	0.22 U	0.82	1.4	0.22 U	1.1	0.22 U	0.22 U	0.31	0.13 U	0.065	0.19	0.15 U	0.12	0.16	0.15 U	0.21	0.15 U	
Hexachlorobutadiene	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.36 U	0.37 U			
Hexane	0.24	0.23	1.1	0.51	0.37	1.2	0.35 U	3.3	0.88	7.0 U	0.47	0.54	1.3	0.67	1.4	1.3	1.8	2.3	0.81	0.32	
Isopropyl alcohol	0.80	0.73	0.69	1.6	0.79	0.25 U	0.29	2.4	1.2 U	4.9 U	0.6	0.88	2.9 U	0.58	0.47	0.52	1.3	6.2	3.3 U	0.77	
m,p-Xylene	0.43 U	0.49	0.43 U	0.43 U	0.43 U	2.2	3.7	0.43 U	3.3	0.43 U	0.43 U	0.41	0.17	0.18	0.64	0.30 U	0.34	0.58	0.21	0.53	0.30 U

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Outdoor Air Reference Locations																			
	AA-1-021910 2/19/2010	AA-1-032610 3/26/2010	AA-1-043010 4/30/2010	AA-1-052810 5/28/2010	AA-1-070110 7/1/2010	AA-1-091610 9/16/2010	AA-1-120710 12/7/2010	AA-1-021711 2/17/2011	AA-1-060211 6/2/2011	AA-1-091511 9/15/2011	AA-1-120811 9/18/2011	AA-1-030812 3/8/2012	AA-1-061412 6/14/2012	AA-1-091312 9/13/2012	AA-1-010313 1/3/2013	AA-1-031513 3/15/2013	AA-1-060713 6/7/2013	AA-1-090613 9/6/2013	AA-1-100313 10/3/2013	AA-1-121313 12/13/13
Methyl methacrylate							0.20 U	0.48	0.20 U	0.20 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U		
Methylene chloride	0.70 U	0.70 U	0.70 U	0.35 U	1.1	1.1	0.66	3.0	2.3	1.7 U	1.5	1.6	3.0	2.1	4.4	2.9	2.3	9.1	1.0	0.76
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.12 U	0.12 U	0.13 U
n-Heptane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.91	0.20 U	0.95	0.20 U	0.20 U	0.12	0.089	0.11	0.18	0.14 U	0.12	0.21	0.15	0.18	0.14 U
o-Xylene	0.22 U	0.22 U	0.22 U	0.22 U	0.46	1.2	0.22 U	1.1	0.22 U	0.22 U	0.22	0.086	0.078	0.31	0.15 U	0.12	0.2	0.15 U	0.24	0.15 U
Propylene (Propene)	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	1.9	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	0.77	1.3	2.4 U	2.4 U	2.4 U	2.3 U	2.4 U	
Styrene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.37	0.13 U	0.1	0.13	0.15 U	0.039	0.15 U	0.15 U	0.052	0.15 U	
Tetrachloroethene	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.49	0.34 U	5.3	0.34 U	0.34 U	0.73	0.10 U	0.20 U	0.87	0.24 U	0.90	0.24 U	0.24 U	0.3	0.24 U
Tetrahydrofuran	0.19	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.057	0.088 U	0.088 U	0.43	0.10 U	0.10 U	0.10 U	1.4	0.10 U	0.10 U
Toluene	0.46	1.1	0.75	0.63	0.57	10	0.19 U	5.3	0.52	0.47	0.56	0.37	0.42	0.81	0.48	0.74	1.2	1.4	1.3	0.35
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U
Trichloroethene	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.67	0.081 U	0.045	0.091	0.19 U	0.26	0.19 U	0.19 U	0.11	0.19 U
Trichlorofluoromethane	1.5	1.5	1.2	1.4	1.3	11	1.2	1.7	1.5	1.5	1.7	1.1	1.7	1.5	1.5	1.3	1.8	11	3.3	1.5
Trichlorotrifluoroethane	0.54	0.62	0.45	0.58	0.56	0.44	0.56	0.66	0.69	0.58	0.89	0.43	0.53	0.59	0.58	0.66	1.0	0.6	0.55	0.55
Vinyl acetate	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	2.5 U	2.5 U	2.4 U	2.5 U	
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.087 U	0.090 U	

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Extraction Well - Eastern Small Retail Space																		
	EW-5-020309 2/3/2009	EW-5-021109 2/11/2009	EW-5-021809 2/18/2009	EW-5-022609 2/26/2009	EW-5-030609 3/6/2009	EW-5-041409 4/14/2009	EW-5-051509 5/15/2009	EW-5-061109 6/11/2009	EW-5-091709 9/17/2009	EW-5-122909 12/29/2009	EW-5-032610 3/26/2010	EW-5-070110 7/1/2010	EW-5-091610 9/16/2010	EW-5-120710 12/7/2010	EW-5-021711 2/17/2011	EW-5-060211 6/2/2011	EW-5-091511 9/15/2011	EW-5-120811 12/8/2011	
1,1,1-Trichloroethane	190000	41000	17000	7100	1800	2600	3100	1900	3500	920	540	550	460	210 D	400 D	340 D	430	130	
1,1,1,2-Tetrachloroethane																		25 U	
1,1,2,2-Tetrachloroethane	6.8 U	6.8 U	6.8 U	6.8 U	1.7 U	68 U	3.4 U	3.4 U	3.4 U	3.4 U	6.8 U	3.4 U	6.8 U	1.4 UD	1.4 UD	6.9 UD	14 U	3.4 U	
1,1,2-Trichloroethane	5.4 U	5.4 U	5.4 U	5.4 U	1.4 U	54 U	2.7 U	2.7 U	2.7 U	2.7 U	5.4 U	2.7 U	5.4 U	1.1 UD	1.1 UD	5.5 UD	11 U	2.7 U	
1,1-Dichloroethane	11000	1900	890	770	190	360	450	430	230	100	50	53	42	29 D	34 D	33 D	44	16	
1,1-Dichloroethene	2500	290	130	190	61	160	160	160	98	30	18	21	15	13 D	15 D	11 D	14	5.0	
1,2,4-Trichlorobenzene	7.4 U	7.4 U	7.4 U	7.4 U	1.9 U	74 U	3.7 U	3.7 U	3.7 U	7.5 U	15 U	3.7 U	7.4 U	1.5 UD	1.5 UD	7.4 UD	30 U	7.4 U	
1,2,4-Trimethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U	0.98 UD	0.98 UD	4.9 UD	9.8 U	2.5 U		
1,2-Dibromoethane (EDB)	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	76 U	3.8 U	3.8 U	3.8 U	7.6 U	3.8 U	7.6 U	1.5 UD	1.5 UD	7.7 UD	15 U	3.8 U		
1,2-Dichlorobenzene	6.0 U	6.0 U	6.0 U	6.0 U	1.5 U	60 U	3.0 U	3.0 U	3.0 U	6.0 U	3.0 U	6.0 U	1.2 UD	1.2 UD	6 U	12 U	3.0 U		
1,2-Dichloroethane	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	40 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	0.81 UD	0.81 UD	4 U	8.1 U	2.0 U		
1,2-Dichloropropane	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	46 U	2.3 U	2.3 U	2.3 U	4.6 U	2.3 U	4.6 U	0.92 UD	0.92 UD	4.6 UD	9.2 U	2.3 U		
1,2-Dichlortetrafluoroethane	7.0 U	7.0 U	7.0 U	7.0 U	1.8 U	70 U	3.5 U	3.5 U	3.5 U	7.0 U	3.5 U	7.0 U							
1,3,5-Trimethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U	0.98 UD	0.98 UD	4.9 UD	9.8 U	2.5 U		
1,3-Butadiene	2.2 U	2.2 U	2.2 U	2.2 U	0.55 U	22 U	1.1 U	1.1 U	1.1 U	2.3 U	1.1 U	2.2 U	1.1 U	2.2 U	0.44 UD	0.44 UD	2.2 UD	4.4 U	1.1 U
1,3-Dichlorobenzene	6.0 U	6.0 U	6.0 U	6.0 U	1.5 U	60 U	3.0 U	3.0 U	3.0 U	6.0 U	3.0 U	6.0 U	1.2 UD	1.2 UD	6.0 UD	12 U	3.0 U		
1,4-Dichlorobenzene	6.0 U	6.0 U	6.0 U	6.0 U	1.5 U	60 U	3.0 U	3.0 U	3.0 U	6.0 U	3.0 U	6.0 U	1.2 UD	1.2 UD	6.0 UD	12 U	3.0 U		
1,4-Dioxane																		7.2 U	
2-Butanone	6.3	89	75	170	3700	64000	100000	230000	110000	7800	18000	28000	15000	4000 D	7200 BD	17000 D	13000	2700	
2-Hexanone	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	40 U	2.7	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	0.82 UD	0.82 UD	8.2 U	8.2 U	2.0 U		
4-Ethyltoluene	5.0 U	5.0 U	5.0 U	5.0 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U	0.98 UD	0.98 UD	4.9 UD	9.8 U	2.5 U		
4-Methyl-2-pentanone	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	40 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	0.82 UD	0.82 UD	4.1 UD	8.2 U	2.0 U		
Acetone	530	32	52	29	460	5600	14000	6900	9200	1700	3200	6000	4500	2000 BD	1800 BD	2200 BD	3400	710	
Benzene	13	12	6.2	4.8	5.6	32 U	11	7.1	11	6.3	5.5	8.2	5.0	4.2 D	4.5 D	4.2 D	6.4 U	2.8	
Benzyl chloride	5.2 U	5.2 U	5.2 U	5.2 U	1.3 U	52 U	2.6 U	2.6 U	2.6 U	5.2 U	2.6 U	5.2 U	1 UD	1 UD	5.2 UD	10 U	2.6 U		
Bromodichloromethane	6.6 U	6.6 U	6.6 U	6.6 U	1.7 U	66 U	3.3 U	3.3 U	3.3 U	6.6 U	3.3 U	6.6 U	1.3 UD	1.3 UD	6.7 UD	13 U	3.4 U		
Bromoform	11 U	11 U	11 U	11 U	2.6 U	110 U	5.1 U	5.1 U	5.1 U	11 U	5.1 U	11 U	2.1 UD	2.1 UD	10 UD	21 U	5.2 U		
Bromomethane	3.8 U	3.8 U	3.8 U	3.8 U	0.95 U	38 U	1.9 U	1.9 U	1.9 U	3.8 U	1.9 U	3.8 U	0.78 UD	0.78 UD	3.9 UD	7.8 U	1.9 U		
Carbon disulfide	3.2 U	3.2 U	3.2 U	3.2 U	0.80 U	230	4.0	5.4	8.2	2.9	5.7	12	14	8 D	15 D	22 D	62 U	13	
Carbon tetrachloride	6.2 U	6.2 U	6.2 U	6.2 U	1.6 U	62 U	3.1 U	3.1 U	3.1 U	6.2 U	3.1 U	6.2 U	1.3 UD	1.3 UD	6.3 UD	13 U	1.2		
Chlorobenzene	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	46 U	2.3 U	2.3 U	2.3 U	4.6 U	2.3 U	4.6 U	0.92 UD	0.92 UD	4.6 UD	9.2 U	2.3 U		
Chloroethane	260	23	16	11	4.5	26 U	11	15	7.0	6.5	3.5	3.6	5.5	3.1 D	3.4 D	2.6 UD	7.5	1.3 U	
Chloroform	83	32	20	16	2.8	48 U	7.2	6.5	5.8	2.6	4.8 U	2.4 U	4.8 U	1.1 D	1.2 D	4.9 UD	9.8 U	1.1	
Chloromethane	2.0 U	2.0 U	2.0 U	2.0 U	0.50 U	20 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	0.41 UD	0.41 UD	2.1 UD	4.1 U	1.0 U		
cis-1,2-Dichloroethene	2900	710	400	410	100	150	270	250	170	58	32	43	31	17 D	27 D	27 D	35	11	
cis-1,3-Dichloropropene	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.91 UD	0.91 UD	4.5 UD	9.1 U	2.3 U		
Cyclohexane	3.4 U	3.4 U	3.4 U	3.4 U	0.85 U	34 U	1.7 U	1.7 U	1.7 U	3.4 U	1.7 U	3.4 U	0.69 UD	0.69 UD	3.4 UD	6.9 U	1.7 U		
Dibromochloromethane	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	86 U	4.3 U	4.3 U	4.3 U	8.6 U	4.3 U	8.6 U	1.7 UD	1.7 UD	8.5 UD	17 U	4.3 U		
Dichlorodifluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	2.7	50 U	3.0	3.2	2.5 U	5.0 U	2.5	5.0 U	2.4 D	3.7 D	4.9 UD	9.9 U	2.8		
Ethanol	320	36	46	33	22	130	30	26	3.8 U	45	28	68	89	23 D	19 D	24 JD	150 U	12	
Ethyl acetate	7.3 U	3.6 U	3.6 U	7.3 U	0.90 U	73 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	3.6 U	1.7 U	3.4 D	0.72 UD	3.8 D	7.2 U	3.6	
Ethylbenzene	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 UD	0.87 UD	4.3 UD	8.7 U	2.2 U		
Hexachlorobutadiene	22 U	22 U	22 U	22 U	5.4 U	220 U	11 U	11 U	5.3 U	11 U	22 U	5.3 U	11 U	2.1 UD	2.1 UD	11 UD	21 U	4.2	
Hexane	5.0	3.6 U	3.6 U	3.6 U	2.3	36 U	3.3	1.8 U	1.8 U	3.6 U	1.8 U	3.6 U	1.7 U	1.4 UD	0.70 UD	3.5 UD	280 U	70 U	
Isopropyl alcohol	190	5.1	4.6	5.0 U	4.6	290	24	57	35	2.5 U	20	54	59	11 D	13 D	25 UD	200 U	49 U	
m,p-Xylene	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	86 U	4.3 U	4.3 U	4.3 U	8.6 U	4.3 U	8.6 U	1.7 UD	1.7 UD	8.7 UD	17 U	4.3 U		

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Extraction Well - Eastern Small Retail Space																		
	EW-5-020309 2/3/2009	EW-5-021109 2/11/2009	EW-5-021809 2/18/2009	EW-5-022609 2/26/2009	EW-5-030609 3/6/2009	EW-5-041409 4/14/2009	EW-5-051509 5/15/2009	EW-5-061109 6/11/2009	EW-5-091709 9/17/2009	EW-5-122909 12/29/2009	EW-5-032610 3/26/2010	EW-5-070110 7/1/2010	EW-5-091610 9/16/2010	EW-5-120710 12/7/2010	EW-5-021711 2/17/2011	EW-5-060211 6/2/2011	EW-5-091511 9/15/2011	EW-5-120811 12/8/2011	
Methyl methacrylate																0.82 UD	4.1 UD	8.2 U	2.0 U
Methylene chloride	7.8	7.0 U	9.6	7.0 U	12	720	21	15	7.0 U	25	14 U	8.6	7.0 U	1.4 UD	2.0 D	6.9 UD	69 U	4.2	
Methyl-t-butyl ether	3.6 U	3.6 U	3.6 U	3.6 U	0.90 U	36 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	3.6 U	0.72 UD	0.72 UD	3.6 UD	7.2 U	1.8 U	
n-Heptane	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	0.82 UD	0.82 UD	4.1 UD	8.2 U	2.0 U	
o-Xylene	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 UD	0.87 UD	4.3 UD	8.7 U	2.2 U	
Propylene (Propene)	3.5 U	1.8 U	1.8 U	3.5 U	0.45 U	35 U	0.90 U	0.90 U	3.5 U	3.5 U	6.9 U	8.7 U	6.9 U	1.4 UD	3.4 UD	17 UD	140 U	4.1	
Styrene	4.2 U	17	4.2 U	4.2 U	1.7	42 U	2.2	2.1 U	2.1 U	2.1 U	4.2 U	2.1 U	4.2 U	0.85 UD	0.85 UD	4.3 UD	8.5 U	2.1 U	
Tetrachloroethene	210	310	190	97	8.0	68 U	21	25	19	8.9	6.8 U	6.7	6.8 U	4 D	4100 D	6.8 UD	14 U	3.5	
Tetrahydrofuran	16	110	69	140	2200	42000	61000	150000	94000	9700	23000	37000	29000	8200 D	11000 D	30000 D	41000	11000	
Toluene	13	4.7	3.8 U	3.8 U	0.95 U	38 U	2.2	3.4	1.9 U	1.9 U	3.8 U	1.9 U	3.8 U	0.75 UD	1.6 D	3.8 UD	7.5 U	0.90	
trans-1,2-Dichloroethene	26	6.1	4.0 U	4.7	1.0 U	40 U	2.6	2.8	2.0 U	2.0 U	4.0 U	2.0 U	4.0 U	0.79 UD	0.79 UD	4.0 UD	7.9 U	2.0 U	
trans-1,3-Dichloropropene	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.91 UD	0.91 UD	4.5 UD	9.1 U	2.3 U	
Trichloroethene	51000	20000	14000	8900	2400	3800	4400	2700	6800	1600	1100	1200	1100	410 D	660 D	790 D	940	290	
Trichlorofluoromethane	3500	200	120	67	16	56 U	27	41	2.8 U	53	7.0	7.4	5.8	5.1 D	5.8 D	5.6 UD	11 U	3.4	
Trichlorotrifluoroethane	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	3.8 U	7.6 U	1.5 UD	1.5 UD	7.7 UD	15 U	3.8 U	
Vinyl acetate	15 U	3.6 U	3.6 U	15 U	0.90 U	150 U	1.8 U	1.8 U	7.1 U	3.6 U	7.1 U	1.8 U	7.1 U	1.4 UD	0.70 UD	70 UD	7.0 U	1.8 U	
Vinyl chloride	2.6 U	2.6 U	2.6 U	2.6 U	0.65 U	26 U	1.3 U	5.3	1.3 U	3.0	3.4	3.1	4.3	2.4 D	3.7 D	3.3 D	6.2	1.3 U	

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Extraction Well - Eastern Small Retail Space								Extraction Well - Center Small Retail Space													
	EW-5-030812 3/8/2012	EW-5-061412 6/14/2012	EW-5-091312 9/13/2012	EW-5-010313 1/3/2013	EW-5-031513 3/15/2013	EW-5-060713 6/7/2013	EW-5-121313 9/6/2013	EW-5-121313 12/13/13	EW-6-020309 2/3/2009	EW-6-021109 2/11/2009	EW-6-021809 2/18/2009	EW-6-022609 2/26/2009	EW-6-030609 3/6/2009	EW-6-041409 4/14/2009	EW-6-051509 5/15/2009	EW-6-061109 6/11/2009	EW-6-091709 9/17/2009	EW-6-122909 12/29/2009	EW-6-070110 7/1/2010	EW-6-091610 9/16/2010	EW-6-120710 12/7/2010	
1,1,1-Trichloroethane	81	100	190	0.55 U	0.55 U	59	180	40	69000	32000	21000	16000	16000	5600	8200	5700	5400	1100	430	390	130 D	
1,1,1,2-Tetrachloroethane	12 U	1.2 U	1.2 U	1.2 U		1.2 U	0.39 J	1.2 U														
1,1,2,2-Tetrachloroethane	3.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.32 U	0.69 U		6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	68 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	6.8 U	0.69 UD	
1,1,2-Trichloroethane	2.7 U	0.55 U	0.55 U	0.55 U	0.55 U	0.26 U	0.55 U		5.4 U	5.4 U	5.4 U	5.4 U	5.4 U	54 U	2.7 U	2.7 U	2.7 U	2.7 U	2.7 U	5.4 U	0.55 UD	
1,1-Dichloroethane	11	12	21	0.40 U	0.40 U	6.4	20	4.8	5200	2500	2100	2200	1600	780	1200	1100	930	580	47	38	21 D	
1,1-Dichloroethene	4.5	4.5	6.9	0.40 U	0.40 U	1.7	4.7	1.5	850	210	100	110	55	74	87	83	80	64	3.5	4.0 U	0.4 UD	
1,2,4-Trichlorobenzene	15 U	1.5 U	1.5 U	1.5 U	0.74 U	0.35 U	0.74 U		7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	74 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	7.4 U	0.74 UD	
1,2,4-Trimethylbenzene	4.9 U	0.20	0.63	0.49 U	0.49 U	0.49 U	0.37	0.49 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	16	6.2	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	0.49 UD
1,2-Dibromoethane (EDB)	3.8 U	0.77 U	0.77 U	0.77 U	0.77 U	0.36 U	0.77 U		7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	0.77 UD	
1,2-Dichlorobenzene	6.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.28 U	0.60 U		6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	60 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	6.0 U	0.6 UD	
1,2-Dichloroethane	2.0 U	0.17	0.40 U	0.40 U	0.40 U	0.19 U	0.40 U		4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	0.4 UD	
1,2-Dichloropropane	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.22 U	0.46 U		4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	46 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	4.6 U	0.46 UD	
1,2-Dichlortetrafluoroethane									7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	70 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U	7.0 U		
1,3,5-Trimethylbenzene	4.9 U	0.49 U	0.19	0.49 U	0.49 U	0.49 U	0.23 U	0.49 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	0.49 UD	
1,3-Butadiene	2.2 U	0.22 U	0.22 U	0.22 U	0.22 U	0.10 U	0.22 U		2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	22 U	1.1 U	1.1 U	2.3 U	1.1 U	1.1 U	2.2 U	0.22 UD	
1,3-Dichlorobenzene	6.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.28 U	0.60 U		6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	60 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	6.0 U	0.6 UD	
1,4-Dichlorobenzene	6.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.28 U	0.60 U		6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	60 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	6.0 U	0.6 UD	
1,4-Dioxane																						
2-Butanone	1800	870	840	9.5	1.7	1900	31000	680	120	280	300	130	97	160	37	65	8.7	23	1800	110	20 D	
2-Hexanone	4.1 U	0.43	0.41 U	0.41 U	0.41 U	0.41 U	0.49	0.41 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	0.41 UD	
4-Ethyltoluene	4.9 U	0.49 U	0.18	0.49 U	0.49 U	0.49 U	0.23 U	0.49 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	0.49 UD	
4-Methyl-2-pentanone	4.1 U	0.27	0.34	0.41 U	0.41 U	0.41 U	0.56	0.41 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	0.41 UD	
Acetone	400	440	670	11	8.5	610	6800	210	580	64	81	33	22	410	16	20	4.8 U	27	490	70	15 BD	
Benzene	2.0	1.1	3.7	0.54	0.47	1.0	7.1	2.4	5.2	5.2	4.1	3.2 U	3.2 U	32 U	1.7	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	3.2 U	0.92 D
Benzyl chloride	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.24 U	0.52 U		5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	52 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	5.2 U	0.52 UD	
Bromodichloromethane	3.4 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.31 U	0.67 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	66 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U	6.6 U	0.67 UD	
Bromoform	10 U	1.0 U	1.0 U	1.0 U	1.0 U	0.48 U	1.0 U		11 U	11 U	11 U	11 U	11 U	110 U	5.1 U	5.1 U	5.1 U	5.1 U	5.1 U	11 U	1 UD	
Bromomethane	3.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.18 U	0.39 U		3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	38 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	3.8 U	0.39 UD	
Carbon disulfide	11	25	49	3.1 U	3.1 U	19	77	8.9	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	180	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	8.0	12	0.66 D
Carbon tetrachloride	3.1 U	0.40	0.38	0.63 U	0.39	0.63 U	0.47	0.63 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	62 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	6.2 U	0.63 UD	
Chlorobenzene	4.6 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.22 U	0.46 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	46 U	2.3 U	2.3 U	2.3 U	2.3 U	2.3 U	4.6 U	0.46 UD	
Chloroethane	2.6 U	2.9	5.3	0.26 U	0.26 U	1.5	4.0	0.86	140	50	34	18	13	26 U	13	14	11	4.0	1.3 U	2.8	0.26 UD	
Chloroform	2.4 U	0.98	1.1	0.49 U	0.49 U	0.59	1.6	0.49 U	42	24	19	29	21	50	14	12	12	7.2	3.7	4.8 U	2.4 D	
Chloromethane	2.1 U	0.21 U	0.21 U	1.0	1.1	0.41 U	0.19 U	0.41 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	34	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	38	40	0.21 UD
cis-1,2-Dichloroethene	6.9	8.6	14	0.40 U	0.40 U	4.3	13	1.9	700	360	220	250	150	120	190	170	130	36	11	7.9	2.3 D	
cis-1,3-Dichloropropene	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.21 U	0.45 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	4.4 U	0.45 UD						
Cyclohexane	3.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.16 U	0.34 U		3.4 U	5.3	3.4 U	3.4 U	3.4 U	34 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	3.4 U	0.34 UD	
Dibromochloromethane	4.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.40 U	0.85 U		8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	86 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	0.85 UD	
Dichlorodifluoromethane	4.9 U	2.9	2.6	2.5	2.5	2.1	1.7	2.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U	3.6	3.9	2.7	2.5 U	2.5 U	5.0 U	2.3 D	
Ethanol	290	14	100	9.9	3.5	13	3.5 U	39	360	38	73	38	25	110	18	14	6.7	18	15	19 U	4.6 D	
Ethyl acetate	26	4.2	30	0.36 U	1.2	2.6	0.17 U	5.5	7.3 U	3.6 U	3.6 U	7.3 U	3.6 U	73 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 UD	
Ethylbenzene	4.3 U	0.12	0.69	0.43 U	0.43 U	0.43 U	0.41	0.43 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	0.43 UD	
Hexachlorobutadiene	11 U	1.1 U	1.1 U	1.1 U	1.1 U	0.50 U	1.1 U		22 U	22 U	22 U	22 U	22 U	220 U	11 U	11 U	5.3 U	11 U	5.3 U	11 U	1.1 UD	
Hexane	9.4	4.3	2.0	0.74	2.2	14 U	6.6 U	14 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	36 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	7.1 U	0.7 UD	
Isopropyl alcohol	13	9.8 U	11	1.1	9.8 U	9.8 U	4.6 U	2.9	210	18	33	15	10	230	8.2	11	20	2.5 U	1.2 U	9.4	0.49 UD	
m,p-Xylene	5.4	0.87 U	1.9	0.75	0.87 U	0.87 U	1.2	0.87 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	120	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	0.87 UD	

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Extraction Well - Eastern Small Retail Space								Extraction Well - Center Small Retail Space													
	EW-5-030812 3/8/2012	EW-5-061412 6/14/2012	EW-5-091312 9/13/2012	EW-5-010313 1/3/2013	EW-5-031513 3/15/2013	EW-5-060713 6/7/2013	EW-5-090613 9/6/2013	EW-5-121313 12/13/13	EW-6-020309 2/3/2009	EW-6-021109 2/11/2009	EW-6-021809 2/18/2009	EW-6-022609 2/26/2009	EW-6-030609 3/6/2009	EW-6-041409 4/14/2009	EW-6-051509 5/15/2009	EW-6-061109 6/11/2009	EW-6-091709 9/17/2009	EW-6-122909 9/17/2009	EW-6-070110 12/29/2009	EW-6-091610 7/1/2010	EW-6-120710 9/16/2010	EW-6-120710 12/7/2010
Methyl methacrylate	4.1 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.19 U	0.41 U	7.0 U	7.0 U	7.5	7.0 U	7.0 U	780	12	15	7.0 U	27	10	7.0 U	1.3 D	
Methylene chloride	15	11	2.5	1.8	6.9	1.1	3.4	1.1	7.0 U	7.0 U	7.5	7.0 U	7.0 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	3.6 U	0.36 UD	
Methyl-t-butyl ether	3.6 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.17 U	0.36 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	36 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	3.6 U	0.36 UD
n-Heptane	4.1 U	0.41 U	0.52	0.41 U	0.41 U	0.41 U	0.19 U	0.41 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	40 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.41 UD
o-Xylene	4.3 U	0.14	0.73	0.43 U	0.43 U	0.43 U	0.50	0.43 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	0.43 UD
Propylene (Propene)	15	6.9 U	3.9	6.9 U	6.9 U	6.9 U	2.3	6.9 U	3.5 U	1.8 U	1.8 U	3.5 U	1.8 U	35 U	0.90 U	0.90 U	3.5 U	8.7 U	6.9 U	6.9 U	0.69 UD	
Styrene	4.3 U	0.46	0.38	0.43 U	0.43 U	0.43 U	0.35	0.43 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	42 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	0.43 UD
Tetrachloroethene	3.4 U	0.92	2.1	0.68 U	0.68 U	0.68 U	0.71	1.7	0.68 U	330	290	130	290	190	300	190	210	250	68	34	23	8.1 D
Tetrahydrofuran	4500	7700	1000	0.29 U	0.29 U	2300	26000	1000	75	480	260	730	570	130	110	87	9.1	31	42000	53000	480 D	
Toluene	37	0.58	5.6	0.66	0.40	0.43	4.2	0.44	12	3.8 U	3.8 U	3.8 U	3.8 U	38 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	0.38 UD
trans-1,2-Dichloroethene	2.0 U	0.40 U	0.18	0.40 U	0.40 U	0.40 U	0.19 U	0.40 U	12	6.3	4.2	6.4	4.0 U	40 U	2.6	2.7	2	2.1	2.0 U	4.0 U	0.4 U	
trans-1,3-Dichloropropene	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.21 U	0.45 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	0.45 UD
Trichloroethene	170	220	400	0.54 U	0.54 U	150	770	80	12000	6900	4200	4400	4800	3900	5400	4700	6100	2000	730	650	250 D	
Trichlorofluoromethane	5.6 U	4.9	8.5	2.4	1.4	2.9	4.6	3.6	2300	870	630	350	250	150	230	440	700	320	6.7	25	28 D	
Trichlorotrifluoroethane	3.8 U	0.77 U	0.57	0.77 U	0.61	0.77 U	0.64	0.77 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	0.77 UD
Vinyl acetate	7.0 U	0.70 U	0.70 U	0.70 U	0.70 U	7.0 U	3.3 U	7.0 U	15 U	3.6 U	3.6 U	15 U	3.6 U	150 U	1.8 U	1.8 U	7.1 U	3.6 U	1.8 U	7.1 U	0.7 UD	
Vinyl chloride	1.3 U	2.9	4.7	0.26 U	0.26 U	0.26 U	3.5	0.26 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	26 U	1.3 U	1.3 U	1.3 U	1.3 U	1.7	2.9	0.26 UD	

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Extraction Well - Center Small Retail Space												Extraction Well - Western Small Retail Space											
	EW-021711 2/17/2011	EW-060211 6/2/2011	EW-6091511 9/15/2011	EW-6120811 12/8/2011	EW-6030812 3/8/2012	EW-6061412 6/14/2012	EW-6091313 9/13/2012	EW-6031513 1/3/2013	EW-6060713 3/15/2013	EW-6090613 9/6/2013	EW-6121313 12/13/13	EW-7020309 2/3/2009	EW-7021109 2/11/2009	EW-7021809 2/18/2009	EW-7022609 2/26/2009	EW-7030609 3/6/2009	EW-7041409 4/14/2009	EW-7051509 5/15/2009	EW-7061109 6/11/2009	EW-7091709 9/17/2009	EW-7122909 12/29/2009	EW-7032610 3/26/2010		
1,1,1-Trichloroethane	0.55 UD	80	230	33	0.27 U	75	0.55 U	0.55 U	0.55 U	4.3	71	18	5600	8500	7800	8200	8100	1600	3600	2600	1400	340	51	
1,1,1,2-Tetrachloroethane			25 U		1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U	1.2 U													
1,1,2,2-Tetrachloroethane	0.69 UD	6.9 U	14 U	3.4 U	0.34 U	0.69 U	0.69 U	0.69 U	0.69 U	0.24 U	0.69 U	6.8 U	1.4 U	1.7 U	1.7 U	1.7 U	6.8 U	3.4 U	3.4 U	3.4 U	3.4 U	0.68 U		
1,1,2-Trichloroethane	0.55 UD	5.5 U	11 U	2.7 U	0.27 U	0.55 U	0.55 U	0.55 U	0.55 U	0.19 U	0.55 U	5.4 U	1.1 U	1.4 U	1.4 U	1.4 U	5.4 U	2.7 U	2.7 U	2.7 U	2.7 U	0.54 U		
1,1-Dichloroethane	0.40 UD	12	27	6.4	0.20 U	9.6	0.40 U	0.40 U	0.40 U	0.78	13	2.7	1700	1800	1600	2100	1700	590	1000	1100	970	470	85	
1,1-Dichloroethene	0.40 UD	4.0 U	7.9 U	2.0 U	0.20 U	0.84	0.40 U	0.40 U	0.40 U	1.1	0.40 U	14	15	8.5	9.4	6.6	4.0 U	4.2	4.5	2.0 U	0.40 U			
1,2,4-Trichlorobenzene	0.74 UD	7.4 U	30 U	7.4 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U	0.26 U	0.74 U	7.4 U	1.5 U	1.9 U	1.9 U	1.9 U	7.4 U	3.7 U	3.7 U	7.5 U	3.7 U	1.5 U		
1,2,4-Trimethylbenzene	0.49 UD	4.9 U	9.8 U	2.5 U	0.49 U	0.26	0.60	0.49 U	0.49 U	0.49 U	0.59	0.49 U	5.0 U	1.0 U	1.3 U	1.3 U	1.3 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5	
1,2-Dibromoethane (EDB)	0.77 UD	7.7 U	15 U	3.8 U	0.38 U	0.77 U	0.77 U	0.77 U	0.77 U	0.27 U	0.77 U	7.6 U	1.6 U	1.9 U	1.9 U	1.9 U	7.6 U	3.8 U	3.8 U	3.8 U	3.8 U	0.76 U		
1,2-Dichlorobenzene	0.60 UD	6.0 U	12 U	3.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.21 U	0.60 U	6.0 U	1.2 U	1.5 U	1.5 U	1.5 U	6.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.60 U		
1,2-Dichloroethane	0.40 UD	4.0 U	8.1 U	2.0 U	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	0.14 U	0.40 U	4.0 U	0.80 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.40 U		
1,2-Dichloropropane	0.46 UD	4.6 U	9.2 U	2.3 U	0.23 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	4.6 U	0.92 U	1.2 U	1.2 U	1.2 U	4.6 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U		
1,2-Dichlorotetrafluoroethane												7.0 U	1.4 U	1.8 U	1.8 U	1.8 U	7.0 U	3.5 U	3.5 U	3.5 U	3.5 U	0.70 U		
1,3,5-Trimethylbenzene	0.49 UD	4.9 U	9.8 U	2.5 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.30	0.49 U	5.0 U	1.0 U	1.3 U	1.3 U	1.3 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	1.1		
1,3-Butadiene	0.22 UD	2.2 U	4.4 U	1.1 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.078 U	0.22 U	2.2 U	0.44 U	0.55 U	0.55 U	0.55 U	2.2 U	1.1 U	1.1 U	2.3 U	1.1 U	0.22 U		
1,3-Dichlorobenzene	0.60 UD	6.0 U	12 U	3.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.21 U	0.60 U	6.0 U	1.2 U	1.5 U	1.5 U	1.5 U	6.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.60 U		
1,4-Dichlorobenzene	0.60 UD	6.0 U	12 U	3.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.21 U	0.60 U	6.0 U	1.2 U	1.5 U	1.5 U	1.5 U	6.0 U	3.0 U	3.0 U	3.0 U	3.0 U	0.60 U		
1,4-Dioxane																								
2-Butanone	1.9 BD	59 U	240 U	13	2.1	200	3.7	0.84	1.9	120	95	4.0	8.7	12	7.3	8.5	5.5	4.5	7.1	16	4.9	3.5	31	
2-Hexanone	0.41 UD	82 U	8.2 U	2.0 U	0.41 U	0.70	0.52	0.41 U	0.41 U	0.41 U	0.38	0.41 U	4.0 U	0.80 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.40 U	
4-Ethyltoluene	0.49 UD	4.9 U	9.8 U	2.5 U	0.49 U	0.49 U	0.28	0.49 U	0.49 U	0.17 U	0.49 U	5.0 U	1.0 U	1.3 U	1.3 U	1.3 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	0.50 U		
4-Methyl-2-pentanone	0.41 UD	4.1 U	8.2 U	2.0 U	0.41 U	0.35	0.41 U	0.41 U	0.41 U	0.14 U	0.41 U	4.0 U	0.80 U	1.0 U	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.40 U		
Acetone	15 BD	48 U	190 U	21	9.9	36	25	6.4	6.3	42	35	17	580	38	58	30	24	15	24	24	7.9	49	26	
Benzene	1.1 D	3.2 U	6.4 U	1.6 U	0.31	1.2	0.77	0.39	0.40	0.32 U	1.2	0.42	3.2 U	3.9	4.5	1.9	2.3	3.2 U	2.6	2.8	3.0	2.2	1.5	
Benzyl chloride	0.52 UD	5.2 U	10 U	2.6 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	0.52 U	5.2 U	1.1 U	1.3 U	1.3 U	1.3 U	5.2 U	2.6 U	2.6 U	2.6 U	2.6 U	0.52 U		
Bromodichloromethane	0.67 UD	6.7 U	13 U	3.4 U	0.34 U	0.67 U	0.67 U	0.67 U	0.67 U	0.24 U	0.67 U	6.6 U	1.4 U	1.7 U	1.7 U	1.7 U	6.6 U	3.3 U	3.3 U	3.3 U	3.3 U	0.66 U		
Bromoform	1.0 UD	10 U	21 U	5.2 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.36 U	1.0 U	11 U	2.1 U	2.6 U	2.6 U	2.6 U	11 U	5.1 U	5.1 U	5.1 U	5.1 U	1.1 U		
Bromomethane	0.39 UD	3.9 U	7.8 U	1.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.14	0.39 U	3.8 U	0.76 U	0.95 U	0.95 U	0.95 U	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	0.38 U		
Carbon disulfide	0.31 UD	11 D	62 U	7.1	3.1 U	29	3.1 U	3.1 U	3.1 U	0.35	74	5.6	5.7	3.4	2.7	3.7	3.3	3.2 U	3.2	2.7	2.1	1.6 U	1.5	
Carbon tetrachloride	0.63 UD	6.3 UD	13 U	3.1 U	0.39	0.34	0.40	0.63 U	0.23	0.63 U	0.48	0.63 U	6.2 U	1.3 U	1.6 U	1.6 U	1.6 U	6.2 U	3.1 U	3.1 U	3.1 U	3.1 U	0.62 U	
Chlorobenzene	0.46 UD	4.6 UD	9.2 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	4.6 U	0.92 U	1.2 U	1.2 U	1.2 U	4.6 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U		
Chloroethane	0.26 UD	2.6 U	5.3 U	1.3 U	0.26 U	1.4	0.26 U	0.26 U	0.26 U	0.26 U	1.7	0.26 U	170	150	88	41	33	7.1	9.6	10	8.1	6.5	1.6	
Chloroform	0.49 UD	4.9 UD	9.8 U	1.0	0.36	0.92	0.21	0.49 U	0.49 U	0.49 U	1.7	0.49 U	4.8 U	1.0	1.2 U	1.3	1.2 U	4.8 U	2.7	2.6	2.7	2.7	1.1 U	
Chloromethane	1.0 D	16 D	45	2.9	1.5	7.8	1.3	1.1	1.2	1.3	35	3.4	2.0 U	0.40 U	0.50 U	0.50 U	0.50 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.20 U	
cis-1,2-Dichloroethene	0.40 UD	4.0 U	7.9 U	0.83	0.20 U	2.8	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	1100	1300	1200	1700	1200	520	1100	1200	1300	680	120		
cis-1,3-Dichloropropene	0.45 UD	4.5 UD	9.1 U	2.3 U	0.23 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.44 U		
Cyclohexane	0.34 UD	3.4 UD	6.9 U	1.7 U	0.34 U	0.34 U	0.49	0.34 U	0.34 U	0.12 U	0.34 U	3.4 U	5.6	5	3.7	2.1	3.4 U	1.7 U	1.7 U	1.7 U	1.7 U	0.34 U		
Dibromochloromethane	0.85 UD	8.5 UD	17 U	4.3 U	0.43 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	8.6 U	1.8 U	2.2 U	2.2 U	2.2 U	8.6 U	4.3 U	4.3 U	4.3 U	4.3 U	0.86 U		
Dichlorodifluoromethane	3.6 D	4.9 UD	9.9 U	3.0	2.2	2.9	2.9	2.6	2.5	2.3	1.3	2.6	5.0 U	2.5	3.2	770	2.6	5.0 U	2.9	3.3	2.5 U	1.5		
Ethanol	11 D	38 UD	150 U	38 U	29	5.8	68	8.6	3.5	13	14	4.3	350	26	29	17	15	3.8 U	19	18	12	18	37	
Ethyl acetate	0.36 UD	3.6 UD	7.2 U	1.8 U	0.52	1.2	24	0.36 U	0.36 U	0.94	0.13 U	0.36 U	7.3 U	0.72 U	0.90 U	1.9 U	0.90 U	7.3 U	1.8 U	1.8 U	1.8 U	1.8 U	0.36 U	
Ethylbenzene	0.43 UD	4.3 UD	8.7 U	2.2 U	0.43 U	0.18	0.66	0.43 U	0.43 U	0.43 U	0.38	0.43 U	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.57	
Hexachlorobutadiene	1.1 UD	11 UD	21 U	5.3 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	1.1 U	22 U	4.3 U	5.4 U	5.4 U	5.4 U	22 U	11 U	11 U	11 U	11 U	2.2 U		
Hexane	1.3 D	3.5 UD	280 U	70 U	1.4	1.2	7.6	14. U	0.60	1.6	0.89	14. U	10	10	7.6	5.5	3.1	3.6 U	4.0	2.1	1.8 U	1.8 U	0.36 U	
Isopropyl alcohol	2.9 D	25 UD	200 U	49 U	1.3	9.8 U	7.6	0.69	9.8 U	9.8 U	3.4 U	9.8 U	210	18	21	12	8.5	5.0 U	12	17	2.5 U	2.5 U	80	
m,p-Xylene	0.94 D	8.7 UD	17 U	4.3 U	0.87 U	0.24	1.9	0.87 U	0.87 U	0.76	0.87 U													

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Parameter ($\mu\text{g}/\text{m}^3$)	Extraction Well - Center Small Retail Space												Extraction Well - Western Small Retail Space											
	EW-021711 2/17/2011	EW-060211 6/2/2011	EW-06091511 9/15/2011	EW-61208011 12/8/2011	EW-06030812 3/8/2012	EW-06061412 6/14/2012	EW-060913412 9/13/2012	EW-06010313 1/3/2013	EW-06031513 3/15/2013	EW-06060713 6/7/2013	EW-06121313 12/13/13	EW-07020309 2/3/2009	EW-07021109 2/11/2009	EW-07021809 2/18/2009	EW-07022609 2/26/2009	EW-07030609 3/6/2009	EW-07041409 4/14/2009	EW-07051509 5/15/2009	EW-07061109 6/11/2009	EW-07091709 9/17/2009	EW-07122909 12/29/2009	EW-07032610 3/26/2010		
Methyl methacrylate	0.41 UD	4.1 UD	8.2 U	2.0 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.14 U	0.41 U	9.3	2.6	8	1.8 U	20	29	16	7.0 U	27	1.4 U		
Methylene chloride	2.8 D	6.9 UD	69 U	3.6	4.8	2.5	14	2.1	1.4	3.8	0.84	0.99	3.6 U	3.5	2.9	4.9	3.1	3.6 U	1.8 U	1.8 U	1.8 U	0.36 U		
Methyl-t-butyl ether	0.36 UD	3.6 UD	7.2 U	1.8 U	0.36 U	0.36 U	0.13	0.36 U	0.36 U	0.36 U	0.13 U	0.36 U	4.0 U	1.4	1.0 U	1.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.40 U		
n-Heptane	0.41 UD	4.1 UD	8.2 U	2.0 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.45	0.41 U	4.4 U	0.88 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.65		
o-Xylene	0.43 UD	4.3 UD	8.7 U	2.2 U	0.43 U	0.16	0.73	0.43 U	0.43 U	0.43 U	0.37	0.43 U	3.5 U	160	110	0.87 U	0.45 U	3.5 U	0.90 U	0.90 U	3.5 U	3.5 U	0.69 U	
Propylene (Propene)	1.7 UD	17 UD	140 U	3.8	6.9 U	2.8	6.9 U	6.9 U	6.9 U	2.4 U	6.9 U	4.2 U	0.84 U	1.1 U	1.1 U	1.1 U	4.2 U	2.1 U	2.1 U	2.1 U	2.1 U	0.42 U		
Styrene	0.43 UD	4.3 UD	8.5 U	2.1 U	0.43 U	0.20	0.35	0.43 U	0.43 U	0.43 U	0.28	0.43 U	66	69	56	84	69	40	140	230	410	130	74	
Tetrachloroethene	1.2 D	6.8 UD	17	2.4	0.76	4.6	0.88	0.68 U	0.68 U	0.68 U	8.3	1.5	41	23	12	14	7.5	3.0 U	5.6	15	4.1	1.5 U	2800	
Tetrahydrofuran	0.29 UD	13000 D	32000	3900	3.7	8100	0.29 U	0.29 U	0.27	58	35000	650	14	29	3.6	1.7	0.95 U	3.8 U	1.9 U	1.9 U	1.9 U	5.4		
Toluene	2.4 D	3.8 UD	9.8	1.9 U	0.36	0.70	5.3	0.46	0.31	0.50	2.5	0.38 U	14	2.9	1.7	0.95 U	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	5.4		
trans-1,2-Dichloroethene	0.40 UD	4.0 UD	7.9 U	2.0 U	0.20 U	0.40 U	0.40 U	0.40 U	0.40 U	0.40 U	0.14 U	0.40 U	150	140	90	90	80	48	120	140	150	84	22	
trans-1,3-Dichloropropene	0.45 UD	4.5 UD	9.1 U	2.3 U	0.23 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.44 U	
Trichloroethene	0.54 UD	190 D	390	66	0.27 U	180	0.21	0.54 U	0.54 U	5.7	150	36	230	210	180	180	200	110	330	420	920	420	190	
Trichlorofluoromethane	1.7 D	11 D	34	11	1.0	15	2.0	1.9	1.3	4.7	6.2	12	1800	1400	900	690	640	190	310	660	1400	620	210	
Trichlorotrifluoroethane	0.86 D	7.7 UD	15 U	3.8 U	0.38 U	0.77 U	0.60	0.77 U	0.63	0.77 U	0.72	0.77 U	7.6 U	1.6 U	1.9 U	1.9 U	7.6 U	3.8 U	3.8 U	3.8 U	3.8 U	0.76 U		
Vinyl acetate	0.35 UD	70 UD	7.0 U	1.8 U	0.70 U	0.70 U	0.70 U	0.70 U	0.70 U	7.0 U	2.5 U	7.0 U	15 U	0.72 U	0.90 U	3.6 U	0.90 U	15 U	1.8 U	7.1 U	3.6 U	0.71 U		
Vinyl chloride	0.26 UD	2.6 UD	5.1 U	1.3 U	0.13 U	1.5	0.26 U	0.26 U	0.26 U	0.26 U	2.2	0.26 U	280	370	180	48	21	2.6 U	2.7	3.2	1.3 U	1.6	1.0	

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Extraction Well - Western Small Retail Space																
	EW-7-070110 7/1/2010	EW-7-091610 9/16/2010	EW-7-120710 12/7/2010	EW-7-021711 2/17/2011	EW-7-060211 6/2/2011	EW-7-091511 9/15/2011	EW-7-120811 12/8/2011	EW-7-030812 3/8/2012	EW-7-061412 6/14/2012	EW-7-091312 9/13/2012	EW-7-010313 3/15/2013	EW-7-031513 3/15/2013	EW-7-060713 6/7/2013	EW-7-090613 9/6/2013	EW-7-100313 10/3/2013	EW-7-121313 12/13/13	
1,1,1-Trichloroethane	250	290	160 D	110 D	5.5 UD	110	66	11	47	95	0.55 U	3.1	15	76	52	41	
1,1,1,2-Tetrachloroethane						2.5 U		12 U	1.2 U	0.44 U	1.2 U	1.2 U					
1,1,2,2-Tetrachloroethane	0.68 U	0.68 U	0.69 UD	0.69 UD	6.9 UD	1.4 U	0.69 U	3.4 U	0.69 U	0.24 U	0.69 U	0.69 U					
1,1,2-Trichloroethane	0.54 U	0.54 U	0.55 UD	0.55 UD	5.5 UD	1.1 U	0.55 U	2.7 U	0.55 U	0.19 U	0.55 U	0.55 U					
1,1-Dichloroethane	320	340	220 D	150 D	45 D	150	80	6.4	42	100	0.40 U	2.0	7.0	51	25	12	
1,1-Dichloroethene	0.81	0.94	0.63 D	0.4 D	4.0 UD	0.79 U	0.13	2.0 U	0.40 U	0.14 U	0.40 U	0.40 U					
1,2,4-Trichlorobenzene	0.74 U	0.74 U	0.74 UD	0.74 UD	7.4 UD	3.0 U	1.5 U	15 U	1.5 U	0.74 U	0.74 U	0.74 U					
1,2,4-Trimethylbenzene	0.50 U	0.50 U	0.49 UD	0.49 UD	4.9 UD	0.98 U	0.32	4.9 U	0.32	0.97	0.92	0.30	0.49 U	0.50	0.77	0.58	
1,2-Dibromoethane (EDB)	0.76	0.76	0.77 UD	0.77 UD	7.7 UD	1.5 U	0.77 U	3.8 U	0.77 U	0.27 U	0.77 U	0.77 U					
1,2-Dichlorobenzene	0.60 U	0.60 U	0.60 UD	0.60 UD	6.0 UD	1.2 U	0.60 U	6.0 U	0.60 U	0.21 U	0.60 U	0.60 U					
1,2-Dichloroethane	0.40 U	0.40 U	0.40 UD	0.40 UD	4.0 UD	0.81 U	0.40 U	2.0 U	0.40 U	0.14 U	0.40 U	0.40 U					
1,2-Dichloropropane	0.46 U	0.46 U	0.46 UD	0.46 UD	4.6 UD	0.92 U	0.46 U	2.3 U	0.46 U	0.16 U	0.46 U	0.46 U					
1,2-Dichlortetrafluoroethane	0.70 U	0.70 U															
1,3,5-Trimethylbenzene	0.50 U	0.50 U	0.49 UD	0.49 UD	4.9 UD	0.98 U	0.49 U	4.9 U	0.49 U	0.50	0.49 U	0.49 U	0.49 U	0.24	0.32	0.49 U	
1,3-Butadiene	0.22 U	0.22 U	0.22 UD	0.22 UD	2.2 UD	0.44 U	0.22 U	2.2 U	0.22 U	0.078 U	0.22 U	0.22 U					
1,3-Dichlorobenzene	0.60 U	0.60 U	0.60 UD	0.60 UD	6.0 UD	1.2 U	0.60 U	6.0 U	0.60 U	0.21 U	0.60 U	0.60 U					
1,4-Dichlorobenzene	0.60 U	0.60 U	0.60 UD	0.60 UD	6.0 UD	1.2 U	0.60 U	6.0 U	0.60 U	0.21 U	0.60 U	0.60 U					
1,4-Dioxane						0.72 U											
2-Butanone	3.8	1.8	4.1 D	5.3 BD	59 UD	24 U	6.2	100	14	3.6	18	210	99	12	8.5	5.9	
2-Hexanone	1.0	0.40 U	0.41 UD	0.41 UD	82 UD	0.82 U	0.14	4.1 U	0.28	0.64	0.41 U	0.39	0.41 U	0.51	0.41 U	0.41 U	
4-Ethyltoluene	0.50 U	0.50 U	0.49 UD	0.49 UD	4.9 UD	0.98 U	0.49 U	4.9 U	0.49 U	0.21	0.49 U	0.49 U	0.49 U	0.17 U	0.27	0.49 U	
4-Methyl-2-pentanone	0.40 U	0.40 U	0.41 UD	0.41 UD	4.1 UD	0.82 U	0.13	4.1 U	1.6	0.31	0.55	0.41 U	0.41 U	0.14 U	0.41 U	0.41 U	
Acetone	25	12	42 BD	35 BD	48 UD	23	12	46	31	17	23	55	28	24	35	14	
Benzene	1.7	2.1	1.4 D	1.6 D	3.2 UD	2.5	1.6	3.2 U	1.5	1.2	0.89	0.54	0.61	1.9	1.9	0.86	
Benzyl chloride	0.52 U	0.52 U	0.52 UD	0.52 UD	5.2 UD	1.0 U	0.52 U	5.2 U	0.52 U	0.18 U	0.52 U	0.52 U					
Bromodichloromethane	0.66 U	0.66 U	0.67 UD	0.67 UD	6.7 UD	1.3 U	0.67 U	3.4 U	3.2	0.67 U	0.67 U	0.67 U	0.67 U	0.24 U	0.67 U	0.67 U	
Bromoform	1.1 U	1.1 U	1.0 UD	1.0 UD	10 UD	2.1 U	1.0 U	10 U	1.0 U	0.36 U	1.0 U	1.0 U					
Bromomethane	0.38 U	0.38 U	0.39 UD	0.39 UD	3.9 UD	0.78 U	0.39 U	3.9 U	0.39 U	0.14 U	0.39 U	0.39 U					
Carbon disulfide	0.93	0.90	0.78 D	0.31 UD	3.1 UD	6.2 U	3.1 U	31	0.41	3.1 U	3.1 U	0.57	7.4	0.42	3.1 U	4.6	
Carbon tetrachloride	0.62 U	0.62 U	0.63 UD	0.63 UD	6.3 UD	1.3 U	0.34	3.1 U	0.30	0.33	0.78	0.47	0.63 U	0.38	0.40	0.63 U	
Chlorobenzene	0.46 U	0.46 U	0.46 UD	0.46 UD	4.6 UD	0.92 U	0.46 U	4.6 U	0.46 U	0.16 U	0.46 U	0.46 U					
Chloroethane	2.2	3.6	2.0 D	0.26 D	2.6 UD	1.9	0.26 U	2.6 U	0.82	0.26 U	0.26 U	0.26 U	0.26 U	0.92	0.093 U	0.61	0.63
Chloroform	4.2	4.4	3.9 D	3.0 D	4.9 UD	5.0	3.8	2.4 U	3.1	4.1	0.49 U	0.36	2.0	6.6	2.7	2.6	
Chloromethane	0.20 U	0.20 U	0.21 UD	0.21 UD	2.1 UD	0.41 U	0.21 U	2.1 U	0.21 U	0.14 U	0.41 U	0.41 U					
cis-1,2-Dichloroethene	660	490	350 D	250 D	65 D	210	99	5.1	53	120	0.40 U	1.4	5.1	54	24	6.0	
cis-1,3-Dichloropropene	0.44 U	0.44 U	0.45 UD	0.45 UD	4.5 UD	0.91 U	0.45 U	2.3 U	0.45 U	0.16 U	0.45 U	0.45 U					
Cyclohexane	0.34 U	0.41	0.34 UD	0.34 UD	3.4 UD	0.69 U	0.34 U	3.4 U	0.34 U	0.12 U	0.34 U	0.34 U					
Dibromochloromethane	0.86 U	0.86 U	0.85 UD	0.85 UD	8.5 UD	1.7 U	0.85 U	4.3 U	0.85 U	0.30 U	0.85 U	0.85 U					
Dichlorodifluoromethane	2.2	1.5	2.1 D	0.49 UD	4.9 UD	2.7	2.6	4.9 U	3.0	0.49 U	2.7	2.5	2.0	1.5	0.49 U	2.4	
Ethanol	31	1.9 U	1.9 UD	18 D	38 UD	22	23	160	31	140	1200	27	22	14	30	12	
Ethyl acetate	0.36 U	0.36 U	0.36 UD	0.36 UD	3.6 UD	0.72 U	0.36 U	11	0.63	0.36 U	0.36 U	3.0	3.6	0.13 U	0.36 U	0.94	
Ethylbenzene	0.44 U	0.44 U	0.43 UD	0.43 UD	4.3 UD	0.87 U	0.26	4.3 U	0.21	0.47	0.44	0.13	0.43 U	0.44	0.56	0.43 U	
Hexachlorobutadiene	1.1 U	1.1 U	1.1 UD	1.1 UD	11 UD	2.1 U	1.1 U	11 U	1.1 U	0.37 U	1.1 U	1.1 U					
Hexane	0.97	0.71 U	0.87 D	0.35 UD	3.5 UD	28 U	14 U	4.0	0.55	14 U	1.5	3.5	0.78	0.9	0.9	14. U	
Isopropyl alcohol	2.2	2.6	2.8 D	0.25 UD	25 UD	30	9.8 U	98 U	14	9.8 U	12	9.8 U	9.8 U	3.4 U	17	13	
m,p-Xylene	0.93	1.0	0.87 UD	0.87 UD	8.7 UD	1.7 U	0.82	8.7 U	0.45	1.3	1.5	0.33	0.50	1.0	1.5	0.87 U	

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Extraction Well - Western Small Retail Space															
	EW-7-070110 7/1/2010	EW-7-091610 9/16/2010	EW-7-120710 12/7/2010	EW-7-021711 2/17/2011	EW-7-060211 6/2/2011	EW-7-091511 9/15/2011	EW-7-120811 12/8/2011	EW-7-030812 3/8/2012	EW-7-061412 6/14/2012	EW-7-091312 9/13/2012	EW-7-010313 1/3/2013	EW-7-031513 3/15/2013	EW-7-060713 6/7/2013	EW-7-090613 9/6/2013	EW-7-100313 10/3/2013	EW-7-121313 12/13/13
Methyl methacrylate					0.41 UD	4.1 UD	0.82 U	0.41 U	4.1 U	0.41 U	0.41 U	0.41 U	0.41 U	0.14 U	0.41 U	0.41 U
Methylene chloride	2.4	0.81	1.9 D	2.4 D	6.9 UD	6.9 U	1.5	33	2.1	5.4	5.6	10	1.5	1.7	1.7	1.1
Methyl-t-butyl ether	0.36 U	0.36 U	0.36 UD	0.36 UD	3.6 UD	3.6 UD	0.72 U	0.36 U	3.6 U	0.36 U	0.36 U	0.36 U	0.36 U	0.13 U	0.36 U	0.36 U
n-Heptane	0.40 U	0.40 U	0.41 UD	0.41 UD	4.1 UD	0.82 U	0.22	4.1 U	0.49	0.75	0.41 U	0.41 U	0.41 U	0.59	1.1	0.41 U
o-Xylene	0.44 U	0.44 U	0.43 UD	0.43 UD	4.3 UD	0.87 U	0.38	4.3 U	0.18	0.52	0.51	0.15	0.43 U	0.4	0.73	0.43 U
Propylene (Propene)	1.8 U	0.69 U	0.69 UD	1.7 UD	17 UD	14 U	6.9 U	13	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	2.4 U	6.9 U	6.9 U
Styrene	0.67	0.47	0.43 UD	0.43 UD	4.3 UD	0.85 U	0.49	4.3 U	0.66	0.41	0.43 U	0.14	0.43 U	0.41	0.45	0.43 U
Tetrachloroethene	510	610	190 D	110 D	120 D	450	170	5.6	130	200	1.3	3.0	100	410	150	140
Tetrahydrofuran	0.70	18	6.1 D	2.7 D	3900 D	7.9	9.9	1000	13	1.1	8.2	120	2000	10	4.6	2100
Toluene	4.8	2.2	0.47 D	0.88 D	3.8 UD	1.9	1.1	8.1	1.1	1.9	1.6	0.63	1.1	3.1	6.5	1.0
trans-1,2-Dichloroethene	120	110	78 D	58 D	4 UD	82	54	3.8	37	45	0.40 U	2.1	7.1	64	32	13
trans-1,3-Dichloropropene	0.44 U	0.44 U	0.45 UD	0.45 UD	4.5 UD	0.91 U	0.45 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.45 U	0.45 U
Trichloroethene	690	730	440 D	310 D	260 D	680	310	53	320	450	1.1	17	170	740	350	280
Trichlorofluoromethane	690	700	530 D	740 D	330 D	2500	1000	180	1300	2000	3.5	91	280	1500	990	1100
Trichlorotrifluoroethane	0.76 U	0.76 U	0.89 D	0.77 UD	7.7 UD	1.5 U	1.0	3.8 U	0.78	0.57	0.77 U	0.71	0.77 U	1.1	1.1	0.9
Vinyl acetate	0.36 U	0.71 U	0.7 D	0.35 UD	70 UD	0.70 U	0.35 U	7.0 U	2.2	0.70 U	0.70 U	0.70 U	7.0 U	2.5 U	7.0 U	7.0 U
Vinyl chloride	0.26 U	1.6	0.41 D	0.26 UD	2.6 UD	0.51 U	0.26 U	1.3 U	0.26 U	0.26 U	0.26 U	0.26 U	0.9	0.090 U	0.26 U	0.26 U

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	CT IACTIND 2003 ($\mu\text{g}/\text{m}^3$)	Indoor Air - Eastern Small Retail Space																	
		IA-5 011609 1/16/2009	IA-5- 020309 2/3/2009	IA-5- 021109 2/11/2009	IA-5- 021809 2/18/2009	IA-5- 022609 2/26/2009	IA-5- 030609 3/6/2009	IA-5- 041409 4/14/2009	IA-5- 051509 5/15/2009	IA-5- 061109 6/11/2009	IA-5- 091709 9/17/2009	IA-5- 122909 12/29/2009	IA-5- 032610 3/26/2010	IA-5- 070110 7/1/2010	IA-5- 091610 9/16/2010	IA-5- 120810 12/8/2010	IA-5- 021711 2/17/2011	IA-5- 060211 6/2/2011	IA-5- 091511 9/15/2011
1,1,1-Trichloroethane	500	48	0.92	0.27 U	0.27 U	0.27 U	0.27 U	0.98	0.27 U	0.27 U	0.27 U	0.38	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1,1,2-Tetrachloroethane	1.1																		0.62 U
1,1,2,2-Tetrachloroethane	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
1,1,2-Trichloroethane	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1-Dichloroethane	430	1.8	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
1,1-Dichloroethene	20	0.58	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
1,2,4-Trichlorobenzene	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	
1,2,4-Trimethylbenzene	52	0.25 U	0.32	0.33	0.36	0.25 U	0.25 U	0.20	0.25 U	0.35	0.25 U	0.25 U	0.25 U	0.25 U	0.73	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	
1,2-Dichlorobenzene	410	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,2-Dichloroethane	0.31	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
1,2-Dichloropropane	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
1,2-Dichlorotetrafluoroethane	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	
1,3,5-Trimethylbenzene	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
1,3-Butadiene	NA	0.11 U	0.11 U	0.11 U	0.25	0.11 U	0.11 U	0.080 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,3-Dichlorobenzene	410	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,4-Dichlorobenzene	24	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,4-Dioxane	NA																	0.18 U	
2-Butanone	500	7.2	2.4	2.7	2.6	0.75	0.45	3.8	1.9	5.3	2.1	0.79	1.5	2.1	1.4	0.78	0.78 B	3.6	5.9 U
2-Hexanone	NA	0.20 U	0.48	0.38	0.27	0.20 U	0.20 U	0.47	0.45	1.1	0.48	0.20 U	0.23	0.44	0.20 U	0.20 U	0.20 U	4.1 U	0.20 U
4-Ethyltoluene	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	200	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.18	0.20 U	0.68	0.23	0.20 U	0.20 U	0.20 U	1.1	0.20 U	0.20 U	0.31	0.20 U	
Acetone	500	32	11	21	20	9.5	6.5	14	14	46	16	15	11	18	17	6.4 B	9.5 B	24 B	15
Benzene	3.3	0.79	0.60	0.99	1.6	0.41	0.55	0.62	0.49	0.53	0.35	0.45	0.65	0.16 U	1.1	0.26	1.1	0.33	0.29
Benzyl chloride	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	
Bromodichloromethane	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	
Bromoform	7.3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	
Bromomethane	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.23	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
Carbon disulfide	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.27	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Carbon tetrachloride	0.54	0.33	0.44	0.50	0.55 [a]	0.47	0.61 [a]	0.44	0.64 [a]	0.46	0.39	0.41	0.48	0.53	0.44	0.54	0.6 [a]	0.59 [a]	0.48
Chlorobenzene	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
Chloroethane	500	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	
Chloroform	0.5	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.55	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
Chloromethane	80	1.1	1.0	1.5	1.4	1.1	1.1	1.0	1.4	1.0	2.0	1.2	1.0	1.0	0.76	0.96	1.1	1.3	
cis-1,2-Dichloroethene	100	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.22 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
cis-1,3-Dichloropropene	2.9	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	
Cyclohexane	NA	0.17 U	0.17 U	0.38	0.41	0.17 U	0.17 U	0.12 U	0.17 U	0.40	0.17 U	0.17 U	0.17 U	0.17 U	0.45	0.17 U	0.17 U	0.46	0.17 U
Dibromochloromethane	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	
Dichlorodifluoromethane	500	2.0	2.2	2.5	2.7	2.6	2.6	1.9	2.5	2.2	2.1	1.9	1.8	2.4	1.9	2.3	3.1	1.7	2.0
Ethanol	NA	590	12	23	140	85	32	41	180	500	62	51	25	58	150	2.4	14	7.7	7.9
Ethyl acetate	NA	0.75	0.37 U	0.18 U	0.18 U	0.37 U	0.18 U	0.26 U	0.18 U	0.31	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	290	0.22 U	0.25	0.33	0.43	0.22 U	0.22 U	0.24	0.22 U	0.30	0.23	0.22 U	0.22 U	0.44	0.91	0.22 U	0.30	0.36	0.22 U
Hexachlorobutadiene	NA	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Hexane	NA	0.84	0.54	1.1	0.99	0.39	0.5	0.71	0.58	1.0	0.52	0.57	0.43	0.48	1.0	0.30	1.3	1.7	7.0 U
Isopropyl alcohol	NA	3.8	3.5	580	2.9	3.0	1.3	1.7	2.0	19	3.5	3.8	3.8	1.9	8.2	0.12 U	1.7	1.2 U	6.4
m,p-Xylene	500	0.60	0.74	0.91	1.2	0.43 U	0.43 U	0.68	0.51	0.88	0.59	0.43 U	0.46	1.2	2.4	0.43 U	0.85	0.57	0.53

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	CT IACTIND 2003 ($\mu\text{g}/\text{m}^3$) 1/16/2009	Indoor Air - Eastern Small Retail Space																	
		IA-5-011609 2/3/2009	IA-5-020309 2/11/2009	IA-5-021109 2/18/2009	IA-5-021809 2/26/2009	IA-5-022609 3/6/2009	IA-5-030609 4/14/2009	IA-5-041409 5/15/2009	IA-5-051509 6/11/2009	IA-5-061109 9/17/2009	IA-5-091709 12/29/2009	IA-5-032610 3/26/2010	IA-5-070110 7/1/2010	IA-5-091610 9/16/2010	IA-5-120810 12/8/2010	IA-5-021711 2/17/2011	IA-5-060211 6/2/2011	IA-5-091511 9/15/2011	
Methyl methacrylate	NA															0.20 U	0.20 U	0.20 U	0.20 U
Methylene chloride	17	2.0	3.6	5.2	1.1	1.2	0.74	2.5	2.9	2.0	0.70 U	4.3	2.2	1.3	0.75	0.65	2.8	4.2	7.7
Methyl-t-butyl ether	190	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
n-Heptane	NA	0.20 U	0.20 U	0.36	0.35	0.20 U	0.20 U	0.23	0.38	0.48	0.20 U	0.20 U	0.20 U	0.20 U	2.1	0.20 U	0.33	0.20 U	0.20 U
o-Xylene	500	0.23	0.27	0.35	0.47	0.22 U	0.22 U	0.23	0.23	0.32	0.22 U	0.22 U	0.22 U	0.31	0.87	0.22 U	0.30	0.26	0.22 U
Propylene (Propene)	NA	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.090 U	0.13 U	0.090 U	0.090 U	0.35 U	0.35 U	0.35 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U
Styrene	290	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.15 U	0.21 U	1.5	0.30	0.21 U	0.35	0.32	0.58	0.21 U	0.21 U	0.21 U	0.21 U
Tetrachloroethene	5	0.39	0.34 U	0.43	0.43	0.34 U	0.34 U	0.24 U	0.47	0.34 U	0.41	0.34 U	0.34 U	0.34 U	0.39	2.4	0.34 U	0.58	
Tetrahydrofuran	NA	3.2	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	
Toluene	500	1.3	1.1	3.0	3.3	0.65	0.51	1.5	2.8	2.8	1.5	0.54	1.5	0.70	6.2	0.19 U	1.8	0.90	0.97
trans-1,2-Dichloroethene	200	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
trans-1,3-Dichloropropene	2.9	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	
Trichloroethene	1	5.5	0.39	0.27 U	0.27 U	0.27 U	0.27 U	0.22	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.28	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	500	3.0	1.3	1.7	1.8	1.5	1.7	1.2	1.3	2.0	1.2	1.8	1.4	1.5	6.3	1.3	1.7	1.4	1.7
Trichlorotrifluoroethane	NA	0.62	0.54	0.48	0.45	0.64	0.48	0.53	0.61	0.54	0.50	0.54	0.55	0.55	0.43	0.52	0.66	0.69	0.63
Vinyl acetate	NA	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.50 U	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U	0.18 U	0.36 U	0.43	0.18 U	3.5 U	0.18 U
Vinyl chloride	1.9	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Indoor Air - Eastern Small Retail Space										Indoor Air - Center Small Retail Space												
	IA-5-12/8/2011	IA-5-03/08/12	IA-5-06/14/2012	IA-5-09/13/2012	IA-5-1/3/2013	IA-5-3/15/2013	IA-5-6/7/2013	IA-5-9/6/2013	IA-5-12/13/13	IA-6-1/16/2009	IA-6-2/3/2009	IA-6-2/11/2009	IA-6-2/18/2009	IA-6-2/26/2009	IA-6-3/6/2009	IA-6-4/14/2009	IA-6-5/15/2009	IA-6-6/11/2009	IA-6-9/17/2009	IA-6-12/29/2009	IA-6-3/26/2010	IA-6-7/1/2010	IA-6-9/16/2010
1,1,1-Trichloroethane	0.15	0.082 U	0.065	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	110	3.9	0.27 U	0.29	0.27 U	0.27 U	1.6	0.27 U	0.27 U	0.27 U	0.27 U	0.35	0.27 U	0.27 U
1,1,1,2-Tetrachloroethane		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U														
1,1,2,2-Tetrachloroethane	0.16	0.10 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
1,1,2-Trichloroethane	0.14	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1-Dichloroethane	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	3.9	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,1-Dichloroethene	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	1.2	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,2,4-Trichlorobenzene	22	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	1.3	0.15 U	0.16	0.29	0.17 U	0.072	0.21	0.27	0.17 U	0.75	0.32	0.29	1.5	0.25 U	0.25 U	0.18 U	0.25 U	0.29	0.34	0.25 U	0.25 U	0.25 U	0.33
1,2-Dibromoethane (EDB)	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	
1,2-Dichlorobenzene	23	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,2-Dichloroethane	0.066	0.061 U	0.044	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
1,2-Dichloropropane	0.14 U	0.069 U	0.067	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
1,2-Dichlorotetrafluoroethane										0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	
1,3,5-Trimethylbenzene	0.39	0.15 U	0.077	0.11	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
1,3-Butadiene	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	1.1	0.11 U	0.080 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U
1,3-Dichlorobenzene	0.076	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,4-Dichlorobenzene	0.37	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.41	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,4-Dioxane																							
2-Butanone	0.98	2.0	0.94	2.3	1.3	3.2	2.4	2.2	120	10	3.2	2.9	2.4	2.3	1.0	2.5	4.1	2.4	1.8	1.4	1.1	0.89	
2-Hexanone	0.13	0.32	0.081	0.17	0.16	0.48	0.44	0.14 U	0.20 U	0.42	0.37	0.34	0.20 U	0.37	0.14 U	0.62	0.72	0.7	0.20 U	0.26	0.20 U	0.20 U	0.20 U
4-Ethyltoluene	0.25	0.15 U	0.053	0.097	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	0.13	0.18	0.34	0.22	0.14 U	0.14 U	0.19	0.14 U	0.20 U	0.20	0.20	0.20	0.20 U	0.14 U	0.34	0.70	0.29	0.20	0.20 U	0.20	0.20 U	0.20 U	0.40
Acetone	6.6	11	13	13	9.0	9.7	24	19	40	44	14	14	25	11	8.5	6.1	11	28	20	14	6.5	14	13
Benzene	0.38	0.34	0.20	0.53	0.53	0.80	0.27	0.68	0.55	1.0	0.60	0.98	4.1 [a]	0.41	0.70	0.59	0.47	0.43	0.31	0.40	0.55	0.19	0.60
Benzyl chloride	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	
Bromodichloromethane	0.20 U	0.10 U	0.20 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	
Bromoform	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	
Bromomethane	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
Carbon disulfide	0.93 U	0.93 U	0.93 U	0.11	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Carbon tetrachloride	0.49	0.46	0.42	0.38	0.58 [a]	0.37	0.59	0.47	0.5	0.39	0.42	0.52	0.59 [a]	0.47	0.6 [a]	0.42	0.77 [a]	0.45	0.42	0.40	0.43	0.55 [a]	0.44
Chlorobenzene	0.48	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
Chloroethane	0.079 U	0.079 U	0.079 U	0.059	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	
Chloroform	0.49	0.073 U	0.14	0.17	0.17 U	0.069	0.17 U	0.17	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
Chloromethane	1.0	1.1	1.4	1.2	1.0	1.2	1.5	1.2	1.3	1.3	0.90	1.4	1.5	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
cis-1,2-Dichloroethene	0.18	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.18	0.14 U	0.40	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
cis-1,3-Dichloropropene	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
Cyclohexane	0.10 U	0.10 U	0.12	0.21	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.25	0.91	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	
Dibromochloromethane	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	
Dichlorodifluoromethane	2.6	2.0	2.9	2.8	2.8	1.6	3.4	1.9	2.5	2.0	2.1	2.6	2.8	2.6	2.6	2.0	2.7	2.5	2.2	1.9	1.6	2.4	1.6
Ethanol	5.4	14	43	11	3.9	1.9	12	15	4.5	41	23	12	40	13	12	8.6	51	31	12	10	7.1	18	36
Ethyl acetate	0.11 U	0.48	0.21	0.66	0.59	0.13 U	1.5	0.29	0.83	0.37 U	0.37 U	0.18 U	0.22	0.37 U	0.18 U	0.26 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	1.2	0.13 U	0.16	0.31	0.15	0.091	0.15 U	0.26	0.15 U	0.29	0.25	0.33	1.6	0.22 U	0.22 U	0.21	0.22 U	0.24	0.23	0.22 U	0.22 U	0.22 U	0.43
Hexachlorobutadiene	0.17	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	
Hexane	0.36	0.48	0.57	1.2	0.95	1.1	1.4	0.75	0.46	1.2	0.78	0.70	2.6	0.33	0.40	0.63	0.38	0.68	0.45	0.18 U	0.22	1.3	0.69
Isopropyl alcohol	2.9 U	2.9																					

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Indoor Air - Eastern Small Retail Space									Indoor Air - Center Small Retail Space													
	IA-5-120811 12/8/2011	IA-5-030812 3/8/2012	IA-5-061412 6/14/2012	IA-5-091312 9/13/2012	IA-5-010313 1/3/2013	IA-5-031513 3/15/2013	IA-5-060713 6/7/2013	IA-5-090613 9/6/2013	IA-5-121313 12/13/13	IA-6-011609 1/16/2009	IA-6-020309 2/3/2009	IA-6-021109 2/11/2009	IA-6-021809 2/18/2009	IA-6-022609 2/26/2009	IA-6-030609 3/6/2009	IA-6-041409 4/14/2009	IA-6-051509 5/15/2009	IA-6-061109 6/11/2009	IA-6-091709 9/17/2009	IA-6-122909 12/29/2009	IA-6-032610 3/26/2010	IA-6-070110 7/1/2010	IA-6-091610 9/16/2010
Methyl methacrylate	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	2.5	5.2	0.59	1.6	0.83	0.69	2.0	2.0	2.6	0.70 U	2.9	0.70 U	4.5	0.64
Methylene chloride	1.6	1.6	1.1	2.3	5.2	2.0	3.0	1.1	0.83	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Methyl-t-butyl ether	0.039	0.11 U	0.11 U	0.18	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.27	0.20 U	0.32	1.3	0.20 U	0.20 U	0.21	0.20 U	0.26	0.20 U	0.20 U	0.20 U	1.4	0.47
n-Heptane	0.081	0.089	0.18	0.32	0.14 U	0.14 U	0.18	0.46	0.14 U	0.27	0.20 U	0.32	1.3	0.20 U	0.20 U	0.21	0.20 U	0.26	0.20 U	0.20 U	0.20 U	1.4	0.47
o-Xylene	1.0	0.13 U	0.14	0.35	0.19	0.10	0.17	0.33	0.15 U	0.36	0.26	0.34	1.8	0.22 U	0.22 U	0.19	0.22 U	0.25	0.23	0.22 U	0.22 U	0.22 U	0.42
Propylene (Propene)	2.1 U	2.1 U	2.1 U	1.4	2.4 U	2.4 U	2.4 U	2.4 U	0.18 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.35 U	0.35 U	0.35 U	
Styrene	1.0	0.13 U	0.76	0.24	0.15 U	0.15 U	0.15 U	0.20	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.25	0.21 U	0.23	0.21 U	0.21 U	0.24
Tetrachloroethene	5.7	0.15	0.15	1.6	0.24 U	0.12	0.24 U	0.24 U	0.24 U	1.2	0.34 U	0.45	1.2	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Tetrahydrofuran	0.10	0.088 U	0.10	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	77	2.8	0.32	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.22	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Toluene	1.9	0.28	0.78	2.0	0.56	0.61	0.95	2.6	0.89	1.8	1.3	2.5	11	0.65	0.71	1.3	0.81	2.0	1.1	0.49	1.6	1.7	2.6
trans-1,2-Dichloroethene	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
trans-1,3-Dichloropropene	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
Trichloroethene	0.63	0.081 U	0.045	0.10	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	13	1.7	0.27 U	0.34	0.27 U	0.27 U	0.60	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.30
Trichlorofluoromethane	1.1	0.98	1.7	1.6	1.8	1.3	2.1	1.6	1.6	4.8	1.3	1.7	2.5	1.5	1.7	1.4	1.2	2.2	1.2	1.7	1.3	1.5	3.1
Trichlorotrifluoroethane	0.69	0.46	0.53	0.60	0.61	0.60	1.4	0.63	0.54	0.64	0.51	0.48	0.45	0.64	0.48	0.53	0.74	0.63	0.48	0.51	0.55	0.55	0.42
Vinyl acetate	0.11 U	0.21 U	0.55	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.50 U	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U	0.18 U	0.36 U
Vinyl chloride	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Indoor Air - Center Small Retail Space												Indoor Air - Western Small Retail Space							
	IA-6-120710 12/7/2010	IA-6-021711 2/17/2011	IA-6-060211 6/2/2011	IA-6-091511 9/15/2011	IA-6-120811 12/8/2011	IA-6-030812 3/8/2012	IA-6-061412 6/14/2012	IA-6-091312 9/13/2012	IA-6-010313 1/3/2013	IA-6-031513 3/15/2013	IA-6-060713 6/7/2013	IA-6-090613 9/6/2013	IA-6-121313 12/13/13	IA-7-011609 1/16/2009	IA-7-020309 2/3/2009	IA-7-021109 2/11/2009	IA-7-021809 2/18/2009	IA-7-022609 2/26/2009	IA-7-030609 3/6/2009	
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.085	0.082 U	0.072	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	44	2.4	0.40	1.3	0.27 U	0.27 U		
1,1,1,2-Tetrachloroethane					0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U							
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.10 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	1.3	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.52	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	2.8	0.52 U	0.52 U	0.26 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	
1,2,4-Trimethylbenzene	0.25 U	0.35	0.25 U	0.25	0.16	0.15 U	0.21	0.17 U	0.17 U	0.076	0.21	0.27	0.17 U	0.25 U	0.34	0.34	0.99	0.25 U	0.25 U	
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	1.7	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.056	0.061 U	0.056	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.061	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
1,2-Dichlorotetrafluoroethane													0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.059	0.15 U	0.091	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
1,3-Butadiene	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.11 U	0.11 U	0.11 U	0.14	0.97	0.11 U	0.11 U	
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.13	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,4-Dioxane					0.18 U															
2-Butanone	0.87	1.9 B	2.9 U	5.9 U	1.3	0.63	1.4	2.8	1.4	1.4	0.91	2.8	2.2	70	6.5	3.9	5.2	2.2	1.3	
2-Hexanone	0.20 U	0.22	4.1 U	0.60	0.15	0.12 U	0.20	0.27	0.14 U	0.20	0.14 U	0.48	0.14 U	0.20 U	0.29	0.20 U	0.91	0.20 U	0.20 U	
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.080	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.27	0.25 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	0.20 U	0.20 U	0.28	0.31	0.13	0.12 U	0.92	0.25	0.14 U	0.14 U	0.14 U	0.30	0.14 U	0.20 U	0.20 U	0.20 U	0.42	0.20 U	0.20 U	
Acetone	11 B	14 B	19 B	26	10	7.4	15	18	11	10	20	29	27	29	12	13	32	7.8	6.6	
Benzene	0.44	1.3	0.29	0.31	0.42	0.39	0.20	0.49	0.48	0.80	0.23	0.70	0.53	0.95	0.75	1.1	3.2	0.67	0.73	
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	
Bromodichloromethane	0.34 U	0.34 U	0.34 U	0.34 U	0.20 U	0.10 U	0.20 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	
Bromoform	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
Carbon disulfide	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.93 U	0.20	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Carbon tetrachloride	0.46	0.57 [a]	0.64 [a]	0.52	0.46	0.48	0.44	0.37	0.55 [a]	0.42	0.58 [a]	0.47 [a]	0.45	0.32	0.44	0.52	0.56 [a]	0.48	0.6 [a]	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.45	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.10	0.073 U	0.24	0.17	0.17 U	0.075	0.17 U	0.19	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
Chloromethane	0.95	0.92	1.1	1.4	1.3	1.2	1.4	1.2	1.1	1.4	1.5	1.1	1.2	1.7	0.98	1.4	1.5	1.0	1.2	
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.098	0.059 U	0.052	0.042	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.29	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
cis-1,3-Dichloropropene	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U		
Cyclohexane	0.17 U	0.17 U	0.29	0.17 U	0.10 U	0.10 U	0.10 U	0.20	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.32	0.70	0.17 U	0.17 U		
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	
Dichlorodifluoromethane	1.9	3.1	1.8	1.9	2.9	2.0	2.9	2.8	2.7	1.7	3.4	1.9	2.5	2.1	2.2	2.6	2.7	2.6	2.6	
Ethanol	5.9	10	7.7	14	24	41	67	23	8.4	2.9	20	21	6.1	7.3	16	11	26	7.9	8.4	
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.48	0.69	0.31	1.0	0.42	0.34	0.64	0.42	0.13 U	0.37 U	0.37 U	0.18 U	0.21	0.37 U	0.18 U	
Ethylbenzene	0.22 U	0.45	0.22 U	0.22 U	0.15	0.22	0.71	0.23	0.16	0.11	0.18	0.29	0.15 U	0.23	0.29	0.36	0.95	0.24	0.22 U	
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	
Hexane	0.39	1.5	0.41	7.0 U	0.41	0.48	0.73	1.0	0.64	0.76	0.83	0.85	0.38	0.90	0.87	0.91	2.0	1.1	0.60	
Isopropyl alcohol	1.1	2.8	1.2 U	11	2.9 U	2.9 U	2.9 U	6.7	3.4 U	3.4 U	3.4 U	0.85	3.7	6.2	3.6	8.3	0.25 U	2.7		
m,p-Xylene	0.43 U	1.2	0.48	0.59	0.45	0.54	0.73	0.38	0.58	0.31	0.54	0.81	0.20	0.61	0.82	0.94	2.8	0.73	0.43 U	

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Indoor Air - Center Small Retail Space												Indoor Air - Western Small Retail Space						
	IA-6-120710 12/7/2010	IA-6-021711 2/17/2011	IA-6-060211 6/2/2011	IA-6-091511 9/15/2011	IA-6-120811 12/8/2011	IA-6-030812 3/8/2012	IA-6-061412 6/14/2012	IA-6-091312 9/13/2012	IA-6-010313 3/15/2013	IA-6-031513 6/7/2013	IA-6-090613 9/6/2013	IA-6-121313 12/13/13	IA-7-011609 1/16/2009	IA-7-020309 2/3/2009	IA-7-021109 2/11/2009	IA-7-021809 2/18/2009	IA-7-022609 2/26/2009	IA-7-030609 3/6/2009	
Methyl methacrylate	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
Methylene chloride	0.94	3.0	1.0	1.7 U	1.5	1.8	1.5	2.2	1.6	1.1	1.3	1.1	0.71	1.9	5.7	0.92	1.5	6.3	1.4
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.14	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
n-Heptane	0.20 U	0.35	0.20 U	0.20	0.11	0.15	0.25	0.31	0.095	0.10	0.14	0.47	0.14 U	0.20	0.20 U	0.37	1.2	0.20 U	0.20 U
o-Xylene	0.22 U	0.40	0.22 U	0.22	0.17	0.13	0.29	0.12	0.18	0.13	0.21	0.32	0.15 U	0.24	0.31	0.39	0.97	0.24	0.22 U
Propylene (Propene)	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	1.4	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.090 U	0.18 U
Styrene	0.21 U	0.21 U	0.27	0.22	0.13	0.13 U	1.2	0.054	0.15 U	0.15 U	0.15 U	0.22	0.15 U	0.21 U	0.21 U	0.26	0.21 U	0.21 U	0.21 U
Tetrachloroethene	0.34 U	1.6	0.34 U	0.58	0.68	0.15	0.57	2.6	0.24 U	0.12	0.24 U	0.24 U	0.24 U	1.6	0.34 U	0.65	0.63	0.34 U	0.34 U
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15	0.12	0.088 U	0.088 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	45	2.1	0.74	0.43	0.15 U	0.15 U
Toluene	0.40	2.9	0.93	1.2	1.2	1.4	1.1	1.5	0.56	0.65	1.1	2.6	0.49	1.5	1.6	2.7	7.5	1.5	0.76
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
trans-1,3-Dichloropropene	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
Trichloroethene	0.27 U	0.27 U	0.27 U	0.27 U	0.19	0.081 U	0.24	0.2	0.19 U	0.072	0.19 U	0.19 U	0.19 U	4.6	1.1	0.28	0.58	0.27 U	0.27 U
Trichlorofluoromethane	1.1	1.6	1.1	1.7	1.4	1.0	1.6	1.7	2.0	1.3	2.1	1.7	1.5	4.7	1.4	1.7	3.1	1.6	1.7
Trichlorotrifluoroethane	0.52	0.69	0.67	0.56	0.68	0.44	0.57	0.62	0.61	0.65	1.0	0.66	0.58	0.62	0.57	0.47	0.44	0.66	0.45
Vinyl acetate	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.33	0.090 U	0.090 U	0.090 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Indoor Air - Western Small Retail Space																						
	IA-7-041409 4/14/2009	IA-7-051509 5/15/2009	IA-7-061109 6/11/2009	IA-7-091709 9/17/2009	IA-7-122909 12/29/2009	IA-7-032610 3/26/2010	IA-7-070110 7/1/2010	IA-7-091610 9/16/2010	IA-7-120710 12/7/2010	IA-7-021711 2/17/2011	IA-7-060211 6/2/2011	IA-7-091511 9/15/2011	IA-7-120811 12/8/11	IA-7-030812 3/8/2012	IA-7-061412 6/14/2012	IA-7-091312 9/13/2012	IA-7-010313 1/3/2013	IA-7-031513 3/15/2013	IA-7-060713 6/7/2013	IA-7-090613 9/6/2013	IA-7-100313 10/3/2013	IA-7-121313 12/13/13	
1,1,1-Trichloroethane	0.87	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.069	0.082 U	0.088	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U		
1,1,1,2-Tetrachloroethane																							
1,1,2,2-Tetrachloroethane	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.10 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.24 U	0.24 U		
1,1,2-Trichloroethane	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	0.19 U		
1,1-Dichloroethane	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U		
1,1-Dichloroethene	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U		
1,2,4-Trichlorobenzene	0.26 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.45 U	0.45 U	0.52 U	0.52 U	0.26 U	0.26 U	0.25 U	0.26 U	0.26 U	0.26 U		
1,2,4-Trimethylbenzene	0.18 U	0.25 U	0.29	0.39	0.25 U	0.35	0.36	0.36	0.25 U	0.25 U	0.56	0.41	0.32	0.36	0.21	0.46	0.17 U	0.10	0.58	0.40	0.70	0.25	
1,2-Dibromoethane (EDB)	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.26 U	0.27 U	0.27 U		
1,2-Dichlorobenzene	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 U	0.21 U	0.21 U	0.21 U		
1,2-Dichloroethane	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.070	0.061 U	0.051	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.11	0.14 U		
1,2-Dichloropropane	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.30	0.23 U	0.23 U	0.23 U	0.63	0.23 U	0.14 U	0.069 U	0.14 U	0.094	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U		
1,2-Dichlorotetrafluoroethane	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U												
1,3,5-Trimethylbenzene	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.10	0.15	0.083	0.26	0.17 U	0.17 U	0.17 U	0.17 U	0.23	0.17 U		
1,3-Butadiene	0.080 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.075 U	0.078 U		
1,3-Dichlorobenzene	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 U	0.21 U	0.21 U	0.21 U		
1,4-Dichlorobenzene	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.065	0.063	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U		
1,4-Dioxane												0.18 U											
2-Butanone	1.3	2.3	7.3	2.2	0.49	2.1	4.3	1.8	0.42	1.7 B	4.7	5.9 U	2.1	0.97	1.1	2.8	1.9	1.9	1.7	1.6	3.8	0.69	
2-Hexanone	0.14 U	0.53	1.5	0.53	0.20 U	0.20 U	0.82	0.55	0.20 U	0.20 U	1.4 J	0.73	0.12 U	0.081	0.23	0.41	0.20	0.35	0.14 U	0.15	1.1	0.14 U	
4-Ethyltoluene	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.074	0.097	0.065	0.16	0.17 U	0.17 U	0.17 U	0.17 U	0.20	0.17 U		
4-Methyl-2-pentanone	0.14 U	0.22	0.79	0.24	0.20 U	0.20 U	0.43	0.61	0.20 U	0.20 U	0.53	0.36	0.15	0.13	1.4	0.29	0.18	0.14 U	0.21	0.20	0.44	0.14 U	
Acetone	6.5	10	31	22	31	12	41	27	12 B	15 B	48 B	38	17	13	18	24	14	15	49	46	20		
Benzene	0.42	0.35	0.52	0.43	0.52	0.53	0.27	0.56	0.45	1.1	0.41	0.34	0.44	0.36	0.20	0.49	0.58	0.87	0.32	0.43	1.8	0.54	
Benzyl chloride	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U		
Bromodichloromethane	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.20 U	0.10 U	0.20 U	0.24 U	0.24 U	0.24 U	0.23 U		
Bromoform	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.35 U	0.36 U	0.36 U		
Bromomethane	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U		
Carbon disulfide	0.26	0.16 U	0.16 U	0.26	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.27	1.6	0.93 U	0.93 U	0.93 U	0.090	1.1 U	1.1 U	0.16	0.60	0.14	1.1 U
Carbon tetrachloride	0.43	0.65 [a]	0.43	0.42	0.44	0.43	0.50	0.47	0.45	0.56 [a]	0.69 [a]	0.50	0.45	0.46	0.43	0.38	0.51	0.39	0.55 [a]	0.46 [a]	0.45 [a]	0.49	
Chlorobenzene	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U		
Chloroethane	0.10 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.089 U	0.093 U	0.093 U		
Chloroform	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34	0.12	0.073 U	0.13	0.20	0.17 U	0.082	0.21	0.47	0.17	0.24	
Chloromethane	1.1	0.93	1.8	1.2	2.1	1.2	1.3	1.4	0.99	1.0	1.6	1.6	1.3	1.6	1.2	1.3	1.1	1.4	1.5	1.3	1.2	1.2	
cis-1,2-Dichloroethene	0.14	0.20 U	0.20 U	0.27	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.064	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	
cis-1,3-Dichloropropene	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U	0.16 U		
Cyclohexane	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.10 U	0.10 U	0.10 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U		
Dibromochloromethane	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U		
Dichlorodifluoromethane	2.0	2.4	2.7	2.3	2.1	1.8	2.7	1.7	2	3.1	2.5	1.8	2.8	2.1	2.7	2.9	2.6	1.7	3.1	2.1	1.5	2.7	
Ethanol	7.1	11	14	11	10	13	39	240	13	14	28	76	60	70	110	60	52	11	45	21	40	25	
Ethyl acetate	0.26 U	0.18 U	0.24	2.6	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.70	0.21	1.8	0.94	0.39	0.57	0.77	0.13 U	5.5	1.3	1.9	0.34	
Ethylbenzene	0.16 U	0.22 U	0.25	0.32	0.68	0.32	0.45	0.45	0.22 U	0.22 U	0.68	0.45	0.24	0.12	0.24	0.45	0.19	0.14	0.36	0.48	0.62	0.15 U	
Hexachlorobutadiene	0.75 U	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.36 U	0.37 U	0.37 U		
Hexane	0.69	0.33	1.5	0.88	0.25	0.33	0.70	0.64	0.50	1.3	0.58	7.0 U	3.9	0.80	0.67	0.97	0.86	0.87	2.9	1.3	0.97	0.39	
Isopropyl alcohol	0.18 U	7.0	14	4.0	1.9	18	5.8	28	2.8	11	1.2 U	77	2.9 U	2.9 U	48	22	3.3	3.4 U	3.4 U	3.4 U	6.0	40	
m,p-Xylene	0.31 U	0.43 U	0.72	0.86	2.																		

Table 1.
Summary of Analytical Results - Air Sampling for Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Indoor Air - Western Small Retail Space																					
	IA-7-041409 4/14/2009	IA-7-051509 5/15/2009	IA-7-061109 6/11/2009	IA-7-091709 9/17/2009	IA-7-122909 12/29/2009	IA-7-032610 3/26/2010	IA-7-070110 7/1/2010	IA-7-091610 9/16/2010	IA-7-120710 12/7/2010	IA-7-021711 2/17/2011	IA-7-060211 6/2/2011	IA-7-091511 9/15/2011	IA-7-120811 12/8/11	IA-7-030812 3/8/2012	IA-7-061412 6/14/2012	IA-7-091312 9/13/2012	IA-7-010313 1/3/2013	IA-7-031513 3/15/2013	IA-7-060713 6/7/2013	IA-7-090613 9/6/2013	IA-7-100313 10/3/2013	IA-7-121313 12/13/13
Methyl methacrylate	4.2	2.3	5.7	0.70 U	2.9	0.70 U	1.3	0.60	1.3	2.5	1.1	1.7 U	13	2.8	1.4	2.3	2.6	1.4	6.1	1.3	1.1	0.76
Methylene chloride	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.12 U	0.13 U	0.13 U	
Methyl-t-butyl ether	0.17	0.20 U	0.34	0.37	0.20 U	0.29	0.50	0.68	0.33	0.47	2.0	1.1	0.46	0.47	0.65	0.99	0.14 U	0.16	0.42	1.1	1.6	0.45
n-Heptane	0.16 U	0.22 U	0.25	0.31	0.60	0.28	0.43	0.43	0.22 U	0.22 U	0.69	0.41	0.30	0.17	0.20	0.56	0.24	0.15	0.40	0.44	0.85	0.15 U
o-Xylene	0.13 U	0.090 U	0.090 U	0.35 U	0.35 U	0.35 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.3 U	2.4 U	
Propylene (Propene)	0.15 U	0.21 U	0.29	0.39	0.21 U	0.26	0.70	0.39	0.21 U	0.21 U	0.97	0.63	0.18	0.097	0.26	0.89	0.15 U	0.081	0.29	2.6	0.37	0.15 U
Styrene	0.48	0.34 U	0.34 U	0.34 U	1.0	0.34 U	0.34 U	0.36	0.34 U	1.7	0.34 U	0.62	0.66	0.14	0.15	1.7	0.24 U	0.15	0.24 U	5.5	0.22	0.24 U
Tetrachloroethene	0.27	0.15 U	0.15 U	0.51	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.24	0.18	0.088 U	0.088 U	0.088	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.65	0.15	0.10 U
Tetrahydrofuran	0.48	0.61	2.3	4.0	0.57	7.2	8.4	3.5	0.48	1.6	6.6	3.7	1.2	0.48	1.4	2.4	0.99	1.0	3.8	4.7	7.8	1.1
Toluene	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	
trans-1,2-Dichloroethene	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U	
trans-1,3-Dichloropropene	0.3	0.27 U	0.27 U	0.27 U	0.4	0.27 U	0.27 U	0.77	0.27 U	0.27 U	0.27 U	0.27 U	0.16	0.081 U	0.077	0.15	0.19 U	0.068	0.19 U	0.53	0.14	0.19 U
Trichloroethene	1.3	1.1	1.9	1.3	1.7	1.3	1.3	2.9	1.2	1.6	1.3	1.6	1.3	1.1	1.7	1.8	1.8	1.5	2.5	1.8	1.9	1.6
Trichlorofluoromethane	0.54	0.69	0.57	0.51	0.54	0.64	0.54	0.43	0.55	0.67	0.76	0.54	0.67	0.44	0.53	0.58	0.60	0.87	1.0	0.63	0.52	0.60
Trichlorotrifluoroethane	0.50 U	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	2.5 U	2.4 U	2.5 U		
Vinyl acetate	0.10 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.087 U	0.090 U	
Vinyl chloride	0.10 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.087 U	0.090 U	

Notes:

[a] Benzene and carbon tetrachloride are above the target air concentration, but are not compliance violations as indoor air concentrations are consistent with outdoor air concentrations that were sampled on the same day.

Prepared by / Date: KJC 01/06/13
Checked by / Date: 01/27/14

NA - not available

U - Not detected, value is the detection limit

B - Compounds detected in method blank as well as field sample

D - Result from diluted analyses

ug/m³ - micrograms per cubic meter

5 Bolded and shaded values are above the CT target
indoor air concentration for industrial/commercial scenarios

Table 2.
Vacuum Monitoring Results - Small Retail Spaces
Former Gorham Manufacturing Site
Providence, Rhode Island

Date	VMW-5	VMW-6	VMW-7
2/3/2009	-0.25	-0.17	0.00
2/18/2009	-0.212	-0.155	-0.011
2/26/2009	-0.230	-0.120	-0.025
3/6/2009	-0.200	-0.086	-0.012
4/14/2009	-0.108	-0.054	-0.014
5/15/2009	-0.081	-0.073	-0.016
6/11/2009	-0.090	-0.076	-0.098
9/17/2009	-0.110	-0.102	+0.074
12/29/2009**	-0.011	-0.010	-0.061
3/26/2010	-0.245	-0.142	-0.018
7/1/2010	-0.542	-0.114	-0.176
9/16/2010	-0.247	-0.874	-0.013
12/7/2010	-0.044	-0.028	+0.022
2/17/2011	-0.212	-0.599	-0.337
6/2/2011	-0.277	-0.236	-0.138**
9/15/2011	-0.234	-0.212	-0.010
12/8/2011	-0.609	-0.115	-0.009
3/8/2012	-0.003	-0.246	-0.114
6/14/2012	-0.237	-0.103	-0.132
9/13/2012	-0.243	-0.119	-0.210
1/3/2013	-0.150	-0.060	-0.052
3/15/2013	-0.228	-0.354	-0.002
6/7/2013	-0.226	-0.123	-0.011
9/6/2013	-0.232	-0.829	-0.007
10/3/2013	NM	NM	-0.006
12/13/2013	-0.215	-0.002	-0.002

** ASD system offline.

NM = Not Measured

Prepared by/Date: MAM 01/22/13

Checked by/Date: DLC 1/23/14

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Outdoor Air Reference Locations																		
	AA-1 011609 1/16/2009	AA-1- 020309 2/3/2009	AA-1- 021109 2/11/2009	AA-1- 021809 2/18/2009	AA-1- 022609 2/26/2009	AA-1- 030609 3/6/2009	AA-1- 033109 3/31/2009	AA-1- 041409 4/14/2009	AA-1- 042409 4/24/2009	AA-1- 051509 5/15/2009	AA-1- 061109 6/11/2009	AA-1- 091709 9/17/2009	AA-1- 092409 9/24/2009	AA-1- 100109 10/1/2009	AA-1- 100809 10/8/2009	AA-1- 122909 12/29/2009	AA-1- 012810 1/28/2010	AA-1- 020510 2/5/2010	AA-1- 021210 2/12/2010
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U								
1,1,1,2-Tetrachloroethane																			
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U								
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U								
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U								
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U								
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U								
1,2,4-Trimethylbenzene	0.25 U	0.28	0.52	1.8	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.29	0.3	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U								
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U								
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U								
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U								
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U								
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.5	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U								
1,3-Butadiene	0.11 U	0.11 U	0.17	1.3	0.11 U	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.23 U	0.23 U	0.23 U						
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U								
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.53	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U								
1,4-Dioxane																			
2-Butanone	0.58	1.2	2.4	3.2	1.6	0.67	1.7	0.11 U	1.6	1.6	1.1	1.7	0.84	1.2	1.2	2.0	0.81	1.6	1.6
2-Hexanone	0.20 U	0.22	0.57	0.35	0.20 U	0.20 U	0.20 U	0.14 U	0.26	0.39	0.20 U	0.34	0.20 U	0.33	0.23	0.20 U	0.20 U	0.32	0.20 U
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.6	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U								
4-Methyl-2-pentanone	0.20 U	0.20 U	0.27	0.63	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.34									
Acetone	7.3	8	15	22	8.4	5.9	12	1.1	27	9.5	10	10	9.6	5.4	17	11	3.5	7.6	5.0
Benzene	0.69	0.62	1.3	4.7	0.43	0.69	0.46	0.12 U	0.3	0.4	0.49	0.38	0.35	0.25	0.20	0.42	0.79	0.68	0.63
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U								
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U								
Bromofrom	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U								
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U								
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U							
Carbon tetrachloride	0.38	0.44	0.52	0.56	0.43	0.61	0.47	0.22 U	0.41	0.78	0.43	0.40	0.40	0.43	0.46	0.39	0.42	0.39	0.31 U
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U								
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U								
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U								
Chloromethane	1.1	0.9	1.4	1.5	1.1	1.1	1.3	1.1	1.2	1.1	0.85	1.1	0.97	0.96	1.6	1.1	1.2	1.3	
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U								
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U								
Cyclohexane	0.17 U	0.17 U	0.35	1.1	0.17 U	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U									
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U								
Dichlorodifluoromethane	2	2.2	2.6	2.7	2.6	2.6	2.8	2.0	2.5	2.7	2.6	2.1	2.1	2.2	2.1	2.1	2.3	2.4	2.5
Ethanol	4	5.4	10	47	4.3	3.5	4.7	0.81	4.9	4.8	8.6	6.6	4.6	3.9	4.9	3.8	5.4	5.1	7.2
Ethyl acetate	0.37 U	0.37 U	0.18 U	0.31	0.37 U	0.18 U	0.18 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U						
Ethylbenzene	0.22 U	0.25	0.52	2	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.24	0.22 U	0.23	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Hexachlorobutadiene	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Hexane	1.5	0.75	1.1	2.9	0.38	2.8	2.2	0.13 U	0.56	0.37	0.59	0.48	1.4	0.45	4.5	0.62	0.36	0.53	0.91
Isopropyl alcohol	1.4	1.4	1.8	4.3	1.4	0.67	1.4	0.18 U	14	1.0	2.5	2.8	0.87	0.63	0.25 U	0.54	0.56	2.7	1.5
m,p-Xylene	0.43 U	0.72	1.4	6.4	0.44	0.43 U	0.43 U	0.31 U	0.43 U	0.49	0.73	0.62	0.59	0.43 U	0.43 U	0.43 U	0.43 U	0.50	0.47
Methyl methacrylate																			
Methylene chloride	5.5	3.1	0.65	1.5	0.78	7.4	15	2.1	2.8	1.7	1.9	0.70 U	4.2	0.70 U	23	4.6	1.3	1.9	1.7

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Outdoor Air Reference Locations																	
	AA-1-011609 1/16/2009	AA-1-020309 2/3/2009	AA-1-021109 2/11/2009	AA-1-021809 2/18/2009	AA-1-022609 2/26/2009	AA-1-030609 3/6/2009	AA-1-033109 3/31/2009	AA-1-041409 4/14/2009	AA-1-042409 4/24/2009	AA-1-051509 5/15/2009	AA-1-061109 6/11/2009	AA-1-091709 9/17/2009	AA-1-092409 9/24/2009	AA-1-100109 10/1/2009	AA-1-100809 10/8/2009	AA-1-122909 12/29/2009	AA-1-012810 1/28/2010	AA-1-020510 2/5/2010
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U							
n-Heptane	0.20 U	0.27	0.92	1.6	0.20 U	0.20 U	0.14 U	0.20 U	0.40	0.23	0.20 U	0.26	0.20 U	0.20 U				
o-Xylene	0.22 U	0.27	0.53	2.2	0.22 U	0.22 U	0.16 U	0.22 U	0.24	0.27	0.23	0.22 U	0.22 U	0.22 U				
Propylene (Propene)	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.090 U	0.13 U	0.18 U	0.090 U	0.090 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Styrene	0.21 U	0.21 U	0.21 U	0.28	0.21 U	0.21 U	0.15 U	0.21 U	0.21 U	0.21 U								
Tetrachloroethene	0.34 U	0.34 U	0.73	0.77	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.52	0.34 U	0.34 U	0.34 U					
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U	0.15 U	1.2	0.15 U	0.15 U	0.15 U	0.15 U				
Toluene	0.94	1.5	3.2	14	0.71	0.99	0.82	0.14 U	0.72	2.6	2.1	1.9	2.0	0.61	0.5	0.78	0.94	0.64
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U									
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U									
Trichloroethene	0.27 U	0.27 U	0.27 U	0.39	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.30							
Trichlorofluoromethane	1.3	1.2	1.7	2.4	1.5	2.0	1.7	0.92	1.3	1.5	2.0	1.1	1.4	1.2	1.5	2.2	1.2	1.6
Trichlorotrifluoroethane	0.68	0.53	0.5	0.47	0.64	0.48	0.51	0.27 U	0.64	0.67	0.56	0.47	0.49	0.45	0.46	0.54	0.49	0.55
Vinyl acetate	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.50 U	0.71 U	0.18 U	0.18 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.71 U	0.71 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U							

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Outdoor Air Reference Locations																		
	AA-1-021910 2/19/2010	AA-1-032610 3/26/2010	AA-1-043010 4/30/2010	AA-1-052810 5/28/2010	AA-1-070110 7/1/2010	AA-1-091610 9/16/2010	AA-1-120710 12/7/2010	AA-1-021711 2/17/2011	AA-1-060211 6/6/2011	AA-1-091511 9/15/2011	AA-1-120811 12/8/2011	AA-1-030812 3/8/2012	AA-1-061412 6/14/2012	AA-1-091312 9/13/2012	AA-1-010313 1/3/2013	AA-1-031513 3/15/2013	AA-1-060713 6/7/2013	AA-1-090613 9/6/2013	AA-1-100313 10/3/2013
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.29	0.082 U	0.10	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U
1,1,1,2-Tetrachloroethane										0.62 U	0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.42 U	0.44 U
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.10 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.24 U
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.063 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U
1,2,4-Trichlorobenzene	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.62	0.45 U	0.12	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.26 U
1,2,4-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.94	0.25 U	1.1	0.25 U	0.25 U	0.16	0.15 U	0.15 U	0.26	0.17 U	0.069	0.21	0.17 U	0.19
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.26 U
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.34	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.066	0.061 U	0.046	0.14 U	0.14 U	0.057	0.14 U	0.14 U	0.14 U
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U														
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.28	0.25 U	0.33	0.25 U	0.25 U	0.068	0.15 U	0.15 U	0.16	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,3-Butadiene	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.29	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.075 U	0.078 U
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 U	0.21 U	
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.20 U	0.21 U	
1,4-Dioxane																			
2-Butanone	0.88	1.5	1.4	2.4	2.3	2.7	0.37	1.8 B	2.9 U	5.9 U	0.35	1.4	1.1	2.0	0.89	1.9	3.9	3.7	0.94
2-Hexanone	0.20 U	0.29	0.29	0.49	0.49	0.41	0.20 U	0.20 U	4.1 U	0.67	0.12 U	0.34	0.14	0.27	0.14 U	0.13	0.49	0.32	0.14 U
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.3	0.25 U	0.34	0.25 U	0.053	0.15 U	0.15 U	0.093	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	
4-Methyl-2-pentanone	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	2.8	0.20 U	0.20 U	0.20 U	0.12 U	0.12 U	0.23	0.1	0.14 U	0.083	0.24	0.14 U	0.14 U	
Acetone	3.7	9.5	12	20	13	14	5.7 B	19 B	8.7 B	20	4.9	9.4	10	12	8.7	18	28	16	12
Benzene	0.41	0.69	0.35	0.19	0.16 U	1.2	0.28	2.3	0.16 U	0.19	0.4	0.29	0.20	0.68	0.42	1.0	0.31	0.70	0.95
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.20 U	0.10 U	0.20 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.24 U
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.35 U	0.36 U
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	
Carbon disulfide	0.44	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.38	0.16 U	0.16 U	1.6	0.058	0.93 U	0.11	1.1 U	1.1 U	0.052	1.1 U	1.1 U
Carbon tetrachloride	0.43	0.49	0.47	0.52	0.51	0.43	0.42	0.48	0.53	0.48	0.49	0.43	0.43	0.36	0.52	0.41	0.55	0.47	0.43
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.089 U	0.093 U
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.094	0.073 U	0.067	0.096	0.17 U	0.21	0.17 U	0.17 U	0.17 U
Chloromethane	1.1	1.4	0.78	1.1	0.96	0.94	1.0	0.96	1.4	0.062 U	1.1	1.5	1.1	1.0	1.6	1.4	1.1	0.96	1.1
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12	0.059 U	0.12 U	0.14 U	0.14 U	0.092	0.14 U	0.16	0.13 U	0.14 U
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U	
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.10 U	0.10 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	0.30 U	0.30 U	0.29 U	
Dichlorodifluoromethane	2.9	1.8	2.1	2.5	2.4	2.9	1.9	3.1	1.9	1.7	2.5	2.0	2.4	2.8	2.5	1.7	3.0	2.0	1.8
Ethanol	1.2	4.9	4.0	3.3	4.0	14	2.3	12	2.7	5.8	1.5	4.1	7.4	5.2	2.7	1.2	6.1	6.7	5.4
Ethyl acetate	1.1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.46	0.56	0.43	0.67	0.35	1.1	0.56	17	0.12 U
Ethylbenzene	0.22 U	0.22 U	0.22 U	0.22 U	0.82	1.4	0.22 U	1.1	0.22 U	0.31	0.13 U	0.065	0.19	0.15 U	0.12	0.16	0.15 U	0.21	0.15 U
Hexachlorobutadiene	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.36 U	0.37 U	
Hexane	0.24	0.23	1.1	0.51	0.37	1.2	0.35 U	3.3	0.88	7.0 U	0.47	0.54	1.3	0.67	1.4	1.3	1.8	2.3	0.81
Isopropyl alcohol	0.8	0.73	0.69	1.6	0.79	0.25 U	0.29	2.4	1.2 U	4.9 U	0.6	0.88	2.9 U	0.58	0.47	0.52	1.3	6.2	3.3 U
m,p-Xylene	0.43 U	0.49	0.43 U	0.43 U	2.2	3.7	0.43 U	3.3	0.43 U	0.43 U	0.41	0.17	0.18	0.64	0.30 U	0.34	0.58	0.21	0.53
Methyl methacrylate									0.20 U	0.48	0.20 U	0.20 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Methylene chloride	0.70 U	0.70 U	0.70 U	0.35 U	1.1	1.1	0.66	3	2.3	1.7 U	1.5	1.6	3.0	2.1	4.4	2.9	2.3	9.1	1.0

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Outdoor Air Reference Locations																			
	AA-1-021910 2/19/2010	AA-1-032610 3/26/2010	AA-1-043010 4/30/2010	AA-1-052810 5/28/2010	AA-1-070110 7/1/2010	AA-1-091610 9/16/2010	AA-1-120710 12/7/2010	AA-1-021711 2/17/2011	AA-1-060211 6/6/2011	AA-1-091511 9/15/2011	AA-1-120811 12/8/2011	AA-1-030812 3/8/2012	AA-1-061412 6/14/2012	AA-1-091312 9/13/2012	AA-1-010313 1/3/2013	AA-1-031513 3/15/2013	AA-1-060713 6/7/2013	AA-1-090613 9/6/2013	AA-1-100313 10/3/2013	AA-1-121313 12/13/2013
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.12 U	0.13 U		
n-Heptane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.91	0.20 U	0.95	0.20 U	0.20 U	0.12	0.089	0.11	0.18	0.14 U	0.12	0.21	0.15	0.18	0.14 U
o-Xylene	0.22 U	0.22 U	0.22 U	0.22 U	0.46	1.2	0.22 U	1.1	0.22 U	0.22	0.086	0.078	0.31	0.15 U	0.12	0.2	0.15 U	0.24	0.15 U	
Propylene (Propene)	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	1.9	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	0.77	1.3	2.4 U	2.4 U	2.4 U	2.3 U	2.4 U	
Styrene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.37	0.13 U	0.10	0.13	0.15 U	0.039	0.15 U	0.15 U	0.052	0.15 U
Tetrachloroethene	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.49	0.34 U	5.3	0.34 U	0.34 U	0.73	0.10 U	0.20 U	0.87	0.24 U	0.9	0.24 U	0.24 U	0.30	0.24 U
Tetrahydrofuran	0.19	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.057	0.088 U	0.088 U	0.43	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	
Toluene	0.46	1.1	0.75	0.63	0.57	10	0.19 U	5.3	0.52	0.47	0.56	0.37	0.42	0.81	0.48	0.74	1.2	1.4	1.3	0.35
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U	
Trichloroethene	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.67	0.081 U	0.045	0.091	0.19 U	0.26	0.19 U	0.19 U	0.11	0.19 U
Trichlorofluoromethane	1.5	1.5	1.2	1.4	1.3	11	1.2	1.7	1.5	1.5	1.7	1.1	1.7	1.5	1.5	1.3	1.8	11	3.3	1.5
Trichlorotrifluoroethane	0.54	0.62	0.45	0.58	0.56	0.44	0.56	0.66	0.69	0.58	0.89	0.43	0.53	0.59	0.58	0.66	1.0	0.60	0.55	0.55
Vinyl acetate	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	2.4 U	2.5 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.087 U	0.090 U	

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Extraction Well - Large Retail Space																	
	EW-Combined-D-020309 2/3/2009	EW-COMBINE D-021109 2/11/2009	EW-COMBINE D-021809 2/18/2009	EW-COMBINE D-022609 2/26/2009	EW-COMBINE D-041409 4/14/2009	EW-COMBINE D-042409 4/24/2009	EW-COMBINE D-091709 9/17/2009	EW-COMBINE D-092409 9/24/2009	EW-COMBINE D-100109 10/1/2009	EW-COMBINE D-100809 10/8/2009	EW-COMBINE D-012810 1/28/2010	EW-COMBINE D-020510 2/5/2010	EW-COMBINE D-021210 2/12/2010	EW-COMBINE D-021910 2/19/2010	EW-COMBINE D-043010 4/30/2010	EW-COMBINE D-052810 5/28/2010	EW-COMBINE D-070110 7/1/2010	
1,1,1-Trichloroethane	190000	91000	73000	32000	3500	19000	11000	8100	7900	6800	1500	2500	150	1200	1400	1700	2000	
1,1,1,2-Tetrachloroethane																		
1,1,2,2-Tetrachloroethane	6.8 U	6.8 U	14 U	14 U	6.8 U	0.34 U	3.4 U	6.8 U	14 U	14 U	0.68 U	6.8 U	0.34 U	0.68 U	0.68 U	6.8 U	0.68 U	
1,1,2-Trichloroethane	5.4 U	5.4 U	11 U	11 U	5.4 U	0.65	2.7 U	5.4 U	11 U	11 U	0.54 U	5.4 U	0.27 U	0.54 U	0.54 U	5.4 U	0.54 U	
1,1-Dichloroethane	19000	7800	5300	4800	390	2200	1600	1900	1900	1700	280	370	31	310	200	270	290	
1,1-Dichloroethene	7800	1800	1000	630	73	420	310	250	260	280	52	66	7.3	62	30	40	52	
1,2,4-Trichlorobenzene	7.4 U	7.4 U	15 U	15 U	7.4 U	0.37 U	3.7 U	7.4 U	15 U	15 U	0.74 U	7.4 U	0.37 U	0.74 U	0.74 U	7.4 U	0.74 U	
1,2,4-Trimethylbenzene	5.0 U	5.0 U	10 U	10 U	5.0 U	0.25 U	2.5 U	5.0 U	10 U	10 U	0.50 U	5.0 U	0.25 U	0.50 U	0.50 U	5.0 U	0.50 U	
1,2-Dibromoethane (EDB)	7.6 U	7.6 U	16 U	16 U	7.6 U	0.38 U	3.8 U	7.6 U	16 U	16 U	0.76 U	7.6 U	0.38 U	0.76 U	0.76 U	7.6 U	0.76 U	
1,2-Dichlorobenzene	6.0 U	6.0 U	12 U	12 U	6.0 U	0.30 U	3 U	6.0 U	12 U	12 U	0.60 U	6.0 U	0.30 U	0.60 U	0.60 U	6.0 U	0.60 U	
1,2-Dichloroethane	4.0 U	4.0 U	8.0 U	8.0 U	4.0 U	0.20 U	2.0 U	4.0 U	8.0 U	8.0 U	0.40 U	4.0 U	0.20 U	0.40 U	0.40 U	4.0 U	0.40 U	
1,2-Dichloropropane	4.6 U	4.6 U	9.2 U	9.2 U	4.6 U	0.23 U	2.3 U	4.6 U	9.2 U	9.2 U	0.46 U	4.6 U	0.23 U	0.46 U	0.46 U	4.6 U	0.46 U	
1,2-Dichlorotetrafluoroethane	7.0 U	7.0 U	14 U	14 U	7.0 U	0.35 U	3.5 U	7.0 U	14 U	14 U	0.70 U	7.0 U	0.35 U	0.70 U	0.70 U	7.0 U	0.70 U	
1,3,5-Trimethylbenzene	5.0 U	5.0 U	10 U	10 U	5.0 U	0.25 U	2.5 U	5.0 U	10 U	10 U	0.50 U	5.0 U	0.25 U	0.50 U	0.50 U	5.0 U	0.50 U	
1,3-Butadiene	2.2 U	2.2 U	4.4 U	4.4 U	2.2 U	0.11 U	2.3 U	4.5 U	8.9 U	8.9 U	0.45 U	4.5 U	0.23 U	0.45 U	0.45 U	2.2 U	0.22 U	
1,3-Dichlorobenzene	6.0 U	6.0 U	12 U	12 U	6.0 U	0.30 U	3 U	6.0 U	12 U	12 U	0.60 U	6.0 U	0.30 U	0.60 U	0.60 U	6.0 U	0.60 U	
1,4-Dichlorobenzene	6.0 U	6.0 U	12 U	12 U	6.0 U	0.30 U	3 U	6.0 U	12 U	12 U	0.60 U	6.0 U	0.30 U	0.60 U	0.60 U	6.0 U	0.60 U	
1,4-Dioxane																		
2-Butanone	37	32	48	60	21	40	7.8	31	30	21	4.0	11	10	9.0	12	22	22	
2-Hexanone	4.0 U	4.0 U	8.0 U	8.0 U	4.0 U	0.50	2.0 U	4.0 U	8.0 U	8.0 U	0.40 U	4.0 U	0.20 U	0.40 U	0.40 U	4.0 U	0.40 U	
4-Ethyltoluene	5.0 U	5.0 U	10 U	10 U	5.0 U	0.25 U	2.5 U	5.0 U	10 U	10 U	0.50 U	5.0 U	0.25 U	0.50 U	0.50 U	5.0 U	0.50 U	
4-Methyl-2-pentanone	4.0 U	4.0 U	8.0 U	8.0 U	4.0 U	0.59	2.0 U	4.0 U	8.0 U	8.0 U	0.40 U	4.0 U	0.28	0.40 U	0.40 U	4.0 U	0.40 U	
Acetone	1600	31	75	63	4.8 U	0.24 U	20	9.6 U	20 U	20 U	31	9.6 U	13	0.96 U	16	24	16	
Benzene	14	7.3	8.4	6.4 U	3.2 U	2.5	2.7	3.2 U	6.4 U	6.4 U	0.61	3.2 U	0.63	0.43	0.74	5.5	0.84	
Benzyl chloride	5.2 U	5.2 U	11 U	11 U	5.2 U	0.26 U	2.6 U	5.2 U	11 U	11 U	0.52 U	5.2 U	0.26 U	0.52 U	0.52 U	5.2 U	0.52 U	
Bromodichloromethane	6.6 U	6.6 U	14 U	14 U	6.6 U	0.33 U	3.3 U	6.6 U	14 U	14 U	0.66 U	6.6 U	0.33 U	0.66 U	0.66 U	6.6 U	0.66 U	
Bromoform	11 U	11 U	21 U	21 U	11 U	0.51 U	5.1 U	11 U	21 U	21 U	1.1 U	11 U	0.51 U	1.1 U	1.1 U	11 U	1.1 U	
Bromomethane	3.8 U	3.8 U	7.6 U	7.6 U	3.8 U	0.19 U	1.9 U	3.8 U	7.6 U	7.6 U	0.38 U	3.8 U	0.19 U	0.38 U	0.38 U	3.8 U	0.38 U	
Carbon disulfide	3.2 U	63	32	20	3.2 U	4.6	1.6 U	3.2 U	6.4 U	6.4 U	4.3	3.2 U	0.17	3.8	0.77	3.2 U	1.1	
Carbon tetrachloride	6.2 U	6.2 U	13 U	13 U	6.2 U	0.57	3.1 U	6.2 U	13 U	13 U	0.62 U	6.2 U	0.38	0.62 U	0.62 U	6.2 U	0.73	
Chlorobenzene	4.6 U	4.6 U	9.2 U	9.2 U	4.6 U	0.23 U	2.3 U	4.6 U	9.2 U	9.2 U	0.46 U	4.6 U	0.23 U	0.46 U	0.46 U	7.2	0.46 U	
Chloroethane	3400	1700	1200	450	42	220	110	94	92	88	9.8	11	1.3	9.9	4.8	7.2	9.4	
Chloroform	27	17	20	17	4.8 U	8.8	12	14	11	11	4.1	5.8	0.49	6.2	6.0	7.9	8.0	
Chloromethane	2.0 U	2.0 U	4.0 U	4.0 U	2.0 U	8.2	1.0 U	2.0 U	4.0 U	4.0 U	0.20 U	2.0 U	0.10 U	0.20 U	0.20 U	2.0 U	0.20 U	
cis-1,2-Dichloroethene	14000	4700	6300	4200	300	1600	1600	1500	1300	1200	190	280	21	240	180	260	260	
cis-1,3-Dichloropropene	4.4 U	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U	4.4 U	0.44 U	
Cyclohexane	3.4 U	3.4 U	6.8 U	6.8 U	3.4 U	0.17 U	1.7 U	3.4 U	6.8 U	6.8 U	0.34 U	3.4 U	0.17 U	0.34 U	0.34 U	3.4 U	0.34 U	
Dibromochloromethane	8.6 U	8.6 U	18 U	18 U	8.6 U	0.43 U	4.3 U	8.6 U	18 U	18 U	0.86 U	8.6 U	0.43 U	0.86 U	0.86 U	8.6 U	0.86 U	
Dichlorodifluoromethane	5.0 U	5.0 U	10 U	110	5.0 U	2.8	2.5 U	5.0 U	10 U	10 U	2.4	5.0 U	2.2	2.7	1.7	5.0 U	2.5	
Ethanol	960	81	120	120	17	21	200	96	32	33	39	60	23	62	10	19 U	15	
Ethyl acetate	7.3 U	3.6 U	7.2 U	15 U	7.3 U	0.37 U	1.8 U	3.6 U	7.2 U	7.2 U	0.36 U	3.6 U	0.18 U	0.36 U	0.36 U	3.6 U	0.36 U	
Ethylbenzene	9.4	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U	4.4 U	0.44 U	
Hexachlorobutadiene	22 U	22 U	43 U	43 U	22 U	1.1 U	5.3 U	11 U	22 U	22 U	1.1 U	11 U	0.53 U	1.1 U	1.1 U	11 U	1.1 U	
Hexane	16	4.9	270	7.2 U	3.6 U	2.3	1.9	3.6 U	7.2 U	7.2 U	0.36 U	3.6 U	0.74	0.36 U	0.92	3.6 U	0.44	
Isopropyl alcohol	610	24.4 U	15	9.9 U	5.0 U	0.25 U	22	5.0 U	9.9 U	9.9 U	0.23	5.0 U	1.0	0.50 U	2.6	2.4 U	0.24 U	
m,p-Xylene	25	8.6 U	18 U	18 U	8.6 U	0.43 U	4.3 U	8.6 U	18 U	18 U	0.86 U	8.6 U	0.49	0.86 U	0.86 U	8.6 U	0.86 U	
Methyl methacrylate																		
Methylene chloride	12	7.0 U	14 U	14 U	19	2.6	7.0 U	14 U	28 U	28 U	1.4 U	14 U	2.6	1.4 U	1.4 U	7.0 U	2.1	

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Extraction Well - Large Retail Space																
	EW-Combined-020309 2/3/2009	EW-COMBINE-D-021109 2/11/2009	EW-COMBINE-D-021809 2/18/2009	EW-COMBINE-D-022609 2/26/2009	EW-COMBINE-D-041409 4/14/2009	EW-COMBINE-D-042409 4/24/2009	EW-COMBINE-D-091709 9/17/2009	EW-COMBINE-D-092409 9/24/2009	EW-COMBINE-D-100109 10/1/2009	EW-COMBINE-D-100809 10/8/2009	EW-COMBINE-D-012810 1/28/2010	EW-COMBINE-D-020510 2/5/2010	EW-COMBINE-D-021210 2/12/2010	EW-COMBINE-D-021910 2/19/2010	EW-COMBINE-D-043010 4/30/2010	EW-COMBINE-D-052810 5/28/2010	EW-COMBINE-D-070110 7/1/2010
Methyl-t-butyl ether	3.6 U	3.6 U	7.2 U	7.2 U	3.6 U	0.18 U	1.8 U	3.6 U	7.2 U	7.2 U	0.36 U	3.6 U	0.18 U	0.36 U	0.36 U	3.6 U	0.36 U
n-Heptane	4.0 U	4.0 U	8.0 U	8.0 U	4.0 U	0.20 U	2.0 U	4.0 U	8.0 U	8.0 U	0.40 U	4.0 U	0.20 U	0.40 U	0.40 U	4.0 U	0.40 U
o-Xylene	8.4	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U	4.4 U	0.44 U
Propylene (Propene)	3.5 U	100	3.6 U	6.9 U	3.5 U	0.18 U	3.5 U	6.9 U	6.9 U	14 U	0.69 U	6.9 U	0.35 U	0.69 U	0.69 U	18 U	1.8 U
Styrene	4.2 U	4.2 U	8.4 U	8.4 U	4.2 U	0.21 U	2.1 U	4.2 U	8.4 U	8.4 U	0.42 U	4.2 U	0.21 U	0.42 U	0.42 U	4.2 U	0.42 U
Tetrachloroethene	140	60	430	540	47	110	110	260	67	72	4.6	200	4.8	45	450	1300	640
Tetrahydrofuran	77	77	150	180	66	110	1.5 U	96	85	67	15	32	28	43	34	54	65
Toluene	36	3.8 U	7.6 U	7.6 U	3.8 U	0.59	3.4	4.7	7.6 U	7.6 U	0.38 U	3.8 U	3.6	0.38 U	0.75	3.8 U	0.41
trans-1,2-Dichloroethene	110	61	47	47	4.6	33	29	34	30	26	3.4	4.6	0.36	4.1	3.0	4.6	5.5
trans-1,3-Dichloropropene	4.4 U	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U	4.4 U	0.44 U
Trichloroethene	36000	17000	26000	13000	1400	6200	4000	3600	4000	4300	390	1400	58	460	1200	2000	1700
Trichlorofluoromethane	9900	2300	1800	1000	98	600	1800	1400	1500	1500	260	230	29	230	210	300	440
Trichlorotrifluoroethane	7.6 U	7.6 U	16 U	16 U	7.6 U	0.74	3.8 U	7.6 U	16 U	16 U	0.76 U	7.6 U	0.53	0.76 U	0.76 U	7.6 U	0.76 U
Vinyl acetate	15 U	3.6 U	7.2 U	29 U	15 U	0.71 U	7.1 U	15 U	29 U	29 U	1.5 U	15 U	0.71 U	1.5 U	1.5 U	3.6 U	0.36 U
Vinyl chloride	110	20	10	5.2 U	2.6 U	3.4	1.3 U	2.6 U	5.2 U	5.2 U	0.26 U	2.6 U	0.13 U	0.26 U	0.26 U	2.6 U	0.26 U

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Extraction Well - Large Retail Space																						
	EW-COMBINE D-091610 9/16/2010	EW-COMBINE D-120710 12/7/2010	EW-COMBINE D-021711 2/17/2011	EW-COMBINE D-091511 9/15/2011	EW-Combined 120811 12/8/2011	EW-Combined 030812 3/8/2012	EW-Combined 061412 6/14/2012	EW-Combined 091312 9/13/2012	EW-Combined 010313 1/13/2013	EW-Combined 031513 3/15/2013	EW-Combined 060713 6/7/2013	EW-Combined 090613 9/6/2013	EW-Combined 121313 12/13/2013	EW-1-030609 3/6/2009	EW-1-033109 3/31/2009	EW-2-030609 3/6/2009	EW-2-033109 3/31/2009	EW-3-030609 3/6/2009	EW-3-033109 3/31/2009	EW-4-030609 3/6/2009	EW-4-033109 3/31/2009		
1,1,1-Trichloroethane	4700	280 D	2500 D	2400	340	1100	1800	2800	1800	610	850	1900	1500	59000	66000	26000	30000	54000	72000	11000	14000		
1,1,1,2-Tetrachloroethane				2.5 U		12 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U	1.2 U											
1,1,2,2-Tetrachloroethane	0.68 U	0.69 UD	0.69 UD	1.4 U	0.69 U	3.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.24 U	0.69 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	1.7 U	6.8 U			
1,1,2-Trichloroethane	0.55	0.55 UD	0.55 UD	1.1 U	0.55 U	2.7 U	0.55 U	0.26	0.55 U	0.55 U	0.19 U	0.55 U	6.4	10	5.4 U	5.4 U	5.4 U	5.4 U	1.4 U	5.4 U			
1,1-Dichloroethane	330	36 D	170 D	200	70	78	130	200	99	59	68	150	62	4100	4400	5700	7000	1600	2300	690	1400		
1,1-Dichloroethylene	81	7.3 D	58 D	44	21	34	42	15	28	24	38	56	24	570	1200	330	640	340	560	97	210		
1,2,4-Trichlorobenzene	0.74 U	0.74 UD	0.74 UD	3.0 U	1.5 U	3800	1.5 U	1.5 U	1.5 U	0.74 U	0.26 U	0.74 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	1.9 U	7.4 U			
1,2,4-Trimethylbenzene	0.50 U	0.49 UD	0.49 UD	0.98 U	1.2	4.9 U	0.57	0.24	0.49 U	14	0.49 U	0.21	0.49 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.3 U	5.0 U		
1,2-Dibromoethane (EDB)	0.76 U	0.77 UD	0.77 UD	1.5 U	0.77 U	3.8 U	0.77 U	0.77 U	0.77 U	0.77 U	0.27 U	0.77 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	7.6 U			
1,2-Dichlorobenzene	0.60 U	0.6 UD	0.6 UD	1.2 U	0.60 U	7.3	0.60 U	0.60 U	0.60 U	0.60 U	0.21 U	0.60 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	1.5 U	6.0 U			
1,2-Dichloroethane	0.40 U	0.4 UD	0.4 UD	0.81 U	0.40 U	2.0 U	0.40 U	0.40 U	0.40 U	0.40 U	0.14 U	0.40 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U		
1,2-Dichloropropane	0.46 U	0.46 UD	0.46 UD	0.92 U	0.46 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U		
1,2-Dichlortetrafluoroethane	0.70 U												7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U		
1,3,5-Trimethylbenzene	0.50 U	0.49 UD	0.49 UD	0.98 U	0.29	4.9 U	0.15	0.49 U	0.49 U	3.9	0.49 U	0.17 U	0.49 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U		
1,3-Butadiene	0.22 U	0.22 UD	0.22 UD	0.44 U	0.22 U	2.2 U	0.22 U	0.078 U	0.22 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	0.55 U	2.2 U						
1,3-Dichlorobenzene	0.60 U	0.6 UD	0.6 UD	1.2 U	0.60 U	6.0 U	0.60 U	0.60 U	0.60 U	0.60 U	1.1	0.60 U	0.21 U	0.60 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	1.5 U	6.0 U	
1,4-Dichlorobenzene	0.60 U	0.6 UD	0.6 UD	1.2 U	0.60 U	6.0 U	0.60 U	0.60 U	0.60 U	0.64	0.60 U	0.21 U	0.60 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U	6.0 U		
1,4-Dioxane						0.72 U																	
2-Butanone	10	4.5 D	4.5 BD	24 U	1.3	120 U	110	16	2.9	22	5.3	7.6	0.97	3.5	8.9	12	11	36	10	36	6.4		
2-Hexanone	0.40 U	0.41 UD	0.41 UD	0.82 U	0.16	4.1 U	0.31	0.41 U	0.41 U	1.4	0.41 U	0.26	0.41 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	4.0 U		
4-Ethyltoluene	0.50 U	0.49 UD	0.49 UD	0.98 U	0.27	4.9 U	0.49 U	0.49 U	0.49 U	3.4	0.49 U	0.17 U	0.49 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.3 U	5.0 U		
4-Methyl-2-pentanone	0.40 U	0.41 UD	0.41 UD	0.82 U	0.16	4.1 U	0.38	0.41 U	0.41 U	8.7	0.41 U	0.14 U	0.41 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	4.0 U		
Acetone	6.6	11 BD	6.3 BD	19 U	6.6	22	19	14	10	75	12	11	6.6	35	16	9.6 U	9.6 U	53	24	26	12		
Benzene	1.7	0.5 D	0.72 D	0.77	0.56	3.2 U	1.0	0.96	0.45	5.0	0.32 U	0.82	0.32 U	5.3	11	5.6	7.8	3.2 U	6.8	1.4	3.2 U		
Benzyl chloride	0.52 U	0.52 UD	0.52 UD	1.0 U	0.52 U	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	0.52 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U		
Bromodichloromethane	0.66 U	0.67 UD	0.67 UD	1.3 U	0.67 U	3.4 U	10	0.67 U	0.67 U	0.67 U	0.67 U	0.24 U	0.67 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	1.7 U	6.6 U		
Bromoform	1.1 U	1.1 UD	1 U	2.1 U	1.0 U	10 U	1.0 U	0.36 U	1.0 U	11 U	11 U	11 U	11 U	11 U	11 U	2.6 U	11 U						
Bromomethane	0.38 U	0.39 UD	0.39 UD	0.78 U	0.39 U	3.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.14 U	0.39 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	0.95 U	3.8 U	
Carbon disulfide	1.3	0.31 UD	0.73 D	6.2 U	3.1 U	31 U	1.7	3.6	0.43	0.82	3.1 U	0.73	3.1 U	3.2 U	3.2 U	27	25	3.2 U	3.2 U	1.8	3.2 U		
Carbon tetrachloride	1.1	0.63 UD	0.63 UD	1.3 U	0.48	3.1 U	0.5	0.74	0.63 U	0.63 U	0.63 U	0.68	0.63 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	1.6 U	6.2 U		
Chlorobenzene	0.46 U	0.46 UD	0.46 UD	0.92 U	0.46 U	4.6 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U		
Chloroethane	17	1.0 D	3.6 D	6.7	2.1	2.6 U	3.0	5.3	1.5	1.1	1.4	3.3	1.2	170	250	700	590	41	44	17	33		
Chloroform	8.3	1.6 D	6.9 D	7.6	2.7	3.2	6.3	8.5	4.7	3.5	2.3	7.0	1.5	20	34	9.6	15	13	23	3.6	7.5		
Chloromethane	0.20 U	0.21 UD	0.21 UD	0.41 U	0.21 U	2.1 U	20	0.21 U	0.21 U	0.41 U	0.14 U	0.41 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	0.50 U	2.0 U			
cis-1,2-Dichloroethene	360	28 D	120 D	160	38	47	75	150	66	30	24	93	12	2000	2200	6100	7600	610	1200	560	1300		
cis-1,3-Dichloropropene	0.44 U	0.45 UD	0.45 UD	0.91 U	0.45 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U		
Cyclohexane	0.55	0.34 UD	0.34 UD	0.69 U	0.34 U	3.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.12 U	0.34 U	3.4 U	5.7	8.4	8.8	3.4 U	3.4 U	0.85 U	3.4 U			
Dibromochloromethane	0.86 U	0.85 UD	0.85 UD	1.7 U	0.85 U	4.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.30 U	0.85 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U		
Dichlorodifluoromethane	1.6	3.0 D	4.1 D	2.9	2.9	4.9 U	2.9	2.9	2.4	2.5	2.1	11	3.2	5.0 U	170	50 U	50 U	5.4	7.0	2.6	5.0 U		
Ethanol	1.9 U	8.2 D	17 D	15 U	9.2	75 U	7.2	12	19	320	34	30	11	33	40	12	8.3	39	1.8 U	8.6	1.8 U		
Ethyl acetate	0.36 U	0.36 UD	0.36 UD	0.72 U	1.2	3.6 U	1.3	0.36 U	0.36 U	110	0.36 U	0.13 U	1.8	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.90 U	3.6 U		
Ethylbenzene	0.58	0.43 UD	0.43 UD	0.87 U	0.58	4.3 U	0.28	0.21	0.43 U	13	0.43 U	0.20	0.43 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U		
Hexachlorobutadiene	1.1 U	1.1 UD	1.1 UD	2.1 U	1.1 U	11 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	1.1 U	22 U	22 U	22 U	22 U	22 U	22 U	22 U	22 U	22 U		
Hexane	0.71 U	0.7 UD	0.80 D	28 U	0.66	140 U	0.91	1.5	0.53	6.8	14 U	2.2	1.2	3.6 U	3.6 U								
Isopropyl alcohol	0.50 U	0.84 D	0.25 UD	20 U	9.8 U	98 U	3.1	2.9	9.8 U	27	9.8 U	3.4 U	3.0	28	2.4 U	2.4 U	2.4 U	26	5.9	7.5	7.1		
m,p-Xylene	1.6	0.87 UD	0.87 JD	1.7 U	1.6	8.7 U	0.51	0.59	0.87 U	34	0.87 U	0.40	0.87 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U		
Methyl methacrylate						0.41 UD	0.82 U	0.41 U	0.41 U	0.41 U	3.5	0.41 U	0.14 U	0.41 U									
Methylene chloride	0.90	0.78 D	2.9 D	6.9 U	2.2	8.1	2.3	2.2	2.4	2.4	1.3	4.6	2.1	7.0 U	19	7.0 U	17	7.0 U	13	19	12		

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Extraction Well - Large Retail Space																				
	EW-COMBINE D-091610 9/16/2010	EW-COMBINE D-120710 12/7/2010	EW-COMBINE D-021711 2/17/2011	EW-COMBINE D-091511 9/15/2011	EW-Combined-120811 12/8/2011	EW-Combined-030812 3/8/2012	EW-Combined-061412 6/14/2012	EW-Combined-091312 9/13/2012	EW-Combined-010313 1/13/2013	EW-Combined-031513 3/15/2013	EW-Combined-060713 6/7/2013	EW-Combined-090613 9/6/2013	EW-Combined-121313 12/13/13	EW-1-030609 3/6/2009	EW-1-033109 3/31/2009	EW-2-030609 3/6/2009	EW-2-033109 3/31/2009	EW-3-030609 3/6/2009	EW-3-033109 3/31/2009	EW-4-030609 3/6/2009	EW-4-033109 3/31/2009
Methyl-t-butyl ether	0.36 U	0.36 UD	0.36 UD	0.72 U	0.24	3.6 U	1.1	0.17	0.36 U	0.36 U	0.17	0.36 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.90 U	3.6 U	
n-Heptane	0.40 U	0.41 UD	0.41 UD	0.82 U	0.23	4.1 U	0.41 U	0.41 U	0.41 U	4.4	0.41 U	0.14 U	0.41 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	1.0 U	4.0 U
o-Xylene	0.56	0.43 UD	0.43 UD	0.87 U	0.69	4.3 U	0.28	0.25	0.43 U	16	0.43 U	0.2	0.43 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 U
Propylene (Propene)	0.69 U	1.8 D	1.7 UD	14 U	6.9 U	13	3.8	6.9 U	6.9 U	6.9 U	6.9 U	2.4 U	6.9 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	0.45 U	1.8 U
Styrene	0.42 U	0.43 UD	0.43 UD	0.85 U	0.21	4.3 U	0.54	0.39	0.43 U	14	0.43 U	0.15 U	0.43 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	1.1 U	4.2 U
Tetrachloroethene	750	160 D	920 D	440	8.1	170	530	910	850	60	23	250	7.0	600	1200	2300	2500	73	310	31	170
Tetrahydrofuran	31	11 D	11 D	21	0.27	8.3	3800	110	1.8	4.1	7.2	10	0.79	6.3	21	19	3.0 U	32	14	37	5.1
Toluene	3.5	0.38 D	1.4 D	0.75 U	2.5	3.8 U	1.4	0.87	0.38 U	74	0.57	0.67	0.38 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	1.4	3.8 U
trans-1,2-Dichloroethene	6.6	0.60 D	1.9 D	3.5	1.1	2.0 U	1.7	1.9	1.0	0.86	0.62	2.6	0.40 U	9.2	23	69	180	4.0 U	8.8	2.5	8.0
trans-1,3-Dichloropropene	0.44 U	0.45 UD	0.45 UD	0.91 U	0.45 U	2.3 U	0.45 U	0.16 U	0.45 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 U				
Trichloroethene	3200	240 D	1800 D	1900	97	730	1500	2600	2000	380	280	1200	160	31000	42000	25000	25000	8600	19000	2700	5500
Trichlorofluoromethane	410	71 D	200 D	610	200	150	260	100	230	130	140	410	200	520	540	1300	1800	430	840	240	370
Trichlorotrifluoroethane	0.76 U	0.77 UD	0.77 UD	1.5 U	0.89	3.8 U	0.77 U	0.37	0.77 U	0.92	1.4	1.3	0.77 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	7.6 U	
Vinyl acetate	0.71 U	0.7 UD	0.35 UD	0.70 U	0.35 U	7.0 U	1.4	0.70 U	0.70 U	0.70 U	7.0 U	2.5 U	7.0 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.90 U	3.6 U	
Vinyl chloride	0.40	0.26 UD	0.26 UD	0.51 U	0.26 U	1.3 U	0.26 U	0.090 U	0.26 U	2.7	4.8	9.4	8.1	2.6 U	2.6 U	0.65	2.6 U				

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m³)	Post Treatment - Large Retail Space							CT IACTIND 2003 (ug/m³) 1/16/2009	Indoor Air - Large Retail Space												IA-1- 120209 12/2/2009	
	Post carbon- 020309 2/3/2009	POST CARBON- 021109 2/11/2009	POST CARBON- 021809 2/18/2009	POST CARBON- 022609 2/26/2009	POST CARBON- 041409 4/14/2009	POST CARBON- 100809 10/8/2009	Post- Carbon- 010810 1/8/2010		IA-1 011609 2/3/2009	IA-1- 020309 2/11/2009	IA-1- 021109 2/11/2009	IA-1- 021809 2/18/2009	IA-1- 022609 2/26/2009	IA-1- 030609 3/6/2009	IA-1- 033109 3/31/2009	IA-1- 041409 4/14/2009	IA-1- 042409 4/24/2009	IA-1- 091709 9/17/2009	IA-1- 092409 9/24/2009	IA-1- 100109 10/1/2009	IA-1- 100809 10/8/2009	
1,1,1-Trichloroethane	1.0	15	45	1.9	13000	0.56	450	500	10	0.56	1.1	0.99	0.35	1.8	1.5	1.4	2.0	0.27 U	0.27 U	0.27 U	0.27 U	0.24
1,1,1,2-Tetrachloroethane								1.1														
1,1,2,2-Tetrachloroethane	0.34 U	1.7 U	0.68 U	0.68 U	68 U	0.34 U	0.34 U	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.24 U					
1,1,2-Trichloroethane	0.27 U	1.4 U	0.54 U	0.54 U	54 U	0.27 U	0.27 U	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.19 U					
1,1-Dichloroethane	0.20 U	1.0 U	5.4	11000	490	370	610	430	0.71	0.20 U	0.20 U	0.20 U	0.27	0.32	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	
1,1-Dichloroethene	0.20 U	1.0 U	0.40 U	6400	96	78	87	20	0.38	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	
1,2,4-Trichlorobenzene	0.37 U	1.9 U	0.74 U	0.74 U	74 U	0.37 U	0.37 U	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.52 U					
1,2,4-Trimethylbenzene	0.25 U	1.3 U	0.50 U	0.50 U	50 U	0.25 U	0.25 U	52	0.25 U	0.36	0.70	0.77	0.25 U	0.25 U	0.18 U	0.48	0.29	0.35	0.28	0.51	0.52	
1,2-Dibromoethane (EDB)	0.38 U	1.9 U	0.76 U	0.76 U	76 U	0.38 U	0.38 U	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.27 U					
1,2-Dichlorobenzene	0.30 U	1.5 U	0.60 U	0.60 U	60 U	0.30 U	0.30 U	410	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.21 U					
1,2-Dichloroethane	0.20 U	1.0 U	0.40 U	0.40 U	40 U	0.20 U	0.20 U	0.31	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.14 U					
1,2-Dichloropropane	0.23 U	1.2 U	0.46 U	0.46 U	46 U	0.23 U	0.23 U	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.17 U					
1,2-Dichlortetrafluoroethane	0.35 U	1.8 U	0.70 U	0.70 U	70 U	0.35 U	0.35 U	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.25 U					
1,3,5-Trimethylbenzene	2.1	1.3 U	0.50 U	0.50 U	50 U	0.25 U	0.25 U	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.18 U					
1,3-Butadiene	0.11 U	0.55 U	0.22 U	0.22 U	22 U	0.23 U	0.23 U	NA	0.11 U	0.11 U	0.34	0.84	0.11 U	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	
1,3-Dichlorobenzene	2.9	1.5 U	0.60 U	0.60 U	60 U	0.30 U	0.30 U	410	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.21 U					
1,4-Dichlorobenzene	0.30 U	1.5 U	0.60 U	0.60 U	60 U	0.30 U	0.30 U	24	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.21 U					
1,4-Dioxane								NA														
2-Butanone	10	6.3	9.4	5.5	330	1.9	2.0	500	20	3.1	5.8	3.4	2.6	2.2	1.3	1.2	4.4	2.0	2.6	2.7	1.3	2.7
2-Hexanone	0.20 U	1.0 U	0.40 U	0.40 U	13000	0.27	0.34	NA	0.20 U	0.20 U	0.6	0.42	0.20 U	0.23	0.20 U	0.14 U	0.48	0.43	0.52	0.73	0.31	0.71
4-Ethyltoluene	2.1	1.3 U	0.50 U	0.50 U	50 U	0.25 U	0.25 U	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.18 U					
4-Methyl-2-pentanone	5	1.0 U	0.40 U	0.40 U	40 U	0.20 U	0.20 U	200	0.20 U	0.20 U	0.43	0.3	0.20 U	0.20 U	0.14 U	0.52	0.21	0.35	0.32	0.20 U	0.34	
Acetone	1200	11	19	12	430	3.6	5.7	500	18	7.7	19	21	10	8.7	14	12	310	11	18	13	10	13
Benzene	1.3	0.8 U	0.32 U	0.32 U	32 U	0.16 U	0.16 U	3.3	1.0	0.68	1.9	3.0	0.69	0.87	0.71	0.56	0.78	0.49	0.47	0.39	0.48	1.1
Benzyl chloride	0.26 U	1.3 U	0.52 U	0.52 U	52 U	0.26 U	0.26 U	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.19 U					
Bromodichloromethane	0.33 U	1.7 U	0.66 U	0.66 U	66 U	0.33 U	0.33 U	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.24 U					
Bromoform	0.51 U	2.6 U	1.1 U	1.1 U	110 U	0.51 U	0.51 U	7.3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.36 U					
Bromomethane	0.19 U	0.95 U	0.38 U	0.38 U	38 U	0.19 U	0.19 U	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.14 U					
Carbon disulfide	0.16 U	0.8 U	4.1	27	250	0.16 U	0.20	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	
Carbon tetrachloride	0.38	1.6 U	0.62 U	0.62 U	62 U	0.31 U	0.31 U	0.54	0.35	0.41	0.52	0.55 [a]	0.46	0.59 [a]	0.53	0.31	0.43	0.48	0.38	0.42	0.43	0.48
Chlorobenzene	0.23	1.2 U	0.46 U	0.46 U	46 U	0.23	0.23 U	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.17 U					
Chloroethane	0.13 U	5100	1800	480	64	19	10	500	0.13 U	0.13 U	0.42	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.10 U	
Chloroform	0.24 U	1.2 U	0.48 U	0.67	48 U	0.24 U	0.24 U	0.5	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.17 U					
Chloromethane	0.59	0.50 U	0.20 U	0.20 U	23	0.10 U	0.10 U	80	1.1	1.0	1.4	1.5	1.0	1.0	1.2	1.1	1.3	1.1	0.98	0.95	1.3	
cis-1,2-Dichloroethene	0.27	1.0 U	3.9	5200	820	230	570	100	2.0	0.20 U	1.0	1.1	0.73	1.3	0.50	0.6	1.3	0.20 U	0.20 U	0.83	0.44	0.57
cis-1,3-Dichloropropene	0.22 U	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	2.9	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.16 U					
Cyclohexane	0.93	0.85 U	0.34 U	0.34 U	34 U	0.17 U	0.17 U	NA	0.17 U	0.17 U	0.49	0.61	0.17 U	0.17 U	0.12 U	0.34	0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	0.28
Dibromochloromethane	0.43 U	2.2 U	0.86 U	0.86 U	86 U	0.43 U	0.43 U	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.31 U					
Dichlorodifluoromethane	0.76	4.1	3.0	2.4	50 U	1.7	1.9	500	1.8	2.1	2.6	2.8	2.6	2.6	3.1	2.0	8.3	2.4	2.0	2.3	2.1	1.6
Ethanol	740	36	25	9.8	110	0.38 U	2.8	NA	5.7	8.3	14	20	9.8	7.5	18	5.0	39	6.2	7.0	6.5	8.8	10
Ethyl acetate	0.37 U	0.90 U	0.36 U	0.73 U	73 U	0.18 U	0.18 U	NA	0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.18 U	0.26 U	0.37 U	0.32	0.18 U	0.18 U	0.18 U	0.13 U	
Ethylbenzene	10	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	290	0.26	0.28	0.66	0.85	0.23	0.22 U	0.16 U	0.94	0.23	0.22 U	0.22 U	0.28	0.46	
Hexachlorobutadiene	1.1 U	5.4 U	2.2 U	2.2 U	220 U	0.53 U	0.53 U	NA	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.75 U	
Hexane	3.0	0.90 U	46	0.36 U	36 U	0.18 U	0.23	NA	0.92	0.74	1.2	1.6	1.0	0.51	0.53	0.65	1.7	0.99	1.3	0.41	0.77	0.78
Isopropyl alcohol	450	2.9	3.1	47	290	0.25 U	1.4	NA	3.4	3.1	5.3	5.8	3.8	2.0	9.1	0.18 U	240	5.2	5.2	0.25 U	2.7	1.8
m,p-Xylene	27	2.2 U	0.86 U	0.86 U	86 U	0.43 U	0.43 U	500														

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Post Treatment - Large Retail Space							CT IACTIND 2003 ($\mu\text{g}/\text{m}^3$)	Indoor Air - Large Retail Space												IA-1- 120209 12/2/2009		
	Post carbon- 020309 2/3/2009	POST CARBON- 021109 2/11/2009	POST CARBON- 021809 2/18/2009	POST CARBON- 022609 2/26/2009	POST CARBON- 041409 4/14/2009	POST CARBON- 100809 10/8/2009	Post- Carbon- 010810 1/8/2010		IA-1 011609 1/16/2009	IA-1- 020309 2/3/2009	IA-1- 021109 2/11/2009	IA-1- 021809 2/18/2009	IA-1- 022609 2/26/2009	IA-1- 030609 3/6/2009	IA-1- 033109 3/31/2009	IA-1- 041409 4/14/2009	IA-1- 042409 4/24/2009	IA-1- 091709 9/17/2009	IA-1- 092409 9/24/2009	IA-1- 100109 10/1/2009	IA-1- 100809 10/8/2009		
Methyl-t-butyl ether	0.18 U	0.90 U	0.36 U	0.36 U	36 U	0.18 U	0.18 U	190	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	
n-Heptane	1.8	1.0 U	0.40 U	0.40 U	40 U	0.20 U	0.20 U	NA	0.23	0.20 U	0.59	0.75	0.20 U	0.20 U	0.20 U	0.14 U	0.67	0.20 U	0.20 U	0.20 U	0.20 U	0.26	0.42
o-Xylene	9.5	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	500	0.26	0.33	0.76	0.99	0.3	0.22 U	0.22 U	0.16 U	0.7	0.31	0.4	0.28	0.4	0.52	
Propylene (Propene)	0.18 U	98	0.18 U	0.35 U	35 U	0.35 U	0.35 U	NA	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.090 U	0.090 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.25 U	
Styrene	3.4	1.1 U	0.42 U	0.42 U	42 U	0.21 U	0.21 U	290	0.21 U	0.21 U	0.21	0.28	0.21 U	0.21 U	0.21 U	0.15 U	0.24	0.21 U	0.21 U	0.21 U	0.21 U	0.19	
Tetrachloroethene	0.72	1.7 U	1.1	0.68 U	68 U	0.52	1.9	5	6.6 [a]	0.57	4.2	3.2	2.6	4.9	1.5	1.9	6.1 [a]	0.34 U	0.34 U	2.0	1.1	3.2	
Tetrahydrofuran	6.8	22	40	18	210	4.1	6.5	NA	12	1.2	1.3	0.48	0.32	0.15 U	0.15 U	0.23	0.40	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U	
Toluene	29	0.95 U	0.65	0.38 U	38 U	0.19 U	0.36	500	1.7	1.4	4.0	5.7	2.3	0.93	1.7	0.72	5.7	1.3	1.1	0.78	1.2	2.8	
trans-1,2-Dichloroethene	0.20 U	1.0 U	0.40 U	28	40 U	7.7	15	200	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.14 U					
trans-1,3-Dichloropropene	0.22 U	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	2.9	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.16 U					
Trichloroethene	2.0	11	16	2.7	54 U	1	1.0	1	4.2	0.46	1.6	1.4	0.65	1.5	0.57	0.74	1.6	0.27 U	0.27 U	1.1	0.56	0.69	
Trichlorofluoromethane	0.71	1.4 U	23	6700	84	180	210	500	2.1	1.4	1.7	3.1	1.6	1.7	1.2	1.2	1.5	1.4	1.3	1.2	1.2	1.3	
Trichlorotrifluoroethane	1.3	1.9 U	0.76 U	0.76 U	76 U	0.38 U	0.51	NA	0.65	0.64	0.47	0.46	0.67	0.48	0.59	0.54	1.7	0.48	0.44	0.45	0.51	0.52	
Vinyl acetate	0.71 U	0.90 U	0.36 U	1.5 U	150 U	0.71 U	0.71 U	NA	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.50 U	0.71 U	0.25 U					
Vinyl chloride	0.13 U	30	13	4.5	26 U	0.13 U	0.13 U	1.9	0.26	0.13 U	0.22	0.21	0.13 U	0.19	0.13 U	0.10 U	0.16	0.13 U	0.13 U	0.17	0.13 U	0.10 U	

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Indoor Air - Large Retail Space																					
	IA-1-010810 1/8/2010	IA-1-012810 1/28/2010	IA-1-020510 2/5/2010	IA-1-021210 2/12/2010	IA-1-021910 2/19/2010	IA-1-032610 3/26/2010	IA-1-043010 4/30/2010	IA-1-052810 5/28/2010	IA-1-070110 7/1/2010	IA-1-091610 9/16/2010	IA-1-120710 12/7/2010	IA-1-021711 2/17/2011	IA-1-060211 6/2/2011	IA-1-091511 9/15/2011	IA-1-120811 12/8/2011	IA-1-030812 3/8/2012	IA-1-061412 6/14/2012	IA-1-091312 9/13/2012	IA-1-010313 1/3/2013	IA-1-031513 3/15/2013	IA-1-060713 6/7/2013	IA-1-090613 9/6/2013
1,1,1-Trichloroethane	0.27 U	0.27 U	0.76	0.30	0.88	0.27 U	1.2	0.33	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.12	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
1,1,1,2-Tetrachloroethane																0.62 U	0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.35 J
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.10 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	
1,2,4-Trimethylbenzene	0.37	0.25 U	0.26	0.25 U	0.25 U	0.25 U	0.40	0.43	0.56	0.25 U	0.55	0.25 U	0.25 U	0.10	0.15 U	0.16	0.55	0.17 U	0.17 U	0.21	0.32	
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.056	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
1,2-Dichlortetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U									
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.044	0.15 U	0.059	0.32	0.17 U	0.17 U	0.17 U	0.17 U	
1,3-Butadiene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dioxane														0.18 U								
2-Butanone	1.6	0.30 U	2.4	1.1	1.2	1.3	0.78	2.6	3.3	0.85	0.68	1.7 B	2.9 U	5.9 U	1.8	1.2	1.4	3.0	0.87	0.64	2.9	2.0
2-Hexanone	0.36	0.20 U	0.47	0.20 U	0.27	0.27	0.20 U	0.67	0.75	0.20 U	0.20 U	4.1 U	0.62	0.22	0.26	0.12 U	0.28	0.14 U	0.14 U	0.38	0.27	
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.071	0.19	0.17 U	0.17 U	0.17 U	0.17 U	
4-Methyl-2-pentanone	0.20 U	0.20 U	0.20 U	0.22	0.20 U	0.20 U	0.20 U	0.28	0.35	0.20 U	0.20 U	0.20 U	0.23	0.39	0.13	0.093	0.26	0.14 U	0.14 U	0.24	0.52	
Acetone	12	2.0	19	7.3	8.5	7.0	6.5	18	18	11	12 B	15 B	11 B	18	8.0	6.0	12	16	7.0	5.0	21	35
Benzene	1.2	0.16 U	0.98	0.64	0.53	0.59	0.64	0.50	0.46	0.8	0.49	1.5	0.25	0.32	0.47	0.34	0.19	0.67	0.51	0.72	0.28	0.75
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.20 U	0.10 U	0.20 U	0.24 U	0.24 U	0.24 U	
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.33	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.93 U	0.93 U	0.93 U	1.1 U	1.1 U	1.1 U	1.1 U	0.23	
Carbon tetrachloride	0.43	0.31 U	0.40	0.31 U	0.45	0.44	0.48	0.55 [a]	0.52	0.50	0.46	0.47	0.53	0.57 [a]	0.49	0.46	0.46	0.39	0.54	0.44	0.53	0.53
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	
Chloroform	0.26	0.24 U	0.47	0.43	0.24 U	0.25	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.085	0.073 U	0.097	0.19	0.17 U	0.17 U	0.17 U	0.20	
Chloromethane	1.1	1.4	1.3	1.3	1.2	1.3	0.79	1.2	1.2	1.1	0.97	1.0	0.92	1.3	0.93	1.3	1.6	1.3	0.99	1.1	1.4	1.2
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.56	0.20 U	1.3	0.20 U	0.50	0.20 U	1.7	0.20 U	0.20 U	0.20 U	0.15	0.059 U	0.12 U	0.045	0.14 U	0.14 U	0.14 U	0.14 U
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.10 U	0.10 U	0.10 U	0.27	0.12 U	0.12 U	0.12 U	
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	0.30 U	0.30 U	
Dichlorodifluoromethane	3.1	2.4	2.4	2.6	3.0	1.6	2.2	2.3	2.7	1.7	2.0	3.1	1.5	2.0	2.6	2.1	2.7	2.7	2.5	1.7	3.2	1.9
Ethanol	8.4	7.0	29	19	43	4.6	4.4	6.0	6.5	9.0	2.7	9.0	2.8	6.4	2.2	3.2	4.4	8.5	3.1	2.0	26	23
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.92	0.26	0.57	0.4	0.21	0.33	0.13 U
Ethylbenzene	0.40	0.22 U	0.32	0.22 U	0.22 U	0.22 U	0.23	0.27	0.51	0.22 U	0.54	0.22 U	0.22 U	0.14	0.10	0.11	0.47	0.18	0.15 U	0.19	0.35	
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	
Hexane	0.74	0.18 U	0.82	1.3	0.45	0.20	1.1	0.80	0.46	0.61	0.35 U	1.9	0.43	7.0 U	0.39	0.72	0.55	1.3	0.67	0.64	0.79	19
Isopropyl alcohol	2.4	0.25 U	9.4	0.25 U	1.6	0.65	3.4	0.12 U	0.74	1.4	0.25 U	1.7	1.2 U	4.9 U	2.9 U	0.64	2.9 U	1.9	3.4 U	3.4 U	3.4 U	3.4 U

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Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Indoor Air - Large Retail Space																						
	IA-1-010810 1/8/2010	IA-1-012810 1/28/2010	IA-1-020510 2/5/2010	IA-1-021210 2/12/2010	IA-1-021910 2/19/2010	IA-1-032610 3/26/2010	IA-1-043010 4/30/2010	IA-1-052810 5/28/2010	IA-1-070110 7/1/2010	IA-1-091610 9/16/2010	IA-1-120710 12/7/2010	IA-1-021711 2/17/2011	IA-1-060211 6/2/2011	IA-1-091511 9/15/2011	IA-1-120811 12/8/2011	IA-1-030812 3/8/2012	IA-1-061412 6/14/2012	IA-1-091312 9/13/2012	IA-1-010313 1/3/2013	IA-1-031513 3/15/2013	IA-1-060713 6/7/2013	IA-1-090613 9/6/2013	
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U		
n-Heptane	0.35	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.079	0.12 U	0.093	0.44	0.14 U	0.14 U	0.81		
o-Xylene	0.44	0.22 U	0.38	0.22 U	0.22 U	0.22 U	0.28	0.46	0.51	0.69	0.22 U	0.56	0.22 U	0.22 U	0.15	0.096	0.14	0.66	0.25	0.15 U	0.27	0.42	
Propylene (Propene)	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	1.1	1.7	2.4 U	2.4 U	2.4 U		
Styrene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.25	0.31	0.24	0.21 U	0.21 U	0.21 U	0.21 U	0.85	0.13 U	0.038	0.14	0.15 U	0.15 U	0.15 U	0.27	
Tetrachloroethene	0.34 U	0.34 U	0.34 U	0.34 U	1.2	0.34 U	4.5	0.55	1.1	0.34 U	3.3	5.6 [a]	0.34 U	0.47	0.84	0.21	0.065	2.7	0.24 U	0.24 U	0.24 U	0.24 U	
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.22	0.15 U	0.15 U	0.15 U	0.24	0.16	0.15 U	0.15 U	0.15 U	0.15 U	0.14	0.088 U	0.088 U	0.10 U	0.10 U	0.10 U	0.10 U	0.27	
Toluene	2.1	0.19 U	0.82	0.69	0.58	0.80	1.3	0.91	0.99	2.5	0.44	3.0	0.58	0.93	1.6	0.30	0.64	2.8	0.47	0.49	1.0	4.2	
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Trichloroethene	0.27 U	0.27 U	0.27 U	0.31	0.39	0.27 U	1.5	0.27 U	0.40	0.27 U	1.7	0.27 U	0.27 U	0.27 U	0.25	0.081 U	0.16 U	0.21	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichlorofluoromethane	2.5	0.81	1.3	1.5	1.5	1.4	1.2	1.3	1.4	2.7	1.2	1.7	1.1	1.8	1.0	0.89	1.8	1.7	1.6	1.3	1.9	2.4	
Trichlorotrifluoroethane	0.63	0.38 U	0.71	0.63	0.55	0.55	0.48	0.59	0.53	0.48	0.57	0.64	0.67	0.59	0.69	0.40	0.59	0.57	0.55	0.79	1.1	0.63	
Vinyl acetate	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	2.5 U	2.5 U	2.5 U	
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	

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Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Indoor Air - Large Retail Space																					
	IA-1-121313 12/13/13	IA-2-011609 1/16/2009	IA-2-020309 2/3/2009	IA-2-021109 2/11/2009	IA-2-021809 2/18/2009	IA-2-022609 2/26/2009	IA-2-041409 4/14/2009	IA-2-042409 4/24/2009	IA-2-091709 9/17/2009	IA-2-092409 9/24/2009	IA-2-100109 10/1/2009	IA-2-100809 10/8/2009	IA-2-012810 1/28/2010	IA-2-020510 2/5/2010	IA-2-021210 2/12/2010	IA-2-021910 2/19/2010	IA-2-032610 3/26/2010	IA-2-043010 4/30/2010	IA-2-091610 9/16/2010	IA-2-070110 7/1/2010	IA-2-091610 9/16/2010	IA-2-120710 12/7/2010
1,1,1-Trichloroethane	0.19 U	9.9	0.63	1.1	1.1	0.44	1.4	2.1	0.27 U	0.27 U	0.27 U	0.27 U	0.44	0.73	0.27 U	0.27 U	0.27 U	1.0	0.27 U	0.28	0.27 U	0.27 U
1,1,1,2-Tetrachloroethane	0.44 U																					
1,1,2,2-Tetrachloroethane	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U							
1,1,2-Trichloroethane	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U							
1,1-Dichloroethane	0.14 U	0.72	0.20 U	0.20 U	0.20 U	0.32	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U							
1,1-Dichloroethene	0.14 U	0.41	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U							
1,2,4-Trichlorobenzene	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U								
1,2,4-Trimethylbenzene	0.17 U	0.25 U	0.37	0.70	0.65	0.30	0.18 U	0.25 U	0.29	0.39	0.27	0.52	0.55	0.25 U	0.25 U	0.25 U	0.31	0.35	0.48	0.52	0.25 U	
1,2-Dibromoethane (EDB)	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U								
1,2-Dichlorobenzene	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U							
1,2-Dichloroethane	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U							
1,2-Dichloropropane	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U							
1,2-Dichlortetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U								
1,3,5-Trimethylbenzene	0.17 U	0.25 U	0.25	0.25	0.25	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U							
1,3-Butadiene	0.078 U	0.11 U	0.11 U	0.30	0.66	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.11 U	0.11 U						
1,3-Dichlorobenzene	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U								
1,4-Dichlorobenzene	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U							
1,4-Dioxane																						
2-Butanone	0.92	21	4.1	4.6	3.0	2.9	0.95	1.6	1.1	2.3	0.81	1.0	2.1	0.70	0.44	0.30 U	0.96	1.3	3.1	3.4	0.96	0.36
2-Hexanone	0.14 U	0.20 U	0.20 U	0.35	0.26	0.20 U	0.14 U	0.20 U	0.25	0.54	0.20 U	0.26	0.51	0.20 U	0.20 U	0.20 U	0.26	0.84	0.68	0.20 U	0.20 U	
4-Ethyltoluene	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U								
4-Methyl-2-pentanone	0.14 U	0.20 U	0.20 U	0.35	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.39	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.28	0.49	0.34	0.20 U	
Acetone	19	17	9.6	14	18	9.7	13	39	6.2	17	11	8.8	17	7.8	3.1	0.48 U	6.3	8.2	18	20	11	9.8 B
Benzene	0.54	1.0	0.67	1.8	3.0	0.77	0.58	0.44	0.41	0.47	0.39	0.54	1.2	0.86	0.67	0.16 U	0.58	0.63	0.47	0.48	0.72	0.48
Benzyl chloride	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U								
Bromodichloromethane	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U							
Bromoform	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U								
Bromomethane	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U								
Carbon disulfide	0.20	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U							
Carbon tetrachloride	0.54	0.33	0.41	0.55 [a]	0.57 [a]	0.48	0.41	0.41	0.44	0.40	0.46	0.42	0.31 U	0.40	0.31 U	0.31 U	0.43	0.47	0.5	0.52	0.5	0.48
Chlorobenzene	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U								
Chloroethane	0.093 U	0.13 U	0.13 U	0.42	0.13 U	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U							
Chloroform	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.25	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U							
Chloromethane	1.0	1.1	1.0	1.3	1.3	1.0	1.1	1.2	0.91	1.1	0.96	0.98	1.2	1.3	1.4	1.3	0.80	1.2	1.2	1.1	0.96	
cis-1,2-Dichloroethene	0.14 U	2.1	0.24	1.1	1.1	0.95	0.59	1.6	0.20 U	0.20 U	0.79	0.48	0.58	0.20 U	0.20 U	0.20 U	0.20 U	1.0	0.20 U	0.61	0.20 U	1.7
cis-1,3-Dichloropropene	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U								
Cyclohexane	0.12 U	0.17 U	0.17 U	0.44	0.61	0.17 U	0.12 U	0.22	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U					
Dibromochloromethane	0.30 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U								
Dichlorodifluoromethane	2.4	1.8	2.2	2.6	2.9	2.7	2.1	2.9	2.0	2.1	2.3	2.1	2.2	2.5	2.6	3.0	1.6	2.0	2.4	2.6	1.7	1.9
Ethanol	12	5.5	8.8	12	17	7.9	4.9	7.5	4.8	6.7	7.8	6.2	14	35	17	20	4.4	4.9	5.0	7.6	9.0	2.7
Ethyl acetate	25	0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U						
Ethylbenzene	0.15 U	0.26	0.28	0.65	0.79	0.30	0.18	0.22 U	0.22 U	0.22	0.22 U	0.31	0.42	0.34	0.22 U	0.22 U	0.22 U	0.23	0.24	0.29	0.46	0.22 U
Hexachlorobutadiene	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	
Hexane	4.9 U	0.88	0.57	1.3	1.6	0.69	0.72	0.74	0.41	0.42	0.71	1.0	0.61	0.64	1.4	0.18 U	0.27	1.6	0.51	0.49	0.53	0.35 U
Isopropyl alcohol	2.1	3.7	3.1	4.5	4.5	4.7	5.6	28	340	5.7	3.3	0.25 U	0.25 U	3.6	0.25 U	0.25 U	0.63	3.2	0.12 U	1.2	0.25 U	0.25 U
m,p-Xylene	0.19	0.76																				

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Indoor Air - Large Retail Space																					
	IA-1-121313 12/13/13	IA-2-011609 1/16/2009	IA-2-020309 2/3/2009	IA-2-021109 2/11/2009	IA-2-021809 2/18/2009	IA-2-022609 2/26/2009	IA-2-041409 4/14/2009	IA-2-042409 4/24/2009	IA-2-091709 9/17/2009	IA-2-092409 9/24/2009	IA-2-100109 10/1/2009	IA-2-100809 10/8/2009	IA-2-012810 1/28/2010	IA-2-020510 2/5/2010	IA-2-021210 2/12/2010	IA-2-021910 2/19/2010	IA-2-032610 3/26/2010	IA-2-043010 4/30/2010	IA-2-091610 9/16/2010	IA-2-070110 7/1/2010	IA-2-091610 9/16/2010	IA-2-120710 12/7/2010
Methyl-t-butyl ether	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U								
n-Heptane	0.14 U	0.23	0.20 U	0.58	0.73	0.22	0.15	0.20 U	0.20 U	0.20 U	0.20 U	0.34	0.83	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.8	0.34	0.20 U
o-Xylene	0.15 U	0.3	0.34	0.76	0.89	0.34	0.22	0.22	0.27	0.42	0.30	0.44	0.46	0.40	0.22 U	0.22 U	0.22 U	0.29	0.44	0.57	0.63	0.22 U
Propylene (Propene)	2.4 U	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	0.35 U	0.86 U
Styrene	0.15 U	0.21 U	0.21 U	0.21 U	0.23	0.21 U	0.15 U	0.21 U	0.41	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.25	0.36	0.24	0.21 U				
Tetrachloroethene	0.24 U	7.5 [a]	0.64	4.2	3.2	3.3	2.2	7.6 [a]	0.34 U	0.35	1.7	1.0	2.3	0.34 U	0.34 U	0.34 U	0.34 U	3.6	0.43	1.4	0.34 U	3.2
Tetrahydrofuran	0.10 U	12	1.2	1.2	0.49	0.41	0.21	0.28	0.15 U	0.15 U	0.15 U	0.15 U	1.6	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.27	0.15 U	0.15 U
Toluene	0.62	1.7	1.3	4.0	5.5	2.3	1.0	1.2	1.1	1.1	1.2	1.5	2.4	0.93	0.64	0.19 U	0.80	1.3	0.91	1.3	2.2	0.41
trans-1,2-Dichloroethene	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U							
trans-1,3-Dichloropropene	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U							
Trichloroethene	0.19 U	4.4	0.56	1.6	1.4	0.91	0.77	1.9	0.27 U	0.27 U	0.99	0.57	0.79	0.27 U	0.27 U	0.27 U	0.27 U	1.2	0.27 U	0.53	0.27 U	1.7
Trichlorofluoromethane	1.4	2	1.2	1.7	2.8	1.6	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.3	1.4	1.1	1.4	1.3	1.3	1.6	2.5	1.2
Trichlorotrifluoroethane	0.54	0.69	0.58	0.49	0.46	0.64	0.56	0.74	0.50	0.47	0.46	0.54	0.46	0.53	0.61	0.38 U	0.51	0.44	0.53	0.94	0.45	0.59
Vinyl acetate	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.50 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.36 U	0.35 U							
Vinyl chloride	0.090 U	0.27	0.13 U	0.18	0.20	0.13 U	0.10 U	0.18	0.13 U	0.13 U	0.16	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Indoor Air - Large Retail Space																			IA-3-092409 9/24/2009	IA-3-100109 10/1/2009		
	IA-2-021711 2/17/2011	IA-2-060211 6/2/2011	IA-2-091511 9/15/2011	IA-2-120811 12/8/2011	IA-2-030812 3/8/2012	IA-2-061412 6/14/2012	IA-2-091312 9/13/2012	IA-2-010313 1/3/2013	IA-2-031513 3/15/2013	IA-2-060713 6/7/2013	IA-2-090613 9/6/2013	IA-2-121313 12/13/13	IA-3-011609 1/16/2009	IA-3-020309 2/3/2009	IA-3-021109 2/11/2009	IA-3-021809 2/18/2009	IA-3-022609 2/26/2009	IA-3-041409 4/14/2009	IA-3-042409 4/24/2009	IA-3-091709 9/17/2009			
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.13	0.082 U	0.16 U	0.08	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	9.8	0.57	1.1	1.1	0.28	1.5	2.2	0.27 U	0.27 U	0.27 U	
1,1,1,2-Tetrachloroethane			0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U												
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.21 U	0.10 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.12 U	0.061 U	0.12 U	0.043	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.68	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.045	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.35	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	
1,2,4-Trimethylbenzene	0.52	0.25 U	0.25 U	0.088	0.15 U	0.19	0.48	0.98	0.13	0.43	0.20	0.17 U	0.25 U	0.36	0.68	0.61	0.25 U	0.18 U	0.25 U	0.29	0.40	0.25 U	
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.063	0.061 U	0.051	0.08	0.16	0.14 U	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.11	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
1,2-Dichlortetrafluoroethane												0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.08	0.26	0.28	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
1,3-Butadiene	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.11 U	0.11 U	0.3	0.77	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.093	0.21 U	0.21 U	0.21 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	
1,4-Dioxane																							
2-Butanone	1.9 B	2.9 U	5.9 U	0.93	0.84	1.4	2.8	5.1	2.4	4.2	2.1	1.2	20	4.2	4.6	4.0	1.7	1.6	2.5	2.0	2.6	0.70	
2-Hexanone	0.24	4.1 U	0.50	0.12 U	0.16	0.15	0.32	0.17	0.22	0.51	0.41	0.14 U	0.20 U	0.26	0.33	0.3	0.20 U	0.14 U	0.38	0.51	0.58	0.20 U	
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.086	0.19	0.24	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	0.20 U	0.20 U	0.24	0.10	0.11	0.12	0.19	3.6	0.14 U	0.54	0.46	0.18	0.20 U	0.20 U	0.29	0.34	0.20 U	0.14 U	0.22	0.20 U	0.42	0.20 U	
Acetone	15 B	8.9 B	18	6.2	5.4	14	17	19	46	32	22	32	18	12	17	24	9.7	7.5	50	11	19	6.7	
Benzene	1.5	0.26	0.30	0.39	0.36	0.24	0.62	0.65	0.91	0.56	0.32	0.66	1.0	0.71	1.9	3.1	0.69	0.6	0.46	0.41	0.5	0.39	
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	
Bromodichloromethane	0.34 U	0.34 U	0.34 U	0.20 U	0.10 U	0.20 U	0.24	0.24 U	0.24 U	0.24 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	
Bromoform	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
Carbon disulfide	0.16 U	0.16 U	1.6	0.93 U	0.93 U	0.93 U	1.1 U	1.9	0.47	0.39	0.33	0.17	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Carbon tetrachloride	0.31 U	0.62 [a]	0.52	0.49	0.48	0.45	0.43	0.56 [a]	0.45	0.58	0.45	0.46	0.34	0.45	0.52	0.6 [a]	0.43	0.22 U	0.42	0.4	0.43	0.4	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.58	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.14	0.093 U	0.093 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	
Chloroform	0.24 U	0.24 U	0.24 U	0.085	0.073 U	0.14	0.25	0.17 U	0.15	0.17 U	0.17	0.17 U	0.37	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
Chloromethane	0.97	0.95	1.2	0.93	1.0	1.4	1.3	1.0	2.7	1.7	0.98	1.1	1.1	0.98	1.2	1.4	1.1	1.2	1.2	0.91	1.1	0.97	
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.17	0.059 U	0.12 U	0.064	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	1.9	0.20 U	1.1	1.1	0.55	0.61	1.5	0.20 U	0.20 U	0.94	
cis-1,3-Dichloropropene	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
Cyclohexane	0.17 U	0.17 U	0.17 U	0.10 U	0.10 U	0.10 U	0.10 U	0.26	1.9	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.46	0.6	0.17 U	0.17 U					
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	
Dichlorodifluoromethane	3.2	1.6	2.0	2.7	2.1	2.7	2.8	2.6	1.7	3.3	1.8	2.6	1.9	2.3	2.5	2.9	2.6	2.0	2.9	2.1	2.1	2.2	
Ethanol	10	2.5	8.5	2.1	2.1	10	9.8	8.1	380	66	46	89	5.5	9.2	13	18	7.9	4.2	9.0	6.2	7.5	4.5	
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.22	0.24	3.5	0.71	0.59	2	0.39	0.28	13	0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	
Ethylbenzene	0.5	0.22 U	0.22 U	0.13	0.13 U	0.13 U	0.41	4.1	0.25	0.39	0.17	0.15 U	0.25	0.29	0.64	0.77	0.22 U	0.22 U	0.23	0.22 U	0.23	0.22 U	
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	
Hexane	1.6	0.31	7.0 U	0.32	0.34	2.6	2.4	15	2														

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m³)	Indoor Air - Large Retail Space																					
	IA-2-021711 2/17/2011	IA-2-060211 6/2/2011	IA-2-091511 9/15/2011	IA-2-120811 12/8/2011	IA-2-030812 3/8/2012	IA-2-061412 6/14/2012	IA-2-091312 9/13/2012	IA-2-010313 1/3/2013	IA-2-031513 3/15/2013	IA-2-060713 6/7/2013	IA-2-090613 9/6/2013	IA-2-121313 12/13/13	IA-3-011609 1/16/2009	IA-3-020309 2/3/2009	IA-3-021109 2/11/2009	IA-3-021809 2/18/2009	IA-3-022609 2/26/2009	IA-3-041409 4/14/2009	IA-3-042409 4/24/2009	IA-3-091709 9/17/2009	IA-3-092409 9/24/2009	IA-3-100109 10/1/2009
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.18	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	
n-Heptane	0.48	0.20 U	0.20 U	0.091	0.12 U	0.11	0.40	3.1	0.33	0.41	0.2	0.14 U	0.22	0.20 U	0.61	0.77	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	
o-Xylene	0.56	0.22 U	0.23	0.14	0.083	0.17	0.55	5.1	0.33	0.52	0.2	0.15 U	0.28	0.33	0.79	0.86	0.23	0.22	0.24	0.26	0.45	0.27
Propylene (Propene)	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	2.1 U	2.4 U	2.4 U	2.4 U	0.7	2.4 U	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	
Styrene	0.21 U	0.21 U	0.21 U	0.059	0.13 U	0.097	0.19	0.45	0.12	0.15 U	0.17	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U	
Tetrachloroethene	5.2 [a]	0.34 U	0.45	0.92	0.23	0.09	2	0.24	0.18	0.64	0.25	0.24 U	6.1 [a]	0.56	4.3	3.3	1.9	2.2	7.1 [a]	0.34 U	0.34 U	2.0
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.097	0.088 U	0.048	0.10 U	0.24	0.10 U	0.10 U	0.10 U	0.10 U	12	1.1	1.3	0.49	0.15 U	0.24	0.15 U	0.15 U	0.15 U	
Toluene	2.9	0.55	0.99	1.6	0.24	0.9	2.6	5.6	1.5	2.8	1.3	1.0	1.7	1.5	4.7	5.8	2.1	1.0	1.2	1.2	1.1	0.73
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	
trans-1,3-Dichloropropene	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	
Trichloroethene	0.27 U	0.27 U	0.27 U	0.27	0.081 U	0.16 U	0.2	0.19 U	0.053	0.19 U	0.19 U	0.19 U	3.9	0.49	1.7	1.5	0.53	0.77	1.8	0.27 U	0.27 U	1.1
Trichlorofluoromethane	1.8	1.2	1.9	1.1	0.94	1.8	2.6	2.7	1.3	2.0	1.3	1.6	1.9	1.3	1.8	2.8	1.8	1.2	1.3	1.4	1.2	1.2
Trichlorotrifluoroethane	0.71	0.71	0.61	0.71	0.42	0.57	0.64	0.56	0.70	1.7	0.60	0.57	0.60	0.58	0.49	0.44	0.69	0.53	0.74	0.51	0.46	0.49
Vinyl acetate	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.50 U	0.71 U	0.71 U	0.71 U	0.71 U	
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.23	0.13 U	0.19	0.21	0.13 U	0.10 U	0.17	0.13 U	0.13 U	0.18	

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Indoor Air - Large Retail Space																		IA-3-031513	IA-3-060713	IA-3-090613
	IA-3-100809 10/8/2009	IA-3-012810 1/28/2010	IA-3-020510 2/5/2010	IA-3-021210 2/12/2010	IA-3-021910 2/19/2010	IA-3-032610 3/26/2010	IA-3-043010 4/30/2010	IA-3-052810 5/28/2010	IA-3-070110 7/1/2010	IA-3-091610 9/16/2010	IA-3-120710 12/7/2010	IA-3-021711 2/17/2011	IA-3-060211 6/2/2011	IA-3-091511 9/15/2011	IA-3-120811 12/8/2011	IA-3-030812 3/8/2012	IA-3-061412 6/14/2012	IA-3-091312 9/13/2012	IA-3-010313 1/3/2013		
1,1,1-Trichloroethane	0.27 U	0.45	0.71	0.29	0.86	0.27 U	1.2	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.11	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,1,2-Tetrachloroethane																0.62 U		0.37 U	0.37 U	0.44 U	0.44 U
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.10 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.26 U	
1,2,4-Trimethylbenzene	0.39	0.44	0.25 U	0.25 U	0.25 U	0.25 U	0.26	0.34	0.46	0.60	0.25 U	0.49	0.25 U	0.071	0.10	0.19	0.47	0.17 U	0.076	0.26	0.33
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.056	0.061 U	0.051	0.14 U	0.14 U	0.14 U	0.14 U	
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	
1,2-Dichlortetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U								
1,3,5-Trimethylbenzene	0.25 U	0.42	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.074	0.22	0.17 U	0.17 U	0.17 U	
1,3-Butadiene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.059	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dioxane														0.18 U							
2-Butanone	1.5	1.9	2.0	1.2	1.6	0.51	1.0	2.2	3.3	0.95	0.39	0.76 B	2.9 U	5.9 U	1.2	0.45	2.4	2.7	0.93	2.2	2.0
2-Hexanone	0.37	0.52	0.39	0.22	0.39	0.20 U	0.29	0.52	0.67	0.20 U	0.20 U	0.20 U	4.1 U	0.24	0.093	0.12 U	0.33	0.22	0.14 U	0.32	0.28
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.074	0.15	0.17 U	0.17 U	0.17 U	0.17 U	
4-Methyl-2-pentanone	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.084	0.12 U	0.19	0.21	0.14 U	0.14 U	0.19	
Acetone	11	14	21	6.7	7.3	3.8	7.7	15	21	11	9.7 B	9.7 B	11 B	13	7.2	3.9	13	12	6.7	12	28
Benzene	0.46	1.3	0.86	0.67	0.53	0.6	0.67	0.47	0.51	0.72	0.47	1.4	0.29	0.3	0.39	0.35	0.23	0.66	0.53	0.75	0.23
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.20 U	0.10 U	0.20 U	0.24 U	0.24 U	0.24 U	0.24 U	
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.31	0.14 U	0.14 U	0.14 U	0.14 U	
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.93 U	1.1 U	1.1 U	1.1 U	
Carbon tetrachloride	0.42	0.31 U	0.42	0.31 U	0.43	0.43	0.49	0.54	0.57 [a]	0.41	0.45	0.6 [a]	0.64 [a]	0.51	0.5	0.49	0.43	0.38	0.32	0.39	0.42
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	
Chloroform	0.24 U	0.24 U	0.53	0.48	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.079	0.073 U	0.15	0.19	0.17 U	0.075	0.17 U	0.21
Chloromethane	1.0	1.2	2.9	1.3	1.2	1.1	0.85	1.2	1.2	1.1	0.98	0.97	1.2	1.4	0.84	1.1	1.4	1.3	0.95	1.3	1.1
cis-1,2-Dichloroethene	0.49	0.59	0.20 U	0.20 U	0.59	0.20 U	1.3	0.20 U	0.51	0.20 U	1.7	0.20 U	0.20 U	0.20 U	0.17	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.18	0.17 U	0.17 U	0.17 U	0.10 U	0.10 U	0.10 U	0.27	0.12 U	0.12 U	0.12 U
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	0.30 U	
Dichlorodifluoromethane	2.2	2.3	2.5	2.5	3.0	1.6	2.1	2.5	2.7	1.5	2.1	3.1	2.1	1.8	2.6	2.1	2.8	2.8	2.5	1.8	2.7
Ethanol	5.0	13	40	17	38	3.6	5.3	5.5	7.0	8.0	2.4	9.4	3.6	5.8	2.1	2.2	4.4	6.6	2.7	2.5	21
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.73	0.37	0.51	0.68	0.44	0.28	
Ethylbenzene	0.24	0.43	0.22 U	0.22 U	0.22 U	0.22 U	0.26	0.23	0.29	0.47	0.22 U	0.47	0.36	0.22 U	0.12	0.11	0.14	0.42	0.27	0.098	0.18
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	
Hexane	0.71	0.55	0.44	1.0	0.29	0.19	1.4	0.55	0.45	0.58	0.35 U	1.5	2.6	7.0 U	0.35	0.37	0.74	1.4	0.89	1.0	0.68
Isopropyl alcohol	0.25 U	0.25 U	9.9	0.25 U	2.0	0.64	3.4	0.12 U	0.76	8.8	1.1	1.7	1.2 U	4.9 U	2.9 U	0.56	0.29	0.57	0.62	3.4 U	3.4 U
m,p-Xylene	0.87	1.2	0.69	0.43 U	0.43 U	0.46	0.8	0.99	1.3	1.6	0.43 U	1.4	0.55	0.54	0.38	0.24	0.40	1.5	1.0	0.31	0.72
Methyl methacrylate														0.20 U	0.20 U	0.20 U	0.12 U	0.12 U	0.14 U	0.14 U	
Methylene chloride	0.70 U	1.4	0.70 U	2.3	0.70 U	0.70 U	0.70 U														

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Indoor Air - Large Retail Space																		IA-3-031513	IA-3-060713	IA-3-090613	
	IA-3-100809 10/8/2009	IA-3-012810 1/28/2010	IA-3-020510 2/5/2010	IA-3-021210 2/12/2010	IA-3-021910 2/19/2010	IA-3-032610 3/26/2010	IA-3-043010 4/30/2010	IA-3-052810 5/28/2010	IA-3-070110 7/1/2010	IA-3-091610 9/16/2010	IA-3-120710 12/7/2010	IA-3-021711 2/17/2011	IA-3-060211 6/2/2011	IA-3-091511 9/15/2011	IA-3-120811 12/8/2011	IA-3-030812 3/8/2012	IA-3-061412 6/14/2012	IA-3-091312 9/13/2012	IA-3-010313 1/3/2013			
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.22	0.13 U	0.13 U	0.13 U	
n-Heptane	0.24	0.73	0.20 U	0.20 U	0.20 U	0.20 U	0.36	0.20 U	0.20 U	0.32	0.20 U	0.44	0.20 U	0.20 U	0.074	0.12 U	0.11	0.41	0.14 U	0.083	0.15	0.83
o-Xylene	0.34	0.44	0.26	0.22 U	0.22 U	0.22 U	0.32	0.43	0.58	0.64	0.22 U	0.48	0.23	0.23	0.13	0.11	0.16	0.57	0.35	0.13	0.26	0.46
Propylene (Propene)	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	1.3	1.8	2.4 U	1.1	2.4 U	2.4 U
Styrene	0.21 U	0.40	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.23	0.34	0.26	0.21 U	0.21 U	0.21 U	0.21 U	0.041	0.13 U	0.10	0.14	0.15 U	0.15 U	0.15 U	0.3
Tetrachloroethene	1.1	2.2	0.34 U	0.34 U	1.3	0.34 U	4.8	0.35	1.1	0.76	3.2	5.2 [a]	0.34 U	0.47	0.91	0.23	0.16	2.3	0.25	0.095	0.30	0.24 U
Tetrahydrofuran	0.15 U	0.40	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.16	0.24	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.08	0.088 U	0.088 U	0.072	0.10 U	0.10 U	0.14	0.73
Toluene	1.1	2.5	0.78	0.61	0.46	0.81	1.5	0.93	1.1	2.3	0.41	2.7	0.58	0.95	1.5	0.27	0.72	2.8	0.62	0.56	0.90	4.6
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Trichloroethene	0.54	0.75	0.27 U	0.27 U	0.40	0.27 U	1.5	0.27 U	0.47	0.27 U	1.7	0.27 U	0.27 U	0.27 U	0.25	0.081 U	0.16 U	0.17	0.19 U	0.19 U	0.19 U	0.19 U
Trichlorofluoromethane	1.2	1.2	1.3	1.4	1.6	1.3	1.2	1.3	1.5	2.8	1.2	1.7	1.6	1.7	1.0	0.92	1.6	1.5	1.2	1.3	1.5	1.6
Trichlorotrifluoroethane	0.47	0.49	0.52	0.57	0.52	0.57	0.45	0.52	0.54	0.45	0.55	0.67	0.74	0.54	0.69	0.44	0.56	0.54	0.59	0.65	0.65	0.62
Vinyl acetate	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	0.25 U	
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.13 U	0.13	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Indoor Air - Large Retail Space																					
	IA-3-121313 12/13/13	IA-4-011609 1/16/2009	IA-4-020309 2/3/2009	IA-4-021109 2/11/2009	IA-4-021809 2/18/2009	IA-4-022609 2/26/2009	IA-4-041409 4/14/2009	IA-4-042409 4/24/2009	IA-4-091709 9/17/2009	IA-4-092409 9/24/2009	IA-4-100109 10/1/2009	IA-4-100809 10/8/2009	IA-4-012810 1/28/2010	IA-4-020510 2/5/2010	IA-4-021210 2/12/2010	IA-4-021910 2/19/2010	IA-4-032610 3/26/2010	IA-4-043010 4/30/2010	IA-4-052810 5/28/2010	IA-4-070110 7/1/2010	IA-4-091610 9/16/2010	IA-4-120710 12/7/2010
1,1,1-Trichloroethane	0.19 U	10	0.62	1.1	1.1	0.45	1.5	2.2	0.27 U	0.76	0.29	0.89	0.27 U	1.1	0.28	0.27 U	0.27 U	0.27 U				
1,1,1,2-Tetrachloroethane	0.44 U																					
1,1,2,2-Tetrachloroethane	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U							
1,1,2-Trichloroethane	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U							
1,1-Dichloroethane	0.14 U	0.73	0.20 U	0.20 U	0.20 U	0.31	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U							
1,1-Dichloroethene	0.14 U	0.42	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U							
1,2,4-Trichlorobenzene	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U								
1,2,4-Trimethylbenzene	0.17 U	0.26	0.37	0.74	0.65	0.29	0.18 U	0.25 U	0.25 U	0.41	0.28	0.41	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.34	0.41	0.44	0.25 U
1,2-Dibromoethane (EDB)	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U								
1,2-Dichlorobenzene	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U							
1,2-Dichloroethane	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U							
1,2-Dichloropropane	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U							
1,2-Dichlortetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U								
1,3,5-Trimethylbenzene	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U							
1,3-Butadiene	0.078 U	0.11 U	0.11 U	0.33	0.77	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U						
1,3-Dichlorobenzene	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U								
1,4-Dichlorobenzene	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.21 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U							
1,4-Dioxane																						
2-Butanone	0.66	21	4.4	6.0	3.2	2.5	1.1	1.6	1.5	2.0	1.3	1.2	0.30 U	0.69	1.2	0.50	1.6	1.5	2.2	4.8	2.4	0.96
2-Hexanone	0.14 U	0.20 U	0.33	0.73	0.39	0.20 U	0.14 U	0.20 U	0.29	0.45	0.32	0.27	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.39	0.54	1	0.59	0.20 U
4-Ethyltoluene	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U								
4-Methyl-2-pentanone	0.14 U	0.20 U	0.20 U	0.43	0.28	0.20 U	0.14 U	0.20 U	0.20 U	0.32	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.43	0.45	0.20 U
Acetone	14	17	10	15	20	7.8	7.9	20	9.3	16	9.3	10	2.3	4.9	5.9	2.5	6.9	8.7	15	31	19	13 B
Benzene	0.54	1.1	0.68	1.8	3.0	0.76	0.59	0.44	0.40	0.43	0.37	0.48	0.16 U	0.88	0.66	0.54	0.57	0.64	0.48	0.47	0.66	0.49
Benzyl chloride	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U								
Bromodichloromethane	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U							
Bromoform	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U								
Bromomethane	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U								
Carbon disulfide	1.1 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.31	0.16 U	0.16 U							
Carbon tetrachloride	0.47	0.40	0.43	0.50	0.58 [a]	0.46	0.22 U	0.45	0.41	0.40	0.46	0.40	0.31 U	0.43	0.31 U	0.42	0.43	0.47	0.52	0.48	0.44	0.46
Chlorobenzene	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U								
Chloroethane	0.093 U	0.13 U	0.13 U	0.41	0.13 U	0.10 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U								
Chloroform	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.26	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U							
Chloromethane	1.0	1.2	0.99	1.4	1.3	1.0	1.1	1.2	0.90	1.1	1.0	1.0	1.3	1.3	1.3	1.2	1.1	0.77	1.2	1.2	1.0	0.95
cis-1,2-Dichloroethene	0.14 U	2.4	0.20 U	1.1	1.1	0.98	0.61	1.7	0.20 U	0.20 U	0.84	0.48	0.20 U	0.20 U	0.59	0.20 U	1.3	0.20 U	0.44	0.20 U	1.8	
cis-1,3-Dichloropropene	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U								
Cyclohexane	0.12 U	0.17 U	0.17 U	0.44	0.64	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U							
Dibromochloromethane	0.30 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U								
Dichlorodifluoromethane	2.7	1.9	2.2	2.5	2.8	2.6	2.1	2.4	2.1	2.0	2.2	2.2	2.4	2.5	2.6	3.0	1.7	2.1	2.5	2.6	1.5	2.0
Ethanol	11	5.3	8.9	12	18	8.0	5.2	5.5	6.0	6.5	4.9	5.6	7.7	34	17	31	3.9	4.9	6.1	8.7	9.8	3.4
Ethyl acetate	2.6	0.37 U	0.37 U	0.18 U	0.19	0.37 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U						
Ethylbenzene	0.15 U	0.25	0.29	0.65	0.78	0.29	0.16	0.22 U	0.22 U	0.27	0.22 U	0.26	0.22 U	0.22 U	0.26	0.22 U	0.22 U	0.25	0.29	0.44	0.22 U	
Hexachlorobutadiene	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	
Hexane	0.76	0.90	0.66	1.2	1.7	0.66	0.43	0.34	0.42	2.2	0.49	0.93	0.18 U	0.37	1.3	0.49	0.19	1.3	0.55	2.8	0.61	0.38
Isopropyl alcohol	1.9	3.5	3.3	4.7	4.8	3.9	0.18 U	13	5.6	5.2	0.25 U	0.25 U	0.96	0.25 U	0.25 U	1.9	0.66	3.4	4.4	1.8	8.3	0.48
m,p-Xylene	0.19	0.76																				

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Indoor Air - Large Retail Space																					
	IA-3-121313 12/13/13	IA-4-011609 1/16/2009	IA-4-020309 2/3/2009	IA-4-021109 2/11/2009	IA-4-021809 2/18/2009	IA-4-022609 2/26/2009	IA-4-041409 4/14/2009	IA-4-042409 4/24/2009	IA-4-091709 9/17/2009	IA-4-092409 9/24/2009	IA-4-100109 10/1/2009	IA-4-100809 10/8/2009	IA-4-012810 1/28/2010	IA-4-020510 2/5/2010	IA-4-021210 2/12/2010	IA-4-021910 2/19/2010	IA-4-032610 3/26/2010	IA-4-043010 4/30/2010	IA-4-052810 5/28/2010	IA-4-070110 7/1/2010	IA-4-091610 9/16/2010	IA-4-120710 12/7/2010
Methyl-t-butyl ether	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U							
n-Heptane	0.14 U	0.23	0.20 U	0.58	0.79	0.21	0.14 U	0.20 U	0.20 U	0.20 U	0.26	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.22	0.32	0.20 U
o-Xylene	0.15 U	0.27	0.33	0.78	0.87	0.33	0.22	0.22 U	0.22 U	0.42	0.28	0.4	0.22 U	0.31	0.22 U	0.22 U	0.30	0.44	0.50	0.57	0.22 U	
Propylene (Propene)	2.4 U	0.18 U	0.18 U	0.090 U	0.090 U	0.18 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.87 U	1.1	0.35 U	0.86 U	
Styrene	0.15 U	0.21 U	0.21 U	0.22	0.23	0.21 U	0.15 U	0.21 U	0.21 U	0.21	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.22	0.29	0.21 U	0.21 U	
Tetrachloroethene	0.24 U	7.3 [a]	0.58	4.4	3.4	3.4	2.4	7.9 [a]	0.75	0.34 U	2.0	1.1	0.34 U	0.34 U	1.4	0.34 U	4.4	0.44	1.1	0.34 U	3.4	
Tetrahydrofuran	0.10 U	13	1.2	1.3	0.47	0.34	0.21	0.25	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.19	0.24	0.15 U	0.15 U					
Toluene	0.66	1.8	1.3	4.3	5.8	2.3	1.0	1.0	1.1	1.3	0.76	1.2	0.19 U	0.79	0.63	0.47	0.83	1.4	0.98	1.0	2.0	0.43
trans-1,2-Dichloroethene	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.14 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U							
trans-1,3-Dichloropropene	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U							
Trichloroethene	0.19 U	4.7	0.48	1.7	1.5	0.88	0.78	2.0	0.27 U	0.27 U	1.1	0.57	0.27 U	0.27 U	0.27 U	0.40	0.27 U	1.4	0.27 U	0.44	0.27 U	1.8
Trichlorofluoromethane	1.4	2.0	1.3	1.6	3.0	1.7	1.3	1.3	1.2	1.5	1.2	1.2	0.93	1.3	1.4	1.6	1.5	1.3	1.3	1.9	2.4	1.2
Trichlorotrifluoroethane	0.61	0.72	0.59	0.51	0.45	0.57	0.54	0.61	0.49	0.48	0.47	0.50	0.38 U	0.55	0.58	0.55	1.3	0.48	0.51	0.59	0.43	0.54
Vinyl acetate	2.5 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.50 U	0.71 U	0.71 U	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.38							
Vinyl chloride	0.090 U	0.29	0.13 U	0.20	0.22	0.13 U	0.10 U	0.2	0.13 U	0.13 U	0.16	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.16

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Indoor Air - Large Retail Space											
	IA-4-021711 2/17/2011	IA-4-060211 6/2/2011	IA-4-091511 9/15/2011	IA-4-120811 12/8/2011	IA-4-030812 3/8/2012	IA-4-061412 6/14/2012	IA-4-091312 9/13/2012	IA-4-010313 1/3/2013	IA-4-031513 3/15/2013	IA-4-060713 6/7/2013	IA-4-090613 9/6/2013	IA-4-121313 12/13/2013
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.14	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,1,2-Tetrachloroethane			0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.21 U	0.10 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.26 U
1,2,4-Trimethylbenzene	0.49	0.25 U	0.25 U	0.094	0.15 U	0.19	0.38	0.90	0.13	0.47	0.20	0.17 U
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.18 U	0.18	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.063	0.061 U	0.12 U	0.14 U	0.16	0.14 U	0.14 U	0.14 U	0.14 U
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,2-Dichlortetrafluoroethane												
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.080	0.12	0.27	0.17 U	0.17 U	0.17 U	0.17 U
1,3-Butadiene	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dioxane				0.18 U								
2-Butanone	1.0 B	2.9 U	5.9 U	1.0	1.5	0.97	2.3	4.7	2.3	3.9	0.95	1.2
2-Hexanone	0.20 U	0.21 J	0.35	0.086	0.32	0.098	0.18	0.19	0.25	0.51	0.14 U	0.14 U
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.068	0.12	0.22	0.17 U	0.17 U	0.17 U	0.17 U
4-Methyl-2-pentanone	0.20 U	0.20 U	0.20 U	0.098	0.15	0.13	0.14 U	3.3	0.28	0.56	0.47	0.16
Acetone	12 B	12 B	15	7.4	6.8	9.1	12	17	44	36	18	29
Benzene	1.4	0.31	0.30	0.38	0.35	0.23	0.64	0.67	0.82	0.55	0.47	0.56
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Bromodichloromethane	0.34 U	0.34 U	0.34 U	0.20 U	0.10 U	0.20 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Bromoform	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Bromomethane	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.24	0.14 U	0.14 U	0.13	0.14 U	0.14 U	0.14 U
Carbon disulfide	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.052	1.1 U	1.6	0.52	0.38	0.39	0.15
Carbon tetrachloride	0.57 [a]	0.68 [a]	0.52	0.48	0.47	0.43	0.36	0.54	0.41	0.65 [a]	0.45 [a]	0.46
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.47	0.16 U	0.16 U	0.16 U	0.16 U
Chloroethane	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U
Chloroform	0.24 U	0.24 U	0.24 U	0.085	0.073 U	0.13	0.19	0.17 U	0.11	0.17 U	0.27	0.44
Chloromethane	0.95	1.1	1.5	1.4	1.0	1.3	1.3	1.1	1.3	1.6	1.0	1.1
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.19	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.18	0.14 U
cis-1,3-Dichloropropene	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	0.17 U	0.17 U	0.17 U	0.10 U	0.10 U	0.10 U	0.26	2.1	0.12 U	0.12 U	0.12 U	0.12 U
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
Dichlorodifluoromethane	3.2	1.8	1.7	2.8	2.0	2.9	2.8	2.8	1.7	3.3	1.8	2.7
Ethanol	8.9	5.3	7.0	2.4	2.5	9.4	7.3	7.5	46	79	71	91
Ethyl acetate	0.26	0.18 U	0.18 U	0.16	0.21	0.38	2.4	0.13 U	0.73	0.94	0.13 U	0.13 U
Ethylbenzene	0.49	0.22 U	0.22 U	0.16	0.17	0.14	0.38	4.1	0.32	0.43	0.19	0.15 U
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Hexane	1.7	1.0	7.0 U	0.35	0.55	0.47	5.0	17	0.89	2.8	0.53	4.9 U
Isopropyl alcohol	1.7	1.2 U	4.9 U	2.9 U	2.9 U	2.9 U	1.4	2.6	3.4 U	4.0	1.6	8.4
m,p-Xylene	1.4	0.41 J	0.53	0.41	0.27	0.38	1.2	17	1.1	1.6	0.53	0.28
Methyl methacrylate	0.20 U	0.20 U	0.20 U	0.12 U	0.12 U	0.13	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Methylene chloride	5.1	3.2	1.7 U	1.5	2.0	0.72	12	1.3	0.97	3.1	0.89	0.69

Table 3.
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Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Indoor Air - Large Retail Space										
	IA-4-021711 2/17/2011	IA-4-060211 6/2/2011	IA-4-091511 9/15/2011	IA-4-120811 12/8/2011	IA-4-030812 3/8/2012	IA-4-061412 6/14/2012	IA-4-091312 9/13/2012	IA-4-010313 1/3/2013	IA-4-031513 3/15/2013	IA-4-060713 6/7/2013	IA-4-090613 9/6/2013
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	0.11 U	0.19	0.13 U	0.13 U	0.13 U	0.13 U
n-Heptane	0.51	0.20 U	0.20 U	0.071	0.12 U	0.11	0.41	1.6	0.32	0.53	0.16
o-Xylene	0.53	0.22 U	0.22 U	0.15	0.11	0.17	0.41	5.1	0.43	0.57	0.23
Propylene (Propene)	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	2.1 U	1.7	2.4 U	2.4 U	2.4 U	2.4 U
Styrene	0.21 U	0.21 U	0.21 U	0.077	0.092	0.55	0.093	0.52	0.099	0.15 U	0.15 U
Tetrachloroethene	5.0	0.34 U	0.45	1.2	0.31	0.12	1.7	0.18	0.21	0.45	0.30
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.076	0.088 U	0.055	0.10 U	0.28	0.10 U	0.10 U	0.10 U
Toluene	2.7	0.56	0.95	1.6	0.32	0.80	2.9	4.8	1.5	3.0	1.4
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
trans-1,3-Dichloropropene	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	0.27 U	0.27 U	0.27 U	0.35	0.15	0.052	0.12	0.19 U	0.057	0.19 U	0.19 U
Trichlorofluoromethane	1.8	1.4	1.8	1.3	0.87	1.5	1.7	2.8	1.2	2.2	1.3
Trichlorotrifluoroethane	0.70	0.71	0.52	0.71	0.44	0.56	0.59	0.60	0.66	1.6	0.65
Vinyl acetate	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.21 U	0.25 U	0.25 U	0.25 U	2.5 U	2.5 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	Indoor Air - Large Retail Space									
	LRAIR01 5/15/2009	LRAIR02 5/15/2009	LRAIR03 5/15/2009	LRAIR04 5/15/2009	LRAIR05 5/15/2009	LRAIR06 5/15/2009	LRAIR07 5/15/2009	LRAIR08 5/15/2009	LRAIR09 5/15/2009	LRAIR10 5/15/2009
1,1,1-Trichloroethane	0.45	0.52	0.65	0.57	0.51	0.44	0.69	0.50	0.49	0.53
1,1,1,2-Tetrachloroethane										
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.29	0.25 U					
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
1,2-Dichloroethane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-Butadiene	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,3-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
1,4-Dichlorobenzene	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U
1,4-Dioxane										
2-Butanone	3.3	3.4	2.1	2.6	2.0	1.6	3.1	2.5	2.6	1.4
2-Hexanone	0.73	0.66	0.38	0.51	0.37	0.38	0.61	0.48	0.43	0.29
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Methyl-2-pentanone	0.42	0.39	0.32	0.36	0.54	0.27	0.32	0.30	0.61	0.23
Acetone	12	13	10	11	8.5	7.7	13	11	9.8	6.9
Benzene	0.54	0.60	0.67	0.55	0.56	0.51	0.53	0.60	0.51	0.57
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	0.7 [a]	0.68 [a]	0.71 [a]	0.68 [a]	0.68 [a]	0.63 [a]	0.68 [a]	0.7 [a]	0.64 [a]	0.66 [a]
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	1.0	0.98	1.0	0.95	1.0	1.0	0.92	1.1	0.91	1.2
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.21	0.20 U	0.20 U	0.20 U
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	2.5	2.3	2.6	2.4	2.7	2.4	2.4	2.8	2.3	2.7
Ethanol	65	9.0	6.5	5.9	6.0	5.6	5.9	14	44	14
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.27	0.22 U
Hexachlorobutadiene	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	1.1	0.21	0.18 U	0.18	0.24	0.18 U	0.19	0.21	0.20	0.18 U
Isopropyl alcohol	3.3	3.4	3.7	3.5	3.6	3.4	4.4	3.6	2.8	3.2
m,p-Xylene	0.58	0.57	0.58	0.55	0.49	0.50	0.48	0.53	1.0	0.50
Methyl methacrylate										
Methylene chloride	5.9	1.5	1.5	1.6	1.9	1.6	1.5	1.6	1.6	1.4

Table 3.
Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Indoor Air - Large Retail Space									
	LRAIR01 5/15/2009	LRAIR02 5/15/2009	LRAIR03 5/15/2009	LRAIR04 5/15/2009	LRAIR05 5/15/2009	LRAIR06 5/15/2009	LRAIR07 5/15/2009	LRAIR08 5/15/2009	LRAIR09 5/15/2009	LRAIR10 5/15/2009
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
n-Heptane	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
o-Xylene	0.28	0.28	0.27	0.27	0.25	0.26	0.25	0.27	0.34	0.26
Propylene (Propene)	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U
Styrene	0.23	0.21 U	0.21 U	0.22	0.21 U	0.21 U	0.37	0.21 U	0.21 U	0.21 U
Tetrachloroethene	0.47	0.47	0.54	0.66	0.64	0.60	0.73	0.53	0.46	0.46
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.20	0.15 U				
Toluene	0.73	0.7	0.58	0.59	0.51	0.53	0.57	0.53	0.54	0.47
trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	0.27 U	0.28	0.27	0.29	0.34	0.27	0.28	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	1.3	1.3	1.2	1.1	1.4	1.3	1.1	1.4	1.0	1.4
Trichlorotrifluoroethane	0.63	0.60	0.65	0.62	0.64	0.57	0.59	0.68	0.62	0.58
Vinyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U

Notes:

[a] Carbon tetrachloride and tetrachloroethene are above the target air concentration, but are not compliance violations as indoor air concentrations are consistent with outdoor air concentrations that were sampled on the same day.

NA - not available

U - Not detected, value is the detection limit

B - Compounds detected in method blank as well as field sample

D - Result from diluted analyses

ug/m³ - micrograms per cubic meter

Prepared by / Date: KJC 01/06/14

Checked by / Date: 01/27/14

5 Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Table 4.
Vacuum Monitoring Results - Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Date	Pressure Differential (inches of water)			
	VMW-1	VMW-2	VMW-3	VMW-4
2/3/2009	-0.20	-0.62	-0.15	-0.12
2/18/2009	-0.509	-0.738	-0.650	-0.253
2/26/2009	-0.511	-0.710	-0.665	-0.273
3/6/2009	-0.507	-0.610	-0.715	-0.251
3/6/2009*	-0.120	-0.195	-0.230	-0.028
3/31/2009	-0.148	-0.221	-0.244	-0.072
4/14/2009	-0.140	-0.210	-0.215	-0.081
5/15/2009	-0.133	-0.193	-0.208	-0.087
9/17/2009	-0.132	-0.172	-0.209	-0.087
9/24/2009	-0.146	-0.189	-0.254	-0.094
10/1/2009	-0.181	-0.232	-0.233	-0.097
10/8/2009	-0.197	-0.212	-0.255	-0.087
12/29/2009**	-0.021	-0.020	-0.160	-0.023
1/28/2010	-0.947	-0.642	-0.709	-0.237
2/5/2010	-0.497	-0.714	-0.510	-0.258
2/12/2010	-0.509	-0.706	-0.537	-0.261
2/19/2010	-0.526	-0.733	-0.667	-0.242
3/26/2010	-0.636	-0.860	-0.671	-0.331
4/30/2010	-0.519	-0.713	-0.378	-0.287
5/28/2010	-0.546	-0.727	+1.371	-0.279
7/1/2010	-0.505	-0.678	+1.568	-0.272
9/16/2010	-0.496	-0.654	+0.980	-0.272
12/7/2010	-0.126	-0.202	-0.155	-0.052
2/17/2011	-0.491	-0.683	-0.737	-0.263
6/2/2011	-0.561	-0.767	-0.393	-0.290
9/15/2011	-0.517	-0.710	+1.071	-0.260
12/8/2011	-0.609	-0.826	+1.502	-0.313
3/8/2012	-0.422	-0.680	+0.329	-0.288
6/14/2012	-0.372	-0.767	+2.389	-0.280
9/13/2012	-0.543	-1.021	-0.665	-0.283
1/3/2013	-0.495	-0.628	-1.141	-0.674
3/15/2013	-0.539	-0.636	-0.754	-0.254
6/7/2013	-0.121	-0.681	-0.787	-0.223
9/6/2013	-0.421	-0.743	-0.766	-0.265
12/13/2013	-0.435	-0.580	-0.031	-0.190

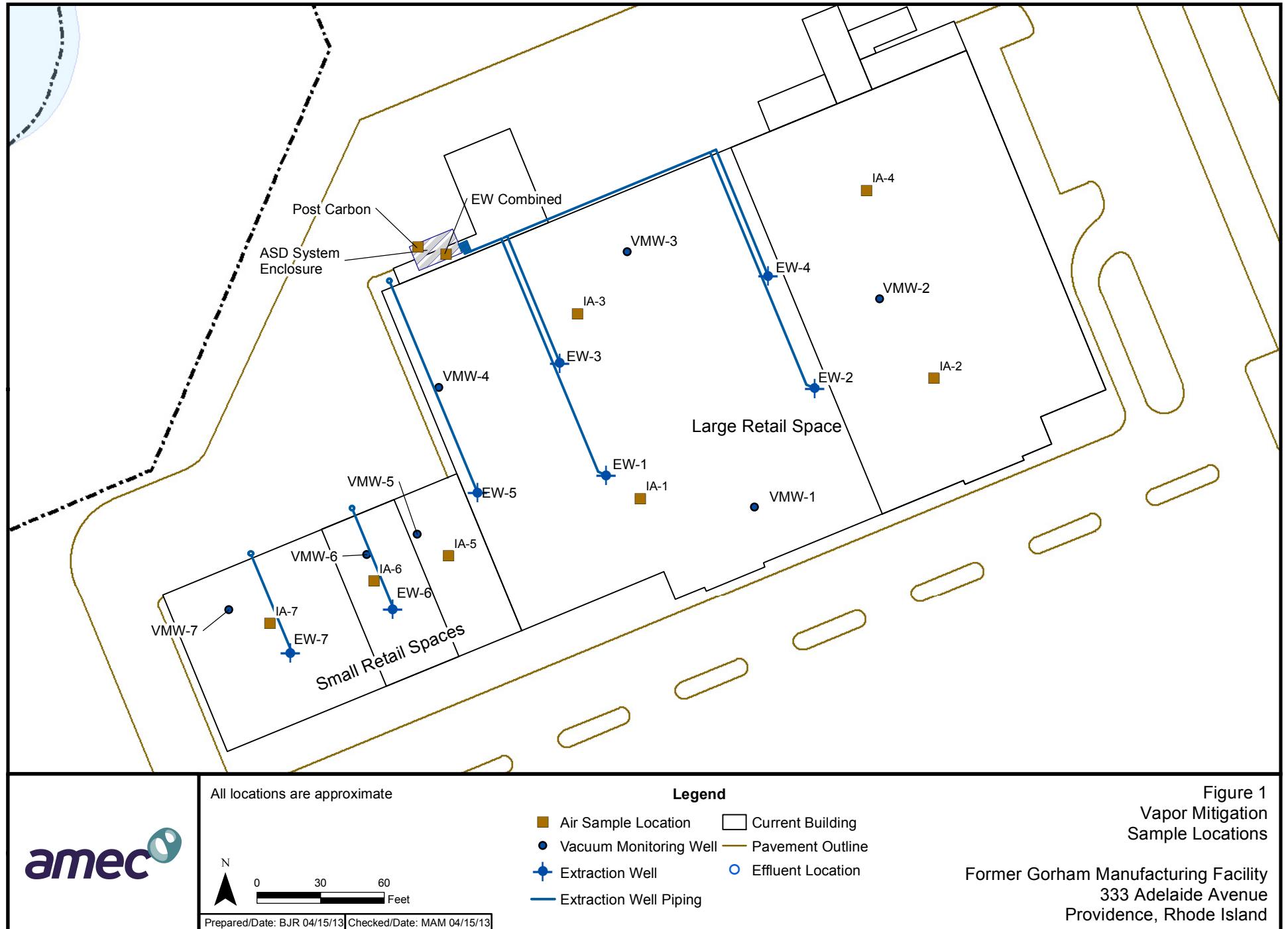
* vacuum reduced at extraction wells

** ASD system offline

Prepared by/Date: MAM 01/22/13

Checked by/Date: DLC 1/23/14

FIGURES



APPENDIX A

Laboratory Reports

December 20, 2013

Kelly Chatterton
AMEC E&I, Inc.
107 Audubon Rd., Bldg. 2, Suite 301
Wakefield, MA 01880

Project Location: Providence RI
Client Job Number:
Project Number: 3650080114
Laboratory Work Order Number: 13L0600

Enclosed are results of analyses for samples received by the laboratory on December 13, 2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



James M. Georgantas
Project Manager

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

REPORT DATE: 12/20/2013

AMEC E&I, Inc.
107 Audubon Rd., Bldg. 2, Suite 301
Wakefield, MA 01880
ATTN: Kelly Chatterton

PURCHASE ORDER NUMBER: C012203270

PROJECT NUMBER: 3650080114

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 13L0600

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Providence RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
IA-1-121313	13L0600-01	Indoor air		EPA TO-15	
IA-2-121313	13L0600-02	Indoor air		EPA TO-15	
IA-3-121313	13L0600-03	Indoor air		EPA TO-15	
IA-4-121313	13L0600-04	Indoor air		EPA TO-15	
IA-5-121313	13L0600-05	Indoor air		EPA TO-15	
IA-6-121313	13L0600-06	Indoor air		EPA TO-15	
IA-7-121313	13L0600-07	Indoor air		EPA TO-15	
AA-1-121313	13L0600-08	Ambient Air		EPA TO-15	
EW-5-121313	13L0600-09	Soil Gas		EPA TO-15	
EW-6-121313	13L0600-10	Soil Gas		EPA TO-15	
EW-7-121313	13L0600-11	Soil Gas		EPA TO-15	
EW-Combined-121313	13L0600-12	Soil Gas		EPA TO-15	

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

EPA TO-15

Qualifications:

Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

Analyte & Samples(s) Qualified:

Benzyl chloride

B087325-BS1

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.

Analyte & Samples(s) Qualified:

Acetone

13L0600-01[IA-1-121313], 13L0600-02[IA-2-121313], 13L0600-03[IA-3-121313], 13L0600-04[IA-4-121313], 13L0600-05[IA-5-121313], 13L0600-06[IA-6-121313], 13L0600-07[IA-7-121313], 13L0600-08[AA-1-121313], 13L0600-09[EW-5-121313], 13L0600-10[EW-6-121313], 13L0600-11[EW-7-121313], B087325-BS1, B087325-DUP1

Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.

Analyte & Samples(s) Qualified:

Acetone, Benzyl chloride

13L0600-01[IA-1-121313], 13L0600-02[IA-2-121313], 13L0600-03[IA-3-121313], 13L0600-04[IA-4-121313], 13L0600-05[IA-5-121313], 13L0600-06[IA-6-121313], 13L0600-07[IA-7-121313], 13L0600-08[AA-1-121313], 13L0600-09[EW-5-121313], 13L0600-10[EW-6-121313], 13L0600-11[EW-7-121313], B087325-BS1, B087325-DUP1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Daren J. Damboragian
Laboratory Manager

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: IA-1-121313

Sample ID: 13L0600-01

Sample Matrix: Indoor air

Sampled: 12/13/2013 08:44

Sample Description/Location:

Sub Description/Location:

Canister ID: 1077

Canister Size: 6 liter

Flow Controller ID: 4185

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -7.0

Receipt Vacuum(in Hg): -7

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time		
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst	
Acetone	8.1	1.4	0.49	L-05, V-06	19	3.3	0.702	12/17/13 3:07	TPH	
Benzene	0.17	0.035	0.018		0.54	0.11	0.702	12/17/13 3:07	TPH	
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	12/17/13 3:07	TPH	
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	12/17/13 3:07	TPH	
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	12/17/13 3:07	TPH	
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	12/17/13 3:07	TPH	
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	12/17/13 3:07	TPH	
2-Butanone (MEK)	0.31	1.4	0.026	J	0.92	4.1	0.702	12/17/13 3:07	TPH	
Carbon Disulfide	0.065	0.35	0.012	J	0.20	1.1	0.702	12/17/13 3:07	TPH	
Carbon Tetrachloride	0.086	0.035	0.0085		0.54	0.22	0.702	12/17/13 3:07	TPH	
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	12/17/13 3:07	TPH	
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	12/17/13 3:07	TPH	
Chloroform	ND	0.035	0.0082		ND	0.17	0.702	12/17/13 3:07	TPH	
Chloromethane	0.49	0.070	0.015		1.0	0.14	0.702	12/17/13 3:07	TPH	
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	12/17/13 3:07	TPH	
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	12/17/13 3:07	TPH	
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	12/17/13 3:07	TPH	
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	12/17/13 3:07	TPH	
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	12/17/13 3:07	TPH	
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	12/17/13 3:07	TPH	
Dichlorodifluoromethane (Freon 12)	0.48	0.035	0.015		2.4	0.17	0.702	12/17/13 3:07	TPH	
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	12/17/13 3:07	TPH	
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	12/17/13 3:07	TPH	
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	12/17/13 3:07	TPH	
cis-1,2-Dichloroethylene	ND	0.035	0.013		ND	0.14	0.702	12/17/13 3:07	TPH	
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	12/17/13 3:07	TPH	
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	12/17/13 3:07	TPH	
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	12/17/13 3:07	TPH	
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	12/17/13 3:07	TPH	
Ethanol	6.2	1.4	0.63		12	2.6	0.702	12/17/13 3:07	TPH	
Ethyl Acetate	6.9	0.035	0.026		25	0.13	0.702	12/17/13 3:07	TPH	
Ethylbenzene	ND	0.035	0.0097		ND	0.15	0.702	12/17/13 3:07	TPH	
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	12/17/13 3:07	TPH	
Heptane	ND	0.035	0.011		ND	0.14	0.702	12/17/13 3:07	TPH	
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	12/17/13 3:07	TPH	
Hexane	ND	1.4	0.062		ND	4.9	0.702	12/17/13 3:07	TPH	
2-Hexanone (MBK)	ND	0.035	0.0090		ND	0.14	0.702	12/17/13 3:07	TPH	
Isopropanol	0.85	1.4	0.043	J	2.1	3.4	0.702	12/17/13 3:07	TPH	

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: IA-1-121313

Sample ID: 13L0600-01

Sample Matrix: Indoor air

Sampled: 12/13/2013 08:44

Sample Description/Location:

Sub Description/Location:

Canister ID: 1077

Canister Size: 6 liter

Flow Controller ID: 4185

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -7.0

Receipt Vacuum(in Hg): -7

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time	
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	12/17/13 3:07	TPH
Methylene Chloride	0.20	0.35	0.043	J	0.68	1.2	0.702	12/17/13 3:07	TPH
Methyl methacrylate	ND	0.035	0.011		ND	0.14	0.702	12/17/13 3:07	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.0084		ND	0.14	0.702	12/17/13 3:07	TPH
Propene	ND	1.4	0.11		ND	2.4	0.702	12/17/13 3:07	TPH
Styrene	ND	0.035	0.0068		ND	0.15	0.702	12/17/13 3:07	TPH
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44	0.702	12/17/13 3:07	TPH
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	12/17/13 3:07	TPH
Tetrachloroethylene	ND	0.035	0.010		ND	0.24	0.702	12/17/13 3:07	TPH
Tetrahydrofuran	ND	0.035	0.015		ND	0.10	0.702	12/17/13 3:07	TPH
Toluene	0.17	0.035	0.011		0.62	0.13	0.702	12/17/13 3:07	TPH
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	12/17/13 3:07	TPH
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19	0.702	12/17/13 3:07	TPH
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	12/17/13 3:07	TPH
Trichloroethylene	ND	0.035	0.010		ND	0.19	0.702	12/17/13 3:07	TPH
Trichlorofluoromethane (Freon 11)	0.25	0.035	0.012		1.4	0.20	0.702	12/17/13 3:07	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.071	0.035	0.0098		0.54	0.27	0.702	12/17/13 3:07	TPH
1,2,4-Trimethylbenzene	ND	0.035	0.0086		ND	0.17	0.702	12/17/13 3:07	TPH
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17	0.702	12/17/13 3:07	TPH
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	12/17/13 3:07	TPH
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	12/17/13 3:07	TPH
m&p-Xylene	0.044	0.070	0.018	J	0.19	0.30	0.702	12/17/13 3:07	TPH
o-Xylene	ND	0.035	0.010		ND	0.15	0.702	12/17/13 3:07	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	96.7	70-130	12/17/13 3:07
4-Bromofluorobenzene (2)	84.7	70-130	12/17/13 3:07

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: IA-2-121313

Sample ID: 13L0600-02

Sample Matrix: Indoor air

Sampled: 12/13/2013 10:25

Sample Description/Location:

Sub Description/Location:

Canister ID: 1448

Canister Size: 6 liter

Flow Controller ID: 4191

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -4.0

Receipt Vacuum(in Hg): -3.7

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time	
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst
Acetone	14	1.4	0.49	L-05, V-06	32	3.3	0.702	12/17/13 3:53	TPH
Benzene	0.21	0.035	0.018		0.66	0.11	0.702	12/17/13 3:53	TPH
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	12/17/13 3:53	TPH
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	12/17/13 3:53	TPH
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	12/17/13 3:53	TPH
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	12/17/13 3:53	TPH
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	12/17/13 3:53	TPH
2-Butanone (MEK)	0.42	1.4	0.026	J	1.2	4.1	0.702	12/17/13 3:53	TPH
Carbon Disulfide	0.054	0.35	0.012	J	0.17	1.1	0.702	12/17/13 3:53	TPH
Carbon Tetrachloride	0.074	0.035	0.0085		0.46	0.22	0.702	12/17/13 3:53	TPH
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	12/17/13 3:53	TPH
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	12/17/13 3:53	TPH
Chloroform	0.075	0.035	0.0082		0.37	0.17	0.702	12/17/13 3:53	TPH
Chloromethane	0.53	0.070	0.015		1.1	0.14	0.702	12/17/13 3:53	TPH
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	12/17/13 3:53	TPH
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	12/17/13 3:53	TPH
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	12/17/13 3:53	TPH
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	12/17/13 3:53	TPH
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	12/17/13 3:53	TPH
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	12/17/13 3:53	TPH
Dichlorodifluoromethane (Freon 12)	0.53	0.035	0.015		2.6	0.17	0.702	12/17/13 3:53	TPH
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	12/17/13 3:53	TPH
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	12/17/13 3:53	TPH
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	12/17/13 3:53	TPH
cis-1,2-Dichloroethylene	ND	0.035	0.013		ND	0.14	0.702	12/17/13 3:53	TPH
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	12/17/13 3:53	TPH
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	12/17/13 3:53	TPH
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	12/17/13 3:53	TPH
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	12/17/13 3:53	TPH
Ethanol	47	1.4	0.63		89	2.6	0.702	12/17/13 3:53	TPH
Ethyl Acetate	3.5	0.035	0.026		13	0.13	0.702	12/17/13 3:53	TPH
Ethylbenzene	ND	0.035	0.0097		ND	0.15	0.702	12/17/13 3:53	TPH
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	12/17/13 3:53	TPH
Heptane	ND	0.035	0.011		ND	0.14	0.702	12/17/13 3:53	TPH
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	12/17/13 3:53	TPH
Hexane	1.4	1.4	0.062	J	4.9	4.9	0.702	12/17/13 3:53	TPH
2-Hexanone (MBK)	ND	0.035	0.0090		ND	0.14	0.702	12/17/13 3:53	TPH
Isopropanol	3.9	1.4	0.043		9.7	3.4	0.702	12/17/13 3:53	TPH

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: IA-2-121313

Sample ID: 13L0600-02

Sample Matrix: Indoor air

Sampled: 12/13/2013 10:25

Sample Description/Location:

Sub Description/Location:

Canister ID: 1448

Canister Size: 6 liter

Flow Controller ID: 4191

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -4.0

Receipt Vacuum(in Hg): -3.7

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time	
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	12/17/13 3:53	TPH
Methylene Chloride	2.2	0.35	0.043		7.7	1.2	0.702	12/17/13 3:53	TPH
Methyl methacrylate	ND	0.035	0.011		ND	0.14	0.702	12/17/13 3:53	TPH
4-Methyl-2-pentanone (MIBK)	0.044	0.035	0.0084		0.18	0.14	0.702	12/17/13 3:53	TPH
Propene	ND	1.4	0.11		ND	2.4	0.702	12/17/13 3:53	TPH
Styrene	ND	0.035	0.0068		ND	0.15	0.702	12/17/13 3:53	TPH
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44	0.702	12/17/13 3:53	TPH
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	12/17/13 3:53	TPH
Tetrachloroethylene	ND	0.035	0.010		ND	0.24	0.702	12/17/13 3:53	TPH
Tetrahydrofuran	ND	0.035	0.015		ND	0.10	0.702	12/17/13 3:53	TPH
Toluene	0.27	0.035	0.011		1.0	0.13	0.702	12/17/13 3:53	TPH
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	12/17/13 3:53	TPH
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19	0.702	12/17/13 3:53	TPH
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	12/17/13 3:53	TPH
Trichloroethylene	ND	0.035	0.010		ND	0.19	0.702	12/17/13 3:53	TPH
Trichlorofluoromethane (Freon 11)	0.28	0.035	0.012		1.6	0.20	0.702	12/17/13 3:53	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.074	0.035	0.0098		0.57	0.27	0.702	12/17/13 3:53	TPH
1,2,4-Trimethylbenzene	ND	0.035	0.0086		ND	0.17	0.702	12/17/13 3:53	TPH
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17	0.702	12/17/13 3:53	TPH
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	12/17/13 3:53	TPH
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	12/17/13 3:53	TPH
m&p-Xylene	0.058	0.070	0.018	J	0.25	0.30	0.702	12/17/13 3:53	TPH
o-Xylene	ND	0.035	0.010		ND	0.15	0.702	12/17/13 3:53	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	99.4	70-130	12/17/13 3:53
4-Bromofluorobenzene (2)	86.6	70-130	12/17/13 3:53

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: IA-3-121313

Sample ID: 13L0600-03

Sample Matrix: Indoor air

Sampled: 12/13/2013 08:45

Sample Description/Location:

Sub Description/Location:

Canister ID: 1092

Canister Size: 6 liter

Flow Controller ID: 4184

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -4.8

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Acetone	5.9	1.4	0.49	L-05, V-06	14	3.3	0.702	12/17/13 4:38	TPH	
Benzene	0.17	0.035	0.018		0.54	0.11	0.702	12/17/13 4:38	TPH	
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	12/17/13 4:38	TPH	
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	12/17/13 4:38	TPH	
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	12/17/13 4:38	TPH	
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	12/17/13 4:38	TPH	
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	12/17/13 4:38	TPH	
2-Butanone (MEK)	0.22	1.4	0.026	J	0.66	4.1	0.702	12/17/13 4:38	TPH	
Carbon Disulfide	ND	0.35	0.012		ND	1.1	0.702	12/17/13 4:38	TPH	
Carbon Tetrachloride	0.075	0.035	0.0085		0.47	0.22	0.702	12/17/13 4:38	TPH	
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	12/17/13 4:38	TPH	
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	12/17/13 4:38	TPH	
Chloroform	ND	0.035	0.0082		ND	0.17	0.702	12/17/13 4:38	TPH	
Chloromethane	0.50	0.070	0.015		1.0	0.14	0.702	12/17/13 4:38	TPH	
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	12/17/13 4:38	TPH	
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	12/17/13 4:38	TPH	
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	12/17/13 4:38	TPH	
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	12/17/13 4:38	TPH	
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	12/17/13 4:38	TPH	
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	12/17/13 4:38	TPH	
Dichlorodifluoromethane (Freon 12)	0.54	0.035	0.015		2.7	0.17	0.702	12/17/13 4:38	TPH	
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	12/17/13 4:38	TPH	
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	12/17/13 4:38	TPH	
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	12/17/13 4:38	TPH	
cis-1,2-Dichloroethylene	ND	0.035	0.013		ND	0.14	0.702	12/17/13 4:38	TPH	
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	12/17/13 4:38	TPH	
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	12/17/13 4:38	TPH	
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	12/17/13 4:38	TPH	
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	12/17/13 4:38	TPH	
Ethanol	6.0	1.4	0.63		11	2.6	0.702	12/17/13 4:38	TPH	
Ethyl Acetate	0.72	0.035	0.026		2.6	0.13	0.702	12/17/13 4:38	TPH	
Ethylbenzene	ND	0.035	0.0097		ND	0.15	0.702	12/17/13 4:38	TPH	
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	12/17/13 4:38	TPH	
Heptane	ND	0.035	0.011		ND	0.14	0.702	12/17/13 4:38	TPH	
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	12/17/13 4:38	TPH	
Hexane	0.22	1.4	0.062	J	0.76	4.9	0.702	12/17/13 4:38	TPH	
2-Hexanone (MBK)	ND	0.035	0.0090		ND	0.14	0.702	12/17/13 4:38	TPH	
Isopropanol	0.75	1.4	0.043	J	1.9	3.4	0.702	12/17/13 4:38	TPH	

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: IA-3-121313

Sample ID: 13L0600-03

Sample Matrix: Indoor air

Sampled: 12/13/2013 08:45

Sample Description/Location:

Sub Description/Location:

Canister ID: 1092

Canister Size: 6 liter

Flow Controller ID: 4184

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -4.8

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time	
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	12/17/13 4:38	TPH
Methylene Chloride	0.37	0.35	0.043		1.3	1.2	0.702	12/17/13 4:38	TPH
Methyl methacrylate	ND	0.035	0.011		ND	0.14	0.702	12/17/13 4:38	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.0084		ND	0.14	0.702	12/17/13 4:38	TPH
Propene	ND	1.4	0.11		ND	2.4	0.702	12/17/13 4:38	TPH
Styrene	ND	0.035	0.0068		ND	0.15	0.702	12/17/13 4:38	TPH
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44	0.702	12/17/13 4:38	TPH
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	12/17/13 4:38	TPH
Tetrachloroethylene	ND	0.035	0.010		ND	0.24	0.702	12/17/13 4:38	TPH
Tetrahydrofuran	ND	0.035	0.015		ND	0.10	0.702	12/17/13 4:38	TPH
Toluene	0.18	0.035	0.011		0.66	0.13	0.702	12/17/13 4:38	TPH
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	12/17/13 4:38	TPH
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19	0.702	12/17/13 4:38	TPH
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	12/17/13 4:38	TPH
Trichloroethylene	ND	0.035	0.010		ND	0.19	0.702	12/17/13 4:38	TPH
Trichlorofluoromethane (Freon 11)	0.25	0.035	0.012		1.4	0.20	0.702	12/17/13 4:38	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.079	0.035	0.0098		0.61	0.27	0.702	12/17/13 4:38	TPH
1,2,4-Trimethylbenzene	ND	0.035	0.0086		ND	0.17	0.702	12/17/13 4:38	TPH
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17	0.702	12/17/13 4:38	TPH
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	12/17/13 4:38	TPH
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	12/17/13 4:38	TPH
m&p-Xylene	0.043	0.070	0.018	J	0.19	0.30	0.702	12/17/13 4:38	TPH
o-Xylene	ND	0.035	0.010		ND	0.15	0.702	12/17/13 4:38	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	97.7	70-130	12/17/13 4:38
4-Bromofluorobenzene (2)	86.2	70-130	12/17/13 4:38

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: IA-4-121313

Sample ID: 13L0600-04

Sample Matrix: Indoor air

Sampled: 12/13/2013 10:30

Sample Description/Location:

Sub Description/Location:

Canister ID: 1453

Canister Size: 6 liter

Flow Controller ID: 4190

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -4.4

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Acetone	12	1.4	0.49	L-05, V-06	29	3.3	0.702	12/17/13 5:24	TPH	
Benzene	0.18	0.035	0.018		0.56	0.11	0.702	12/17/13 5:24	TPH	
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	12/17/13 5:24	TPH	
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	12/17/13 5:24	TPH	
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	12/17/13 5:24	TPH	
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	12/17/13 5:24	TPH	
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	12/17/13 5:24	TPH	
2-Butanone (MEK)	0.40	1.4	0.026	J	1.2	4.1	0.702	12/17/13 5:24	TPH	
Carbon Disulfide	0.048	0.35	0.012	J	0.15	1.1	0.702	12/17/13 5:24	TPH	
Carbon Tetrachloride	0.074	0.035	0.0085		0.46	0.22	0.702	12/17/13 5:24	TPH	
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	12/17/13 5:24	TPH	
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	12/17/13 5:24	TPH	
Chloroform	0.090	0.035	0.0082		0.44	0.17	0.702	12/17/13 5:24	TPH	
Chloromethane	0.53	0.070	0.015		1.1	0.14	0.702	12/17/13 5:24	TPH	
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	12/17/13 5:24	TPH	
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	12/17/13 5:24	TPH	
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	12/17/13 5:24	TPH	
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	12/17/13 5:24	TPH	
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	12/17/13 5:24	TPH	
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	12/17/13 5:24	TPH	
Dichlorodifluoromethane (Freon 12)	0.54	0.035	0.015		2.7	0.17	0.702	12/17/13 5:24	TPH	
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	12/17/13 5:24	TPH	
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	12/17/13 5:24	TPH	
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	12/17/13 5:24	TPH	
cis-1,2-Dichloroethylene	ND	0.035	0.013		ND	0.14	0.702	12/17/13 5:24	TPH	
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	12/17/13 5:24	TPH	
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	12/17/13 5:24	TPH	
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	12/17/13 5:24	TPH	
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	12/17/13 5:24	TPH	
Ethanol	48	1.4	0.63		91	2.6	0.702	12/17/13 5:24	TPH	
Ethyl Acetate	ND	0.035	0.026		ND	0.13	0.702	12/17/13 5:24	TPH	
Ethylbenzene	ND	0.035	0.0097		ND	0.15	0.702	12/17/13 5:24	TPH	
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	12/17/13 5:24	TPH	
Heptane	ND	0.035	0.011		ND	0.14	0.702	12/17/13 5:24	TPH	
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	12/17/13 5:24	TPH	
Hexane	ND	1.4	0.062		ND	4.9	0.702	12/17/13 5:24	TPH	
2-Hexanone (MBK)	ND	0.035	0.0090		ND	0.14	0.702	12/17/13 5:24	TPH	
Isopropanol	3.4	1.4	0.043		8.4	3.4	0.702	12/17/13 5:24	TPH	

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: IA-4-121313

Sample ID: 13L0600-04

Sample Matrix: Indoor air

Sampled: 12/13/2013 10:30

Sample Description/Location:

Sub Description/Location:

Canister ID: 1453

Canister Size: 6 liter

Flow Controller ID: 4190

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -4.4

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13		0.702	12/17/13 5:24	TPH
Methylene Chloride	0.20	0.35	0.043	J	0.69	1.2		0.702	12/17/13 5:24	TPH
Methyl methacrylate	ND	0.035	0.011		ND	0.14		0.702	12/17/13 5:24	TPH
4-Methyl-2-pentanone (MIBK)	0.039	0.035	0.0084		0.16	0.14		0.702	12/17/13 5:24	TPH
Propene	ND	1.4	0.11		ND	2.4		0.702	12/17/13 5:24	TPH
Styrene	ND	0.035	0.0068		ND	0.15		0.702	12/17/13 5:24	TPH
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44		0.702	12/17/13 5:24	TPH
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24		0.702	12/17/13 5:24	TPH
Tetrachloroethylene	ND	0.035	0.010		ND	0.24		0.702	12/17/13 5:24	TPH
Tetrahydrofuran	ND	0.035	0.015		ND	0.10		0.702	12/17/13 5:24	TPH
Toluene	0.20	0.035	0.011		0.75	0.13		0.702	12/17/13 5:24	TPH
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26		0.702	12/17/13 5:24	TPH
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19		0.702	12/17/13 5:24	TPH
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19		0.702	12/17/13 5:24	TPH
Trichloroethylene	ND	0.035	0.010		ND	0.19		0.702	12/17/13 5:24	TPH
Trichlorofluoromethane (Freon 11)	0.26	0.035	0.012		1.5	0.20		0.702	12/17/13 5:24	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.076	0.035	0.0098		0.58	0.27		0.702	12/17/13 5:24	TPH
1,2,4-Trimethylbenzene	ND	0.035	0.0086		ND	0.17		0.702	12/17/13 5:24	TPH
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17		0.702	12/17/13 5:24	TPH
Vinyl Acetate	ND	0.70	0.018		ND	2.5		0.702	12/17/13 5:24	TPH
Vinyl Chloride	ND	0.035	0.015		ND	0.090		0.702	12/17/13 5:24	TPH
m&p-Xylene	0.065	0.070	0.018	J	0.28	0.30		0.702	12/17/13 5:24	TPH
o-Xylene	ND	0.035	0.010		ND	0.15		0.702	12/17/13 5:24	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	105	70-130	12/17/13 5:24
4-Bromofluorobenzene (2)	90.9	70-130	12/17/13 5:24

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: IA-5-121313

Sample ID: 13L0600-05

Sample Matrix: Indoor air

Sampled: 12/13/2013 08:54

Sample Description/Location:

Sub Description/Location:

Canister ID: 1034

Canister Size: 6 liter

Flow Controller ID: 4183

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -4.5

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time	
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst
Acetone	17	1.4	0.49	L-05, V-06	40	3.3	0.702	12/17/13 6:09	TPH
Benzene	0.17	0.035	0.018		0.55	0.11	0.702	12/17/13 6:09	TPH
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	12/17/13 6:09	TPH
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	12/17/13 6:09	TPH
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	12/17/13 6:09	TPH
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	12/17/13 6:09	TPH
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	12/17/13 6:09	TPH
2-Butanone (MEK)	0.75	1.4	0.026	J	2.2	4.1	0.702	12/17/13 6:09	TPH
Carbon Disulfide	ND	0.35	0.012		ND	1.1	0.702	12/17/13 6:09	TPH
Carbon Tetrachloride	0.080	0.035	0.0085		0.50	0.22	0.702	12/17/13 6:09	TPH
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	12/17/13 6:09	TPH
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	12/17/13 6:09	TPH
Chloroform	ND	0.035	0.0082		ND	0.17	0.702	12/17/13 6:09	TPH
Chloromethane	0.65	0.070	0.015		1.3	0.14	0.702	12/17/13 6:09	TPH
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	12/17/13 6:09	TPH
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	12/17/13 6:09	TPH
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	12/17/13 6:09	TPH
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	12/17/13 6:09	TPH
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	12/17/13 6:09	TPH
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	12/17/13 6:09	TPH
Dichlorodifluoromethane (Freon 12)	0.51	0.035	0.015		2.5	0.17	0.702	12/17/13 6:09	TPH
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	12/17/13 6:09	TPH
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	12/17/13 6:09	TPH
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	12/17/13 6:09	TPH
cis-1,2-Dichloroethylene	ND	0.035	0.013		ND	0.14	0.702	12/17/13 6:09	TPH
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	12/17/13 6:09	TPH
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	12/17/13 6:09	TPH
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	12/17/13 6:09	TPH
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	12/17/13 6:09	TPH
Ethanol	2.4	1.4	0.63		4.5	2.6	0.702	12/17/13 6:09	TPH
Ethyl Acetate	0.23	0.035	0.026		0.83	0.13	0.702	12/17/13 6:09	TPH
Ethylbenzene	ND	0.035	0.0097		ND	0.15	0.702	12/17/13 6:09	TPH
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	12/17/13 6:09	TPH
Heptane	ND	0.035	0.011		ND	0.14	0.702	12/17/13 6:09	TPH
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	12/17/13 6:09	TPH
Hexane	0.13	1.4	0.062	J	0.46	4.9	0.702	12/17/13 6:09	TPH
2-Hexanone (MBK)	ND	0.035	0.0090		ND	0.14	0.702	12/17/13 6:09	TPH
Isopropanol	ND	1.4	0.043		ND	3.4	0.702	12/17/13 6:09	TPH

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: IA-5-121313

Sample ID: 13L0600-05

Sample Matrix: Indoor air

Sampled: 12/13/2013 08:54

Sample Description/Location:

Sub Description/Location:

Canister ID: 1034

Canister Size: 6 liter

Flow Controller ID: 4183

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -4.5

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13		0.702	12/17/13 6:09	TPH
Methylene Chloride	0.24	0.35	0.043	J	0.83	1.2		0.702	12/17/13 6:09	TPH
Methyl methacrylate	ND	0.035	0.011		ND	0.14		0.702	12/17/13 6:09	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.0084		ND	0.14		0.702	12/17/13 6:09	TPH
Propene	ND	1.4	0.11		ND	2.4		0.702	12/17/13 6:09	TPH
Styrene	ND	0.035	0.0068		ND	0.15		0.702	12/17/13 6:09	TPH
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44		0.702	12/17/13 6:09	TPH
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24		0.702	12/17/13 6:09	TPH
Tetrachloroethylene	ND	0.035	0.010		ND	0.24		0.702	12/17/13 6:09	TPH
Tetrahydrofuran	ND	0.035	0.015		ND	0.10		0.702	12/17/13 6:09	TPH
Toluene	0.24	0.035	0.011		0.89	0.13		0.702	12/17/13 6:09	TPH
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26		0.702	12/17/13 6:09	TPH
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19		0.702	12/17/13 6:09	TPH
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19		0.702	12/17/13 6:09	TPH
Trichloroethylene	ND	0.035	0.010		ND	0.19		0.702	12/17/13 6:09	TPH
Trichlorofluoromethane (Freon 11)	0.28	0.035	0.012		1.6	0.20		0.702	12/17/13 6:09	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.070	0.035	0.0098		0.54	0.27		0.702	12/17/13 6:09	TPH
1,2,4-Trimethylbenzene	ND	0.035	0.0086		ND	0.17		0.702	12/17/13 6:09	TPH
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17		0.702	12/17/13 6:09	TPH
Vinyl Acetate	ND	0.70	0.018		ND	2.5		0.702	12/17/13 6:09	TPH
Vinyl Chloride	ND	0.035	0.015		ND	0.090		0.702	12/17/13 6:09	TPH
m&p-Xylene	0.070	0.070	0.018		0.30	0.30		0.702	12/17/13 6:09	TPH
o-Xylene	ND	0.035	0.010		ND	0.15		0.702	12/17/13 6:09	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	95.7	70-130	12/17/13 6:09
4-Bromofluorobenzene (2)	84.3	70-130	12/17/13 6:09

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: IA-6-121313

Sample ID: 13L0600-06

Sample Matrix: Indoor air

Sampled: 12/13/2013 08:58

Sample Description/Location:

Sub Description/Location:

Canister ID: 1043

Canister Size: 6 liter

Flow Controller ID: 4172

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -4.4

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Acetone	11	1.4	0.49	L-05, V-06	27	3.3	0.702	12/17/13 6:55	TPH	
Benzene	0.17	0.035	0.018		0.53	0.11	0.702	12/17/13 6:55	TPH	
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	12/17/13 6:55	TPH	
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	12/17/13 6:55	TPH	
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	12/17/13 6:55	TPH	
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	12/17/13 6:55	TPH	
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	12/17/13 6:55	TPH	
2-Butanone (MEK)	0.73	1.4	0.026	J	2.2	4.1	0.702	12/17/13 6:55	TPH	
Carbon Disulfide	ND	0.35	0.012		ND	1.1	0.702	12/17/13 6:55	TPH	
Carbon Tetrachloride	0.072	0.035	0.0085		0.45	0.22	0.702	12/17/13 6:55	TPH	
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	12/17/13 6:55	TPH	
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	12/17/13 6:55	TPH	
Chloroform	ND	0.035	0.0082		ND	0.17	0.702	12/17/13 6:55	TPH	
Chloromethane	0.60	0.070	0.015		1.2	0.14	0.702	12/17/13 6:55	TPH	
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	12/17/13 6:55	TPH	
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	12/17/13 6:55	TPH	
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	12/17/13 6:55	TPH	
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	12/17/13 6:55	TPH	
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	12/17/13 6:55	TPH	
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	12/17/13 6:55	TPH	
Dichlorodifluoromethane (Freon 12)	0.50	0.035	0.015		2.5	0.17	0.702	12/17/13 6:55	TPH	
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	12/17/13 6:55	TPH	
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	12/17/13 6:55	TPH	
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	12/17/13 6:55	TPH	
cis-1,2-Dichloroethylene	ND	0.035	0.013		ND	0.14	0.702	12/17/13 6:55	TPH	
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	12/17/13 6:55	TPH	
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	12/17/13 6:55	TPH	
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	12/17/13 6:55	TPH	
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	12/17/13 6:55	TPH	
Ethanol	3.2	1.4	0.63		6.1	2.6	0.702	12/17/13 6:55	TPH	
Ethyl Acetate	ND	0.035	0.026		ND	0.13	0.702	12/17/13 6:55	TPH	
Ethylbenzene	ND	0.035	0.0097		ND	0.15	0.702	12/17/13 6:55	TPH	
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	12/17/13 6:55	TPH	
Heptane	ND	0.035	0.011		ND	0.14	0.702	12/17/13 6:55	TPH	
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	12/17/13 6:55	TPH	
Hexane	0.11	1.4	0.062	J	0.38	4.9	0.702	12/17/13 6:55	TPH	
2-Hexanone (MBK)	ND	0.035	0.0090		ND	0.14	0.702	12/17/13 6:55	TPH	
Isopropanol	0.35	1.4	0.043	J	0.85	3.4	0.702	12/17/13 6:55	TPH	

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: IA-6-121313

Sample ID: 13L0600-06

Sample Matrix: Indoor air

Sampled: 12/13/2013 08:58

Sample Description/Location:

Sub Description/Location:

Canister ID: 1043

Canister Size: 6 liter

Flow Controller ID: 4172

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -4.4

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13		0.702	12/17/13 6:55	TPH
Methylene Chloride	0.20	0.35	0.043	J	0.71	1.2		0.702	12/17/13 6:55	TPH
Methyl methacrylate	ND	0.035	0.011		ND	0.14		0.702	12/17/13 6:55	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.0084		ND	0.14		0.702	12/17/13 6:55	TPH
Propene	ND	1.4	0.11		ND	2.4		0.702	12/17/13 6:55	TPH
Styrene	ND	0.035	0.0068		ND	0.15		0.702	12/17/13 6:55	TPH
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44		0.702	12/17/13 6:55	TPH
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24		0.702	12/17/13 6:55	TPH
Tetrachloroethylene	ND	0.035	0.010		ND	0.24		0.702	12/17/13 6:55	TPH
Tetrahydrofuran	ND	0.035	0.015		ND	0.10		0.702	12/17/13 6:55	TPH
Toluene	0.13	0.035	0.011		0.49	0.13		0.702	12/17/13 6:55	TPH
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26		0.702	12/17/13 6:55	TPH
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19		0.702	12/17/13 6:55	TPH
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19		0.702	12/17/13 6:55	TPH
Trichloroethylene	ND	0.035	0.010		ND	0.19		0.702	12/17/13 6:55	TPH
Trichlorofluoromethane (Freon 11)	0.26	0.035	0.012		1.5	0.20		0.702	12/17/13 6:55	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.075	0.035	0.0098		0.58	0.27		0.702	12/17/13 6:55	TPH
1,2,4-Trimethylbenzene	ND	0.035	0.0086		ND	0.17		0.702	12/17/13 6:55	TPH
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17		0.702	12/17/13 6:55	TPH
Vinyl Acetate	ND	0.70	0.018		ND	2.5		0.702	12/17/13 6:55	TPH
Vinyl Chloride	ND	0.035	0.015		ND	0.090		0.702	12/17/13 6:55	TPH
m&p-Xylene	0.047	0.070	0.018	J	0.20	0.30		0.702	12/17/13 6:55	TPH
o-Xylene	ND	0.035	0.010		ND	0.15		0.702	12/17/13 6:55	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	99.1	70-130	12/17/13 6:55
4-Bromofluorobenzene (2)	86.9	70-130	12/17/13 6:55

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: IA-7-121313

Sample ID: 13L0600-07

Sample Matrix: Indoor air

Sampled: 12/13/2013 11:27

Sample Description/Location:

Sub Description/Location:

Canister ID: 1095

Canister Size: 6 liter

Flow Controller ID: 4186

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -6.0

Receipt Vacuum(in Hg): -5.6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time	
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst
Acetone	8.5	1.4	0.49	L-05, V-06	20	3.3	0.702	12/17/13 7:40	TPH
Benzene	0.17	0.035	0.018		0.54	0.11	0.702	12/17/13 7:40	TPH
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	12/17/13 7:40	TPH
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	12/17/13 7:40	TPH
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	12/17/13 7:40	TPH
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	12/17/13 7:40	TPH
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	12/17/13 7:40	TPH
2-Butanone (MEK)	0.24	1.4	0.026	J	0.69	4.1	0.702	12/17/13 7:40	TPH
Carbon Disulfide	ND	0.35	0.012		ND	1.1	0.702	12/17/13 7:40	TPH
Carbon Tetrachloride	0.079	0.035	0.0085		0.49	0.22	0.702	12/17/13 7:40	TPH
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	12/17/13 7:40	TPH
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	12/17/13 7:40	TPH
Chloroform	0.049	0.035	0.0082		0.24	0.17	0.702	12/17/13 7:40	TPH
Chloromethane	0.56	0.070	0.015		1.2	0.14	0.702	12/17/13 7:40	TPH
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	12/17/13 7:40	TPH
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	12/17/13 7:40	TPH
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	12/17/13 7:40	TPH
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	12/17/13 7:40	TPH
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	12/17/13 7:40	TPH
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	12/17/13 7:40	TPH
Dichlorodifluoromethane (Freon 12)	0.54	0.035	0.015		2.7	0.17	0.702	12/17/13 7:40	TPH
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	12/17/13 7:40	TPH
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	12/17/13 7:40	TPH
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	12/17/13 7:40	TPH
cis-1,2-Dichloroethylene	ND	0.035	0.013		ND	0.14	0.702	12/17/13 7:40	TPH
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	12/17/13 7:40	TPH
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	12/17/13 7:40	TPH
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	12/17/13 7:40	TPH
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	12/17/13 7:40	TPH
Ethanol	13	1.4	0.63		25	2.6	0.702	12/17/13 7:40	TPH
Ethyl Acetate	0.095	0.035	0.026		0.34	0.13	0.702	12/17/13 7:40	TPH
Ethylbenzene	ND	0.035	0.0097		ND	0.15	0.702	12/17/13 7:40	TPH
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	12/17/13 7:40	TPH
Heptane	0.11	0.035	0.011		0.45	0.14	0.702	12/17/13 7:40	TPH
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	12/17/13 7:40	TPH
Hexane	0.11	1.4	0.062	J	0.39	4.9	0.702	12/17/13 7:40	TPH
2-Hexanone (MBK)	ND	0.035	0.0090		ND	0.14	0.702	12/17/13 7:40	TPH
Isopropanol	16	1.4	0.043		40	3.4	0.702	12/17/13 7:40	TPH

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: IA-7-121313

Sample ID: 13L0600-07

Sample Matrix: Indoor air

Sampled: 12/13/2013 11:27

Sample Description/Location:

Sub Description/Location:

Canister ID: 1095

Canister Size: 6 liter

Flow Controller ID: 4186

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -6.0

Receipt Vacuum(in Hg): -5.6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time	
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	12/17/13 7:40	TPH
Methylene Chloride	0.22	0.35	0.043	J	0.76	1.2	0.702	12/17/13 7:40	TPH
Methyl methacrylate	ND	0.035	0.011		ND	0.14	0.702	12/17/13 7:40	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.0084		ND	0.14	0.702	12/17/13 7:40	TPH
Propene	ND	1.4	0.11		ND	2.4	0.702	12/17/13 7:40	TPH
Styrene	ND	0.035	0.0068		ND	0.15	0.702	12/17/13 7:40	TPH
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44	0.702	12/17/13 7:40	TPH
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	12/17/13 7:40	TPH
Tetrachloroethylene	ND	0.035	0.010		ND	0.24	0.702	12/17/13 7:40	TPH
Tetrahydrofuran	ND	0.035	0.015		ND	0.10	0.702	12/17/13 7:40	TPH
Toluene	0.29	0.035	0.011		1.1	0.13	0.702	12/17/13 7:40	TPH
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	12/17/13 7:40	TPH
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19	0.702	12/17/13 7:40	TPH
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	12/17/13 7:40	TPH
Trichloroethylene	ND	0.035	0.010		ND	0.19	0.702	12/17/13 7:40	TPH
Trichlorofluoromethane (Freon 11)	0.28	0.035	0.012		1.6	0.20	0.702	12/17/13 7:40	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.078	0.035	0.0098		0.60	0.27	0.702	12/17/13 7:40	TPH
1,2,4-Trimethylbenzene	0.051	0.035	0.0086		0.25	0.17	0.702	12/17/13 7:40	TPH
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17	0.702	12/17/13 7:40	TPH
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	12/17/13 7:40	TPH
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	12/17/13 7:40	TPH
m&p-Xylene	0.058	0.070	0.018	J	0.25	0.30	0.702	12/17/13 7:40	TPH
o-Xylene	ND	0.035	0.010		ND	0.15	0.702	12/17/13 7:40	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	101	70-130	12/17/13 7:40
4-Bromofluorobenzene (2)	87.2	70-130	12/17/13 7:40

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: AA-1-121313

Sample ID: 13L0600-08

Sample Matrix: Ambient Air

Sampled: 12/13/2013 11:35

Sample Description/Location:

Sub Description/Location:

Canister ID: 1175

Canister Size: 6 liter

Flow Controller ID: 4189

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -3.1

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time	
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst
Acetone	11	1.4	0.49	L-05, V-06	26	3.3	0.702	12/17/13 8:26	TPH
Benzene	0.13	0.035	0.018		0.43	0.11	0.702	12/17/13 8:26	TPH
Benzyl chloride	ND	0.035	0.0068		ND	0.18	0.702	12/17/13 8:26	TPH
Bromodichloromethane	ND	0.035	0.0076		ND	0.24	0.702	12/17/13 8:26	TPH
Bromoform	ND	0.035	0.0067		ND	0.36	0.702	12/17/13 8:26	TPH
Bromomethane	ND	0.035	0.024		ND	0.14	0.702	12/17/13 8:26	TPH
1,3-Butadiene	ND	0.035	0.018		ND	0.078	0.702	12/17/13 8:26	TPH
2-Butanone (MEK)	0.28	1.4	0.026	J	0.82	4.1	0.702	12/17/13 8:26	TPH
Carbon Disulfide	ND	0.35	0.012		ND	1.1	0.702	12/17/13 8:26	TPH
Carbon Tetrachloride	0.071	0.035	0.0085		0.45	0.22	0.702	12/17/13 8:26	TPH
Chlorobenzene	ND	0.035	0.012		ND	0.16	0.702	12/17/13 8:26	TPH
Chloroethane	ND	0.035	0.013		ND	0.093	0.702	12/17/13 8:26	TPH
Chloroform	ND	0.035	0.0082		ND	0.17	0.702	12/17/13 8:26	TPH
Chloromethane	0.52	0.070	0.015		1.1	0.14	0.702	12/17/13 8:26	TPH
Cyclohexane	ND	0.035	0.020		ND	0.12	0.702	12/17/13 8:26	TPH
Dibromochloromethane	ND	0.035	0.0093		ND	0.30	0.702	12/17/13 8:26	TPH
1,2-Dibromoethane (EDB)	ND	0.035	0.0079		ND	0.27	0.702	12/17/13 8:26	TPH
1,2-Dichlorobenzene	ND	0.035	0.0093		ND	0.21	0.702	12/17/13 8:26	TPH
1,3-Dichlorobenzene	ND	0.035	0.0078		ND	0.21	0.702	12/17/13 8:26	TPH
1,4-Dichlorobenzene	ND	0.035	0.0088		ND	0.21	0.702	12/17/13 8:26	TPH
Dichlorodifluoromethane (Freon 12)	0.54	0.035	0.015		2.7	0.17	0.702	12/17/13 8:26	TPH
1,1-Dichloroethane	ND	0.035	0.0099		ND	0.14	0.702	12/17/13 8:26	TPH
1,2-Dichloroethane	ND	0.035	0.0098		ND	0.14	0.702	12/17/13 8:26	TPH
1,1-Dichloroethylene	ND	0.035	0.0086		ND	0.14	0.702	12/17/13 8:26	TPH
cis-1,2-Dichloroethylene	ND	0.035	0.013		ND	0.14	0.702	12/17/13 8:26	TPH
trans-1,2-Dichloroethylene	ND	0.035	0.0093		ND	0.14	0.702	12/17/13 8:26	TPH
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.702	12/17/13 8:26	TPH
cis-1,3-Dichloropropene	ND	0.035	0.0093		ND	0.16	0.702	12/17/13 8:26	TPH
trans-1,3-Dichloropropene	ND	0.035	0.0094		ND	0.16	0.702	12/17/13 8:26	TPH
Ethanol	2.9	1.4	0.63		5.4	2.6	0.702	12/17/13 8:26	TPH
Ethyl Acetate	ND	0.035	0.026		ND	0.13	0.702	12/17/13 8:26	TPH
Ethylbenzene	ND	0.035	0.0097		ND	0.15	0.702	12/17/13 8:26	TPH
4-Ethyltoluene	ND	0.035	0.0079		ND	0.17	0.702	12/17/13 8:26	TPH
Heptane	ND	0.035	0.011		ND	0.14	0.702	12/17/13 8:26	TPH
Hexachlorobutadiene	ND	0.035	0.013		ND	0.37	0.702	12/17/13 8:26	TPH
Hexane	0.091	1.4	0.062	J	0.32	4.9	0.702	12/17/13 8:26	TPH
2-Hexanone (MBK)	ND	0.035	0.0090		ND	0.14	0.702	12/17/13 8:26	TPH
Isopropanol	0.31	1.4	0.043	J	0.77	3.4	0.702	12/17/13 8:26	TPH

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: AA-1-121313

Sample ID: 13L0600-08

Sample Matrix: Ambient Air

Sampled: 12/13/2013 11:35

Sample Description/Location:

Sub Description/Location:

Canister ID: 1175

Canister Size: 6 liter

Flow Controller ID: 4189

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -3.1

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time	
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.011		ND	0.13	0.702	12/17/13 8:26	TPH
Methylene Chloride	0.22	0.35	0.043	J	0.76	1.2	0.702	12/17/13 8:26	TPH
Methyl methacrylate	ND	0.035	0.011		ND	0.14	0.702	12/17/13 8:26	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.0084		ND	0.14	0.702	12/17/13 8:26	TPH
Propene	ND	1.4	0.11		ND	2.4	0.702	12/17/13 8:26	TPH
Styrene	ND	0.035	0.0068		ND	0.15	0.702	12/17/13 8:26	TPH
1,1,1,2-Tetrachloroethane	ND	0.064	0.023		ND	0.44	0.702	12/17/13 8:26	TPH
1,1,2,2-Tetrachloroethane	ND	0.035	0.0084		ND	0.24	0.702	12/17/13 8:26	TPH
Tetrachloroethylene	ND	0.035	0.010		ND	0.24	0.702	12/17/13 8:26	TPH
Tetrahydrofuran	ND	0.035	0.015		ND	0.10	0.702	12/17/13 8:26	TPH
Toluene	0.093	0.035	0.011		0.35	0.13	0.702	12/17/13 8:26	TPH
1,2,4-Trichlorobenzene	ND	0.035	0.013		ND	0.26	0.702	12/17/13 8:26	TPH
1,1,1-Trichloroethane	ND	0.035	0.0063		ND	0.19	0.702	12/17/13 8:26	TPH
1,1,2-Trichloroethane	ND	0.035	0.011		ND	0.19	0.702	12/17/13 8:26	TPH
Trichloroethylene	ND	0.035	0.010		ND	0.19	0.702	12/17/13 8:26	TPH
Trichlorofluoromethane (Freon 11)	0.26	0.035	0.012		1.5	0.20	0.702	12/17/13 8:26	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.072	0.035	0.0098		0.55	0.27	0.702	12/17/13 8:26	TPH
1,2,4-Trimethylbenzene	ND	0.035	0.0086		ND	0.17	0.702	12/17/13 8:26	TPH
1,3,5-Trimethylbenzene	ND	0.035	0.0070		ND	0.17	0.702	12/17/13 8:26	TPH
Vinyl Acetate	ND	0.70	0.018		ND	2.5	0.702	12/17/13 8:26	TPH
Vinyl Chloride	ND	0.035	0.015		ND	0.090	0.702	12/17/13 8:26	TPH
m&p-Xylene	ND	0.070	0.018		ND	0.30	0.702	12/17/13 8:26	TPH
o-Xylene	ND	0.035	0.010		ND	0.15	0.702	12/17/13 8:26	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	99.0	70-130	12/17/13 8:26
4-Bromofluorobenzene (2)	86.5	70-130	12/17/13 8:26

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: EW-5-121313

Sample ID: 13L0600-09

Sample Matrix: Soil Gas

Sampled: 12/13/2013 09:08

Sample Description/Location:

Sub Description/Location:

Canister ID: 1109

Canister Size: 6 liter

Flow Controller ID: 4187

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -4.9

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Acetone	90	4.0	1.4	L-05, V-06	210	9.5		2	12/17/13 12:22	TPH
Benzene	0.76	0.10	0.052		2.4	0.32		2	12/17/13 12:22	TPH
Benzyl chloride	ND	0.10	0.019		ND	0.52		2	12/17/13 12:22	TPH
Bromodichloromethane	ND	0.10	0.022		ND	0.67		2	12/17/13 12:22	TPH
Bromoform	ND	0.10	0.019		ND	1.0		2	12/17/13 12:22	TPH
Bromomethane	ND	0.10	0.069		ND	0.39		2	12/17/13 12:22	TPH
1,3-Butadiene	ND	0.10	0.051		ND	0.22		2	12/17/13 12:22	TPH
2-Butanone (MEK)	230	4.0	0.075		680	12		2	12/17/13 12:22	TPH
Carbon Disulfide	2.8	1.0	0.034		8.9	3.1		2	12/17/13 12:22	TPH
Carbon Tetrachloride	ND	0.10	0.024		ND	0.63		2	12/17/13 12:22	TPH
Chlorobenzene	ND	0.10	0.035		ND	0.46		2	12/17/13 12:22	TPH
Chloroethane	0.33	0.10	0.038		0.86	0.26		2	12/17/13 12:22	TPH
Chloroform	ND	0.10	0.023		ND	0.49		2	12/17/13 12:22	TPH
Chloromethane	ND	0.20	0.044		ND	0.41		2	12/17/13 12:22	TPH
Cyclohexane	ND	0.10	0.057		ND	0.34		2	12/17/13 12:22	TPH
Dibromochloromethane	ND	0.10	0.027		ND	0.85		2	12/17/13 12:22	TPH
1,2-Dibromoethane (EDB)	ND	0.10	0.022		ND	0.77		2	12/17/13 12:22	TPH
1,2-Dichlorobenzene	ND	0.10	0.027		ND	0.60		2	12/17/13 12:22	TPH
1,3-Dichlorobenzene	ND	0.10	0.022		ND	0.60		2	12/17/13 12:22	TPH
1,4-Dichlorobenzene	ND	0.10	0.025		ND	0.60		2	12/17/13 12:22	TPH
Dichlorodifluoromethane (Freon 12)	0.51	0.10	0.043		2.5	0.49		2	12/17/13 12:22	TPH
1,1-Dichloroethane	1.2	0.10	0.028		4.8	0.40		2	12/17/13 12:22	TPH
1,2-Dichloroethane	ND	0.10	0.028		ND	0.40		2	12/17/13 12:22	TPH
1,1-Dichloroethylene	0.39	0.10	0.024		1.5	0.40		2	12/17/13 12:22	TPH
cis-1,2-Dichloroethylene	0.49	0.10	0.038		1.9	0.40		2	12/17/13 12:22	TPH
trans-1,2-Dichloroethylene	ND	0.10	0.026		ND	0.40		2	12/17/13 12:22	TPH
1,2-Dichloropropane	ND	0.10	0.035		ND	0.46		2	12/17/13 12:22	TPH
cis-1,3-Dichloropropene	ND	0.10	0.027		ND	0.45		2	12/17/13 12:22	TPH
trans-1,3-Dichloropropene	ND	0.10	0.027		ND	0.45		2	12/17/13 12:22	TPH
Ethanol	21	4.0	1.8		39	7.5		2	12/17/13 12:22	TPH
Ethyl Acetate	1.5	0.10	0.075		5.5	0.36		2	12/17/13 12:22	TPH
Ethylbenzene	ND	0.10	0.028		ND	0.43		2	12/17/13 12:22	TPH
4-Ethyltoluene	ND	0.10	0.023		ND	0.49		2	12/17/13 12:22	TPH
Heptane	ND	0.10	0.032		ND	0.41		2	12/17/13 12:22	TPH
Hexachlorobutadiene	ND	0.10	0.038		ND	1.1		2	12/17/13 12:22	TPH
Hexane	ND	4.0	0.18		ND	14		2	12/17/13 12:22	TPH
2-Hexanone (MBK)	ND	0.10	0.026		ND	0.41		2	12/17/13 12:22	TPH
Isopropanol	1.2	4.0	0.12	J	2.9	9.8		2	12/17/13 12:22	TPH

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: EW-5-121313

Sample ID: 13L0600-09

Sample Matrix: Soil Gas

Sampled: 12/13/2013 09:08

Sample Description/Location:

Sub Description/Location:

Canister ID: 1109

Canister Size: 6 liter

Flow Controller ID: 4187

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -4.9

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.031		ND	0.36		2	12/17/13 12:22	TPH
Methylene Chloride	0.31	1.0	0.12	J	1.1	3.5		2	12/17/13 12:22	TPH
Methyl methacrylate	ND	0.10	0.031		ND	0.41		2	12/17/13 12:22	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.024		ND	0.41		2	12/17/13 12:22	TPH
Propene	ND	4.0	0.31		ND	6.9		2	12/17/13 12:22	TPH
Styrene	ND	0.10	0.019		ND	0.43		2	12/17/13 12:22	TPH
1,1,1,2-Tetrachloroethane	ND	0.18	0.066		ND	1.2		2	12/17/13 12:22	TPH
1,1,2,2-Tetrachloroethane	ND	0.10	0.024		ND	0.69		2	12/17/13 12:22	TPH
Tetrachloroethylene	ND	0.10	0.028		ND	0.68		2	12/17/13 12:22	TPH
Tetrahydrofuran	350	0.10	0.042		1000	0.29		2	12/17/13 12:22	TPH
Toluene	0.12	0.10	0.031		0.44	0.38		2	12/17/13 12:22	TPH
1,2,4-Trichlorobenzene	ND	0.10	0.038		ND	0.74		2	12/17/13 12:22	TPH
1,1,1-Trichloroethane	7.3	0.10	0.018		40	0.55		2	12/17/13 12:22	TPH
1,1,2-Trichloroethane	ND	0.10	0.030		ND	0.55		2	12/17/13 12:22	TPH
Trichloroethylene	15	0.10	0.030		80	0.54		2	12/17/13 12:22	TPH
Trichlorofluoromethane (Freon 11)	0.64	0.10	0.035		3.6	0.56		2	12/17/13 12:22	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.10	0.028		ND	0.77		2	12/17/13 12:22	TPH
1,2,4-Trimethylbenzene	ND	0.10	0.025		ND	0.49		2	12/17/13 12:22	TPH
1,3,5-Trimethylbenzene	ND	0.10	0.020		ND	0.49		2	12/17/13 12:22	TPH
Vinyl Acetate	ND	2.0	0.051		ND	7.0		2	12/17/13 12:22	TPH
Vinyl Chloride	ND	0.10	0.043		ND	0.26		2	12/17/13 12:22	TPH
m&p-Xylene	ND	0.20	0.050		ND	0.87		2	12/17/13 12:22	TPH
o-Xylene	ND	0.10	0.029		ND	0.43		2	12/17/13 12:22	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	99.7	70-130	12/17/13 12:22
4-Bromofluorobenzene (2)	86.8	70-130	12/17/13 12:22

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: EW-6-121313

Sample ID: 13L0600-10

Sample Matrix: Soil Gas

Sampled: 12/13/2013 09:02

Sample Description/Location:

Sub Description/Location:

Canister ID: 1062

Canister Size: 6 liter

Flow Controller ID: 4173

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -4.4

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Acetone	7.3	4.0	1.4	L-05, V-06	17	9.5		2	12/17/13 13:03	TPH
Benzene	0.13	0.10	0.052		0.42	0.32		2	12/17/13 13:03	TPH
Benzyl chloride	ND	0.10	0.019		ND	0.52		2	12/17/13 13:03	TPH
Bromodichloromethane	ND	0.10	0.022		ND	0.67		2	12/17/13 13:03	TPH
Bromoform	ND	0.10	0.019		ND	1.0		2	12/17/13 13:03	TPH
Bromomethane	ND	0.10	0.069		ND	0.39		2	12/17/13 13:03	TPH
1,3-Butadiene	ND	0.10	0.051		ND	0.22		2	12/17/13 13:03	TPH
2-Butanone (MEK)	1.4	4.0	0.075	J	4.0	12		2	12/17/13 13:03	TPH
Carbon Disulfide	1.8	1.0	0.034		5.6	3.1		2	12/17/13 13:03	TPH
Carbon Tetrachloride	ND	0.10	0.024		ND	0.63		2	12/17/13 13:03	TPH
Chlorobenzene	ND	0.10	0.035		ND	0.46		2	12/17/13 13:03	TPH
Chloroethane	ND	0.10	0.038		ND	0.26		2	12/17/13 13:03	TPH
Chloroform	ND	0.10	0.023		ND	0.49		2	12/17/13 13:03	TPH
Chloromethane	1.7	0.20	0.044		3.4	0.41		2	12/17/13 13:03	TPH
Cyclohexane	ND	0.10	0.057		ND	0.34		2	12/17/13 13:03	TPH
Dibromochloromethane	ND	0.10	0.027		ND	0.85		2	12/17/13 13:03	TPH
1,2-Dibromoethane (EDB)	ND	0.10	0.022		ND	0.77		2	12/17/13 13:03	TPH
1,2-Dichlorobenzene	ND	0.10	0.027		ND	0.60		2	12/17/13 13:03	TPH
1,3-Dichlorobenzene	ND	0.10	0.022		ND	0.60		2	12/17/13 13:03	TPH
1,4-Dichlorobenzene	ND	0.10	0.025		ND	0.60		2	12/17/13 13:03	TPH
Dichlorodifluoromethane (Freon 12)	0.53	0.10	0.043		2.6	0.49		2	12/17/13 13:03	TPH
1,1-Dichloroethane	0.66	0.10	0.028		2.7	0.40		2	12/17/13 13:03	TPH
1,2-Dichloroethane	ND	0.10	0.028		ND	0.40		2	12/17/13 13:03	TPH
1,1-Dichloroethylene	ND	0.10	0.024		ND	0.40		2	12/17/13 13:03	TPH
cis-1,2-Dichloroethylene	ND	0.10	0.038		ND	0.40		2	12/17/13 13:03	TPH
trans-1,2-Dichloroethylene	ND	0.10	0.026		ND	0.40		2	12/17/13 13:03	TPH
1,2-Dichloropropane	ND	0.10	0.035		ND	0.46		2	12/17/13 13:03	TPH
cis-1,3-Dichloropropene	ND	0.10	0.027		ND	0.45		2	12/17/13 13:03	TPH
trans-1,3-Dichloropropene	ND	0.10	0.027		ND	0.45		2	12/17/13 13:03	TPH
Ethanol	2.3	4.0	1.8	J	4.3	7.5		2	12/17/13 13:03	TPH
Ethyl Acetate	ND	0.10	0.075		ND	0.36		2	12/17/13 13:03	TPH
Ethylbenzene	ND	0.10	0.028		ND	0.43		2	12/17/13 13:03	TPH
4-Ethyltoluene	ND	0.10	0.023		ND	0.49		2	12/17/13 13:03	TPH
Heptane	ND	0.10	0.032		ND	0.41		2	12/17/13 13:03	TPH
Hexachlorobutadiene	ND	0.10	0.038		ND	1.1		2	12/17/13 13:03	TPH
Hexane	ND	4.0	0.18		ND	14		2	12/17/13 13:03	TPH
2-Hexanone (MBK)	ND	0.10	0.026		ND	0.41		2	12/17/13 13:03	TPH
Isopropanol	ND	4.0	0.12		ND	9.8		2	12/17/13 13:03	TPH

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: EW-6-121313

Sample ID: 13L0600-10

Sample Matrix: Soil Gas

Sampled: 12/13/2013 09:02

Sample Description/Location:

Sub Description/Location:

Canister ID: 1062

Canister Size: 6 liter

Flow Controller ID: 4173

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -4.4

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.031		ND	0.36		2	12/17/13 13:03	TPH
Methylene Chloride	0.28	1.0	0.12	J	0.99	3.5		2	12/17/13 13:03	TPH
Methyl methacrylate	ND	0.10	0.031		ND	0.41		2	12/17/13 13:03	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.024		ND	0.41		2	12/17/13 13:03	TPH
Propene	ND	4.0	0.31		ND	6.9		2	12/17/13 13:03	TPH
Styrene	ND	0.10	0.019		ND	0.43		2	12/17/13 13:03	TPH
1,1,1,2-Tetrachloroethane	ND	0.18	0.066		ND	1.2		2	12/17/13 13:03	TPH
1,1,2,2-Tetrachloroethane	ND	0.10	0.024		ND	0.69		2	12/17/13 13:03	TPH
Tetrachloroethylene	0.21	0.10	0.028		1.5	0.68		2	12/17/13 13:03	TPH
Tetrahydrofuran	220	0.10	0.042		650	0.29		2	12/17/13 13:03	TPH
Toluene	ND	0.10	0.031		ND	0.38		2	12/17/13 13:03	TPH
1,2,4-Trichlorobenzene	ND	0.10	0.038		ND	0.74		2	12/17/13 13:03	TPH
1,1,1-Trichloroethane	3.2	0.10	0.018		18	0.55		2	12/17/13 13:03	TPH
1,1,2-Trichloroethane	ND	0.10	0.030		ND	0.55		2	12/17/13 13:03	TPH
Trichloroethylene	6.7	0.10	0.030		36	0.54		2	12/17/13 13:03	TPH
Trichlorofluoromethane (Freon 11)	2.1	0.10	0.035		12	0.56		2	12/17/13 13:03	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.10	0.028		ND	0.77		2	12/17/13 13:03	TPH
1,2,4-Trimethylbenzene	ND	0.10	0.025		ND	0.49		2	12/17/13 13:03	TPH
1,3,5-Trimethylbenzene	ND	0.10	0.020		ND	0.49		2	12/17/13 13:03	TPH
Vinyl Acetate	ND	2.0	0.051		ND	7.0		2	12/17/13 13:03	TPH
Vinyl Chloride	ND	0.10	0.043		ND	0.26		2	12/17/13 13:03	TPH
m&p-Xylene	ND	0.20	0.050		ND	0.87		2	12/17/13 13:03	TPH
o-Xylene	ND	0.10	0.029		ND	0.43		2	12/17/13 13:03	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	91.0	70-130	12/17/13 13:03
4-Bromofluorobenzene (2)	81.6	70-130	12/17/13 13:03

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: EW-7-121313

Sample ID: 13L0600-11

Sample Matrix: Soil Gas

Sampled: 12/13/2013 11:32

Sample Description/Location:

Sub Description/Location:

Canister ID: 1063

Canister Size: 6 liter

Flow Controller ID: 4182

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -5.4

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Acetone	6.0	4.0	1.4	L-05, V-06	14	9.5		2	12/17/13 13:43	TPH
Benzene	0.27	0.10	0.052		0.86	0.32		2	12/17/13 13:43	TPH
Benzyl chloride	ND	0.10	0.019		ND	0.52		2	12/17/13 13:43	TPH
Bromodichloromethane	ND	0.10	0.022		ND	0.67		2	12/17/13 13:43	TPH
Bromoform	ND	0.10	0.019		ND	1.0		2	12/17/13 13:43	TPH
Bromomethane	ND	0.10	0.069		ND	0.39		2	12/17/13 13:43	TPH
1,3-Butadiene	ND	0.10	0.051		ND	0.22		2	12/17/13 13:43	TPH
2-Butanone (MEK)	2.0	4.0	0.075	J	5.9	12		2	12/17/13 13:43	TPH
Carbon Disulfide	1.5	1.0	0.034		4.6	3.1		2	12/17/13 13:43	TPH
Carbon Tetrachloride	ND	0.10	0.024		ND	0.63		2	12/17/13 13:43	TPH
Chlorobenzene	ND	0.10	0.035		ND	0.46		2	12/17/13 13:43	TPH
Chloroethane	0.24	0.10	0.038		0.63	0.26		2	12/17/13 13:43	TPH
Chloroform	0.53	0.10	0.023		2.6	0.49		2	12/17/13 13:43	TPH
Chloromethane	ND	0.20	0.044		ND	0.41		2	12/17/13 13:43	TPH
Cyclohexane	ND	0.10	0.057		ND	0.34		2	12/17/13 13:43	TPH
Dibromochloromethane	ND	0.10	0.027		ND	0.85		2	12/17/13 13:43	TPH
1,2-Dibromoethane (EDB)	ND	0.10	0.022		ND	0.77		2	12/17/13 13:43	TPH
1,2-Dichlorobenzene	ND	0.10	0.027		ND	0.60		2	12/17/13 13:43	TPH
1,3-Dichlorobenzene	ND	0.10	0.022		ND	0.60		2	12/17/13 13:43	TPH
1,4-Dichlorobenzene	ND	0.10	0.025		ND	0.60		2	12/17/13 13:43	TPH
Dichlorodifluoromethane (Freon 12)	0.48	0.10	0.043		2.4	0.49		2	12/17/13 13:43	TPH
1,1-Dichloroethane	3.0	0.10	0.028		12	0.40		2	12/17/13 13:43	TPH
1,2-Dichloroethane	ND	0.10	0.028		ND	0.40		2	12/17/13 13:43	TPH
1,1-Dichloroethylene	ND	0.10	0.024		ND	0.40		2	12/17/13 13:43	TPH
cis-1,2-Dichloroethylene	1.5	0.10	0.038		6.0	0.40		2	12/17/13 13:43	TPH
trans-1,2-Dichloroethylene	3.3	0.10	0.026		13	0.40		2	12/17/13 13:43	TPH
1,2-Dichloropropane	ND	0.10	0.035		ND	0.46		2	12/17/13 13:43	TPH
cis-1,3-Dichloropropene	ND	0.10	0.027		ND	0.45		2	12/17/13 13:43	TPH
trans-1,3-Dichloropropene	ND	0.10	0.027		ND	0.45		2	12/17/13 13:43	TPH
Ethanol	6.5	4.0	1.8		12	7.5		2	12/17/13 13:43	TPH
Ethyl Acetate	0.26	0.10	0.075		0.94	0.36		2	12/17/13 13:43	TPH
Ethylbenzene	ND	0.10	0.028		ND	0.43		2	12/17/13 13:43	TPH
4-Ethyltoluene	ND	0.10	0.023		ND	0.49		2	12/17/13 13:43	TPH
Heptane	ND	0.10	0.032		ND	0.41		2	12/17/13 13:43	TPH
Hexachlorobutadiene	ND	0.10	0.038		ND	1.1		2	12/17/13 13:43	TPH
Hexane	ND	4.0	0.18		ND	14		2	12/17/13 13:43	TPH
2-Hexanone (MBK)	ND	0.10	0.026		ND	0.41		2	12/17/13 13:43	TPH
Isopropanol	5.2	4.0	0.12		13	9.8		2	12/17/13 13:43	TPH

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: EW-7-121313

Sample ID: 13L0600-11

Sample Matrix: Soil Gas

Sampled: 12/13/2013 11:32

Sample Description/Location:

Sub Description/Location:

Canister ID: 1063

Canister Size: 6 liter

Flow Controller ID: 4182

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -5.0

Receipt Vacuum(in Hg): -5.4

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.031		ND	0.36		2	12/17/13 13:43	TPH
Methylene Chloride	0.32	1.0	0.12	J	1.1	3.5		2	12/17/13 13:43	TPH
Methyl methacrylate	ND	0.10	0.031		ND	0.41		2	12/17/13 13:43	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.024		ND	0.41		2	12/17/13 13:43	TPH
Propene	ND	4.0	0.31		ND	6.9		2	12/17/13 13:43	TPH
Styrene	ND	0.10	0.019		ND	0.43		2	12/17/13 13:43	TPH
1,1,1,2-Tetrachloroethane	ND	0.18	0.066		ND	1.2		2	12/17/13 13:43	TPH
1,1,2,2-Tetrachloroethane	ND	0.10	0.024		ND	0.69		2	12/17/13 13:43	TPH
Tetrachloroethylene	21	0.10	0.028		140	0.68		2	12/17/13 13:43	TPH
Tetrahydrofuran	700	1.0	0.42		2100	2.9		20	12/17/13 11:04	TPH
Toluene	0.27	0.10	0.031		1.0	0.38		2	12/17/13 13:43	TPH
1,2,4-Trichlorobenzene	ND	0.10	0.038		ND	0.74		2	12/17/13 13:43	TPH
1,1,1-Trichloroethane	7.6	0.10	0.018		41	0.55		2	12/17/13 13:43	TPH
1,1,2-Trichloroethane	ND	0.10	0.030		ND	0.55		2	12/17/13 13:43	TPH
Trichloroethylene	52	0.10	0.030		280	0.54		2	12/17/13 13:43	TPH
Trichlorofluoromethane (Freon 11)	200	1.0	0.35		1100	5.6		20	12/17/13 11:04	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.12	0.10	0.028		0.90	0.77		2	12/17/13 13:43	TPH
1,2,4-Trimethylbenzene	0.12	0.10	0.025		0.58	0.49		2	12/17/13 13:43	TPH
1,3,5-Trimethylbenzene	ND	0.10	0.020		ND	0.49		2	12/17/13 13:43	TPH
Vinyl Acetate	ND	2.0	0.051		ND	7.0		2	12/17/13 13:43	TPH
Vinyl Chloride	ND	0.10	0.043		ND	0.26		2	12/17/13 13:43	TPH
m&p-Xylene	ND	0.20	0.050		ND	0.87		2	12/17/13 13:43	TPH
o-Xylene	ND	0.10	0.029		ND	0.43		2	12/17/13 13:43	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	99.3	70-130	12/17/13 11:04
4-Bromofluorobenzene (1)	103	70-130	12/17/13 13:43
4-Bromofluorobenzene (2)	89.8	70-130	12/17/13 13:43

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: EW-Combined-121313

Sample ID: 13L0600-12

Sample Matrix: Soil Gas

Sampled: 12/13/2013 11:40

Sample Description/Location:

Sub Description/Location:

Canister ID: 1163

Canister Size: 6 liter

Flow Controller ID: 4188

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -4.0

Receipt Vacuum(in Hg): -3.4

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Acetone	2.8	4.0	1.4	J	6.6	9.5		2	12/17/13 14:24	TPH
Benzene	ND	0.10	0.052		ND	0.32		2	12/17/13 14:24	TPH
Benzyl chloride	ND	0.10	0.019		ND	0.52		2	12/17/13 14:24	TPH
Bromodichloromethane	ND	0.10	0.022		ND	0.67		2	12/17/13 14:24	TPH
Bromoform	ND	0.10	0.019		ND	1.0		2	12/17/13 14:24	TPH
Bromomethane	ND	0.10	0.069		ND	0.39		2	12/17/13 14:24	TPH
1,3-Butadiene	ND	0.10	0.051		ND	0.22		2	12/17/13 14:24	TPH
2-Butanone (MEK)	0.33	4.0	0.075	J	0.97	12		2	12/17/13 14:24	TPH
Carbon Disulfide	ND	1.0	0.034		ND	3.1		2	12/17/13 14:24	TPH
Carbon Tetrachloride	ND	0.10	0.024		ND	0.63		2	12/17/13 14:24	TPH
Chlorobenzene	ND	0.10	0.035		ND	0.46		2	12/17/13 14:24	TPH
Chloroethane	0.45	0.10	0.038		1.2	0.26		2	12/17/13 14:24	TPH
Chloroform	0.31	0.10	0.023		1.5	0.49		2	12/17/13 14:24	TPH
Chloromethane	ND	0.20	0.044		ND	0.41		2	12/17/13 14:24	TPH
Cyclohexane	ND	0.10	0.057		ND	0.34		2	12/17/13 14:24	TPH
Dibromochloromethane	ND	0.10	0.027		ND	0.85		2	12/17/13 14:24	TPH
1,2-Dibromoethane (EDB)	ND	0.10	0.022		ND	0.77		2	12/17/13 14:24	TPH
1,2-Dichlorobenzene	ND	0.10	0.027		ND	0.60		2	12/17/13 14:24	TPH
1,3-Dichlorobenzene	ND	0.10	0.022		ND	0.60		2	12/17/13 14:24	TPH
1,4-Dichlorobenzene	ND	0.10	0.025		ND	0.60		2	12/17/13 14:24	TPH
Dichlorodifluoromethane (Freon 12)	0.65	0.10	0.043		3.2	0.49		2	12/17/13 14:24	TPH
1,1-Dichloroethane	15	0.10	0.028		62	0.40		2	12/17/13 14:24	TPH
1,2-Dichloroethane	ND	0.10	0.028		ND	0.40		2	12/17/13 14:24	TPH
1,1-Dichloroethylene	6.1	0.10	0.024		24	0.40		2	12/17/13 14:24	TPH
cis-1,2-Dichloroethylene	3.1	0.10	0.038		12	0.40		2	12/17/13 14:24	TPH
trans-1,2-Dichloroethylene	ND	0.10	0.026		ND	0.40		2	12/17/13 14:24	TPH
1,2-Dichloropropane	ND	0.10	0.035		ND	0.46		2	12/17/13 14:24	TPH
cis-1,3-Dichloropropene	ND	0.10	0.027		ND	0.45		2	12/17/13 14:24	TPH
trans-1,3-Dichloropropene	ND	0.10	0.027		ND	0.45		2	12/17/13 14:24	TPH
Ethanol	5.7	4.0	1.8		11	7.5		2	12/17/13 14:24	TPH
Ethyl Acetate	0.50	0.10	0.075		1.8	0.36		2	12/17/13 14:24	TPH
Ethylbenzene	ND	0.10	0.028		ND	0.43		2	12/17/13 14:24	TPH
4-Ethyltoluene	ND	0.10	0.023		ND	0.49		2	12/17/13 14:24	TPH
Heptane	ND	0.10	0.032		ND	0.41		2	12/17/13 14:24	TPH
Hexachlorobutadiene	ND	0.10	0.038		ND	1.1		2	12/17/13 14:24	TPH
Hexane	0.33	4.0	0.18	J	1.2	14		2	12/17/13 14:24	TPH
2-Hexanone (MBK)	ND	0.10	0.026		ND	0.41		2	12/17/13 14:24	TPH
Isopropanol	1.2	4.0	0.12	J	3.0	9.8		2	12/17/13 14:24	TPH

ANALYTICAL RESULTS

Project Location: Providence RI

Date Received: 12/13/2013

Field Sample #: EW-Combined-121313

Sample ID: 13L0600-12

Sample Matrix: Soil Gas

Sampled: 12/13/2013 11:40

Sample Description/Location:

Sub Description/Location:

Canister ID: 1163

Canister Size: 6 liter

Flow Controller ID: 4188

Sample Type: 30 min

Work Order: 13L0600

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -4.0

Receipt Vacuum(in Hg): -3.4

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
		RL	MDL	Flag	Results	RL				
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.031		ND	0.36		2	12/17/13 14:24	TPH
Methylene Chloride	0.61	1.0	0.12	J	2.1	3.5		2	12/17/13 14:24	TPH
Methyl methacrylate	ND	0.10	0.031		ND	0.41		2	12/17/13 14:24	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.024		ND	0.41		2	12/17/13 14:24	TPH
Propene	ND	4.0	0.31		ND	6.9		2	12/17/13 14:24	TPH
Styrene	ND	0.10	0.019		ND	0.43		2	12/17/13 14:24	TPH
1,1,1,2-Tetrachloroethane	ND	0.18	0.066		ND	1.2		2	12/17/13 14:24	TPH
1,1,2,2-Tetrachloroethane	ND	0.10	0.024		ND	0.69		2	12/17/13 14:24	TPH
Tetrachloroethylene	1.0	0.10	0.028		7.0	0.68		2	12/17/13 14:24	TPH
Tetrahydrofuran	0.27	0.10	0.042		0.79	0.29		2	12/17/13 14:24	TPH
Toluene	ND	0.10	0.031		ND	0.38		2	12/17/13 14:24	TPH
1,2,4-Trichlorobenzene	ND	0.10	0.038		ND	0.74		2	12/17/13 14:24	TPH
1,1,1-Trichloroethane	270	1.0	0.18		1500	5.5		20	12/17/13 11:41	TPH
1,1,2-Trichloroethane	ND	0.10	0.030		ND	0.55		2	12/17/13 14:24	TPH
Trichloroethylene	30	0.10	0.030		160	0.54		2	12/17/13 14:24	TPH
Trichlorofluoromethane (Freon 11)	36	0.10	0.035		200	0.56		2	12/17/13 14:24	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.10	0.028		ND	0.77		2	12/17/13 14:24	TPH
1,2,4-Trimethylbenzene	ND	0.10	0.025		ND	0.49		2	12/17/13 14:24	TPH
1,3,5-Trimethylbenzene	ND	0.10	0.020		ND	0.49		2	12/17/13 14:24	TPH
Vinyl Acetate	ND	2.0	0.051		ND	7.0		2	12/17/13 14:24	TPH
Vinyl Chloride	ND	0.10	0.043		ND	0.26		2	12/17/13 14:24	TPH
m&p-Xylene	ND	0.20	0.050		ND	0.87		2	12/17/13 14:24	TPH
o-Xylene	ND	0.10	0.029		ND	0.43		2	12/17/13 14:24	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	101	70-130	12/17/13 11:41
4-Bromofluorobenzene (1)	99.5	70-130	12/17/13 14:24
4-Bromofluorobenzene (2)	88.2	70-130	12/17/13 14:24

Sample Extraction Data
Prep Method: TO-15 Prep-EPA TO-15

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
13L0600-01 [IA-1-121313]	B087325	1.5	1	N/A	1000	400	855	12/16/13
13L0600-02 [IA-2-121313]	B087325	1.5	1	N/A	1000	400	855	12/16/13
13L0600-03 [IA-3-121313]	B087325	1.5	1	N/A	1000	400	855	12/16/13
13L0600-04 [IA-4-121313]	B087325	1.5	1	N/A	1000	400	855	12/16/13
13L0600-05 [IA-5-121313]	B087325	1.5	1	N/A	1000	400	855	12/16/13
13L0600-06 [IA-6-121313]	B087325	1.5	1	N/A	1000	400	855	12/16/13
13L0600-07 [IA-7-121313]	B087325	1.5	1	N/A	1000	400	855	12/16/13
13L0600-08 [AA-1-121313]	B087325	1.5	1	N/A	1000	400	855	12/16/13
13L0600-09 [EW-5-121313]	B087325	1.5	1	N/A	1000	400	300	12/16/13
13L0600-10 [EW-6-121313]	B087325	1.5	1	N/A	1000	400	300	12/16/13
13L0600-11 [EW-7-121313]	B087325	1.5	1	N/A	1000	400	300	12/16/13
13L0600-11RE1 [EW-7-121313]	B087325	1.5	1	N/A	1000	400	30	12/16/13
13L0600-12 [EW-Combined-121313]	B087325	1.5	1	N/A	1000	400	300	12/16/13
13L0600-12RE1 [EW-Combined-121313]	B087325	1.5	1	N/A	1000	400	30	12/16/13

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
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Batch B087325 - TO-15 Prep

Blank (B087325-BLK1)	Prepared: 12/16/13 Analyzed: 12/17/13									
Acetone	ND	1.0								
Benzene	ND	0.025								
Benzyl chloride	ND	0.025								
Bromodichloromethane	ND	0.025								
Bromoform	ND	0.025								
Bromomethane	ND	0.025								
1,3-Butadiene	ND	0.025								
2-Butanone (MEK)	ND	1.0								
Carbon Disulfide	ND	0.25								
Carbon Tetrachloride	ND	0.025								
Chlorobenzene	ND	0.025								
Chloroethane	ND	0.025								
Chloroform	ND	0.025								
Chloromethane	ND	0.050								
Cyclohexane	ND	0.025								
Dibromochloromethane	ND	0.025								
1,2-Dibromoethane (EDB)	ND	0.025								
1,2-Dichlorobenzene	ND	0.025								
1,3-Dichlorobenzene	ND	0.025								
1,4-Dichlorobenzene	ND	0.025								
Dichlorodifluoromethane (Freon 12)	ND	0.025								
1,1-Dichloroethane	ND	0.025								
1,2-Dichloroethane	ND	0.025								
1,1-Dichloroethylene	ND	0.025								
cis-1,2-Dichloroethylene	ND	0.025								
trans-1,2-Dichloroethylene	ND	0.025								
1,2-Dichloropropane	ND	0.025								
cis-1,3-Dichloropropene	ND	0.025								
trans-1,3-Dichloropropene	ND	0.025								
Ethanol	ND	1.0								
Ethyl Acetate	ND	0.025								
Ethylbenzene	ND	0.025								
4-Ethyltoluene	ND	0.025								
Heptane	ND	0.025								
Hexachlorobutadiene	ND	0.025								
Hexane	ND	1.0								
2-Hexanone (MBK)	ND	0.025								
Isopropanol	ND	1.0								
Methyl tert-Butyl Ether (MTBE)	ND	0.025								
Methylene Chloride	0.078	0.25								
Methyl methacrylate	ND	0.025								
4-Methyl-2-pentanone (MIBK)	ND	0.025								
Propene	ND	1.0								
Styrene	ND	0.025								
1,1,1,2-Tetrachloroethane	ND	0.046								
1,1,2,2-Tetrachloroethane	ND	0.025								

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	Limits	RPD RPD	RPD Limit	Flag
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Batch B087325 - TO-15 Prep

Blank (B087325-BLK1)	Prepared: 12/16/13 Analyzed: 12/17/13										
Tetrachloroethylene	ND	0.025									
Tetrahydrofuran	ND	0.025									
Toluene	ND	0.025									
1,2,4-Trichlorobenzene	ND	0.025									
1,1,1-Trichloroethane	ND	0.025									
1,1,2-Trichloroethane	ND	0.025									
Trichloroethylene	ND	0.025									
Trichlorofluoromethane (Freon 11)	ND	0.025									
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.025									
1,2,4-Trimethylbenzene	ND	0.025									
1,3,5-Trimethylbenzene	ND	0.025									
Vinyl Acetate	ND	0.50									
Vinyl Chloride	ND	0.025									
m&p-Xylene	ND	0.050									
o-Xylene	ND	0.025									
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	8.53		8.00		107		70-130				
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	7.56		8.00		94.5		70-130				

LCS (B087325-BS1)	Prepared & Analyzed: 12/16/13							
Acetone	6.61		5.00		132	*	70-130	L-05, V-06
Benzene	4.24		5.00		84.8		70-130	
Benzyl chloride	7.28		5.00		146	*	70-130	L-01, V-06
Bromodichloromethane	5.05		5.00		101		70-130	
Bromoform	5.83		5.00		117		70-130	
Bromomethane	4.54		5.00		90.9		70-130	
1,3-Butadiene	4.82		5.00		96.4		70-130	
2-Butanone (MEK)	5.00		5.00		100		70-130	
Carbon Disulfide	4.11		5.00		82.2		70-130	
Carbon Tetrachloride	5.13		5.00		103		70-130	
Chlorobenzene	5.39		5.00		108		70-130	
Chloroethane	5.00		5.00		99.9		70-130	
Chloroform	4.50		5.00		89.9		70-130	
Chloromethane	4.23		5.00		84.7		70-130	
Cyclohexane	4.39		5.00		87.9		70-130	
Dibromochloromethane	5.72		5.00		114		70-130	
1,2-Dibromoethane (EDB)	5.32		5.00		106		70-130	
1,2-Dichlorobenzene	5.79		5.00		116		70-130	
1,3-Dichlorobenzene	6.06		5.00		121		70-130	
1,4-Dichlorobenzene	5.86		5.00		117		70-130	
Dichlorodifluoromethane (Freon 12)	4.92		5.00		98.4		70-130	
1,1-Dichloroethane	4.08		5.00		81.6		70-130	
1,2-Dichloroethane	4.75		5.00		94.9		70-130	
1,1-Dichloroethylene	4.01		5.00		80.3		70-130	
cis-1,2-Dichloroethylene	4.00		5.00		79.9		70-130	
trans-1,2-Dichloroethylene	3.74		5.00		74.7		70-130	
1,2-Dichloropropane	4.25		5.00		84.9		70-130	

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	Limits	RPD RPD	RPD Limit	Flag
Batch B087325 - TO-15 Prep											
LCS (B087325-BS1)											
Prepared & Analyzed: 12/16/13											
cis-1,3-Dichloropropene	4.70		5.00		94.0	70-130					
trans-1,3-Dichloropropene	5.08		5.00		102	70-130					
Ethanol	3.96		5.00		79.2	70-130					
Ethyl Acetate	5.69		5.00		114	70-130					
Ethylbenzene	5.58		5.00		112	70-130					
4-Ethyltoluene	5.83		5.00		117	70-130					
Heptane	5.01		5.00		100	70-130					
Hexachlorobutadiene	5.25		5.00		105	70-130					
Hexane	4.77		5.00		95.4	70-130					
2-Hexanone (MBK)	5.46		5.00		109	70-130					
Isopropanol	4.97		5.00		99.4	70-130					
Methyl tert-Butyl Ether (MTBE)	4.08		5.00		81.5	70-130					
Methylene Chloride	4.53		5.00		90.7	70-130					
Methyl methacrylate	4.92		5.00		98.5	70-130					
4-Methyl-2-pentanone (MIBK)	5.49		5.00		110	70-130					
Propene	4.74		5.00		94.8	70-130					
Styrene	5.75		5.00		115	70-130					
1,1,1,2-Tetrachloroethane	1.02		0.910		112	70-130					
1,1,2,2-Tetrachloroethane	5.67		5.00		113	70-130					
Tetrachloroethylene	5.15		5.00		103	70-130					
Tetrahydrofuran	4.37		5.00		87.4	70-130					
Toluene	5.27		5.00		105	70-130					
1,2,4-Trichlorobenzene	5.39		5.00		108	70-130					
1,1,1-Trichloroethane	4.93		5.00		98.6	70-130					
1,1,2-Trichloroethane	5.23		5.00		105	70-130					
Trichloroethylene	4.58		5.00		91.6	70-130					
Trichlorofluoromethane (Freon 11)	5.24		5.00		105	70-130					
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.19		5.00		83.8	70-130					
1,2,4-Trimethylbenzene	5.88		5.00		118	70-130					
1,3,5-Trimethylbenzene	6.26		5.00		125	70-130					
Vinyl Acetate	4.15		5.00		82.9	70-130					
Vinyl Chloride	4.75		5.00		95.1	70-130					
m&p-Xylene	12.5		10.0		125	70-130					
o-Xylene	6.03		5.00		121	70-130					
Surrogate: 4-Bromofluorobenzene (1)	9.85		8.00		123	70-130					
Surrogate: 4-Bromofluorobenzene (2)	6.81		8.00		85.1	70-130					

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	Limits	RPD RPD	RPD Limit	Flag
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Batch B087325 - TO-15 Prep

Duplicate (B087325-DUP1)	Source: 13L0600-08				Prepared: 12/16/13 Analyzed: 12/17/13						
Acetone	11	1.4	27	3.3		11			2.78	25	L-05, V-06
Benzene	0.14	0.035	0.45	0.11		0.13			4.58	25	
Benzyl chloride	ND	0.035	ND	0.18		ND				25	
Bromodichloromethane	ND	0.035	ND	0.24		ND				25	
Bromoform	ND	0.035	ND	0.36		ND				25	
Bromomethane	ND	0.035	ND	0.14		ND				25	
1,3-Butadiene	ND	0.035	ND	0.078		ND				25	
2-Butanone (MEK)	0.28	1.4	0.82	4.1		0.28			0.253	25	J
Carbon Disulfide	ND	0.35	ND	1.1		ND				25	
Carbon Tetrachloride	0.081	0.035	0.51	0.22		0.071			13.0	25	
Chlorobenzene	ND	0.035	ND	0.16		ND				25	
Chloroethane	ND	0.035	ND	0.093		ND				25	
Chloroform	ND	0.035	ND	0.17		ND				25	
Chloromethane	0.53	0.070	1.1	0.14		0.52			1.60	25	
Cyclohexane	ND	0.035	ND	0.12		ND				25	
Dibromochloromethane	ND	0.035	ND	0.30		ND				25	
1,2-Dibromoethane (EDB)	ND	0.035	ND	0.27		ND				25	
1,2-Dichlorobenzene	ND	0.035	ND	0.21		ND				25	
1,3-Dichlorobenzene	ND	0.035	ND	0.21		ND				25	
1,4-Dichlorobenzene	ND	0.035	ND	0.21		ND				25	
Dichlorodifluoromethane (Freon 12)	0.57	0.035	2.8	0.17		0.54			4.31	25	
1,1-Dichloroethane	ND	0.035	ND	0.14		ND				25	
1,2-Dichloroethane	ND	0.035	ND	0.14		ND				25	
1,1-Dichloroethylene	ND	0.035	ND	0.14		ND				25	
cis-1,2-Dichloroethylene	ND	0.035	ND	0.14		ND				25	
trans-1,2-Dichloroethylene	ND	0.035	ND	0.14		ND				25	
1,2-Dichloropropane	ND	0.035	ND	0.16		ND				25	
cis-1,3-Dichloropropene	ND	0.035	ND	0.16		ND				25	
trans-1,3-Dichloropropene	ND	0.035	ND	0.16		ND				25	
Ethanol	3.1	1.4	5.8	2.6		2.9			7.08	25	
Ethyl Acetate	ND	0.035	ND	0.13		ND				25	
Ethylbenzene	ND	0.035	ND	0.15		ND				25	
4-Ethyltoluene	ND	0.035	ND	0.17		ND				25	
Heptane	ND	0.035	ND	0.14		ND				25	
Hexachlorobutadiene	ND	0.035	ND	0.37		ND				25	
Hexane	0.097	1.4	0.34	4.9		0.091			5.97	25	J
2-Hexanone (MBK)	ND	0.035	ND	0.14		ND				25	
Isopropanol	0.30	1.4	0.73	3.4		0.31			4.60	25	J
Methyl tert-Butyl Ether (MTBE)	ND	0.035	ND	0.13		ND				25	
Methylene Chloride	0.23	0.35	0.81	1.2		0.22			7.15	25	J
Methyl methacrylate	ND	0.035	ND	0.14		ND				25	
4-Methyl-2-pentanone (MIBK)	ND	0.035	ND	0.14		ND				25	
Propene	ND	1.4	ND	2.4		ND				25	
Styrene	ND	0.035	ND	0.15		ND				25	
1,1,1,2-Tetrachloroethane	ND	0.064	ND	0.44		ND				25	
1,1,2,2-Tetrachloroethane	ND	0.035	ND	0.24		ND				25	

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	RPD Limits	RPD RPD	RPD Limit	Flag
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Batch B087325 - TO-15 Prep

Duplicate (B087325-DUP1)		Source: 13L0600-08			Prepared: 12/16/13 Analyzed: 12/17/13						
Tetrachloroethylene	ND	0.035	ND	0.24		ND				25	
Tetrahydrofuran	ND	0.035	ND	0.10		ND				25	
Toluene	0.097	0.035	0.36	0.13		0.093			3.69	25	
1,2,4-Trichlorobenzene	ND	0.035	ND	0.26		ND				25	
1,1,1-Trichloroethane	ND	0.035	ND	0.19		ND				25	
1,1,2-Trichloroethane	ND	0.035	ND	0.19		ND				25	
Trichloroethylene	ND	0.035	ND	0.19		ND				25	
Trichlorofluoromethane (Freon 11)	0.27	0.035	1.5	0.20		0.26			2.94	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.076	0.035	0.59	0.27		0.072			6.64	25	
1,2,4-Trimethylbenzene	ND	0.035	ND	0.17		ND				25	
1,3,5-Trimethylbenzene	ND	0.035	ND	0.17		ND				25	
Vinyl Acetate	ND	0.70	ND	2.5		ND				25	
Vinyl Chloride	ND	0.035	ND	0.090		ND				25	
m&p-Xylene	ND	0.070	ND	0.30		ND				25	
o-Xylene	ND	0.035	ND	0.15		ND				25	
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	8.62			8.00		108		70-130			
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	7.54			8.00		94.2		70-130			

FLAG/QUALIFIER SUMMARY

- * QC result is outside of established limits.
 - † Wide recovery limits established for difficult compound.
 - ‡ Wide RPD limits established for difficult compound.
 - # Data exceeded client recommended or regulatory level
- Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
- J Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
- L-01 Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.
- L-05 Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.
- V-06 Continuing calibration did not meet method specifications and was biased on the high side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the high side.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Acetone	AIHA,NY
Benzene	AIHA,FL,NJ,NY,VA
Benzyl chloride	AIHA,FL,NJ,NY,VA
Bromodichloromethane	AIHA,NJ,NY,VA
Bromoform	AIHA,NJ,NY,VA
Bromomethane	AIHA,FL,NJ,NY
1,3-Butadiene	AIHA,NJ,NY,VA
2-Butanone (MEK)	AIHA,FL,NJ,NY,VA
Carbon Disulfide	AIHA,NJ,NY,VA
Carbon Tetrachloride	AIHA,FL,NJ,NY,VA
Chlorobenzene	AIHA,FL,NJ,NY,VA
Chloroethane	AIHA,FL,NJ,NY,VA
Chloroform	AIHA,FL,NJ,NY,VA
Chloromethane	AIHA,FL,NJ,NY,VA
Cyclohexane	AIHA,NJ,NY,VA
Dibromochloromethane	AIHA,NY
1,2-Dibromoethane (EDB)	AIHA,NJ,NY
1,2-Dichlorobenzene	AIHA,FL,NJ,NY,VA
1,3-Dichlorobenzene	AIHA,NJ,NY
1,4-Dichlorobenzene	AIHA,FL,NJ,NY,VA
Dichlorodifluoromethane (Freon 12)	AIHA,NY
1,1-Dichloroethane	AIHA,FL,NJ,NY,VA
1,2-Dichloroethane	AIHA,FL,NJ,NY,VA
1,1-Dichloroethylene	AIHA,FL,NJ,NY,VA
cis-1,2-Dichloroethylene	AIHA,FL,NY,VA
trans-1,2-Dichloroethylene	AIHA,NJ,NY,VA
1,2-Dichloropropane	AIHA,FL,NJ,NY,VA
cis-1,3-Dichloropropene	AIHA,FL,NJ,NY,VA
trans-1,3-Dichloropropene	AIHA,NY
Ethanol	AIHA
Ethyl Acetate	AIHA
Ethylbenzene	AIHA,FL,NJ,NY,VA
4-Ethyltoluene	AIHA,NJ
Heptane	AIHA,NJ,NY,VA
Hexachlorobutadiene	AIHA,NJ,NY,VA
Hexane	AIHA,FL,NJ,NY,VA
2-Hexanone (MBK)	AIHA
Isopropanol	AIHA,NY
Methyl tert-Butyl Ether (MTBE)	AIHA,FL,NJ,NY,VA
Methylene Chloride	AIHA,FL,NJ,NY,VA
Methyl methacrylate	AIHA,NJ,NY,VA
4-Methyl-2-pentanone (MIBK)	AIHA,FL,NJ,NY
Propene	AIHA
Styrene	AIHA,FL,NJ,NY,VA
1,1,2,2-Tetrachloroethane	AIHA,FL,NJ,NY,VA
Tetrachloroethylene	AIHA,FL,NJ,NY,VA
Tetrahydrofuran	AIHA

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Toluene	AIHA,FL,NJ,NY,VA
1,2,4-Trichlorobenzene	AIHA,NJ,NY,VA
1,1,1-Trichloroethane	AIHA,FL,NJ,NY,VA
1,1,2-Trichloroethane	AIHA,FL,NJ,NY,VA
Trichloroethylene	AIHA,FL,NJ,NY,VA
Trichlorofluoromethane (Freon 11)	AIHA,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	AIHA,NJ,NY,VA
1,2,4-Trimethylbenzene	AIHA,NJ,NY
1,3,5-Trimethylbenzene	AIHA,NJ,NY
Vinyl Acetate	AIHA,FL,NJ,NY,VA
Vinyl Chloride	AIHA,FL,NJ,NY,VA
m&p-Xylene	AIHA,FL,NJ,NY,VA
o-Xylene	AIHA,FL,NJ,NY,VA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2014
MA	Massachusetts DEP	M-MA100	06/30/2014
CT	Connecticut Department of Public Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2014
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2014
RI	Rhode Island Department of Health	LAO00112	12/30/2013
NC	North Carolina Div. of Water Quality	652	12/31/2013
NJ	New Jersey DEP	MA007 NELAP	06/30/2014
FL	Florida Department of Health	E871027 NELAP	06/30/2014
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2014
WA	State of Washington Department of Ecology	C2065	02/23/2014
ME	State of Maine	2011028	06/9/2015
VA	Commonwealth of Virginia	460217	12/14/2014
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2014



Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

AIR SAMPLE CHAIN OF CUSTODY RECORD

39 SPRUCE ST
EAST LONGMEADOW, MA 01028

Page 1 of 2

www.contestlabs.com

Telephone: (418) 692-9090

Project #: 3650080114

Client PO #: C01220327C

Company Name: Amer
Address: 2 Robbin's Rd.
Westford, MA 01880

Attention: Kelly Chastanen

Project Location: Providence, RI
Sampled By: Kelly Chastanen @ Amer.com

Proposal Provided? (For Billing purposes)
 yes _____ proposal date
 no _____ proposal date

DATA DELIVERY (check one)												
FAX <input type="checkbox"/> EMAIL <input type="checkbox"/> WEBSITE												
Email: <u>Kelly.Chastanen@Amer.com</u>	Format: <input type="checkbox"/> EXCEL <input type="checkbox"/> PDF <input type="checkbox"/> GIS KEY <input checked="" type="checkbox"/> FATHER <input type="checkbox"/> MOTHER											
Date Sampled ONLY USE WHEN USING PUMPS												
Start	Stop	Total	Flow Rate	Volume	Minutes L / Min.	Liters or M ³	Matrix Code*	To	From	Summa Canister ID	Flow Control ID	
12-13-13 08:44	12-13-13 08:44	30	0.2	6	74	Y			-28	-70	1077	4123
12-13-13 09:58	12-13-13 10:22	30	0.2	6	IA	Y			-28	-90	1448	4144
12-13-13 09:58	12-13-13 09:58	30	0.2	6	IA	Y			-28	-90	1092	4118
12-13-13 10:30	12-13-13 10:30	30	0.2	6	IA	Y			-30	-50	1453	4116
12-13-13 08:24	12-13-13 08:24	30	0.2	6	IA	Y			-29	-50	1031	4183
12-13-13 08:24	12-13-13 08:24	30	0.2	6	IA	X			-29	-50	1043	4172
12-13-13 10:57	12-13-13 10:57	30	0.2	6	IA	X			-29	-60	1093	4186
12-13-13 11:27	12-13-13 11:27	30	0.2	6	IA	X			-29	-60	1175	4187
12-13-13 11:05	12-13-13 11:05	30	0.2	6	IA	Y			-29	-50	1175	4187

Laboratory Comments:

CLIENT COMMENTS:

Relinquished by: (signature)	Date/Time:	<u>Turnaround</u> **	Special Requirements	*Matrix Code:
Received by: (signature)	12-13-13 15:06	7-Day	Regulations: CT T-24-Hr-T-Indust	SG= SOIL GAS IA= INDOOR AIR AMB=AMBIENT SS = SUB SLAB
Published by: (signature)	12-13-13 15:06	<input type="checkbox"/> 10-Day <input type="checkbox"/> Other _____	Data Enhancement/RCP? <input type="checkbox"/> Y <input type="checkbox"/> N Enhanced Data Package <input type="checkbox"/> Y <input type="checkbox"/> N (Surcharge Applies)	P=PUF T=tube D=DUP BL = BLANK
Received by: (signature)	Date/Time: 12-13-13 18:00	<input checked="" type="checkbox"/> RUSH * <input type="checkbox"/> *24-Hr <input type="checkbox"/> *48-Hr <input type="checkbox"/> *72-Hr <input type="checkbox"/> *4-Day	Required Detection Limits: CT T-24-Hr-T-Indust	F= filter C=cassette O = other

** TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

A/IHA, NELAC & WBE/DBE Certified

Quinton	12-13-13 18:00	<input type="checkbox"/> Approval Required
---------	-------------------	--

** Media Codes:

S=summary can

TB=tedlar bag

P=PUF

T=tube

D=DUP

BL = BLANK

C=cassette

O = Other



Phone: 413-525-2332
Fax: 413-525-6405

HAIN OF CUSTODY RECORD

39 SPRUCE ST

Page 2 of 2

Email: info@contestlabs.com

1360600

二

Please fill out

Company Name: A me C
Address: 2 Robbins Rd.

Westboro, MA 01580
Melvyn Chatlton

Project Location: Pruidoney RP
Sampled By: Mark Messier

Proposal Provided? (For Billing purposes)

DATA DELIVERY (check one): FAX E-MAIL WEBSITE CLIENT

Project Location: <u>Providence RP</u>		Sampled By: <u>Mark Messier</u>											
Fax #: <u>HellyChase.com</u>		Email: <u>HellyChase.com</u>											
Format: <input type="checkbox"/> EXCEL <input type="checkbox"/> PDF <input type="checkbox"/> GIS KEY		<input checked="" type="checkbox"/> OTHER											
Proposal Provided? (For Billing purposes)													
<input type="checkbox"/> yes _____ proposal date													
Date Sampled ONLY USE WHEN USING PUMPS													
Start	Stop	Total	Flow Rate										
Date Time	Date Time	Minutes Sampled	Volume M ³ /Min. or L/Min. or GPM										
Media	Lab #	Matrix Code*	Matrix Code*										
<u>En-5-12/13/13</u>	<u>5</u>	<u>09</u>	<u>12-13-13</u> <u>0838</u>	<u>30</u>	<u>0.2</u>	<u>6</u>	<u>SL-</u>	<u>X</u>	<u>28</u>	<u>.50</u>	<u>1.9</u>	<u>449</u>	<u>TO-15(10a)</u>
<u>En-6-12/13/13</u>	<u>5</u>	<u>10</u>	<u>12-13-13</u> <u>0832</u>	<u>30</u>	<u>0.2</u>	<u>6</u>	<u>SL-</u>	<u>X</u>	<u>28</u>	<u>.50</u>	<u>1.9</u>	<u>447</u>	<u>1062</u>
<u>En-7-12/13/13</u>	<u>5</u>	<u>11</u>	<u>12-13-13</u> <u>1162</u>	<u>30</u>	<u>0.2</u>	<u>6</u>	<u>SL-</u>	<u>X</u>	<u>30</u>	<u>.50</u>	<u>5.4</u>	<u>1063</u>	<u>4118</u>
<u>En-emb...-12/13/13</u>	<u>5</u>	<u>12</u>	<u>12-13-13</u> <u>1160</u>	<u>30</u>	<u>0.2</u>	<u>6</u>	<u>SL-</u>	<u>X</u>	<u>28</u>	<u>.50</u>	<u>1.9</u>	<u>1163</u>	<u>4188</u>
Laboratory Comments:				CLIENT COMMENTS:									
Relinquished by: (signature) <u>Mark Messier</u> Received by: (signature) <u>Mark Messier</u> Relinquished by: (signature) <u>Mark Messier</u> Received by: (signature) <u>Mark Messier</u>				Turnaround ** Date/Time: <u>12-13-13 1506</u> <input checked="" type="checkbox"/> 7-Day <input type="checkbox"/> 10-Day <input type="checkbox"/> Other _____ RUSH * Date/Time: <u>12-13-13 1500</u> <input type="checkbox"/> *24-Hr <input type="checkbox"/> *48-Hr <input type="checkbox"/> *72-Hr <input type="checkbox"/> 4-Day Required Detection Limits: <u>Ct 1000</u> Other: <u>Conventional</u> *Approval Required									
Special Requirements Regulations: <input checked="" type="checkbox"/> CT <input type="checkbox"/> T-Res + Indust <input type="checkbox"/> Data Enhancement/RCP? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Enhanced Data Package <input type="checkbox"/> Y <input checked="" type="checkbox"/> N (Surcharge Applies)				*Matrix Code: SG= SOIL GAS IA= INDOOR AIR AMB=AMBIENT SS = SUB SLAB D = DUP BL = BLANK O = other									
				**Media Codes: S=summary can TB=tedlar bag P=PUF T=tube F=filter C=cassette O=Other									
ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED													

***** TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS.**

Page 2 of 2
Login Sample Receipt Checklist
(Rejection Criteria Listing - Using Sample Acceptance Policy)
Any False statement will be brought to the attention of Client

Question	Answer (True/False)	Comment
	T/F/NA	
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	NA	
3) Samples were received on ice.	NA	
4) Cooler Temperature is acceptable.	NA	
5) Cooler Temperature is recorded.	NA	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	NA	
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA	
21) Samples do not require splitting or compositing.	T	

Doc #278 Rev. 3 August 2013

Who notified of False statements?
 Log-In Technician Initials: PB

Date/Time:
 Date/Time: 12-13-13
 1800



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39 Spruce St.
East Longmeadow, MA.
01028
P: 413-525-2332
F: 413-525-6405

Page 1 of 2

AIR Only Receipt Checklist

CLIENT NAME: Amec

RECEIVED BY: PB

DATE: 12-13-13

1) Was the chain(s) of custody relinquished and signed?

 Yes No

2) Does the chain agree with the samples?

 Yes No

If not, explain:

3) Are all the samples in good condition?

 Yes No

If not, explain:

4) Are there any samples "On Hold"?

Yes No Stored where: _____

5) Are there any RUSH or SHORT HOLDING TIME samples?

Yes No

Who was notified _____ Date _____ Time _____

6) Location where samples are stored:

Our lab

Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature: _____

7) Temperature °C by Temp blank _____ Temperature °C by Temp gun _____

Containers received at Con-Test

	# of Containers	Types (Size, Duration)
Summa Cans (TO-14/TO-15/APH)	13	6 Lit
Tedlar Bags		
TO-17 Tubes		
Regulators	13	30 min
Restrictors		
Hg/Hopcalite Tube (NIOSH 6009) (TO-4A/ TO-10A/TO-13) PUFs		
PCB Florisil Tubes (NIOSH 5503)		
Air cassette		
PM 2.5/PM 10		
TO-11A Cartridges		
Other		

Unused Summas/PUF Media:

1462

Unused Regulators:

1) Was all media (used & unused) checked into the WASP?

2) Were all returned summa cans, Restrictors & Regulators and PUF's documented as returned in the Air Lab Inbound/Outbound Excel Spreadsheet?

Laboratory Comments:	1077	1034	1109
	1448	1043	1062
	1092	1095	1063
	1453	1175	1163

4188	4186	4074	4183
4189	4187	4173	
4190	4184	4172	
4191	4185	4182	

APPENDIX B

Analytical Laboratory Detection Limits



39 Spruce Street, 2nd Floor
East Longmeadow, MA 01028
413.525.2332
413.525.6405 (fax)

Analyte:

TO-14 / TO-15	PPBv	UG/M3	PPBv	UG/M3	MW NIST	UG/M3	PPBv
1,1,1-Trichloroethane	ND	ND	0.050	0.27	133.40	1	0.18
1,1,2,2-Tetrachloroethane	ND	ND	0.050	0.34	167.85	1	0.15
1,1,2-Trichloroethane	ND	ND	0.050	0.27	133.40	1	0.18
1,1,2-Trichlorotrifluoroethane (freon 113)	ND	ND	0.050	0.38	187.37	1	0.13
1,1-Dichloroethane	ND	ND	0.050	0.20	98.96	1	0.25
1,1-Dichloroethene	ND	ND	0.050	0.20	96.94	1	0.25
1,2,4-Trichlorobenzene	ND	ND	0.050	0.37	181.45	1	0.13
1,2,4-Trimethylbenzene	ND	ND	0.050	0.25	120.19	1	0.20
1,2-Dibromoethane	ND	ND	0.050	0.38	187.86	1	0.13
1,2-Dichlorobenzene	ND	ND	0.050	0.30	147.00	1	0.17
1,2-Dichloroethane	ND	ND	0.050	0.20	98.96	1	0.25
1,2-Dichloropropane	ND	ND	0.050	0.23	112.99	1	0.22
1,2-Dichlorotetrafluoroethane (freon 114)	ND	ND	0.050	0.35	170.92	1	0.14
1,3 - Butadiene	ND	ND	0.050	0.11	54.09	1	0.45
1,3,5-Trimethylbenzene	ND	ND	0.050	0.25	120.19	1	0.20
1,3-Dichlorobenzene	ND	ND	0.050	0.30	147.00	1	0.17
1,4-Dichlorobenzene	ND	ND	0.050	0.30	147.00	1	0.17
1,4-Dioxane	ND	ND	0.050	0.18	88.11	1	0.28
2-Butanone (MEK)	ND	ND	0.050	0.15	72.11	1	0.34
2-Hexanone (MBK)	ND	ND	0.050	0.20	100.16	1	0.24
4-Ethyltoluene	ND	ND	0.050	0.25	120.19	1	0.20
4-Methyl-2-pentanone(MIBK)	ND	ND	0.050	0.20	100.16	1	0.24
Acetone	ND	ND	0.050	0.12	58.08	1	0.42
Acrolein	ND	ND	0.050	0.11	56.06	1	0.44
Benzene	ND	ND	0.050	0.16	78.11	1	0.31
Benzyl Chloride	ND	ND	0.050	0.26	126.58	1	0.19
Bromodichloromethane	ND	ND	0.050	0.34	163.83	1	0.15
Bromoform	ND	ND	0.050	0.52	252.73	1	0.10
Bromomethane	ND	ND	0.050	0.19	94.94	1	0.26
Carbon Disulfide	ND	ND	0.050	0.16	76.14	1	0.32
Carbon Tetrachloride	ND	ND	0.050	0.31	153.82	1	0.16



39 Spruce Street, 2nd Floor
East Longmeadow, MA 01028
413.525.2332
413.525.6405 (fax)

Chlorobenzene	ND	ND	0.050	0.23	112.56	1	0.22
Chloroethane	ND	ND	0.050	0.13	64.51	1	0.38
Chloroform	ND	ND	0.050	0.24	119.38	1	0.20
Chloromethane	ND	ND	0.050	0.10	50.49	1	0.48
cis-1,2-Dichloroethene	ND	ND	0.050	0.20	96.94	1	0.25
cis-1,3-Dichloropropene	ND	ND	0.050	0.23	110.97	1	0.22
Cyclohexane	ND	ND	0.050	0.17	84.16	1	0.29
Dibromochloromethane	ND	ND	0.050	0.43	208.28	1	0.12
Dichlorodifluoromethane (freon 12)	ND	ND	0.050	0.25	120.91	1	0.20
Ethanol	ND	ND	0.050	0.09	46.07	1	0.53
Ethyl Acetate	ND	ND	0.050	0.18	88.11	1	0.28
Ethylbenzene	ND	ND	0.050	0.22	106.17	1	0.23
Heptane	ND	ND	0.050	0.20	100.20	1	0.24
Hexachlorobutadiene	ND	ND	0.050	0.53	260.76	1	0.09
Hexane	ND	ND	0.050	0.18	86.18	1	0.28
Isopropyl Alcohol	ND	ND	0.050	0.12	60.10	1	0.41
M/P Xylenes	ND	ND	0.050	0.22	106.17	1	0.23
Methylene Chloride	ND	ND	0.050	0.17	84.93	1	0.29
Methylmethacrylate	ND	ND	0.050	0.20	100.12	1	0.24
MTBE	ND	ND	0.050	0.18	88.15	1	0.28
O-Xylene	ND	ND	0.050	0.22	106.17	1	0.23
Propene	ND	ND	0.050	0.09	42.08	1	0.58
Styrene	ND	ND	0.050	0.21	104.15	1	0.23
Tetrachloroethene	ND	ND	0.050	0.34	165.83	1	0.15
Tetrahydrofuran	ND	ND	0.050	0.15	72.11	1	0.34
Toluene	ND	ND	0.050	0.19	92.14	1	0.27
trans-1,2-Dichloroethene	ND	ND	0.050	0.20	96.94	1	0.25
trans-1,3-Dichloropropene	ND	ND	0.050	0.23	110.97	1	0.22
Trichloroethene	ND	ND	0.050	0.27	131.39	1	0.19
Trichlorofluoromethane (freon 11)	ND	ND	0.050	0.28	137.37	1	0.18
Vinyl Acetate	ND	ND	0.050	0.18	86.09	1	0.28
Vinyl Chloride	ND	ND	0.050	0.13	62.50	1	0.39



39 Spruce Street, 2nd Floor
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APH COMPOUNDS

1,2,3-Trimethylbenzene	ND	ND	0.94	4.62	120.19	1	0.20
1,3 Butadiene	ND	ND	0.94	2.08	54.09	1	0.45
1,3,5-Trimethylbenzene	ND	ND	0.94	4.62	120.19	1	0.20
1-Ethyl-3-Methylbenzene	ND	ND	0.94	4.62	120.19	1	0.20
1-Methylnaphthalene	ND	ND	0.94	5.47	142.20	1	0.17
2,3-Dimethylheptane	ND	ND	0.94	4.93	128.26	1	0.19
2,3-Dimethylpentane	ND	ND	0.94	3.85	100.20	1	0.24
2-Methylnaphthalene	ND	ND	0.94	5.47	142.20	1	0.17
Benzene	ND	ND	0.94	3.00	78.11	1	0.31
Butyl Cyclohexane	ND	ND	0.94	5.39	140.27	1	0.17
Cyclohexane	ND	ND	0.94	3.24	84.16	1	0.29
Decane	ND	ND	0.94	5.47	142.28	1	0.17
Dodecane	ND	ND	0.94	6.55	170.33	1	0.14
Ethylbenzene	ND	ND	0.94	4.08	106.17	1	0.23
Heptane	ND	ND	0.94	3.85	100.20	1	0.24
Hexane	ND	ND	0.94	3.31	86.18	1	0.28
Hexyl Cyclohexane	ND	ND	0.94	6.47	168.32	1	0.15
Indene	ND	ND	0.94	4.47	116.16	1	0.21
Isopentane	ND	ND	0.94	2.77	72.15	1	0.34
Isopropylbenzene(Cumene)	ND	ND	0.94	4.62	120.19	1	0.20
m/p -Xylenes	ND	ND	0.94	4.08	106.17	1	0.23
Methyl-tert-butylether	ND	ND	0.94	3.39	88.15	1	0.28
Naphthalene	ND	ND	0.94	4.93	128.17	1	0.19
Nonane	ND	ND	0.94	4.93	128.26	1	0.19
Octane	ND	ND	0.94	4.39	114.23	1	0.21
o-Xylene	ND	ND	0.94	4.08	106.17	1	0.23
P-Iso-Propyl Toluene	ND	ND	0.94	5.16	134.22	1	0.18
Toluene	ND	ND	0.94	3.54	92.14	1	0.27
Toluene-D8	ND	ND	0.94	3.85	100.19	1	0.24
Undecane	ND	ND	0.94	6.01	156.31	1	0.16



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EXTRA COMPOUNDS

1,1,1,2-tetrachloroethane	ND	ND	0.091	0.6247	167.85	1	0.15
1,2-Dibromo-3-chloropropane	ND	ND	0.065	0.6283	236.33	1	0.10
1,3-Dichloropropane	ND	ND	0.135	0.6238	112.99	1	0.22
1-Methylnaphthalene	ND	ND	0.107	0.6223	142.20	1	0.17
2,2,4-Trimethylpentane	ND	ND	0.134	0.6260	114.23	1	0.21
2-Methylnaphthalene	ND	ND	0.107	0.6223	142.20	1	0.17
Acrylonitrile	ND	ND	0.288	0.6250	53.06	1	0.46
Butylbenzene	ND	ND	0.114	0.6258	134.22	1	0.18
Cumene	ND	ND	0.127	0.6243	120.19	1	0.20
Hexylcyclohexane	ND	ND	0.091	0.6265	168.32	1	0.15
Indane	ND	ND	0.129	0.6235	118.18	1	0.21
Indene	ND	ND	0.132	0.6271	116.16	1	0.21
Metyl Acetate	ND	ND	0.206	0.6241	74.08	1	0.33
Metylcylohexane	ND	ND	0.156	0.6265	98.19	1	0.25
Naphthalene	ND	ND	0.119	0.6238	128.17	1	0.19
P-cymene	ND	ND	0.114	0.6258	134.22	1	0.18
Propylbenzene	ND	ND	0.127	0.6243	120.19	1	0.20
Sec-butylbenzene	ND	ND	0.114	0.6258	134.22	1	0.18
Tert-butylbenzene	ND	ND	0.114	0.6258	134.22	1	0.18
Thiophene	ND	ND	0.182	0.6263	84.14	1	0.29

OTHER COMPOUNDS

2-Chloro-pyridine	ND	ND	0.20	0.93	113.54	1	0.22
2,6-Dichloro-pyridine	ND	ND	0.20	1.19	144.97	1	0.17
tert-Butyl Alcohol	ND	ND	0.20	0.61	74.10	1	0.33