



April 30, 2012

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
First Quarter, 2012
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 E&I, Inc. at the retail complex located at the Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island (the Site). The reporting period is from January 2012 through March 2012 and includes one quarterly compliance sampling event (March 8, 2012).

The sampling and analysis and this reporting were 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 March 8, 2012.

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 (12C0234) associated with the March 8, 2012 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 at an upwind location during the sampling round. 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 are in compliance with action levels for the quarterly sampling event in the three small retail spaces (sample locations IA-5, IA-6, and IA-7).
- The eastern small retail space (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 March 8, 2012. 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 (12C0234) associated with the March 8, 2012 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 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 March 2012 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.

ASD System Monitoring

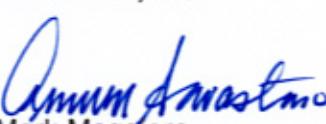
The ASD system performance is monitored monthly by Clean Harbors Environmental Services. There were two system shutdowns during the reporting period. The first shutdown occurred on March 9, 2012 for approximately one hour. The second shutdown was on March 28, 2012 for approximately three hours.

Next Reporting Period

The next quarterly report (second quarter 2012) will include monitoring from April 2012 through June 2012. The report will be prepared and submitted to the Rhode Island Department of Environmental Management (RIDEM) in July 2012.

Please contact the undersigned at 781-245-6606 if we can provide additional information or answer any questions concerning these monitoring events and system adjustments.

Sincerely,
AMEC E&I, Inc.


for Mark Maggiore
Environmental Scientist with permission


Michael Murphy
Principal Scientist

Textron, Inc.
Former Gorham Manufacturing Facility, Providence, RI
Retail Complex, Active Sub-Slab Depressurization System
Air Monitoring Report, First Quarter, 2012

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)
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[P:\old_Wakefield_Data\projects\3650080114 - Textron Gorham Vapor Mitigation System\4.0 Project Deliverables\4.1 Reports\2012\Qrt1_2012]

Textron, Inc.
Former Gorham Manufacturing Facility, Providence, RI
Retail Complex, Active Sub-Slab Depressurization System
Air Monitoring Report, First Quarter, 2012

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-1-021609 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
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				
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				
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				
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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				
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
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				
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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				
1,2-Dichlorotetrafluoroethane	0.36 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.26 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				
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	0.11 U	0.23 U	0.23 U
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.53	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 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
2-Hexanone	0.2 U	0.22	0.57	0.35	0.2 U	0.2 U	0.2 U	0.14 U	0.26	0.39	0.2 U	0.34	0.2 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				
4-Methyl-2-pentanone	0.2 U	0.2 U	0.27	0.63	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Acetone	7.3	8	15	22	8.4	5.9	12	1.1	27	9.5	10	10	9.6
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
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				
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				
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				
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				
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				
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	0.4	0.4
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				
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 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	0.17 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	1.2	0.85	1.1
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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				
Cyclohexane	0.17 U	0.17 U	0.35	1.1	0.17 U	0.17 U	0.17 U	0.12 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				
Dichlorodifluoromethane	2	2.2	2.6	2.7	2.6	2.6	2.8	2	2.5	2.7	2.6	2.1	2.1
Ethanol	4	5.4	10	47	4.3	3.5	4.7	0.81	4.9	4.8	8.6	6.6	4.6
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
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
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
Isopropyl alcohol	1.4	1.4	1.8	4.3	1.4	0.67	1.4	0.18 U	14	1	2.5	2.8	0.87
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

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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	0.7 U
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.13 U	0.18 U				
n-Heptane	0.2 U	0.27	0.92	1.6	0.2 U	0.2 U	0.14 U	0.2 U	0.4	0.23	0.2 U	0.2 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
Propylene (Propene)	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.09 U	0.13 U	0.18 U	0.09 U	0.09 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				
Tetrachloroethene	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
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	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
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 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	0.22 U
Trichloroethene	0.27 U	0.27 U	0.27 U	0.39	0.27 U	0.27 U	0.19 U	0.27 U				
Trichlorofluoromethane	1.3	1.2	1.7	2.4	1.5	2	1.7	0.92	1.3	1.5	2	1.1
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
Vinyl acetate	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.5 U	0.71 U	0.18 U	0.18 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	0.1 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 (ug/m ³)	Outdoor Air Reference Locations																
	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	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
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	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.29 0.082 U
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	0.34 U	0.34 U	0.34 U	0.21 U 0.1 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	0.27 U	0.27 U	0.27 U	0.16 U 0.082 U
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U 0.063 0.061 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U 0.12 U 0.059 U
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.75 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	0.37 U	0.37 U	0.74 U 0.62 0.45 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	0.25 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
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	0.38 U	0.38 U	0.38 U	0.38 U 0.23 U 0.12 U
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U 0.34 0.18 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U 0.066 0.061 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	0.23 U	0.23 U	0.23 U	0.23 U 0.14 U 0.069 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	
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	0.25 U	0.25 U	0.25 U	0.25 U 0.068 0.15 U
1,3-Butadiene	0.23 U	0.23 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	0.11 U	0.29	0.11 U	0.11 U	0.11 U	0.11 U 0.066 U 0.066 U
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U 0.18 U 0.18 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U 0.18 U 0.18 U
1,4-Dioxane																	0.18 U
2-Butanone	1.2	1.2	2	0.81	1.6	1.6	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
2-Hexanone	0.33	0.23	0.2 U	0.2 U	0.32	0.2 U	0.2 U	0.29	0.29	0.49	0.49	0.41	0.2 U	0.2 U	4.1 U	0.87	0.12 U 0.34
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	0.3	0.25 U	0.34	0.25 U	0.25 U 0.063 0.15 U
4-Methyl-2-pentanone	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U 0.12 U 0.12 U
Acetone	5.4	17	11	3.5	7.6	5	3.7	9.5	12	20	13	14	5.7 B	19 B	8.7 B	20	4.9 9.4
Benzene	0.25	0.2	0.42	0.79	0.68	0.63	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
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	0.26 U	0.26 U	0.26 U	0.26 U 0.16 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	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U 0.2 U 0.1 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	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U 0.31 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	0.19 U	0.19 U	0.19 U	0.19 U 0.12 U
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.28	0.16 U	0.16 U	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	0.16 U	0.0568 0.03 U
Carbon tetrachloride	0.43	0.46	0.39	0.42	0.39	0.31 U	0.43	0.49	0.47	0.52	0.51	0.43	0.42	0.48	0.53	0.48	0.49 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	0.23 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
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	0.13 U	0.13 U	0.13 U	0.079 U 0.079 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	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U 0.094 0.073 U
Chloromethane	0.97	0.96	1.6	1.1	1.2	1.3	1.1	1.4	0.78	1.1	0.96	0.99	0.94	1	0.96	1.4	0.062 U 1.1
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U 0.12 0.059 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	0.22 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
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	0.17 U	0.17 U	0.17 U 0.1 U 0.1 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	0.43 U	0.43 U	0.43 U 0.26 U 0.13 U
Dichloreodifluoromethane	2.2	2.1	2.1	2.3	2.4	2.5	2.9	1.8	2.1	2.5	2.4	2.9	1.9	3.1	1.9	1.7	2.5 2
Ethanol	3.9	4.9	3.8	5.4	5.1	7.2	1.2	4.9	4	3.3	4	14	2.3	12	2.7	5.8	1.5 4.1
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	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	0.18 U 0.46 0.56
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	0.22 U	0.22 U	0.22 U	0.22 U	1.4	0.22 U	1.1	0.22 U	0.22 U 0.31 0.13 U
Hexachlorobutadiene	0.53 U	0.53 U	1.1 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	0.53 U	0.53 U 0.32 U 0.32 U
Hexane	0.45	4.5	0.62	0.36	0.53	0.91	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
Isopropyl alcohol	0.63	0.25 U	0.54	0.56	2.7	1.5	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
m,p-Xylene	0.43 U	0.43 U	0.43 U	0.43 U	0.5	0.47	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

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-1-100109 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	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 3/8/12
Methyl methacrylate																		
Methylene chloride	0.7 U	23	4.6	1.3	1.9	1.7	0.7 U	0.7 U	0.35 U	1.1	1.1	0.66	3	2.3	1.7 U	1.5	1.6	
Methyl- <i>t</i> -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		
<i>n</i> -Heptane	0.2 U	0.2 U	0.2 U	0.26	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.91	0.2 U	0.95	0.2 U	0.20 U	0.12	0.089
<i>o</i> -Xylene	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	1.2	0.22 U	1.1	0.22 U	0.22 U	0.22	0.086
Propylene (Propene)	0.18 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 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
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	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.37	0.13 U
Tetrachloroethene	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	0.49	0.34 U	5.3	0.34 U	0.34 U	0.73	0.1 U
Tetrahydrofuran	1.2	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	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
Toluene	0.61	0.5	0.78	0.94	0.64	0.97	0.46	1.1	0.75	0.63	0.57	10	0.19 U	5.3	0.52	0.47	0.56	0.37
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 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	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	
Trichloroethene	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.3	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
Trichlorofluoromethane	1.2	1.5	2.2	1.2	1.2	1.6	1.5	1.5	1.2	1.4	1.3	11	1.2	1.7	1.5	1.5	1.7	1.1
Trichlorotrifluoroethane	0.45	0.46	0.54	0.49	0.56	0.54	0.54	0.62	0.45	0.58	0.56	0.44	0.56	0.66	0.69	0.58	0.69	0.43
Vinyl acetate	0.71 U	0.71 U	0.36 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
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	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U

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

Parameter ($\mu\text{g/m}^3$)	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-5-120611 12/8/2011	EW-5-030812 3/8/2012
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	81
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	6.8 U	3.4 U	6.8 U	1.4 UD	1.4 UD	6.9 UD	14 U	3.4 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	5.4 U	2.7 U	5.4 U	1.1 UD	1.1 UD	5.5 UD	11 U	2.7 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	11
1,1-Dichloroethene	2500	290	130	190	61	160	160	160	98	30	18	21	15	13 D	15 D	11 D	14	5	4.5
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	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	15 U	
1,2,4-Trimethylbenzene	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 UD	0.98 UD	4.9 UD	9.8 U	2.5 U	4.9 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	16 U	3.8 U	3.8 U	
1,2-Dichlorobenzene	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 UD	1.2 UD	6 UD	12 U	3 U	6 U	
1,2-Dichloroethane	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	4 U	2 U	4 U	0.81 UD	0.81 UD	4 UD	8.1 U	2 U	2 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	2.3 U	
1,2-Dichlorotetrafluoroethane	7 U	7 U	7 U	7 U	1.8 U	70 U	3.5 U	3.5 U	3.5 U	7 U	3.5 U	7 U							
1,3,5-Trimethylbenzene	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 UD	0.98 UD	4.9 UD	9.8 U	2.5 U	4.9 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	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	2.2 U
1,3-Dichlorobenzene	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 UD	1.2 UD	6 UD	12 U	3 U	6 U	
1,4-Dichlorobenzene	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 UD	1.2 UD	6 UD	12 U	3 U	6 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	1800
2-Hexanone	4 U	4 U	4 U	4 U	1 U	40 U	2.7	2 U	2 U	4 U	2 U	4 U	0.82 UD	0.82 UD	82 UD	8.2 U	2 U	4.1 U	
4-Ethyltoluene	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 UD	0.98 UD	4.9 UD	9.8 U	2.5 U	4.9 U	
4-Methyl-2-pentanone	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	4 U	2 U	4 U	0.82 UD	0.82 UD	4.1 UD	8.2 U	2 U	4.1 U	
Acetone	530	32	52	29	460	5600	14000	6900	9200	1700	3200	6000	4500	2000 BD	1800 BD	2200 BD	3400	710	400
Benzene	13	12	6.2	4.8	5.8	32 U	11	7.1	11	6.3	5.5	8.2	5	4.2 D	4.5 D	4.2 D	6.4 U	2.8	2
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	5.2 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	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	10 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	3.9 U	
Carbon disulfide	3.2 U	3.2 U	3.2 U	3.2 U	0.8 U	230	4	5.4	8.2	2.9	5.7	12	14	8 D	15 D	22 D	62 U	13	11
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	3.1 U	
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	4.6 U	
Chlorethane	260	23	16	11	4.5	26 U	11	15	7	6.5	3.5	3.6	5.5	3.1 D	3.4 D	2.6 UD	7.5	1.3 U	2.6 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	2.4 U
Chlormethane	2 U	2 U	2 U	2 U	0.5 U	20 U	1 U	1 U	1 U	2 U	1 U	2 U	0.41 UD	0.41 UD	2.1 UD	4.1 U	1 U	2.1 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	6.9
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	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	3.4 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	4.3 U	
Dichlorodifluoromethane	5 U	5 U	5 U	5 U	2.7	50 U	3	3.2	2.5 U	2.5 U	5 U	2.5	5 U	2.4 D	3.7 D	4.9 UD	9.9 U	2.8	4.9 U
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	290
Ethyl acetate	7.3 U	3.6 U	3.6 U	7.3 U	0.9 U	73 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	6.8	3.4 D	0.72 UD	3.8 D	7.2 U	3.6	26	
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	4.3 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	11 U
Hexane	5	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	7.1 U	1.4 UD	0.7 UD	3.5 UD	280 U	70 U	9.4	
Isopropyl alcohol	190	5.1	4.6	5 U	4.6	290	24	57	35	2.5 U	20	54	59	11 D	13 D	25 UD	200 U	49 U	13
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	6.4	

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																		
	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	EW-5-030612 3/8/2012
Methyl methacrylate																			
Methylene chloride	7.8	7 U	9.6	7 U	12	720	21	15	7 U	25	14 U	8.6	7 U	1.4 UD	2 D	6.9 UD	69 U	4.2	15
Methyl-t-butyl ether	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	36 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	3.6 U	
n-Heptane	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	4 U	2 U	4 U	0.82 UD	0.82 UD	4.1 UD	8.2 U	2 U	4.1 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	4.4 U	2.2 U	4.4 U	0.87 UD	0.87 UD	4.3 UD	8.7 U	2.2 U	4.3 U	
Propylene (Propene)	3.5 U	1.8 U	1.8 U	3.5 U	0.45 U	36 U	0.9 U	0.9 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	15
Styrene	4.2 U	17	4.2 U	4.2 U	1.7	42 U	2.2	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	4.3 U	
Tetrachloroethene	210	310	190	97	8	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	3.4 U
Tetrahydrofuran	16	110	69	140	2200	42000	61000	150000	94000	9700	23000	37000	29000	8200 D	11000 D	30000 D	41000	11000	4500
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	0.9	37
trans-1,2-Dichloroethene	26	6.1	4 U	4.7	1 U	40 U	2.6	2.8	2 U	4 U	2 U	4 U	0.79 UD	0.79 UD	4 UD	7.9 U	2 U	2 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	4.4 U	2.2 U	4.4 U	0.91 UD	0.91 UD	4.5 UD	9.1 U	2.3 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	170
Trichlorofluoromethane	3500	200	120	67	16	56 U	27	41	2.8 U	53	7	7.4	5.8	5.1 D	5.8 D	5.6 UD	11 U	3.4	5.6 U
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	7.6 U	3.8 U	7.6 U	1.5 UD	1.5 UD	7.7 UD	15 U	3.8 U	3.8 U	
Vinyl acetate	15 U	3.6 U	3.6 U	15 U	0.9 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	0.7 UD	70 UD	7.0 U	1.8 U	7 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	3.4	3.1	4.3	2.4 D	3.7 D	3.3 D	6.2	1.3 U	1.3 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 - Center Small Retail Space																		
	EW-6-020309 2/3/2009	EW-6-021109 2/11/2009	EW-6-021609 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	EW-6-021711 2/17/2011	EW-6-080211 6/2/2011	EW-6-091511 9/15/2011	EW-6-120811 12/8/2011	EW-6-030812 3/8/2012	
1,1,1-Trichloroethane	69000	32000	21000	16000	16000	5600	8200	5700	5400	1100	430	390	130 D	0.55 UD	80	230	33	0.27 U	
1,1,2,2-Tetrachloroethane	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	6.8 U	0.69 UD	6.9 U	14 U	3.4 U	0.34 U			
1,1,2-Trichloroethane	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	5.4 U	0.55 UD	0.55 UD	5.5 U	11 U	2.7 U	0.27 U		
1,1-Dichloroethane	5200	2500	2100	2200	1600	780	1200	1100	930	580	47	38	21 D	0.4 UD	12	27	6.4	0.2 U	
1,1-Dichloroethene	850	210	100	110	55	74	87	83	80	6.4	3.5	4 U	0.4 UD	0.4 UD	4 U	7.9 U	2 U	0.2 U	
1,2,4-Trichlorobenzene	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	3.7 U	3.7 U	3.7 U	7.5 U	3.7 U	7.4 U	0.74 UD	0.74 UD	7.4 U	30 U	7.4 U	1.5 U		
1,2,4-Trimethylbenzene	5 U	5 U	5 U	16	6.2	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	0.49 UD	0.49 UD	4.9 U	9.8 U	2.5 U	0.49 U		
1,2-Dibromoethane (EDB)	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	0.77 UD	0.77 UD	7.7 U	15 U	3.8 U	0.38 U		
1,2-Dichlorobenzene	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	6 U	0.6 UD	0.6 UD	6 U	12 U	3 U	0.6 U		
1,2-Dichloroethane	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	4 U	0.4 UD	0.4 UD	4 U	8.1 U	2 U	0.2 U		
1,2-Dichloropropane	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	4.6 U	0.46 UD	0.46 UD	4.6 U	9.2 U	2.3 U	0.23 U		
1,2-Dichlortetrafluoroethane	7 U	7 U	7 U	7 U	7 U	70 U	3.5 U	3.5 U	3.5 U	3.5 U	7 U								
1,3,5-Trimethylbenzene	5 U	5 U	5 U	7.3	5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	0.49 UD	0.49 UD	4.9 U	9.8 U	2.5 U	0.49 U		
1,3-Butadiene	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	0.22 UD	2.2 U	4.4 U	1.1 U	0.22 U	
1,3-Dichlorobenzene	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	6 U	0.6 UD	0.6 UD	6 U	12 U	3 U	0.6 U		
1,4-Dichlorobenzene	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	6 U	0.6 UD	0.6 UD	6 U	12 U	3 U	0.6 U		
1,4-Dioxane															7.2 U				
2-Butanone	120	280	300	130	97	160	37	65	8.7	23	1800	110	20 D	1.9 BD	59 U	240 U	13	2.1	
2-Hexanone	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	4 U	0.41 UD	0.41 UD	82 U	8.2 U	2 U	0.41 U		
4-Ethyltoluene	5 U	5 U	5 U	5 U	5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	0.49 UD	0.49 UD	4.9 U	9.8 U	2.5 U	0.49 U		
4-Methyl-2-pentanone	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	4 U	0.41 UD	0.41 UD	4.1 U	8.2 U	2 U	0.41 U		
Acetone	580	64	81	33	22	410	16	20	4.8 U	27	490	70	15 BD	15 BD	48 U	190 U	21	9.9	
Benzene	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	3.2 U	0.92 D	1.1 D	3.2 U	6.4 U	1.6 U	0.31	
Benzyl chloride	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	5.2 U	0.52 UD	0.52 UD	5.2 U	10 U	2.6 U	0.52 U		
Bromodichloromethane	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	6.6 U	0.67 UD	0.67 UD	6.7 U	13 U	3.4 U	0.34 U		
Bromoform	11 U	11 U	11 U	11 U	11 U	110 U	5.1 U	5.1 U	5.1 U	5.1 U	11 U	1 UD	1 UD	10 U	21 U	5.2 U	1 U		
Bromomethane	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	3.8 U	0.39 UD	0.39 UD	3.9 U	7.8 U	1.9 U	0.39 U		
Carbon disulfide	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	8	12	0.66 D	0.31 UD	11 D	62 U	7.1	3.1 U	
Carbon tetrachloride	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	6.2 U	0.63 UD	0.63 UD	6.3 UD	13 U	3.1 U	0.39		
Chlorobenzene	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	4.6 U	0.46 UD	0.46 UD	4.6 U	9.2 U	2.3 U	0.46 U		
Chloroethane	140	50	34	18	13	26 U	13	14	11	4	1.3 U	2.8	0.26 UD	0.26 UD	2.6 U	5.3 U	1.3 U	0.26 U	
Chloroform	42	24	19	29	21	50	14	12	12	7.2	3.7	4.8 U	2.4 D	0.49 UD	4.9 U	9.8 U	1	0.36	
Chloromethane	2 U	2 U	2 U	2 U	2 U	34	1 U	1 U	1 U	1 U	36	40	0.21 UD	1 D	16 D	45	2.9	1.5	
cis-1,2-Dichloroethene	700	360	220	250	150	120	190	170	130	36	11	7.9	2.3 D	0.4 UD	4 UD	7.9 U	0.83	0.2 U	
cis-1,3-Dichloropropene	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	4.4 U	0.45 UD	0.45 UD	4.5 UD	9.1 U	2.3 U	0.23 U		
Cyclohexane	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	3.4 U	0.34 UD	0.34 UD	3.4 U	6.9 U	1.7 U	0.34 U		
Dibromochloromethane	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	8.6 U	0.85 UD	0.85 UD	8.5 UD	17 U	4.3 U	0.43 U		
Dichlorodifluoromethane	5 U	5 U	5 U	5 U	5 U	50 U	3.6	3.9	2.7	2.5 U	5 U	2.3 D	3.6 D	4.9 UD	9.9 U	3	2.2		
Ethanol	360	38	73	38	25	110	18	14	6.7	18	15	19 U	4.6 D	11 D	38 UD	150 U	38 U	29	
Ethyl acetate	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	3.6 U	0.36 UD	0.36 UD	3.6 UD	7.2 U	1.8 U	0.52		
Ethylbenzene	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	4.4 U	0.43 UD	0.43 UD	4.3 UD	8.7 U	2.2 U	0.43 U		
Hexachlorobutadiene	22 U	22 U	22 U	22 U	22 U	220 U	11 U	11 U	5.3 U	5.3 U	11 U	1.1 UD	1.1 UD	11 UD	21 U	5.3 U	1.1 U		
Hexane	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	0.7 UD	1.3 D	3.5 UD	280 U	70 U	1.4		
Isopropyl alcohol	210	18	33	15	10	230	8.2	11	20	2.5 U	1.2 U	9.4	0.49 UD	2.9 D	25 UD	200 U	49 U	1.3	
m,p-Xylene	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	8.6 U	0.87 UD	0.94 D	8.7 UD	17 U	4.3 U	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 - Center Small Retail Space																
	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	EW-6-021711 2/17/2011	EW-6-060211 6/2/2011	EW-6-091511 9/15/2011	EW-6-120811 12/8/2011
Methyl methacrylate																	
Methylene chloride	7 U	7 U	7.5	7 U	7 U	780	12	15	7 U	27	10	7 U	1.3 D	2.8 D	6.9 UD	69 U	3.6 4.8
Methyl-t-butyl ether	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	0.36 UD	0.36 UD	3.6 UD	7.2 U	1.8 U 0.36 U	
n-Heptane	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	4 U	0.41 UD	0.41 UD	4.1 UD	8.2 U	2 U 0.41 U	
o-Xylene	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	4.4 U	0.43 UD	0.43 UD	4.3 UD	8.7 U	2.2 U 0.43 U	
Propylene (Propene)	3.5 U	1.8 U	1.8 U	3.5 U	1.8 U	35 U	0.9 U	0.9 U	3.5 U	8.7 U	6.9 U	0.69 UD	1.7 UD	17 UD	140 U	3.8 6.9 U	
Styrene	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	4.2 U	0.43 UD	0.43 UD	4.3 UD	8.5 U	2.1 U 0.43 U	
Tetrachloroethene	330	290	130	290	190	300	190	210	250	68	34	23	8.1 D	1.2 D	6.8 UD	17	2.4 0.76
Tetrahydrofuran	75	480	260	730	570	130	110	87	9.1	31	42000	53000	480 D	0.29 UD	13000 D	32000	3900 3.7
Toluene	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	3.8 U	0.38 UD	2.4 D	3.8 UD	9.8 1.9 U	0.38
trans-1,2-Dichloroethene	12	6.3	4.2	6.4	4 U	40 U	2.6	2.7	2	2.1	2 U	4 U	0.4 UD	0.4 UD	4 UD	7.9 U	2 U 0.2 U
trans-1,3-Dichloropropene	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	4.4 U	0.45 UD	0.45 UD	4.5 UD	9.1 U	2.3 U 0.23 U	
Trichloroethene	12000	6900	4200	4400	4600	3900	5400	4700	6100	2000	730	650	250 D	0.54 UD	190 D	390	66 0.27 U
Trichlorofluoromethane	2300	870	630	350	250	150	230	440	700	320	6.7	25	28 D	1.7 D	11 D	34	11 1
Trichlorotrifluoroethane	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	7.6 U	0.77 UD	0.86 D	7.7 UD	15 U	3.8 U 0.38 U	
Vinyl acetate	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	0.35 UD	70 UD	7.0 U	1.8 U 0.7 U
Vinyl chloride	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	0.26 UD	2.6 UD	5.1 U	1.3 U 0.13 U

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

Parameter ($\mu\text{g}/\text{m}^3$)	Extraction Well - Western Small Retail Space																			
	EW-7-020309 2/3/2009	EW-7-021109 2/11/2009	EW-7-021809 2/18/2009	EW-7-022609 2/26/2009	EW-7-030609 3/6/2009	EW-7-041409 4/14/2009	EW-7-051509 5/15/2009	EW-7-061109 6/11/2009	EW-7-091709 9/17/2009	EW-7-122909 12/29/2009	EW-7-032610 3/26/2010	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-7-080211 6/2/2011	EW-7-091511 9/15/2011	EW-7-120811 12/8/2011	EW-7-030812 3/8/2012	
1,1,1-Trichloroethane	5600	8500	7800	8200	8100	1600	3600	2600	1400	340	51	250	290	160 D	110 D	5.5 UD	110	66	11	
1,1,2,2-Tetrachloroethane	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	0.68 U	0.68 U	0.68 U	0.69 UD	0.69 UD	1.4 U	0.69 U	3.4 U			
1,1,2-Trichloroethane	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	0.54 U	0.54 U	0.54 U	0.55 UD	0.55 UD	1.1 U	0.55 U	2.7 U			
1,1-Dichloroethane	1700	1800	1600	2100	1700	590	1000	1100	970	470	85	320	340	220 D	150 D	45 D	150	80	6.4	
1,1-Dichloroethene	14	15	8.5	9.4	6.6	4 U	4.2	4.2	4.5	2 U	0.4 U	0.81	0.94	0.63 D	0.4 UD	4 UD	0.79 U	0.13	2 U	
1,2,4-Trichlorobenzene	7.4 U	1.5 U	1.9 U	1.9 U	1.9 U	7.4 U	3.7 U	3.7 U	3.7 U	7.5 U	1.5 U	0.74 U	0.74 U	0.74 UD	0.74 UD	7.4 UD	3.0 U	1.5 U	15 U	
1,2,4,Trimethylbenzene	5 U	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5	0.5 U	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.96 U	0.32	4.9 U	
1,2-Dibromoethane (EDB)	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	0.76 U	0.76 U	0.76 U	0.77 UD	0.77 UD	1.5 U	0.77 U	3.8 U			
1,2-Dichlorobenzene	6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 UD	0.6 UD	6 UD	1.2 U	0.6 U	6 U		
1,2-Dichloroethane	4 U	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.4 UD	0.4 UD	4 UD	0.81 U	0.4 U	2 U		
1,2-Dichloropropane	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	0.46 U	0.46 U	0.46 U	0.46 UD	0.46 UD	4.6 UD	0.92 U	0.46 U	2.3 U		
1,2-Dichlorotetrafluoroethane	7 U	1.4 U	1.8 U	1.8 U	1.8 U	7 U	3.5 U	3.5 U	3.5 U	0.7 U	0.7 U	0.7 U	0.7 U							
1,3,5-Trimethylbenzene	5 U	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	1.1	0.5 U	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.96 U	0.49 U	4.9 U		
1,3-Butadiene	2.2 U	0.44 U	0.55 U	0.55 U	0.55 U	2.2 U	1.1 U	1.1 U	1.1 U	0.22 U	0.22 U	0.22 U	0.22 UD	0.22 UD	2.2 UD	0.44 U	0.22 U	2.2 U		
1,3-Dichlorobenzene	6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 UD	0.6 UD	6 UD	1.2 U	0.6 U	6 U		
1,4-Dichlorobenzene	6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 UD	0.6 UD	6 UD	1.2 U	0.6 U	6 U		
1,4-Dioxane																	0.72 U			
2-Butanone	8.7	12	7.3	8.5	5.5	4.5	7.1	16	4.9	3.5	31	3.8	1.8	4.1 D	5.3 BD	59 UD	24 U	6.2	100	
2-Hexanone	4 U	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	0.4 U	1	0.4 U	0.41 UD	0.41 UD	82 UD	0.82 U	0.14	4.1 U		
4-Ethyltoluene	5 U	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.98 U	0.49 U	4.9 U		
4-Methyl-2-pentanone	4 U	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.41 UD	0.41 UD	4.1 UD	0.82 U	0.13	4.1 U		
Acetone	580	38	58	30	24	15	24	24	7.9	49	26	25	12	42 BD	35 BD	48 UD	23	12	46	
Benzene	3.2 U	3.9	4.5	1.9	2.3	3.2 U	2.6	2.8	3	2.2	1.5	1.7	2.1	1.4 D	1.6 D	3.2 UD	2.5	1.6	3.2 U	
Benzyl chloride	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	0.52 U	0.52 U	0.52 U	0.52 UD	0.52 UD	5.2 UD	1.0 U	0.52 U	5.2 U		
Bromodichloromethane	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	0.66 U	0.66 U	0.66 U	0.67 UD	0.67 UD	6.7 UD	1.3 U	0.67 U	3.4 U		
Bromoform	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	1.1 U	1.1 U	1.1 U	1.1 U	1 UD	10 UD	2.1 U	1 U	10 U		
Bromomethane	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	0.38 U	0.38 U	0.38 U	0.39 UD	0.39 UD	3.9 UD	0.78 U	0.39 U	3.9 U		
Carbon disulfide	5.7	3.4	2.7	3.7	3.3	3.2 U	3.2	2.7	2.1	1.6 U	1.5	0.93	0.9	0.78 D	0.31 UD	3.1 UD	6.2 U	3.1 U	31 U	
Carbon tetrachloride	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	0.62 U	0.62 U	0.62 U	0.63 UD	0.63 UD	6.3 UD	1.3 U	0.34	3.1 U		
Chlorobenzene	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	0.46 U	0.46 U	0.46 U	0.46 UD	0.46 UD	4.6 UD	0.92 U	0.46 U	4.6 U		
Chloroethane	170	150	88	41	33	7.1	9.6	10	8.1	6.5	1.6	2.2	3.6	2 D	0.26 UD	2.6 UD	1.9	0.26 U	2.6 U	
Chloroform	4.8 U	1	1.2 U	1.3	1.2 U	4.8 U	2.7	2.6	4.6	2.7	1.1	4.2	4.4	3.9 D	3 D	4.9 UD	5	3.8	2.4 U	
Chloromethane	2 U	0.4 U	0.5 U	0.5 U	2 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.21 UD	0.21 UD	2.1 UD	0.41 U	0.21 U	2.1 U		
cis-1,2-Dichloroethene	1100	1300	1200	1700	1200	520	1100	1200	1300	680	120	660	490	350 D	250 D	65 D	210	99	5.1	
cis-1,3-Dichloropropene	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	0.44 U	0.44 U	0.44 U	0.45 UD	0.45 UD	4.5 UD	0.91 U	0.45 U	2.3 U		
Cyclohexane	3.4 U	5.6	5	3.7	2.1	3.4 U	1.7 U	1.7 U	1.7 U	0.34 U	0.34 U	0.41	0.34 UD	0.34 UD	3.4 UD	0.69 U	0.34 U	3.4 U		
Dibromochloromethane	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	0.86 U	0.86 U	0.86 U	0.85 UD	0.85 UD	8.5 UD	1.7 U	0.85 U	4.3 U		
Dichlorodifluoromethane	5 U	2.5	3.2	770	2.6	5 U	2.9	3.3	2.5 U	2.5 U	1.5	2.2	1.5	2.1 D	0.49 UD	4.9 UD	2.7	2.6	4.9 U	
Ethanol	350	26	29	17	15	3.8 U	19	18	12	18	37	31	1.9 U	1.9 UD	18 D	38 UD	22	23	160	
Ethyl acetate	7.3 U	0.72 U	0.9 U	1.9 U	0.9 U	7.3 U	1.8 U	1.8 U	1.8 U	0.36 U	0.36 U	0.36 U	0.36 UD	0.36 UD	3.6 UD	0.72 U	0.36 U	11		
Ethylbenzene	4.4 U	0.68 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	0.57	0.44 U	0.44 U	0.43 UD	0.43 UD	4.3 UD	0.87 U	0.26	4.3 U		
Hexachlorobutadiene	22 U	4.3 U	5.4 U	5.4 U	5.4 U	22 U	11 U	5.3 U	11 U	2.2 U	1.1 U	1.1 U	1.1 UD	11 UD	2.1 U	1.1 U	11 U			
Hexane	10	10	7.6	5.5	3.1	3.6 U	4	2.1	1.8 U	1.8 U	0.36 U	0.97	0.71 U	0.87 D	0.35 UD	3.5 UD	28 U	14 U	4	
Isopropyl alcohol	210	18	21	12	8.5	5 U	12	17	2.5 U	2.5 U	80	2.2	2.6	2.8 D	0.25 UD	25 UD	30	9.8 U	98 U	
m,p-Xylene	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	1.4	0.93	1	0.87 UD	0.87 UD	8.7 UD	1.7 U	0.82	8.7 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-7-020309 2/3/2009	EW-7-021109 2/11/2009	EW-7-021809 2/18/2009	EW-7-022609 2/26/2009	EW-7-030609 3/6/2009	EW-7-041409 4/14/2009	EW-7-051509 5/15/2009	EW-7-061109 6/11/2009	EW-7-091709 9/17/2009	EW-7-122909 12/29/2009	EW-7-032610 3/26/2010	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
Methyl methacrylate	9.3	2.6	8	1.8	1.8 U	20	29	16	7 U	27	1.4 U	2.4	0.81	1.9 D	0.41 UD	4.1 UD	0.82 U	0.41 U	4.1 U
Methylene chloride																			
Methyl-t-butyl ether	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	0.36 U	0.36 U	0.36 UD	0.36 UD	3.6 UD	0.72 U	0.36 U	3.6 U	
n-Heptane	4 U	1.4	1 U	1 U	1 U	4 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.41 UD	0.41 UD	4.1 UD	0.82 U	0.22	4.1 U	
o-Xylene	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	0.65	0.44 U	0.44 U	0.43 UD	0.43 UD	4.3 UD	0.87 U	0.38	4.3 U	
Propylene (Propene)	3.5 U	160	110	0.87 U	0.45 U	3.5 U	0.9 U	3.5 U	3.5 U	0.69 U	1.8 U	0.69 U	0.69 UD	1.7 UD	17 UD	14 U	6.9 U	13	
Styrene	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	0.42 U	0.67	0.47	0.43 UD	0.43 UD	4.3 UD	0.85 U	0.49	4.3 U	
Tetrachloroethene	66	69	56	84	69	40	140	230	410	130	74	510	610	190 D	110 D	120 D	450	170	5.6
Tetrahydrofuran	41	23	12	14	7.5	3 U	5.6	15	4.1	1.5 U	2800	0.7	18	6.1 D	2.7 D	3900 D	7.9	9.9	1000
Toluene	14	2.9	3.6	1.7	0.95 U	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	5.4	4.8	2.2	0.47 D	0.88 D	3.8 UD	1.9	1.1	8.1
trans-1,2-Dichloroethene	150	140	90	90	80	48	120	140	150	84	22	120	110	78 D	58 D	4 UD	82	54	3.8
trans-1,3-Dichloropropene	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	0.44 U	0.44 U	0.45 UD	0.45 UD	4.5 UD	0.91 U	0.45 U	2.3 U		
Trichloroethene	230	210	180	180	200	110	330	420	920	420	190	690	730	440 D	310 D	260 D	680	310	53
Trichlorofluoromethane	1800	1400	900	690	640	190	310	660	1400	620	210	690	700	530 D	740 D	330 D	2500	1000	180
Trichlorotrifluoroethane	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	0.76 U	0.76 U	0.76 U	0.89 D	0.77 UD	7.7 UD	1.5 U	1	3.8 U	
Vinyl acetate	15 U	0.72 U	0.9 U	3.6 U	0.9 U	15 U	1.8 U	1.8 U	7.1 U	3.6 U	0.71 U	0.36 U	0.71 U	0.7 UD	0.35 UD	70 UD	0.70 U	0.35 U	7 U
Vinyl chloride	280	370	180	48	21	2.6 U	2.7	3.2	1.3 U	1.6	1	0.26 U	1.6	0.41 D	0.26 UD	2.6 UD	0.51 U	0.26 U	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)	CT IACTIND 2003 (ug/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
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	0.27 U	0.38	0.27 U	0.27 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
1,1,2-Trichloroethane	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	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	430	1.8	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	20	0.58	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	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	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	52	0.25 U	0.32	0.33	0.36	0.25 U	0.25 U	0.2	0.25 U	0.35	0.25 U	0.25 U	0.25 U	0.25 U	0.73
1,2-Dibromoethane (EDB)	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	0.38 U	0.38 U	0.36 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	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	0.23 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
1,3,5-Trimethylbenzene	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	0.25 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	0.08 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U
1,3-Dichlorobenzene	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane	NA														
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
2-Hexanone	NA	0.2 U	0.48	0.38	0.27	0.2 U	0.2 U	0.47	0.45	1.1	0.48	0.2 U	0.23	0.44	0.2 U
4-Ethyltoluene	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	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Methyl-2-pentanone	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.18	0.2 U	0.68	0.23	0.2 U	0.2 U	0.2 U	1.1
Acetone	500	32	11	21	20	9.5	6.5	14	14	46	16	15	11	18	17
Benzene	3.3	0.79	0.6	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
Benzyl chloride	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	0.26 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	0.33 U
Bromoform	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	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 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
Carbon disulfide	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.27	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	0.54	0.33	0.44	0.5	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
Chlorobenzene	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	0.23 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	0.13 U	0.1 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	0.24 U	0.17 U	0.24 U	0.55	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	80	1.1	1	1.5	1.4	1.1	1.1	1	1.4	1	2	1.2	1	1	1
cis-1,2-Dichloroethene	100	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-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
Cyclohexane	NA	0.17 U	0.17 U	0.38	0.41	0.17 U	0.17 U	0.12 U	0.17 U	0.4	0.17 U	0.17 U	0.17 U	0.17 U	0.45
Dibromochloromethane	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	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	500	2	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
Ethanol	NA	500	12	23	140	85	32	41	180	500	62	51	25	58	150
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
Ethylbenzene	290	0.22 U	0.25	0.33	0.43	0.22 U	0.22 U	0.24	0.22 U	0.3	0.23	0.22 U	0.22 U	0.44	0.91
Hexachlorobutadiene	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	1.1 U	1.1 U	0.53 U	1.1 U	0.53 U
Hexane	NA	0.84	0.54	1.1	0.99	0.39	0.5	0.71	0.58	1	0.52	0.57	0.43	0.48	1
Isopropyl alcohol	NA	3.8	3.5	580	2.9	3	1.3	1.7	2	19	3.5	3.8	3.8	1.9	8.2
m,p-Xylene	500	0.6	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

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	
Methyl methacrylate	NA															
Methylene chloride	17	2	3.6	5.2	1.1	1.2	0.74	2.5	2.9	2	0.7 U	4.3	2.2	1.3	0.75	
Methyl-t-butyl ether	190	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	NA	0.2 U	0.2 U	0.36	0.35	0.2 U	0.2 U	0.23	0.38	0.48	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	2.1
o-Xylene	500	0.23	0.27	0.35	0.47	0.22 U	0.22 U	0.23	0.32	0.22 U	0.22 U	0.22 U	0.22 U	0.31	0.87	
Propylene (Propene)	NA	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.13 U	0.09 U	0.09 U	0.35 U	0.35 U	0.35 U	0.87 U	0.35 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	0.3	0.21 U	0.35	0.32	0.58	
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	0.34 U	
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	
Toluene	500	1.3	1.1	3	3.3	0.65	0.51	1.5	2.8	2.8	1.5	0.54	1.5	0.7	6.2	
trans-1,2-Dichloroethene	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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	
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	
Trichlorofluoromethane	500	3	1.3	1.7	1.8	1.5	1.7	1.2	1.3	2	1.2	1.8	1.4	1.5	6.3	
Trichlorotrifluoroethane	NA	0.62	0.54	0.48	0.45	0.64	0.48	0.53	0.61	0.54	0.6	0.54	0.55	0.55	0.43	
Vinyl acetate	NA	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.5 U	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U	0.18 U	0.36 U	
Vinyl chloride	1.9	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 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																			
	IA-5-120810 1/28/2010	IA-5-021711 2/17/2011	IA-5-060211 6/2/2011	IA-5-091511 9/15/2011	IA-5-120811 12/8/2011	IA-5-030812 3/8/2012	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	
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.15	0.082 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	
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.16	0.1 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	0.34 U	0.34 U	
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.14	0.082 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	0.27 U	0.27 U	0.27 U	
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.061 U	3.9	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	1.2	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.74 U	22	0.45 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	0.75 U	0.75 U	0.37 U		
1,2,4-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 U	1.3	0.15 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	
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 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	0.38 U	0.38 U		
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	23	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U		
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.066	0.061 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 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	0.23 U		
1,2-Dichlorotetrafluoroethane							0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 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	0.39	0.15 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 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	0.11 U	0.11 U	0.11 U	1.1	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U		
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.076	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U		
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.37	0.18 U	0.3 U	0.3 U	0.3 U	0.41	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U		
1,4-Dioxane	0.18 U																			
2-Butanone	0.78	0.78 B	3.6	5.9 U	0.98	2	120	10	3.2	2.9	2.4	2.3	1	2.5	4.1	2.4	1.8	1.4	1.1	
2-Hexanone	0.2 U	0.2 U	4.1 U	0.20 U	0.13	0.32	0.2 U	0.42	0.37	0.34	0.2 U	0.37	0.14 U	0.62	0.72	0.7	0.2 U	0.26	0.2 U	
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25	0.15 U	0.25 U	0.25 U	0.25 U	0.47	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U		
4-Methyl-2-pentanone	0.2 U	0.2 U	0.31	0.20 U	0.13	0.18	0.2 U	0.2 U	0.2 U	0.36	0.2 U	0.2 U	0.14 U	0.34	0.7	0.29	0.2 U	0.2 U		
Acetone	6.4 B	9.5 B	24 B	15	6.6	11	44	14	14	25	11	8.5	6.1	11	28	20	14	6.5	14	
Benzene	0.26	1.1	0.33	0.29	0.38	0.34	1	0.6	0.98	4.1 [a]	0.41	0.7	0.59	0.47	0.43	0.31	0.4	0.55	0.19	
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 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	0.26 U		
Bromodichloromethane	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 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	0.33 U		
Bromoform	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 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	0.51 U		
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 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	0.19 U		
Carbon disulfide	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 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	0.16 U		
Carbon tetrachloride	0.54	0.6	0.59	0.46	0.49	0.46	0.39	0.42	0.52	0.59 [a]	0.47	0.6 [a]	0.42	0.77 [a]	0.45	0.42	0.4	0.43	0.56	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.48	0.14 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	0.23 U		
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 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	0.49	0.073 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	0.24 U	0.24 U		
Chloromethane	0.76	0.96	1.1	1.3	1	1.1	1.3	0.9	1.4	1.5	1	1.1	1.1	1.1	0.97	1.8	1.4	1		
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.20 U	0.18	0.059 U	0.4	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U		
cis-1,3-Dichloropropene	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 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		
Cyclohexane	0.17 U	0.17 U	0.46	0.17 U	0.1 U	0.1 U	0.17 U	0.25	0.91	0.17 U	0.17 U	0.12 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	0.26 U	0.13 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	0.43 U		
Dichlorodifluoromethane	2.3	3.1	1.7	2	2.6	2	2.1	2.6	2.6	2.6	2.6	2.6	2	2.7	2.5	2.2	1.9	1.6	2.4	
Ethanol	2.4	14	7.7	7.9	5.4	14	41	23	12	40	13	12	8.6	51	31	12	10	7.1	18	
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.48	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		
Ethylbenzene	0.22 U	0.3	0.36	0.22 U	1.2	0.13 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	
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.17	0.32 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	0.53 U	1.1 U	1.1 U	0.53 U	
Hexane	0.3	1.3	1.7	7.0 U	0.36	0.48	1.2	0.78	0.7	2.6	0.33	0.4	0.63	0.38	0.68	0.45	0.18 U	0.22	1.3	
Isopropyl alcohol	0.12 U	1.7	1.2 U	6.4	2.9 U	2.9 U	4.7	6.6	3.2	4.9	1.7	1.6	0.18 U	4.5	22	7	1.4	4.9	1	
m,p-Xylene	0.43 U	0.85	0.57	0.53	3	0.12	0.82	0.72	0.84	4.9	0.43 U	0.43 U	0.51	0.43 U	0.67	0.62	0.43 U	0.51	0.58	

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																		
	IA-5-120810 12/8/2010	IA-5-021711 2/17/2011	IA-5-060211 6/2/2011	IA-5-091511 9/15/2011	IA-5-120811 12/8/2011	IA-5-030812 3/8/2012	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
Methyl methacrylate	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.12 U													
Methylene chloride	0.65	2.8	4.2	7.7	1.6	1.6	2.5	5.2	0.59	1.6	0.83	0.69	2	2	2.6	0.7 U	2.9	0.7 U	4.5
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.039	0.11 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	0.2 U	0.33	0.2 U	0.20 U	0.081	0.089	0.27	0.2 U	0.32	1.3	0.2 U	0.2 U	0.21	0.2 U	0.26	0.2 U	0.2 U	0.2 U	1.4
o-Xylene	0.22 U	0.3	0.26	0.22 U	1	0.13 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
Propylene (Propene)	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.13 U	0.09 U	0.09 U	0.35 U	0.35 U	0.35 U	0.87 U
Styrene	0.21 U	0.21 U	0.21 U	0.21 U	1	0.13 U	0.21 U	0.21 U	0.21 U	0.21 U	0.28	0.21 U	0.21 U	0.15 U	0.25	0.21 U	0.23	0.21 U	0.21 U
Tetrachloroethene	0.39	2.4	0.34 U	0.58	5.7	0.15	1.2	0.34 U	0.46	1.2	0.34 U	0.34 U	0.72	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.1	0.088 U	77	2.8	0.32	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	0.15 U
Toluene	0.19 U	1.8	0.9	0.97	1.9	0.28	1.8	1.3	2.5	11	0.65	0.71	1.3	0.81	2	1.1	0.49	1.6	1.7
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 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
Trichloroethene	0.27 U	0.27 U	0.27 U	0.27 U	0.63	0.081 U	13	1.7	0.27 U	0.34	0.27 U	0.27 U	0.6	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	1.3	1.7	1.4	1.7	1.1	0.98	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
Trichlorotrifluoroethane	0.52	0.66	0.69	0.63	0.69	0.46	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
Vinyl acetate	0.43	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.5 U	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U	0.18 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 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-6-091610 9/16/2010	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-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	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
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.085	0.082 U	44	2.4	0.4	1.3	0.27 U	0.27 U	0.87	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 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	0.34 U
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 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	0.27 U	0.27 U
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.061 U	1.3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.52	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 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	0.75 U	0.75 U
1,2,4-Trimethylbenzene	0.33	0.25 U	0.35	0.25 U	0.25	0.16	0.15 U	0.25 U	0.34	0.34	0.99	0.25 U	0.25 U	0.18 U	0.25 U	0.29	0.39	0.25 U	0.35
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 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	0.38 U	0.38 U
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.066	0.061 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 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	0.23 U
1,2-Dichlorotetrafluoroethane	0.35 U							0.36 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.36 U	0.36 U	0.36 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	0.059	0.15 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 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	0.066 U	0.066 U	0.11 U	0.11 U	0.14	0.97	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane						0.18 U													
2-Butanone	0.89	0.87	1.9 B	2.9 U	5.9 U	1.3	0.63	70	6.5	3.9	5.2	2.2	1.3	1.3	2.3	7.3	2.2	0.49	2.1
2-Hexanone	0.2 U	0.2 U	0.22	4.1 U	0.6	0.15	0.12 U	0.2 U	0.29	0.2 U	0.91	0.2 U	0.2 U	0.14 U	0.53	1.5	0.53	0.2 U	0.2 U
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.25 U	0.25 U	0.27	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
4-Methyl-2-pentanone	0.4	0.2 U	0.2 U	0.28	0.31	0.13	0.12 U	0.2 U	0.2 U	0.42	0.2 U	0.2 U	0.14 U	0.22	0.79	0.24	0.2 U	0.2 U	0.2 U
Acetone	13	11 B	14 B	19 B	26	10	7.4	29	12	13	32	7.8	6.6	6.5	10	31	22	31	12
Benzene	0.6	0.44	1.3	0.29	0.31	0.42	0.39	0.95	0.75	1.1	3.2	0.67	0.73	0.42	0.35	0.52	0.43	0.52	0.53
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 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
Bromodichloromethane	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 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	0.33 U
Bromoform	0.51 U	0.62 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 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	0.51 U
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 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	0.19 U
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.26	0.16 U	0.16 U	0.26	0.16 U	0.16 U
Carbon tetrachloride	0.44	0.46	0.57	0.64	0.52	0.46	0.48	0.32	0.44	0.52	0.56 [a]	0.48	0.6 [a]	0.43	0.65 [a]	0.43	0.42	0.44	0.43
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 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
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 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	0.36	0.24 U	0.24 U	0.24 U	0.24 U	0.1	0.073 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	0.24 U	0.24 U
Chloromethane	1.1	0.96	0.92	1.1	1.4	1.3	1.2	1.7	0.98	1.4	1.5	1	1.2	1.1	0.93	1.8	1.2	2.1	1.2
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.098	0.059 U	0.29	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14	0.2 U	0.2 U	0.27	0.2 U	0.2 U
cis-1,3-Dichloropropene	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 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
Cyclohexane	0.17 U	0.17 U	0.17 U	0.29	0.17 U	0.1 U	0.1 U	0.17 U	0.17 U	0.32	0.7	0.17 U	0.12 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	0.26 U	0.13 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	0.43 U
Dichlorodifluoromethane	1.6	1.9	3.1	1.8	1.9	2.9	2	2.1	2.2	2.6	2.7	2.6	2.6	2	2.4	2.7	2.3	2.1	1.8
Ethanol	36	5.9	10	7.7	14	24	41	7.3	16	11	26	7.9	8.4	7.1	11	14	11	10	13
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.48	0.69	0.37 U	0.37 U	0.18 U	0.21	0.37 U	0.18 U	0.26 U	0.18 U	0.24	2.6	0.18 U	0.18 U
Ethybenzene	0.43	0.22 U	0.45	0.22 U	0.22 U	0.15	0.22	0.23	0.29	0.36	0.95	0.24	0.22 U	0.16 U	0.22 U	0.25	0.32	0.68	0.32
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 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	0.53 U	1.1 U	1.1 U
Hexane	0.69	0.39	1.5	0.41	7.0 U	0.41	0.48	0.9	0.87	0.91	2	1.1	0.6	0.69	0.33	1.5	0.88	0.25	0.33
Isopropyl alcohol	3.2	1.1	2.8	1.2 U	11	2.9 U	2.9 U	3.7	6.2	3.6	8.3	0.25 U	2.7	0.18 U	7	14	4	1.9	18
m,p-Xylene	1.1	0.43 U	1.2	0.46	0.59	0.45	0.54	0.61	0.82	0.94	2.8	0.73	0.43 U	0.31 U	0.43 U	0.72	0.86	2.8	0.82

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-6-091610 9/16/2010	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-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	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
Methyl methacrylate		0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.12 U												
Methylene chloride	0.64	0.94	3	1	1.7 U	1.5	1.8	1.9	5.7	0.92	1.5	6.3	1.4	4.2	2.3	5.7	0.7 U	2.9	0.7 U
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.11 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	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
n-Heptane	0.47	0.2 U	0.35	0.2 U	0.2	0.11	0.15	0.2	0.2 U	0.37	1.2	0.2 U	0.2 U	0.17	0.2 U	0.34	0.37	0.2 U	0.29
o-Xylene	0.42	0.22 U	0.4	0.22 U	0.22	0.17	0.13	0.24	0.31	0.39	0.97	0.24	0.22 U	0.16 U	0.22 U	0.25	0.31	0.6	0.28
Propylene (Propene)	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.13 U	0.09 U	0.09 U	0.35 U	0.35 U	0.35 U
Styrene	0.29	0.21 U	0.21 U	0.27	0.22	0.13	0.13 U	0.21 U	0.21 U	0.21 U	0.26	0.21 U	0.21 U	0.15 U	0.21 U	0.29	0.39	0.21 U	0.26
Tetrachloroethene	0.34 U	0.34 U	1.6	0.34 U	0.58	0.68	0.15	1.6	0.34 U	0.65	0.63	0.34 U	0.34 U	0.48	0.34 U	0.34 U	1	0.34 U	
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.15	0.12	0.088 U	45	2.1	0.74	0.43	0.15 U	0.15 U	0.27	0.15 U	0.15 U	0.51	0.15 U	0.15 U
Toluene	2.6	0.4	2.9	0.93	1.2	1.2	1.4	1.5	1.6	2.7	7.5	1.5	0.76	0.48	0.61	2.3	4	0.57	7.2
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	0.22 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 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	0.22 U	0.22 U
Trichloroethene	0.3	0.27 U	0.27 U	0.27 U	0.27 U	0.19	0.081 U	4.6	1.1	0.28	0.58	0.27 U	0.27 U	0.3	0.27 U	0.27 U	0.4	0.27 U	
Trichlorofluoromethane	3.1	1.1	1.6	1.1	1.7	1.4	1	4.7	1.4	1.7	3.1	1.6	1.7	1.3	1.1	1.9	1.3	1.7	1.3
Trichlorotrifluoroethane	0.42	0.52	0.69	0.67	0.56	0.68	0.44	0.62	0.57	0.47	0.44	0.66	0.45	0.54	0.69	0.57	0.51	0.54	0.64
Vinyl acetate	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.5 U	0.18 U	0.18 U	0.71 U	0.36 U	0.36 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 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-7-070110 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
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.069	0.082 U
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 U
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.061 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.069 U
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.46 U	0.45 U
1,2,4-Trimethylbenzene	0.36	0.36	0.25 U	0.25 U	0.56	0.41	0.32	0.36
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.07	0.061 U
1,2-Dichloropropane	0.3	0.23 U	0.23 U	0.23 U	0.63	0.23 U	0.14 U	0.069 U
1,2-Dichlorotetrafluoroethane	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	0.1	0.15	
1,3-Butadiene	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U
1,4-Dioxane						0.18 U		
2-Butanone	4.3	1.8	0.42	1.7 B	4.7	5.9 U	2.1	0.97
2-Hexanone	0.82	0.55	0.2 U	0.2 U	1.4 J	0.73	0.12 U	0.081
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.074	0.097
4-Methyl-2-pentanone	0.43	0.61	0.2 U	0.2 U	0.53	0.36	0.15	0.13
Acetone	41	27	12 B	15 B	48 B	38	17	13
Benzene	0.27	0.56	0.45	1.1	0.41	0.34	0.44	0.36
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U
Bromodichloromethane	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U
Bromoform	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.27	1.6 U	0.93 U	0.93 U
Carbon tetrachloride	0.5	0.47	0.45	0.56	0.69	0.5	0.45	0.46
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U
Chloroform	0.24 U	0.38	0.24 U	0.24 U	0.24 U	0.34	0.12	0.073 U
Chloromethane	1.3	1.4	0.99	1	1.6	1.6	1.3	1.6
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.064	0.059 U
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U
Dichlorodifluoromethane	2.7	1.7	2	3.1	2.5	1.8	2.8	2.1
Ethanol	39	240	13	14	28	76	60	70
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.7	0.21	1.8	0.94
Ethylbenzene	0.45	0.45	0.22 U	0.22 U	0.68	0.46	0.24	0.12
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U
Hexane	0.7	0.64	0.5	1.3	0.58	7.0 U	3.9	0.8
Isopropyl alcohol	5.8	28	2.8	11	1.2 U	77	2.9 U	2.9 U
m,p-Xylene	1.2	1.2	0.43 U	0.43 J	1.5	1.1	0.72	0.3

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-7-070110 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
Methyl methacrylate			0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.12 U
Methylene chloride	1.3	0.6	1.3	2.5	1.1	1.7 U	13	2.8
Methyl-1-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.11 U	
n-Heptane	0.5	0.68	0.33	0.47	2	1.1	0.46	0.47
o-Xylene	0.43	0.43	0.22 U	0.22 U	0.69	0.41	0.3	0.17
Propylene (Propene)	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U
Styrene	0.7	0.39	0.21 U	0.21 U	0.97	0.63	0.18	0.097
Tetrachloroethene	0.34 U	0.36	0.34 U	1.7	0.34 U	0.62	0.66	0.14
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.24	0.18	0.088 U	0.088 U
Toluene	8.4	3.5	0.48	1.6	6.6	3.7	1.2	0.48
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U
Trichloroethene	0.27 U	0.77	0.27 U	0.27 U	0.27 U	0.27 U	0.16	0.081 U
Trichlorofluoromethane	1.3	2.9	1.2	1.6	1.3	1.6	1.3	1.1
Trichlorotrifluoroethane	0.54	0.43	0.55	0.67	0.76	0.54	0.67	0.44
Vinyl acetate	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U	0.11 U	0.21 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U

[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.

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

Prepared by / Date: EYM 4/4/12

Checked by / Date: MAM 4/6/12

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

Date	Pressure Differential (inches of water)		
	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

** ASD system offline.

Prepared by/Date: MAM 04/05/12
 Checked by/Date: EYM 04/20/12

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-011609 1/16/2009	AA-020309 2/3/2009	AA-021109 2/11/2009	AA-021809 2/18/2009	AA-022609 2/26/2009	AA-030609 3/6/2009	AA-033109 3/31/2009	AA-041409 4/14/2009	AA-042409 4/24/2009	AA-051509 5/15/2009	AA-061109 6/11/2009	AA-091709 9/17/2009	AA-092409 9/24/2009	AA-100109 10/1/2009	AA-100809 10/8/2009
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							
1,1,2,2-Tetrachloroethane	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 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							
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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							
1,2,4-Trimethylbenzene	0.25 U	0.28	0.52	1.8	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
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							
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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							
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 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						
1,3-Butadiene	0.11 U	0.11 U	0.17	1.3	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.11 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.53	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 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	0.8	1.2	1.2
2-Hexanone	0.2 U	0.22	0.57	0.35	0.2 U	0.2 U	0.14 U	0.26	0.39	0.2 U	0.34	0.2 U	0.33	0.23	
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.6	0.25 U	0.25 U	0.18 U	0.25 U							
4-Methyl-2-pentanone	0.2 U	0.2 U	0.27	0.63	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Acetone	7.3	8	15	22	8.4	5.9	12	1.1	27	9.5	10	10	9.6	5.4	17
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	0.2
Benzyl chloride	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 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						
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						
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						
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	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	0.4	0.4	0.43	0.46
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						
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	0.1 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	0.17 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	1.2	0.85	1.1	0.97	0.96
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-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							
Cyclohexane	0.17 U	0.17 U	0.35	1.1	0.17 U	0.17 U	0.17 U	0.12 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						
Dichlorodifluoromethane	2	2.2	2.6	2.7	2.6	2.6	2.8	2	2.5	2.7	2.6	2.1	2.1	2.2	2.1
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
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					

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
Ethylbenzene	0.22 U	0.25	0.52	2	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.24	0.22 U	0.23	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	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
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
Isopropyl alcohol	1.4	1.4	1.8	4.3	1.4	0.67	1.4	0.18 U	14	1	2.5	2.8	0.87	0.63	0.25 U
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
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	0.7 U	4.2	0.7 U	23
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						
n-Heptane	0.2 U	0.27	0.92	1.6	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.4	0.23	0.2 U	0.2 U	0.2 U	0.2 U
o-Xylene	0.22 U	0.27	0.53	2.2	0.22 U	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	0.09 U	0.09 U	0.18 U	0.09 U	0.09 U	0.13 U	0.18 U	0.09 U	0.09 U	0.35 U	0.35 U	0.18 U	0.35 U
Styrene	0.21 U	0.21 U	0.21 U	0.28	0.21 U	0.21 U	0.21 U	0.15 U	0.21 U						
Tetrachloroethene	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	0.52	0.34 U	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				
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	0.61	0.5
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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						
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						
Trichlorofluoromethane	1.3	1.2	1.7	2.4	1.5	2	1.7	0.92	1.3	1.5	2	1.1	1.4	1.2	1.5
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
Vinyl acetate	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.5 U	0.71 U	0.18 U	0.18 U	0.71 U	0.71 U	0.71 U	0.71 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 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/m³)	Outdoor Air Reference Locations																		
	AA-1-122909 12/29/2009	AA-1-012810 1/28/2010	AA-1-020510 2/5/2010	AA-1-021210 2/12/2010	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			
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	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.29	0.082 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	0.34 U	0.21 U	0.1 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	0.27 U	0.27 U	0.16 U	0.082 U		
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.063	0.061 U	
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	
1,2,4-Trichlorobenzene	0.75 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	0.37 U	0.37 U	0.74 U	0.62	0.45 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	0.25 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
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	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.34	0.18 U	
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.066	0.061 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	0.23 U	0.23 U	0.23 U	0.14 U	0.069 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	0.35 U	0.35 U	0.35 U	0.35 U	0.12 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	0.25 U	0.25 U	0.25 U	0.25 U	0.068	0.15 U
1,3-Butadiene	0.11 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	0.29	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	
1,4-Dioxane																	0.18 U		
2-Butanone	2	0.81	1.6	1.6	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			
2-Hexanone	0.2 U	0.2 U	0.32	0.2 U	0.2 U	0.29	0.29	0.49	0.49	0.49	0.41	0.2 U	0.2 U	4.1 U	0.67	0.12 U	0.34		
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	0.25 U	0.25 U	0.25 U	0.053	0.15 U	
4-Methyl-2-pentanone	0.2 U	0.2 U	0.2 U	0.34	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U		
Acetone	11	3.5	7.6	5.0	3.7	9.5	12	20	13	14	5.7 B	19 B	8.7 B	20	4.9	9.4			
Benzene	0.42	0.79	0.68	0.63	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			
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	0.26 U	0.26 U	0.26 U	0.16 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	0.33 U	0.34 U	0.34 U	0.2 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	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.31 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	0.19 U	0.19 U	0.19 U	0.12 U		
Carbon disulfide	0.16 U	0.28	0.16 U	0.16 U	0.44	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	0.058	0.93 U	
Carbon tetrachloride	0.39	0.42	0.39	0.31 U	0.43	0.49	0.47	0.52	0.51	0.43	0.42	0.48	0.53	0.48	0.49	0.49	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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 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	0.13 U	0.13 U	0.13 U	0.079 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	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.094	0.073 U	
Chloromethane	1.6	1.1	1.2	1.3	1.1	1.4	0.78	1.1	0.96	0.99	0.94	1	0.96	1.4	0.062 U	1.1			
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12	0.059 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	0.23 U	0.23 U	0.23 U	0.14 U	0.068 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	0.46	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 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	0.43 U	0.43 U	0.26 U	0.13 U	
Dichlorodifluoromethane	2.1	2.3	2.4	2.5	2.9	1.8	2.1	2.5	2.4	2.9	1.9	3.1	1.9	1.7	2.5	2			
Ethanol	3.8	5.4	5.1	7.2	1.2	4.9	4	3.3	4	14	2.3	12	2.7	5.8	1.5	4.1			
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	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	0.18 U	0.46	0.56		

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-1-122909 12/29/2009	AA-1-012810 1/28/2010	AA-1-020510 2/5/2010	AA-1-021210 2/12/2010	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	
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	0.82	1.4	0.22 U	1.1	0.22 U	0.22 U	0.31	0.13 U	
Hexachlorobutadiene	1.1 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		
Hexane	0.62	0.36	0.53	0.91	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	
Isopropyl alcohol	0.54	0.56	2.7	1.5	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	
m,p-Xylene	0.43 U	0.43 U	0.50	0.47	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	
Methyl methacrylate												0.2 U	0.48	0.2 U	0.20 U	0.12 U	0.12 U
Methylene chloride	4.6	1.3	1.9	1.7	0.7 U	0.7 U	0.7 U	0.35 U	1.1	1.1	0.66	3	2.3	1.7 U	1.5	1.6	
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	0.11 U	0.11 U	0.11 U	
n-Heptane	0.2 U	0.26	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.91	0.2 U	0.95	0.2 U	0.20 U	0.12	0.089	
o-Xylene	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.46	1.2	0.22 U	1.1	0.22 U	0.22 U	0.22	0.086	
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	1.9	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 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	0.21 U	0.21 U	0.21 U	0.21 U	0.37	0.13 U	
Tetrachloroethene	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	0.49	0.34 U	5.3	0.34 U	0.34 U	0.73	0.1 U	
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	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	
Toluene	0.78	0.94	0.64	0.97	0.46	1.1	0.75	0.63	0.57	10	0.19 U	5.3	0.52	0.47	0.56	0.37	
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 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	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	
Trichloroethene	0.27 U	0.27 U	0.27 U	0.30	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	
Trichlorofluoromethane	2.2	1.2	1.2	1.6	1.5	1.5	1.2	1.4	1.3	11	1.2	1.7	1.5	1.5	1.7	1.1	
Trichlorotrifluoroethane	0.54	0.49	0.55	0.54	0.54	0.62	0.45	0.58	0.56	0.44	0.56	0.66	0.69	0.58	0.89	0.43	
Vinyl acetate	0.36 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	
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	0.13 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	

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-COMBINED-021109 2/11/2009	EW-COMBINED-021809 2/18/2009	EW-COMBINED-022609 2/26/2009	EW-COMBINED-041409 4/14/2009	EW-COMBINED-042409 4/24/2009	EW-COMBINED-091709 9/17/2009	EW-COMBINED-092409 9/24/2009	EW-COMBINED-100109 10/1/2009	EW-COMBINED-100809 10/8/2009	EW-COMBINED-012810 1/28/2010	EW-COMBINED-020510 2/5/2010	EW-COMBINED-021210 2/12/2010	EW-COMBINED-021910 2/19/2010
1,1,1-Trichloroethane	190000	91000	73000	32000	3500	19000	11000	8100	7900	6800	1500	2500	150	1200
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
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
1,1-Dichloroethane	19000	7800	5300	4800	390	2200	1600	1900	1900	1700	280	370	31	310
1,1-Dichloroethene	7800	1800	1000	630	73	420	310	250	260	280	52	66	7.3	62
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
1,2,4-Trimethylbenzene	5 U	5 U	10 U	10 U	5 U	0.25 U	2.5 U	5 U	10 U	10 U	0.5 U	5 U	0.25 U	0.5 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
1,2-Dichlorobenzene	6 U	6 U	12 U	12 U	6 U	0.3 U	3 U	6 U	12 U	12 U	0.6 U	6 U	0.3 U	0.6 U
1,2-Dichloroethane	4 U	4 U	8 U	8 U	4 U	0.2 U	2 U	4 U	8 U	8 U	0.4 U	4 U	0.2 U	0.4 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
1,2-Dichlortetrafluoroethane	7 U	7 U	14 U	14 U	7 U	0.35 U	3.5 U	7 U	14 U	14 U	0.7 U	7 U	0.35 U	0.7 U
1,3,5-Trimethylbenzene	5 U	5 U	10 U	10 U	5 U	0.25 U	2.5 U	5 U	10 U	10 U	0.5 U	5 U	0.25 U	0.5 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
1,3-Dichlorobenzene	6 U	6 U	12 U	12 U	6 U	0.3 U	3 U	6 U	12 U	12 U	0.6 U	6 U	0.3 U	0.6 U
1,4-Dichlorobenzene	6 U	6 U	12 U	12 U	6 U	0.3 U	3 U	6 U	12 U	12 U	0.6 U	6 U	0.3 U	0.6 U
1,4-Dioxane														
2-Butanone	37	32	48	60	21	40	7.8	31	30	21	4	11	10	9
2-Hexanone	4 U	4 U	8 U	8 U	4 U	0.5	2 U	4 U	8 U	8 U	0.4 U	4 U	0.2 U	0.4 U
4-Ethyltoluene	5 U	5 U	10 U	10 U	5 U	0.25 U	2.5 U	5 U	10 U	10 U	0.5 U	5 U	0.25 U	0.5 U
4-Methyl-2-pantanone	4 U	4 U	8 U	8 U	4 U	0.59	2 U	4 U	8 U	8 U	0.4 U	4 U	0.28	0.4 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
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
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
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
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
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
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
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
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
Chloroethane	3400	1700	1200	450	42	220	110	94	92	88	9.8	11	1.3	9.9
Chloroform	27	17	20	17	4.8 U	8.8	12	14	11	11	4.1	5.8	0.49	6.2
Chloromethane	2 U	2 U	4 U	4 U	2 U	8.2	1 U	2 U	4 U	4 U	0.2 U	2 U	0.1 U	0.2 U
cis-1,2-Dichloroethene	14000	4700	6300	4200	300	1600	1600	1500	1300	1200	190	280	21	240
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
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
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
Dichlorodifluoromethane	5 U	5 U	10 U	110	5 U	2.8	2.5 U	5 U	10 U	10 U	2.4	5 U	2.2	2.7
Ethanol	960	81	120	120	17	21	200	96	32	33	39	60	23	62
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

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- COMBINED 021109 2/11/2009	EW- COMBINED 021809 2/18/2009	EW- COMBINED 022609 2/26/2009	EW- COMBINED 041409 4/14/2009	EW- COMBINED 042409 4/24/2009	EW- COMBINED 091709 9/17/2009	EW- COMBINED 092409 9/24/2009	EW- COMBINED 100109 10/1/2009	EW- COMBINED 100809 10/8/2009	EW- COMBINED 012810 1/28/2010	EW- COMBINED 020510 2/5/2010	EW- COMBINED 021210 2/12/2010	EW- COMBINED 021910 2/19/2010
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
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
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
Isopropyl alcohol	610	2.4 U	15	9.9 U	5 U	0.25 U	22	5 U	9.9 U	9.9 U	2.3	5 U	1.0	0.5 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
Methyl methacrylate														
Methylene chloride	12	7 U	14 U	14 U	19	2.6	7 U	14 U	28 U	28 U	1.4 U	14 U	2.6	1.4 U
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
n-Heptane	4 U	4 U	8 U	8 U	4 U	0.2 U	2 U	4 U	8 U	8 U	0.4 U	4 U	0.2 U	0.4 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
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
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
Tetrachloroethene	140	60	430	540	47	110	110	260	67	72	4.6	200	4.8	45
Tetrahydrofuran	77	77	150	180	66	110	1.5 U	96	85	67	15	32	28	43
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
trans-1,2-Dichloroethene	110	61	47	47	4.6	33	29	34	30	26	3.4	4.6	0.36	4.1
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
Trichloroethene	36000	17000	26000	13000	1400	6200	4000	3600	4000	4300	390	1400	58	460
Trichlorofluoromethane	9900	2300	1800	1000	98	600	1800	1400	1500	1500	260	230	29	230
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
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
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

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 043010 4/30/2010	EW-COMBINED 052810 5/28/2010	EW-COMBINED 070110 7/1/2010	EW-COMBINED 091610 9/16/2010	EW-COMBINED 120710 12/7/2010	EW-COMBINED 021711 2/17/2011	EW-COMBINED 091511 9/15/2011	EW-Combined- 120811 12/8/2011	EW-Combined- 030812 3/8/2012	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	1400	1700	2000	4700	280 D	2500 D	2400	340	1100	59000	66000	26000	30000	54000	72000	11000	14000
1,1,2,2-Tetrachloroethane	0.68 U	6.8 U	0.68 U	0.68 U	0.69 UD	0.69 UD	1.4 U	0.69 U	3.4 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	0.54 U	5.4 U	0.54 U	0.55	0.55 UD	0.55 UD	1.1 U	0.55 U	2.7 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	200	270	290	330	36 D	170 D	200	70	78	4100	4400	5700	7000	1600	2300	690	1400
1,1-Dichloroethene	30	40	52	81	7.3 D	58 D	44	21	34	570	1200	330	640	340	560	97	210
1,2,4-Trichlorobenzene	0.74 U	7.4 U	0.74 U	0.74 U	0.74 UD	0.74 UD	3.0 U	1.5 U	3800	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	0.5 U	5 U	0.5 U	0.5 U	0.49 UD	0.49 UD	0.98 U	1.2	4.9 U	5 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U
1,2-Dibromoethane (EDB)	0.76 U	7.6 U	0.76 U	0.76 U	0.77 UD	0.77 UD	1.5 U	0.77 U	3.8 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	0.6 U	6 U	0.6 U	0.6 U	0.6 UD	0.6 UD	1.2 U	0.6 U	7.3	6 U	6 U	6 U	6 U	6 U	6 U	1.5 U	6 U
1,2-Dichloroethane	0.4 U	4 U	0.4 U	0.4 U	0.4 UD	0.4 UD	0.81 U	0.4 U	2 U	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U
1,2-Dichloropropane	0.46 U	4.6 U	0.46 U	0.46 U	0.46 UD	0.46 UD	0.92 U	0.46 U	2.3 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	4.6 U
1,2-Dichlorotetrafluoroethane	0.7 U	7 U	0.7 U	0.7 U						7 U	7 U	7 U	7 U	7 U	7 U	1.8 U	7 U
1,3,5-Trimethylbenzene	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.49 UD	0.49 UD	0.98 U	0.29	4.9 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U
1,3-Butadiene	0.45 U	2.2 U	0.22 U	0.22 U	0.22 UD	0.22 UD	0.44 U	0.22 U	2.2 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	0.6 U	6 U	0.6 U	0.6 U	0.6 UD	0.6 UD	1.2 U	0.6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	1.5 U	6 U
1,4-Dichlorobenzene	0.6 U	6 U	0.6 U	0.6 U	0.6 UD	0.6 UD	1.2 U	0.6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	1.5 U	6 U
1,4-Dioxane							0.72 U										
2-Butanone	12.0	22.0	22.0	10.0	4.5 D	4.5 BD	24 U	1.3	120 U	3.5	8.9	12.0	11	36	10	36	6.4
2-Hexanone	0.4 U	4 U	0.4 U	0.4 U	0.41 UD	0.41 UD	0.82 U	0.16	4.1 U	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U
4-Ethyltoluene	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.49 UD	0.49 UD	0.98 U	0.27	4.9 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U
4-Methyl-2-pentanone	0.4 U	4 U	0.4 U	0.4 U	0.41 UD	0.41 UD	0.82 U	0.16	4.1 U	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U
Acetone	16	24	16	6.6	11 BD	6.3 BD	19 U	6.6	22	35	16	9.6 U	9.6 U	53	24	26	12
Benzene	0.74	5.5	0.84	1.7	0.5 D	0.72 D	0.77	0.56	3.2 U	5.3	11	5.6	7.8	3.2 U	6.8	1.4	3.2 U
Benzyl chloride	0.52 U	5.2 U	0.52 U	0.52 U	0.52 UD	0.52 UD	1.0 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	1.3 U	5.2 U
Bromodichloromethane	0.66 U	6.6 U	0.66 U	0.66 U	0.67 UD	0.67 UD	1.3 U	0.67 U	3.4 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	11 U	1.1 U	1.1 U	1 UD	1 UD	2.1 U	1 U	10 U	11 U	11 U	11 U	11 U	11 U	11 U	2.6 U	11 U
Bromomethane	0.38 U	3.8 U	0.38 U	0.38 U	0.39 UD	0.39 UD	0.78 U	0.39 U	3.9 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	0.77	3.2 U	1.1	1.3	0.31 UD	0.73 D	6.2 U	3.1 U	31 U	3.2 U	3.2 U	27	25	3.2 U	3.2 U	1.8	3.2 U
Carbon tetrachloride	0.62 U	6.2 U	0.73	1.1	0.63 UD	0.63 D	1.3 U	0.48	3.1 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	7.2	0.46 U	0.46 U	0.46 UD	0.46 UD	0.92 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	1.2 U	4.6 U
Chloroethane	4.8	7.2	9.4	17	1 D	3.6 D	6.7	2.1	2.6 U	170	250	700	590	41	44	17	33
Chloroform	6	7.9	8	8.3	1.6 D	6.9 D	7.6	2.7	3.2	20	34	9.6	15	13	23	3.6	7.5
Chloromethane	0.2 U	2 U	0.2 U	0.2 U	0.21 UD	0.21 UD	0.41 U	0.21 U	2.1 U	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U
cis-1,2-Dichloroethene	180	260	260	360	28 D	120 D	160	38	47	2000	2200	6100	7600	610	1200	560	1300
cis-1,3-Dichloropropene	0.44 U	4.4 U	0.44 U	0.44 U	0.45 UD	0.45 UD	0.91 U	0.45 U	2.3 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
Cyclohexane	0.34 U	3.4 U	0.34 U	0.55	0.34 UD	0.34 UD	0.69 U	0.34 U	3.4 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	8.6 U	0.86 U	0.86 U	0.85 UD	0.85 UD	1.7 U	0.85 U	4.3 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	8.6 U
Dichlorodifluoromethane	1.7	5 U	2.5	1.6	3 D	4.1 D	2.9	2.9	4.9 U	5 U	170	5 U	5 U	5.4	7	2.6	5 U
Ethanol	10	19 U	15	1.9 U	8.2 D	17 D	15 U	9.2	75 U	33	40	12	8.3	39	1.8 U	8.6	1.8 U
Ethyl acetate	0.36 U	3.6 U	0.36 U	0.36 UD	0.36 UD	0.36 UD	0.72 U	1.2	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	3.6 U

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 043010 4/30/2010	EW-COMBINED 052810 5/28/2010	EW-COMBINED 070110 7/1/2010	EW-COMBINED 091610 9/16/2010	EW-COMBINED 120710 12/7/2010	EW-COMBINED 021711 2/17/2011	EW-COMBINED 091511 9/15/2011	EW-Combined- 120811 12/8/2011	EW-Combined- 030812 3/8/2012	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
Ethylbenzene	0.44 U	4.4 U	0.44 U	0.58	0.43 UD	0.43 UD	0.87 U	0.58	4.3 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
Hexachlorobutadiene	1.1 U	11 U	1.1 U	1.1 U	1.1 UD	1.1 UD	2.1 U	1.1 U	11 U	22 U	22 U	22 U	22 U	22 U	22 U	5.4 U	22 U
Hexane	0.92	3.6 U	0.44	0.71 U	0.7 UD	0.8 D	28 U	0.66	140 U	3.6 U	3.6 U	3.6 U	6.6	3.6 U	3.6 U	3.2	3.6 U
Isopropyl alcohol	2.6	2.4 U	0.24 U	0.5 U	0.84 D	0.25 UD	20 U	9.8 U	98 U	28	2.4 U	2.4 U	2.4 U	26	5.9	7.5	7.1
m,p-Xylene	0.86 U	8.6 U	0.86 U	1.6	0.87 UD	0.87 JD	1.7 U	1.6	8.7 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	8.6 U
Methyl methacrylate						0.41 UD	0.82 U	0.41 U	4.1 U								
Methylene chloride	1.4 U	7 U	2.1	0.9	0.78 D	2.9 D	6.9 U	2.2	8.1	7 U	19	7 U	17	7 U	13	19	12
Methyl-t-butyl ether	0.36 U	3.6 U	0.36 U	0.36 U	0.36 UD	0.36 UD	0.72 U	0.24	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	3.6 U
n-Heptane	0.4 U	4 U	0.4 U	0.4 U	0.41 UD	0.41 UD	0.82 U	0.23	4.1 U	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U
o-Xylene	0.44 U	4.4 U	0.44 U	0.56	0.43 UD	0.43 UD	0.87 U	0.69	4.3 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	18 U	1.8 U	0.69 U	1.8 D	1.7 UD	14 U	6.9 U	13	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	4.2 U	0.42 U	0.42 U	0.43 UD	0.43 UD	0.85 U	0.21	4.3 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	450	1300	640	750	160 D	920 D	440	8.1	170	600	1200	2300	2500	73	310	31	170
Tetrahydrofuran	34	54	65	31	11 D	11 D	21	0.27	8.3	6.3	21	19	3 U	32	14	37	5.1
Toluene	0.75	3.8 U	0.41	3.5	0.38 D	1.4 D	0.75 U	2.5	3.8 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	3	4.6	5.5	6.6	0.6 D	1.9 D	3.5	1.1	2 U	9.2	23	69	180	4 U	8.8	2.5	8
trans-1,3-Dichloropropene	0.44 U	4.4 U	0.44 U	0.44 U	0.45 UD	0.45 UD	0.91 U	0.45 U	2.3 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	1200	2000	1700	3200	240 D	1800 D	1900	97	730	31000	42000	25000	25000	8600	19000	2700	5500
Trichlorofluoromethane	210	300	440	410	71 D	200 D	610	200	150	520	540	1300	1800	430	840	240	370
Trichlorotrifluoroethane	0.76 U	7.6 U	0.76 U	0.76 U	0.77 UD	0.77 UD	1.5 U	0.89	3.8 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
Vinyl acetate	1.5 U	3.6 U	0.36 U	0.71 U	0.7 UD	0.35 UD	0.70 U	0.35 U	7 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	3.6 U
Vinyl chloride	0.26 U	2.6 U	0.26 U	0.4	0.26 UD	0.26 UD	0.51 U	0.26 U	1.3 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/m ³)	Post Treatment - Large Retail Space						
	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
1,1,1-Trichloroethane	1	15	45	1.9	13000	0.56	450
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
1,1,2-Trichloroethane	0.27 U	1.4 U	0.54 U	0.54 U	54 U	0.27 U	0.27 U
1,1-Dichloroethane	0.2 U	1 U	5.4	11000	490	370	610
1,1-Dichloroethene	0.2 U	1 U	0.4 U	6400	96	78	87
1,2,4-Trichlorobenzene	0.37 U	1.9 U	0.74 U	0.74 U	74 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	0.25 U	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	0.38 U	1.9 U	0.76 U	0.76 U	76 U	0.38 U	0.38 U
1,2-Dichlorobenzene	0.3 U	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U
1,2-Dichloroethane	0.2 U	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U
1,2-Dichloropropane	0.23 U	1.2 U	0.46 U	0.46 U	46 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	0.35 U	1.8 U	0.7 U	0.7 U	70 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	2.1	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U
1,3-Butadiene	0.11 U	0.55 U	0.22 U	0.22 U	22 U	0.23 U	0.23 U
1,3-Dichlorobenzene	2.9	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U
1,4-Dichlorobenzene	0.3 U	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U
1,4-Dioxane							
2-Butanone	10	6.3	9.4	5.5	330	1.9	2.0
2-Hexanone	0.2 U	1 U	0.4 U	0.4 U	13000	0.27	0.34
4-Ethyltoluene	2.1	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U
4-Methyl-2-pentanone	5	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U
Acetone	1200	11	19	12	430	3.6	5.7
Benzene	1.3	0.8 U	0.32 U	0.32 U	32 U	0.16 U	0.16 U
Benzyl chloride	0.26 U	1.3 U	0.52 U	0.52 U	52 U	0.26 U	0.26 U
Bromodichloromethane	0.33 U	1.7 U	0.66 U	0.66 U	66 U	0.33 U	0.33 U
Bromoform	0.51 U	2.6 U	1.1 U	1.1 U	110 U	0.51 U	0.51 U
Bromomethane	0.19 U	0.95 U	0.38 U	0.38 U	38 U	0.19 U	0.19 U
Carbon disulfide	0.16 U	0.8 U	4.1	27	250	0.16 U	0.20
Carbon tetrachloride	0.38	1.6 U	0.62 U	0.62 U	62 U	0.31 U	0.31 U
Chlorobenzene	0.23 U	1.2 U	0.46 U	0.46 U	46 U	0.23 U	0.23 U
Chloroethane	0.13 U	5100	1800	480	64	19	10
Chloroform	0.24 U	1.2 U	0.48 U	0.67	48 U	0.24 U	6.8
Chloromethane	0.59	0.5 U	0.2 U	0.2 U	23	0.1 U	0.1 U
cis-1,2-Dichloroethene	0.27	1 U	3.9	5200	820	230	570
cis-1,3-Dichloropropene	0.22 U	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U
Cyclohexane	0.93	0.85 U	0.34 U	0.34 U	34 U	0.17 U	0.17 U
Dibromochloromethane	0.43 U	2.2 U	0.86 U	0.86 U	86 U	0.43 U	0.43 U
Dichlorodifluoromethane	0.76	4.1	3	2.4	50 U	1.7	1.9
Ethanol	740	36	25	9.8	110	0.38 U	2.8
Ethyl acetate	0.37 U	0.9 U	0.36 U	0.73 U	73 U	0.18 U	0.18 U

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Former Gorham Manufacturing Site
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Parameter (ug/m ³)	Post Treatment - Large Retail Space						
	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
Ethylbenzene	10	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U
Hexachlorobutadiene	1.1 U	5.4 U	2.2 U	2.2 U	220 U	0.53 U	0.53 U
Hexane	3	0.9 U	46	0.36 U	36 U	0.18 U	0.23
Isopropyl alcohol	450	2.9	3.1	47	290	0.25 U	1.4
m,p-Xylene	27	2.2 U	0.86 U	0.86 U	86 U	0.43 U	0.43 U
Methyl methacrylate							
Methylene chloride	20	76	17	3	810	0.7 U	0.72
Methyl-t-butyl ether	0.18 U	0.9 U	0.36 U	0.36 U	36 U	0.18 U	0.18 U
n-Heptane	1.8	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U
o-Xylene	9.5	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U
Propylene (Propene)	0.18 U	98	0.18 U	0.35 U	35 U	0.35 U	0.35 U
Styrene	3.4	1.1 U	0.42 U	0.42 U	42 U	0.21 U	0.21 U
Tetrachloroethene	0.72	1.7 U	1.1	0.68 U	68 U	0.52	1.9
Tetrahydrofuran	6.8	22	40	18	210	4.1	6.5
Toluene	29	0.95 U	0.65	0.38 U	38 U	0.19 U	0.36
trans-1,2-Dichloroethene	0.2 U	1 U	0.4 U	28	40 U	7.7	15
trans-1,3-Dichloropropene	0.22 U	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U
Trichloroethene	2	11	16	2.7	54 U	1	1.0
Trichlorofluoromethane	0.71	1.4 U	23	6700	84	180	210
Trichlorotrifluoroethane	1.3	1.9 U	0.76 U	0.76 U	76 U	0.38 U	0.51
Vinyl acetate	0.71 U	0.9 U	0.36 U	1.5 U	150 U	0.71 U	0.71 U
Vinyl chloride	0.13 U	30	13	4.5	26 U	0.13 U	0.13 U

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Providence, Rhode Island

Parameter ($\mu\text{g}/\text{m}^3$)	CT IACTIND 2003 ($\mu\text{g}/\text{m}^3$)	Indoor Air - Large Retail Space													
		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	IA-1- 120209 12/2/2009
1,1,1-Trichloroethane	500	10	0.56	1.1	0.99	0.35	1.8	1.5	1.4	2	0.27 U	0.27 U	0.27 U	0.27 U	0.24
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	0.24 U					
1,1,2-Trichloroethane	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	430	0.71	0.2 U	0.2 U	0.2 U	0.27	0.32	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U
1,1-Dichloroethene	20	0.38	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U
1,2,4-Trichlorobenzene	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	52	0.25 U	0.36	0.7	0.77	0.25 U	0.25 U	0.18 U	0.48	0.29	0.35	0.28	0.51	0.51	0.52
1,2-Dibromoethane (EDB)	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	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U
1,2-Dichloroethane	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U
1,2-Dichloropropane	0.42	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	0.17 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	0.25 U					
1,3,5-Trimethylbenzene	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					
1,3-Butadiene	NA	0.11 U	0.11 U	0.34	0.84	0.11 U	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
1,3-Dichlorobenzene	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U
1,4-Dichlorobenzene	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U
1,4-Dioxane	NA														
2-Butanone	500	20	3.1	5.8	3.4	2.6	2.2	1.3	1.2	4.4	2	2.6	2.7	1.3	2.7
2-Hexanone	NA	0.2 U	0.2 U	0.6	0.42	0.2 U	0.23	0.2 U	0.14 U	0.48	0.43	0.52	0.73	0.31	0.71
4-Ethyltoluene	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					
4-Methyl-2-pentanone	200	0.2 U	0.2 U	0.43	0.3	0.2 U	0.2 U	0.2 U	0.14 U	0.52	0.21	0.35	0.32	0.2 U	0.34
Acetone	500	18	7.7	19	21	10	8.7	14	12	310	11	18	13	10	13
Benzene	3.3	1	0.68	1.9	3	0.69	0.87	0.71	0.56	0.78	0.49	0.47	0.39	0.48	1.1
Benzyl chloride	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	0.46	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	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	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	NA	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	0.12 U				
Carbon tetrachloride	0.54	0.35	0.41	0.52	0.55	0.46	0.59	0.53	0.31	0.43	0.48	0.38	0.42	0.43	0.48
Chlorobenzene	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	500	0.13 U	0.13 U	0.42	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U
Chloroform	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	80	1.1	1	1.4	1.5	1	1	1.2	1.1	1.3	1.1	1.1	0.98	0.95	1.3
cis-1,2-Dichloroethene	100	2	0.2 U	1	1.1	0.73	1.3	0.5	0.6	1.3	0.2 U	0.2 U	0.83	0.44	0.57
cis-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	0.16 U					
Cyclohexane	NA	0.17 U	0.17 U	0.49	0.61	0.17 U	0.17 U	0.17 U	0.12 U	0.34	0.18 U	0.17 U	0.17 U	0.17 U	0.28
Dibromochloromethane	NA	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	0.31 U				
Dichlorodifluoromethane	500	1.8	2.1	2.6	2.8	2.6	2.6	3.1	2	8.3	2.4	2	2.3	2.1	1.6
Ethanol	NA	5.7	8.3	14	20	9.8	7.5	18	5	39	6.2	7	6.5	8.8	10
Ethyl acetate	NA	0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.18 U	0.18 U	0.26 U	0.37 U	0.32	0.18 U	0.18 U	0.18 U	0.13 U

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		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	IA-1- 120209 12/2/2009
Ethylbenzene	290	0.26	0.28	0.66	0.85	0.23	0.22 U	0.22 U	0.16 U	0.94	0.23	0.23	0.22 U	0.28	0.46
Hexachlorobutadiene	NA	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	0.53 U	0.53 U	0.53 U	0.53 U	0.75 U
Hexane	NA	0.92	0.74	1.2	1.6	1	0.51	0.53	0.65	1.7	0.99	1.3	0.41	0.77	0.78
Isopropyl alcohol	NA	3.4	3.1	5.3	5.8	3.8	2	9.1	0.18 U	240	5.2	5.2	0.25 U	2.7	1.8
m,p-Xylene	500	0.76	0.87	2.1	2.8	0.8	0.43 U	0.63	0.31 U	2.5	0.79	0.91	0.73	1	1.4
Methyl methacrylate	NA														
Methylene chloride	17	2.3	33	2.3	1.8	4.4	1.1	6.7	3.5	4.8	1.6	3.6	0.7 U	0.7 U	2.9
Methyl-t-butyl ether	190	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	0.13 U				
n-Heptane	NA	0.23	0.2 U	0.59	0.75	0.2 U	0.2 U	0.2 U	0.14 U	0.67	0.2 U	0.2 U	0.2 U	0.26	0.42
o-Xylene	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)	NA	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.09 U	0.09 U	0.13 U	0.18 U	0.35 U	0.35 U	0.18 U	0.35 U	0.25 U
Styrene	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	5	6.6	0.57	4.2	3.2	2.6	4.9	1.5	1.9	6.1	0.34 U	0.34 U	2	1.1	3.2
Tetrahydrofuran	NA	12	1.2	1.3	0.48	0.32	0.15 U	0.15 U	0.23	0.4	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U
Toluene	500	1.7	1.4	4	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	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 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	0.22 U	0.16 U	0.22 U	0.16 U				
Trichloroethene	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	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	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	NA	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.18 U	0.18 U	0.5 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.25 U
Vinyl chloride	1.9	0.26	0.13 U	0.22	0.21	0.13 U	0.19	0.13 U	0.1 U	0.16	0.13 U	0.13 U	0.17	0.13 U	0.1 U

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	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-2-011609 1/16/2009	IA-2-020309 2/3/2009	
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	0.27 U	0.12	0.082 U	9.9	0.63	
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	0.34 U	0.21 U	0.1 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	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.27 U	0.27 U
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.061 U	0.72	0.2 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.41	0.2 U
1,2,4-Trichlorobenzene	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	0.37 U	0.74 U	0.45 U	0.45 U	0.37 U	0.37 U	
1,2,4-Trimethylbenzene	0.37	0.25 U	0.26	0.25 U	0.25 U	0.25 U	0.25 U	0.4	0.43	0.56	0.25 U	0.55	0.25 U	0.1	0.15 U	0.25 U	0.37		
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	0.38 U	0.23 U	0.12 U	0.38 U	0.38 U	
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.3 U	0.3 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.056	0.061 U	0.2 U	0.2 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	0.23 U	0.14 U	0.069 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	
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	0.25 U	0.25 U	0.044	0.15 U	0.25 U	0.25 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	0.11 U	0.066 U	0.066 U	0.11 U	0.11 U	
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.3 U	0.3 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.3 U	0.3 U
1,4-Dioxane															0.18 U				
2-Butanone	1.6	0.3 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	21	4.1	
2-Hexanone	0.36	0.2 U	0.47	0.2 U	0.27	0.27	0.2 U	0.67	0.75	0.2 U	0.2 U	0.2 U	4.1 U	0.62	0.22	0.26	0.2 U	0.2 U	
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	0.25 U	0.25 U		
4-Methyl-2-pentanone	0.2 U	0.2 U	0.2 U	0.22	0.2 U	0.2 U	0.2 U	0.28	0.35	0.35	0.2 U	0.2 U	0.2 U	0.23	0.39	0.13	0.2 U	0.2 U	
Acetone	12	2.0	19	7.3	8.5	7	6.5	18	18	11	12 B	15 B	11 B	18	8	6	17	9.6	
Benzene	1.2	0.16 U	0.98	0.64	0.53	0.59	0.64	0.5	0.46	0.8	0.49	1.5	0.25	0.32	0.47	0.34	1	0.67	
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	0.26 U	0.16 U	0.16 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	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 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	0.51 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 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	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.19 U	0.19 U	
Carbon disulfide	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	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.16 U	0.16 U
Carbon tetrachloride	0.43	0.31 U	0.40	0.31 U	0.45	0.44	0.48	0.55	0.52	0.5	0.46	0.47	0.53	0.57	0.49	0.46	0.33	0.41	
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	0.23 U	0.14 U	0.14 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	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.13 U	0.13 U	
Chloroform	0.26	0.24 U	0.47	0.43	0.24 U	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	0.24 U	0.085	0.073 U	0.24 U	0.24 U
Chloromethane	1.1	1.4	1.3	1.3	1.2	1.3	0.79	1.2	1.2	1.1	0.97	1	0.92	1.3	0.93	1.3	1.1	1	
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.56	0.2 U	1.3	0.2 U	0.5	0.2 U	1.7	0.2 U	0.2 U	0.20 U	0.15	0.059 U	2.1	0.24	
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	0.23 U	0.14 U	0.068 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	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 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	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.43 U	0.43 U	
Dichlorodifluoromethane	3.1	2.4	2.4	2.6	3.0	1.6	2.2	2.3	2.7	1.7	2	3.1	1.5	2	2.6	2.1	1.8	2.2	
Ethanol	8.4	7.0	29	19	43	4.6	4.4	6	6.5	9	2.7	9	2.8	6.4	2.2	3.2	5.5	8.8	
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	0.92	0.37 U	0.37 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-2-011609 1/16/2009	IA-2-020309 2/3/2009
Ethylbenzene	0.40	0.22 U	0.32	0.22 U	0.22 U	0.22 U	0.23	0.29	0.27	0.51	0.22 U	0.54	0.22 U	0.22 U	0.14	0.1	0.26	0.28
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	0.53 U	0.32 U	0.32 U	1.1 U	1.1 U
Hexane	0.74	0.18 U	0.82	1.3	0.45	0.2	1.1	0.8	0.46	0.61	0.35 U	1.9	0.43	7.0 U	0.39	0.72	0.88	0.57
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	3.7	3.1
m,p-Xylene	1.1	0.43 U	1.0	0.43 U	0.43 U	0.5	0.77	1.1	1.2	1.7	0.43 U	1.6	0.42 J	0.51	0.41	0.22	0.76	0.88
Methyl methacrylate											0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.12 U		
Methylene chloride	0.7 U	1.4	1.5	1.9	0.7 U	0.7 U	0.7 U	0.35 U	1.2	0.56	0.56	4.8	1.3	1.7 U	1.6	3.3	2	30
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	0.11 U	0.11 U	0.18 U	0.18 U	
n-Heptane	0.35	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.36	0.2 U	0.5	0.2 U	0.20 U	0.079	0.12 U	0.23	0.2 U
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	0.3	0.34
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	0.18 U	0.18 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	0.21 U	0.21 U
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	7.5	0.64
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	12	1.2
Toluene	2.1	0.19 U	0.82	0.69	0.58	0.8	1.3	0.91	0.99	2.5	0.44	3	0.58	0.93	1.6	0.3	1.7	1.3
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.2 U	0.2 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	0.22 U	0.22 U	
Trichloroethene	0.27 U	0.27 U	0.27 U	0.31	0.39	0.27 U	1.5	0.27 U	0.4	0.27 U	1.7	0.27 U	0.27 U	0.27 U	0.25	0.081 U	4.4	0.56
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	0.89	2	1.2
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	0.4	0.69	0.58
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	0.71 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	0.13 U	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.077 U	0.038 U	0.27	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)	Indoor Air - Large Retail Space														
	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
1,1,1-Trichloroethane	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
1,1,2,2-Tetrachloroethane	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						
1,1,2-Trichloroethane	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						
1,1-Dichloroethane	0.2 U	0.2 U	0.32	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	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						
1,2,4-Trimethylbenzene	0.7	0.65	0.3	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	0.25 U	0.31
1,2-Dibromoethane (EDB)	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						
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	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						
1,2-Dichlorotetrafluoroethane	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						
1,3,5-Trimethylbenzene	0.25	0.25 U	0.25 U	0.18 U	0.25 U	0.59	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U				
1,3-Butadiene	0.3	0.66	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U					
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.34	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane															
2-Butanone	4.6	3	2.9	0.95	1.6	1.1	2.3	0.81	1	2.1	0.70	0.44	0.3 U	0.96	1.3
2-Hexanone	0.35	0.26	0.2 U	0.14 U	0.2 U	0.25	0.54	0.2 U	0.26	0.51	0.2 U	0.2 U	0.2 U	0.2 U	0.26
4-Ethyltoluene	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						
4-Methyl-2-pentanone	0.35	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.39	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Acetone	14	18	9.7	13	39	6.2	17	11	8.8	17	7.8	3.1	0.48 U	6.3	8.2
Benzene	1.8	3	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
Benzyl chloride	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						
Bromodichloromethane	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						
Bromoform	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						
Bromomethane	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						
Carbon disulfide	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						
Carbon tetrachloride	0.55	0.57	0.48	0.41	0.41	0.44	0.4	0.46	0.42	0.31 U	0.40	0.31 U	0.31 U	0.43	0.47
Chlorobenzene	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						
Chloroethane	0.42	0.13 U	0.13 U	0.1 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	0.24 U	0.24 U	0.25	0.17 U	0.24 U	0.47	0.40	0.24 U	0.24 U	0.24 U					
Chloromethane	1.3	1.3	1	1.1	1.2	0.91	1.1	0.96	0.98	1.2	1.3	1.3	1.4	1.3	0.8
cis-1,2-Dichloroethene	1.1	1.1	0.95	0.59	1.6	0.2 U	0.2 U	0.79	0.48	0.58	0.2 U	0.2 U	0.2 U	0.2 U	1
cis-1,3-Dichloropropene	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						
Cyclohexane	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				
Dibromochloromethane	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						
Dichlorodifluoromethane	2.6	2.9	2.7	2.1	2.9	2	2.1	2.3	2.1	2.2	2.5	2.6	3.0	1.6	2.0
Ethanol	12	17	7.9	4.9	7.5	4.8	6.7	7.8	6.2	14	35	17	20	4.4	4.9
Ethyl acetate	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					

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Ethylbenzene	0.65	0.79	0.3	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
Hexachlorobutadiene	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	1.1 U	0.53 U	
Hexane	1.3	1.6	0.69	0.72	0.74	0.41	0.42	0.71	1	0.61	0.64	1.4	0.18 U	0.27	1.6
Isopropyl alcohol	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
m,p-Xylene	2	2.6	0.93	0.61	0.63	0.71	0.93	0.78	1.1	1.3	1.1	0.43 U	0.43 U	0.47	0.75
Methyl methacrylate															
Methylene chloride	4	1.6	1.8	4	4.2	0.7 U	0.7 U	0.7 U	0.7 U	1.4	0.90	1.9	0.7 U	0.7 U	0.7 U
Methyl-t-butyl ether	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						
n-Heptane	0.58	0.73	0.22	0.15	0.2 U	0.2 U	0.2 U	0.2 U	0.34	0.83	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
o-Xylene	0.76	0.89	0.34	0.22	0.22	0.27	0.42	0.3	0.44	0.46	0.40	0.22 U	0.22 U	0.22 U	0.29
Propylene (Propene)	0.09 U	0.09 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
Styrene	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				
Tetrachloroethene	4.2	3.2	3.3	2.2	7.6	0.34 U	0.35	1.7	1	2.3	0.34 U	0.34 U	0.34 U	0.34 U	3.6
Tetrahydrofuran	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
Toluene	4	5.5	2.3	1	1.2	1.1	1.1	1.2	1.5	2.4	0.93	0.64	0.19 U	0.8	1.3
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	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						
Trichloroethene	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
Trichlorofluoromethane	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
Trichlorotrifluoroethane	0.49	0.46	0.64	0.56	0.74	0.5	0.47	0.46	0.54	0.46	0.53	0.61	0.38 U	0.51	0.44
Vinyl acetate	0.18 U	0.18 U	0.71 U	0.5 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.36 U	0.71 U
Vinyl chloride	0.18	0.2	0.13 U	0.1 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

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-2-091610 9/16/2010	IA-2-070110 7/1/2010	IA-2-091610 9/16/2010	IA-2-120710 12/7/2010	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-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	
1,1,1-Trichloroethane	0.27 U	0.28	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.13	0.082 U	9.8	0.57	1.1	1.1	0.28	1.5	2.2	0.27 U	0.27 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	0.21 U	0.1 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	0.27 U	0.16 U	0.082 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	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.061 U	0.68	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.35	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	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	0.37 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	0.35	0.48	0.52	0.25 U	0.52	0.25 U	0.25 U	0.088	0.15 U	0.25 U	0.36	0.68	0.61	0.25 U	0.18 U	0.25 U	0.29	0.4	
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	0.23 U	0.12 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	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.063	0.061 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 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	0.14 U	0.069 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	0.25 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	0.15 U	0.15 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
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	0.066 U	0.066 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
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane								0.18 U											
2-Butanone	3.1	3.4	0.96	0.36	1.9 B	2.9 U	5.9 U	0.93	0.84	20	4.2	4.6	4	1.7	1.6	2.5	2	2.6	
2-Hexanone	0.84	0.68	0.2 U	0.2 U	0.24	4.1 U	0.5	0.12 U	0.16	0.2 U	0.26	0.33	0.3	0.2 U	0.14 U	0.38	0.51	0.58	
4-Ethyltoluene	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	0.25 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	
4-Methyl-2-pentanone	0.28	0.49	0.34	0.2 U	0.2 U	0.2 U	0.2 U	0.24	0.1	0.11	0.2 U	0.2 U	0.29	0.34	0.2 U	0.14 U	0.22	0.2 U	0.42
Acetone	18	20	11	9.8 B	15 B	8.9 B	18	6.2	5.4	18	12	17	24	9.7	7.5	50	11	19	
Benzene	0.47	0.48	0.72	0.48	1.5	0.26	0.3	0.39	0.36	1	0.71	1.9	3.1	0.69	0.6	0.46	0.41	0.5	
Benzyl chloride	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	0.26 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	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 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	0.52 U	0.52 U	0.52 U	0.31 U	0.31 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	0.22	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.19 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	1.6 U	0.93 U	0.93 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	0.5	0.52	0.5	0.48	0.31 U	0.62	0.52	0.49	0.48	0.34	0.45	0.52	0.6	0.43	0.22 U	0.42	0.4	0.43	
Chlorobenzene	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 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	0.13 U	0.079 U	0.079 U	0.13 U	0.13 U	0.43	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U
Chloroform	0.24 U	0.24 U	3.4	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.085	0.073 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	1.2	1.2	1.1	0.96	0.97	0.95	1.2	0.93	1	1.1	0.98	1.2	1.4	1.1	1.2	1.2	0.91	1.1	
cis-1,2-Dichloroethene	0.2 U	0.61	0.2 U	1.7	0.2 U	0.2 U	0.20 U	0.17	0.059 U	1.9	0.2 U	1.1	1.1	0.55	0.61	1.5	0.2 U	0.2 U	
cis-1,3-Dichloropropene	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	0.22 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	0.2	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.17 U	0.17 U	0.46	0.6	0.17 U	0.15	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	0.26 U	0.13 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	2.4	2.6	1.7	1.9	3.2	1.6	2	2.7	2.1	1.9	2.3	2.5	2.9	2.6	2	2.9	2.1	2.1	2.1
Ethanol	5	7.6	9	2.7	10	2.5	8.5	2.1	2.1	5.5	9.2	13	18	7.9	4.2	9	6.2	7.5	
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.22	0.24	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

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-2-091610 9/16/2010	IA-2-070110 7/1/2010	IA-2-091610 9/16/2010	IA-2-120710 12/7/2010	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-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
Ethylbenzene	0.24	0.29	0.46	0.22 U	0.5	0.22 U	0.22 U	0.13	0.13 U	0.25	0.29	0.64	0.77	0.22 U	0.16	0.22 U	0.22 U	0.23
Hexachlorobutadiene	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	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	0.53 U	0.53 U	
Hexane	0.51	0.49	0.53	0.35 U	1.6	0.31	7.0 U	0.32	0.34	0.94	0.87	1.3	1.9	3.7	0.37	0.77	0.96	0.47
Isopropyl alcohol	0.12 U	1.2	0.25 U	0.25 U	2	1.2 U	4.9 U	2.9 U	0.76	3.5	4.1	5.5	4.9	3.1	0.18 U	33	180	5.9
m,p-Xylene	0.96	1.3	1.5	0.43 U	1.5	0.36 J	0.57	0.39	0.18	0.75	0.9	2	2.6	0.65	0.57	0.66	0.7	0.99
Methyl methacrylate					0.2 U	0.2 U	0.2 U	0.12 U	0.12 U									
Methylene chloride	0.35 U	1.3	0.53	0.61	4.2	1	7.5	1.1	1.2	2.2	31	3.1	3.5	33	1.2	3.6	2.4	0.7 U
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	0.11 U	0.11 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	0.2 U	0.8	0.34	0.2 U	0.48	0.2 U	0.20 U	0.091	0.12 U	0.22	0.2 U	0.61	0.77	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U
o-Xylene	0.44	0.57	0.63	0.22 U	0.56	0.22 U	0.23	0.14	0.083	0.28	0.33	0.79	0.86	0.23	0.22	0.24	0.26	0.45
Propylene (Propene)	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	0.18 U	0.18 U	0.09 U	0.09 U	0.18 U	0.13 U	0.18 U	0.35 U	0.35 U
Styrene	0.25	0.36	0.24	0.21 U	0.21 U	0.21 U	0.21 U	0.059	0.13 U	0.21 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
Tetrachloroethene	0.43	1.4	0.34 U	3.2	5.2 [a]	0.34 U	0.45	0.92	0.23	6.1	0.56	4.3	3.3	1.9	2.2	7.1	0.34 U	0.34 U
Tetrahydrofuran	0.15 U	0.27	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.097	0.088 U	12	1.1	1.3	0.49	0.15 U	0.24	0.15 U	0.15 U	0.15 U
Toluene	0.91	1.3	2.2	0.41	2.9	0.55	0.99	1.6	0.24	1.7	1.5	4.7	5.8	2.1	1	1.2	1.2	1.1
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	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	0.22 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	0.53	0.27 U	1.7	0.27 U	0.27 U	0.27 U	0.27	0.081 U	3.9	0.49	1.7	1.5	0.53	0.77	1.8	0.27 U	0.27 U
Trichlorofluoromethane	1.3	1.6	2.5	1.2	1.8	1.2	1.9	1.1	0.94	1.9	1.3	1.8	2.8	1.8	1.2	1.3	1.4	1.2
Trichlorotrifluoroethane	0.53	0.94	0.45	0.59	0.71	0.71	0.61	0.71	0.42	0.6	0.58	0.49	0.44	0.69	0.53	0.74	0.51	0.46
Vinyl acetate	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	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.5 U	0.71 U	0.71 U	0.71 U
Vinyl chloride	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	0.23	0.13 U	0.19	0.21	0.13 U	0.1 U	0.17	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)	Indoor Air - Large Retail Space																		
	IA-3-100109 10/1/2009	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-3-201711 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		
1,1,1-Trichloroethane	0.27 U	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		
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	0.34 U	0.34 U	0.21 U	0.1 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	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.061 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 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	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	
1,2,4-Trimethylbenzene	0.25 U	0.39	0.44	0.25	0.25	0.25	0.25	0.26	0.34	0.46	0.6	0.25	0.49	0.25	0.25	0.071		0.1	
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	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.056	0.061 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	0.23 U	0.23 U	0.23 U	0.14 U	0.069 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	0.35 U	0.35 U				
1,3,5-Trimethylbenzene	0.25 U	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	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U
1,3-Butadiene	0.23 U	0.23 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	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
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U
1,4-Dioxane																	0.18 U		
2-Butanone	0.7	1.5	1.9	2	1.2	1.6	0.51	1	2.2	3.3	0.95	0.39	0.76 B	2.9 U	5.9 U	1.2	0.45		
2-Hexanone	0.2 U	0.37	0.52	0.39	0.22	0.39	0.2 U	0.29	0.52	0.67	0.2 U	0.2 U	0.2 U	4.1 U	0.24	0.093	0.12 U		
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	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	
4-Methyl-2-pentanone	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.084	0.12 U
Acetone	6.7	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		
Benzene	0.39	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		
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	0.26 U	0.26 U	0.26 U	0.16 U	0.16 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	0.34 U	0.2 U	0.1 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	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 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	0.19 U	0.19 U	0.19 U	0.12 U	0.12 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	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	
Carbon tetrachloride	0.4	0.42	0.31 U	0.42	0.31 U	0.43	0.43	0.49	0.54	0.57	0.41	0.45	0.6	0.64	0.51	0.5	0.49		
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	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 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	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U
Chloroform	0.24 U	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	3.7	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.079	0.073 U
Chloromethane	0.97	1	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		
cis-1,2-Dichloroethene	0.94	0.49	0.59	0.2 U	0.2 U	0.59	0.2 U	1.3	0.2 U	0.51	0.2 U	1.7	0.2 U	0.2 U	0.20 U	0.17	0.059 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	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 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	0.17 U	0.17 U	0.1 U	0.1 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	0.43 U	0.43 U	0.26 U	0.13 U	
Dichlorodifluoromethane	2.2	2.2	2.3	2.5	2.5	3	1.6	2.1	2.5	2.7	1.5	2.1	3.1	2.1	1.8	2.6	2.1		
Ethanol	4.5	5	13	40	17	38	3.6	5.3	5.5	7	8	2.4	9.4	3.6	5.8	2.1	2.2		
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	0.18 U	0.11 U	0.073		

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-3-100109 10/1/2009	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	
Ethylbenzene	0.22 U	0.24	0.43	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		
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	0.53 U	0.32 U	0.32 U		
Hexane	0.37	0.71	0.55	0.44	1	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	
Isopropyl alcohol	0.25 U	0.25 U	0.25 U	9.9	0.25 U	2	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	
m,p-Xylene	0.65	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	
Methyl methacrylate														0.2 U	0.2 U	0.2 U	0.12 U	
Methylene chloride	0.7 U	0.7 U	1.4	0.7 U	2.3	0.7 U	0.7 U	0.35 U	1.2	0.57	0.55	4.6	8	1.7 U	1.5	1.1		
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		
n-Heptane	0.2 U	0.24	0.73	0.2 U	0.2 U	0.2 U	0.36	0.2 U	0.2 U	0.32	0.2 U	0.44	0.2 U	0.2 U	0.20 U	0.074	0.12 U	
o-Xylene	0.27	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	
Propylene (Propene)	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	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	
Styrene	0.21 U	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	
Tetrachloroethene	2	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	
Tetrahydrofuran	0.15 U	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	
Toluene	0.73	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	
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 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	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	
Trichloroethene	1.1	0.54	0.75	0.27 U	0.27 U	0.4	0.27 U	1.5	0.27 U	0.47	0.27 U	1.7	0.27 U	0.27 U	0.27 U	0.27 U	0.25	0.081 U
Trichlorofluoromethane	1.2	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	0.92	
Trichlorotrifluoroethane	0.49	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	
Vinyl acetate	0.71 U	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	
Vinyl chloride	0.18	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 U	0.13 U	0.13 U	0.13 U	0.077 U	0.038 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-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- 102810 1/28/2010	IA-4- 020510 2/5/2010	IA-4- 021210 2/12/2010	IA-4- 021910 2/19/2010	
1,1,1-Trichloroethane	10	0.62	1.1	1.1	0.45	1.5	2.2	0.27 U	0.27 U	0.76	0.29	0.89				
1,1,2,2-Tetrachloroethane	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	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U						
1,1-Dichloroethane	0.73	0.2 U	0.2 U	0.2 U	0.31	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	0.42	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	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	0.26	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
1,2-Dibromoethane (EDB)	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	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	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	0.25 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	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U						
1,3-Butadiene	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					
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane																
2-Butanone	21	4.4	6	3.2	2.5	1.1	1.6	1.5	2	1.30	1.20	0.3 U	0.69	1.2	0.50	
2-Hexanone	0.2 U	0.33	0.73	0.39	0.2 U	0.14 U	0.2 U	0.29	0.45	0.32	0.27	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
4-Ethyltoluene	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						
4-Methyl-2-pentanone	0.2 U	0.2 U	0.43	0.28	0.2 U	0.14 U	0.2 U	0.2 U	0.32	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Acetone	17	10	15	20	7.8	7.9	20	9.3	16	9.3	10	2.3	4.9	5.9	2.5	
Benzene	1.1	0.68	1.8	3	0.76	0.59	0.44	0.4	0.43	0.37	0.48	0.16 U	0.88	0.66	0.54	
Benzyl chloride	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	0.24 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	0.36 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	0.14 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	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U						
Carbon tetrachloride	0.4	0.43	0.5	0.58	0.46	0.22 U	0.45	0.41	0.4	0.46	0.4	0.31 U	0.43	0.31 U	0.42	
Chlorobenzene	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	0.41	0.13 U	0.13 U	0.1 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	0.24 U	0.26	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U						
Chloromethane	1.2	0.99	1.4	1.3	1	1.1	1.2	0.9	1.1	1	1	1	1.3	1.3	1.3	1.2
cis-1,2-Dichloroethene	2.4	0.2 U	1.1	1.1	0.98	0.61	1.7	0.2 U	0.2 U	0.84	0.48	0.2 U	0.2 U	0.2 U	0.2 U	0.59
cis-1,3-Dichloropropene	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	0.44	0.64	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	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U						
Dichlorodifluoromethane	1.9	2.2	2.5	2.8	2.6	2.1	2.4	2.1	2	2.2	2.2	2.4	2.5	2.6	3.0	
Ethanol	5.3	8.9	12	18	8	5.2	5.5	6	6.5	4.9	5.6	7.7	34	17	31	
Ethyl acetate	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					

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Parameter (ug/m ³)	Indoor Air - Large Retail Space														
	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-4-102810 1/28/2010	IA-4-020510 2/5/2010	IA-4-021210 2/12/2010	IA-4-021910 2/19/2010
Ethylbenzene	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	0.26	0.22 U	0.22 U
Hexachlorobutadiene	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
Hexane	0.9	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
Isopropyl alcohol	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
m,p-Xylene	0.76	0.89	2.1	2.6	0.89	0.58	0.49	0.61	0.93	0.69	1	0.43 U	0.81	0.43 U	0.43 U
Methyl methacrylate															
Methylene chloride	2.3	29	1.7	2.5	1.3	1.9	2.2	0.7 U	9.7	0.7 U	0.7 U	1.5	0.7 U	1.9	0.71
Methyl-t-butyl ether	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	0.23	0.2 U	0.58	0.79	0.21	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.26	0.2 U	0.2 U	0.2 U	0.2 U
o-Xylene	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
Propylene (Propene)	0.18 U	0.18 U	0.09 U	0.09 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
Styrene	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
Tetrachloroethene	7.3	0.58	4.4	3.4	3.4	2.4	7.9	0.75	0.34 U	2	1.1	0.34 U	0.34 U	0.34 U	1.4
Tetrahydrofuran	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				
Toluene	1.8	1.3	4.3	5.8	2.3	1	1	1.1	1.3	0.76	1.2	0.19 U	0.79	0.63	0.47
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	1.1	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	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	4.7	0.48	1.7	1.5	0.88	0.78	2	0.27 U	0.27 U	1.10	0.57	0.27 U	0.27 U	0.27 U	0.40
Trichlorofluoromethane	2	1.3	1.6	3	1.7	1.3	1.3	1.2	1.5	1.2	1.2	0.93	1.3	1.4	1.6
Trichlorotrifluoroethane	0.72	0.59	0.51	0.45	0.57	0.54	0.61	0.49	0.48	0.47	0.5	0.38 U	0.55	0.58	0.55
Vinyl acetate	0.71 U	0.71 U	0.18 U	0.18 U	0.71 U	0.5 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
Vinyl chloride	0.29	0.13 U	0.2	0.22	0.13 U	0.1 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

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-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	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	LRAIR01 5/15/2009	LRAIR02 5/15/2009	LRAIR03 5/15/2009	LRAIR04 5/15/2009	LRAIR05 5/15/2009	LRAIR06 5/15/2009
1,1,1-Trichloroethane	0.27 U	1.1	0.28	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.14	0.082 U	0.45	0.52	0.65	0.57	0.51	0.44	
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	0.21 U	0.1 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	0.16 U	0.082 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.061 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,2,4-Trichlorobenzene	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	0.37 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	0.34	0.41	0.44	0.25 U	0.49	0.25 U	0.25 U	0.094	0.15 U	0.25 U	0.25 U	0.25 U	0.29	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	0.38 U	0.23 U	0.12 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18	0.3 U					
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.063	0.061 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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	0.14 U	0.069 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	0.25 U	0.25 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	0.15 U	0.15 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
1,3-Butadiene	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	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U	0.18 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
1,4-Dioxane									0.18 U								
2-Butanone	1.60	1.50	2.20	4.8	2.4	0.96	1 B	2.9 U	5.9 U	1	1.5	3.3	3.4	2.1	2.6	2	1.6
2-Hexanone	0.2 U	0.39	0.54	1	0.59	0.2 U	0.2 U	0.21 J	0.35	0.086	0.32	0.73	0.66	0.38	0.51	0.37	0.38
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	0.15 U	0.15 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	0.2 U	0.2 U	0.2 U	0.43	0.45	0.2 U	0.2 U	0.2 U	0.20 U	0.098	0.15	0.42	0.39	0.32	0.36	0.54	0.27
Acetone	6.9	8.7	15	31	19	13 B	12 B	12 B	15	7.4	6.8	12	13	10	11	8.5	7.7
Benzene	0.57	0.64	0.48	0.47	0.66	0.49	1.4	0.31	0.3	0.38	0.35	0.54	0.6	0.67	0.55	0.56	0.51
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	0.16 U	0.16 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	0.34 U	0.34 U	0.34 U	0.2 U	0.1 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	0.52 U	0.52 U	0.52 U	0.31 U	0.31 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	0.12 U	0.12 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	0.31	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Carbon tetrachloride	0.43	0.47	0.52	0.48	0.44	0.46	0.57	0.68	0.52	0.48	0.47	0.7	0.68	0.71	0.68	0.68	0.63
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	0.14 U	0.14 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	0.079 U	0.079 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	0.085	0.073 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
Chloromethane	1.1	0.77	1.2	1.2	1	0.95	0.95	1.1	1.5	1.4	1	1	0.98	1	0.95	1	1
cis-1,2-Dichloroethene	0.2 U	1.3	0.2 U	0.44	0.2 U	1.8	0.2 U	0.20 U	0.19	0.059 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
cis-1,3-Dichloropropene	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	0.22 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	0.1 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	0.26 U	0.13 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	
Dichlorodifluoromethane	1.7	2.1	2.5	2.6	1.5	2	3.2	1.8	1.7	2.8	2	2.5	2.3	2.6	2.4	2.7	2.4
Ethanol	3.9	4.9	6.1	8.7	9.8	3.4	8.9	5.3	7	2.4	2.5	65	9	6.5	5.9	6	5.6
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26	0.18 U	0.18 U	0.16	0.21	0.18 U					

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

Parameter (ug/m ³)	Indoor Air - Large Retail Space																	
	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	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	LRAIR01 5/15/2009	LRAIR02 5/15/2009	LRAIR03 5/15/2009	LRAIR04 5/15/2009	LRAIR05 5/15/2009	LRAIR06 5/15/2009	
Ethylbenzene	0.22 U	0.25	0.25	0.29	0.44	0.22 U	0.49	0.22 U	0.22 U	0.16	0.17	0.22 U						
Hexachlorobutadiene	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	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	
Hexane	0.19	1.3	0.55	2.8	0.61	0.38	1.7	1	7.0 U	0.35	0.55	1.1	0.21	0.18 U	0.18	0.24	0.18 U	
Isopropyl alcohol	0.66	3.4	4.4	1.8	8.3	0.48	1.7	1.2 U	4.9 U	2.9 U	3.3	3.4	3.7	3.5	3.6	3.4		
m,p-Xylene	0.49	0.8	0.98	1.1	1.4	0.43 U	1.4	0.41 J	0.53	0.41	0.27	0.58	0.57	0.58	0.55	0.49	0.5	
Methyl methacrylate						0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.12 U							
Methylene chloride	0.7 U	0.7 U	0.35 U	7.7	0.68	0.79	5.1	3.2	1.7 U	1.5	2	5.9	1.5	1.5	1.6	1.9	1.6	
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	0.11 U	0.11 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
n-Heptane	0.2 U	0.2 U	0.2 U	0.22	0.32	0.2 U	0.51	0.2 U	0.20 U	0.071	0.12 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
o-Xylene	0.22 U	0.3	0.44	0.5	0.57	0.22 U	0.53	0.22 U	0.22 U	0.15	0.11	0.28	0.28	0.27	0.27	0.25	0.26	
Propylene (Propene)	0.35 U	0.35 U	0.87 U	1.1	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U	2.1 U	2.1 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	
Styrene	0.21 U	0.21 U	0.22	0.29	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.077	0.092	0.23	0.21 U	0.21 U	0.22	0.21 U	0.21 U	
Tetrachloroethene	0.34 U	4.4	0.44	1.1	0.34 U	3.4	5	0.34 U	0.45	1.2	0.31	0.47	0.47	0.54	0.66	0.64	0.6	
Tetrahydrofuran	0.15 U	0.15 U	0.19	0.24	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.076	0.088 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	
Toluene	0.83	1.4	0.98	1	2	0.43	2.7	0.56	0.95	1.6	0.32	0.73	0.7	0.58	0.59	0.51	0.53	
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.12 U	0.059 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
trans-1,3-Dichloropropene	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	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
Trichloroethene	0.27 U	1.4	0.27 U	0.44	0.27 U	1.8	0.27 U	0.27 U	0.27 U	0.35	0.15	0.27 U	0.28	0.27	0.29	0.34	0.27	
Trichlorofluoromethane	1.5	1.3	1.3	1.9	2.4	1.2	1.8	1.4	1.8	1.3	0.87	1.3	1.3	1.2	1.1	1.4	1.3	
Trichlorotrifluoroethane	1.3	0.48	0.51	0.59	0.43	0.54	0.7	0.71	0.52	0.71	0.44	0.63	0.6	0.65	0.62	0.64	0.57	
Vinyl acetate	0.36 U	0.71 U	0.18 U	0.18 U	0.36 U	0.38	0.18 U	3.5 U	0.18 U	0.11 U	0.21 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	0.16	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.13 U	0.13 U	0.13 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 ($\mu\text{g}/\text{m}^3$)	Indoor Air - Large Retail Space			
	LRAIR07 5/15/2009	LRAIR08 5/15/2009	LRAIR09 5/15/2009	LRAIR10 5/15/2009
1,1,1-Trichloroethane	0.69	0.5	0.49	0.53
1,1,2,2-Tetrachloroethane	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
1,1-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	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	0.25 U
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	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
1,3,5-Trimethylbenzene	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
1,3-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane				
2-Butanone	3.1	2.5	2.6	1.4
2-Hexanone	0.61	0.48	0.43	0.29
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U
4-Methyl-2-pentanone	0.32	0.3	0.61	0.23
Acetone	13	11	9.8	6.9
Benzene	0.53	0.6	0.51	0.57
Benzyl chloride	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
Bromoform	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
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	0.68	0.7	0.64	0.66
Chlorobenzene	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
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	0.92	1.1	0.91	1.2
cis-1,2-Dichloroethene	0.21	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	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
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	2.4	2.8	2.3	2.7
Ethanol	5.9	14	44	14
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U

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Parameter (ug/m ³)	Indoor Air - Large Retail Space			
	LRAIR07 5/15/2009	LRAIR08 5/15/2009	LRAIR09 5/15/2009	LRAIR10 5/15/2009
Ethylbenzene	0.22 U	0.22 U	0.27	0.22 U
Hexachlorobutadiene	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	0.19	0.21	0.2	0.18 U
Isopropyl alcohol	4.4	3.6	2.8	3.2
m,p-Xylene	0.48	0.53	1	0.5
Methyl methacrylate				
Methylene chloride	1.5	1.6	1.6	1.4
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U
n-Heptane	0.2 U	0.2 U	0.2 U	0.2 U
o-Xylene	0.25	0.27	0.34	0.26
Propylene (Propene)	0.09 U	0.09 U	0.09 U	0.09 U
Styrene	0.37	0.21 U	0.21 U	0.21 U
Tetrachloroethene	0.73	0.53	0.46	0.46
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U
Toluene	0.57	0.53	0.54	0.47
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U
Trichloroethene	0.28	0.27 U	0.27 U	0.27 U
Trichlorofluoromethane	1.1	1.4	1	1.4
Trichlorotrifluoroethane	0.59	0.68	0.62	0.58
Vinyl acetate	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

[a] 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: EYM 4/4/12

Checked by/Date: MAM 4/20/12

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

* vacuum reduced at extraction wells

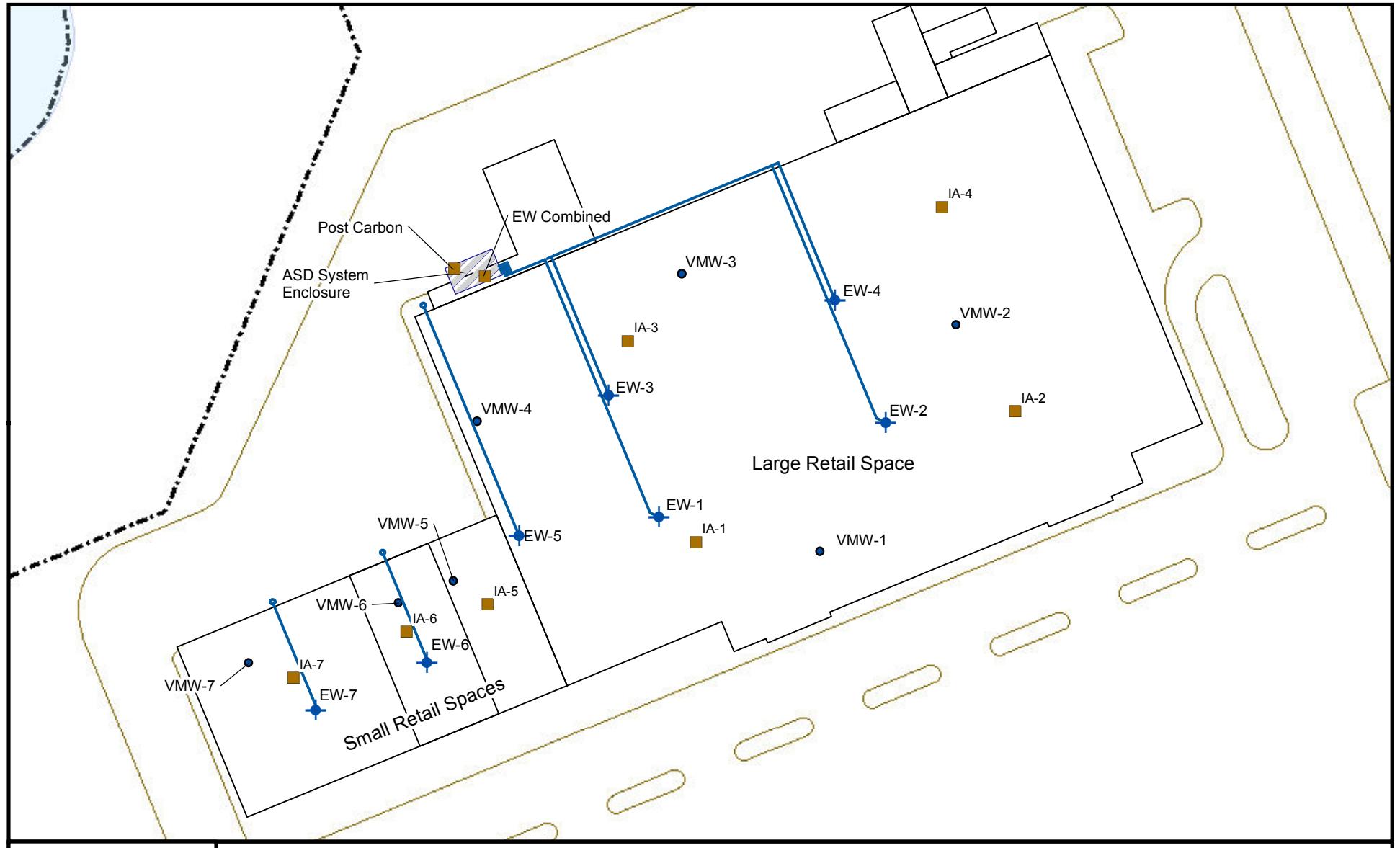
** ASD system offline

Prepared by/Date: MAM 04/05/12

Checked by/Date: EYM 4/20/12

Textron, Inc.
Former Gorham Manufacturing Facility, Providence, RI
Retail Complex, Active Sub-Slab Depressurization System
Air Monitoring Report, First Quarter, 2012

FIGURES



All locations are approximate



0
30
60
Feet

Prepared/Date: BJR 08/01/11 Checked/Date: PJM 08/01/11

Legend

- Air Sample Location
- Current Building
- Vacuum Monitoring Well
- Pavement Outline
- ◆ Extraction Well
- Effluent Location
- Extraction Well Piping
- Effluent Piping



Figure 1
Vapor Mitigation
Sample Locations

Former Gorham Manufacturing Facility
333 Adelaide Avenue
Providence, Rhode Island

Textron, Inc.
Former Gorham Manufacturing Facility, Providence, RI
Retail Complex, Active Sub-Slab Depressurization System
Air Monitoring Report, First Quarter, 2012

APPENDIX A

Laboratory Reports

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-8405 * TEL. 413/525-2332

CHECKED FOR COMPLETENESS
OF PARAMETERS ORDERED BY:

LW/SR 4-4-A

April 3, 2012

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

Project Location: Providence, RI - Gorham Site

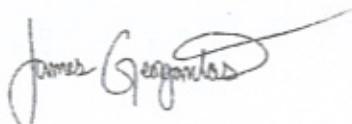
Client Job Number:

Project Number: 3650080114.13

Laboratory Work Order Number: 12C0234

Enclosed are results of analyses for samples received by the laboratory on March 8, 2012. 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

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

REPORT DATE: 4/3/2012

PURCHASE ORDER NUMBER: C012600149

PROJECT NUMBER: 3650080114.13

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 12C0234

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 - Gorham Site

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
IA-1-030812	12C0234-01	Indoor air		EPA TO-15	
IA-2-030812	12C0234-02	Indoor air		EPA TO-15	
IA-3-030812	12C0234-03	Indoor air		EPA TO-15	
IA-4-030812	12C0234-04	Indoor air		EPA TO-15	
IA-5-030812	12C0234-05	Indoor air		EPA TO-15	
IA-6-030812	12C0234-06	Indoor air		EPA TO-15	
IA-7-030812	12C0234-07	Indoor air		EPA TO-15	
AA-1-030812	12C0234-08	Ambient Air		EPA TO-15	
EW-5-030812	12C0234-09	Soil Gas		EPA TO-15	
EW-6-030812	12C0234-10	Soil Gas		EPA TO-15	
EW-7-030812	12C0234-11	Soil Gas		EPA TO-15	
EW-Combined-030812	12C0234-12	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.

REVISED REPORT 04/03/12 - Sample ID for 12C0234-09 updated per chain of custody.

EPA TO-15

Qualifications:

Duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result.

Analyte & Samples(s) Qualified:

Chloromethane, Ethanol

B047800-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.



James M. Georgantas
Project Chemist

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
 Field Sample #: IA-1-030812
 Sample ID: 12C0234-01
 Sample Matrix: Indoor air
 Sampled: 3/8/2012 08:32

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1463
 Canister Size: 6 liter
 Flow Controller ID: 4102
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -7.4
 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	2.5	1.2	0.14		6.0	2.9	0.6	3/12/12 18:15	WSD	
Benzene	0.10	0.030	0.016		0.34	0.096	0.6	3/12/12 18:15	WSD	
Benzyl chloride	ND	0.030	0.0054		ND	0.16	0.6	3/12/12 18:15	WSD	
Bromodichloromethane	ND	0.015	0.0084		ND	0.10	0.6	3/12/12 18:15	WSD	
Bromoform	ND	0.030	0.0078		ND	0.31	0.6	3/12/12 18:15	WSD	
Bromomethane	ND	0.030	0.029		ND	0.12	0.6	3/12/12 18:15	WSD	
1,3-Butadiene	ND	0.030	0.017		ND	0.066	0.6	3/12/12 18:15	WSD	
2-Butanone (MEK)	0.40	1.2	0.023	J	1.2	3.5	0.6	3/12/12 18:15	WSD	
Carbon Disulfide	ND	0.30	0.0084		ND	0.93	0.6	3/12/12 18:15	WSD	
Carbon Tetrachloride	0.074	0.015	0.0084		0.46	0.094	0.6	3/12/12 18:15	WSD	
Chlorobenzene	ND	0.030	0.025		ND	0.14	0.6	3/12/12 18:15	WSD	
Chloroethane	ND	0.030	0.017		ND	0.079	0.6	3/12/12 18:15	WSD	
Chloroform	ND	0.015	0.011		ND	0.073	0.6	3/12/12 18:15	WSD	
Chloromethane	0.62	0.030	0.015		1.3	0.062	0.6	3/12/12 18:15	WSD	
Cyclohexane	ND	0.030	0.029		ND	0.10	0.6	3/12/12 18:15	WSD	
Dibromochloromethane	ND	0.015	0.0072		ND	0.13	0.6	3/12/12 18:15	WSD	
1,2-Dibromoethane (EDB)	ND	0.015	0.0084		ND	0.12	0.6	3/12/12 18:15	WSD	
1,2-Dichlorobenzene	ND	0.030	0.016		ND	0.18	0.6	3/12/12 18:15	WSD	
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18	0.6	3/12/12 18:15	WSD	
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18	0.6	3/12/12 18:15	WSD	
Dichlorodifluoromethane (Freon 12)	0.43	0.030	0.013		2.1	0.15	0.6	3/12/12 18:15	WSD	
1,1-Dichloroethane	ND	0.015	0.0090		ND	0.061	0.6	3/12/12 18:15	WSD	
1,2-Dichloroethane	ND	0.015	0.010		ND	0.061	0.6	3/12/12 18:15	WSD	
1,1-Dichloroethylene	ND	0.015	0.0096		ND	0.059	0.6	3/12/12 18:15	WSD	
cis-1,2-Dichloroethylene	ND	0.015	0.0084		ND	0.059	0.6	3/12/12 18:15	WSD	
trans-1,2-Dichloroethylene	ND	0.015	0.010		ND	0.059	0.6	3/12/12 18:15	WSD	
1,2-Dichloropropane	ND	0.015	0.012		ND	0.069	0.6	3/12/12 18:15	WSD	
cis-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068	0.6	3/12/12 18:15	WSD	
trans-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068	0.6	3/12/12 18:15	WSD	
Ethanol	1.7	1.2	0.14		3.2	2.3	0.6	3/12/12 18:15	WSD	
Ethyl Acetate	0.25	0.030	0.016		0.92	0.11	0.6	3/12/12 18:15	WSD	
Ethylbenzene	0.024	0.030	0.0084	J	0.10	0.13	0.6	3/12/12 18:15	WSD	
4-Ethyltoluene	ND	0.030	0.011		ND	0.15	0.6	3/12/12 18:15	WSD	
Heptane	ND	0.030	0.010		ND	0.12	0.6	3/12/12 18:15	WSD	
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32	0.6	3/12/12 18:15	WSD	
Hexane	0.20	1.2	0.026	J	0.72	4.2	0.6	3/12/12 18:15	WSD	
2-Hexanone (MBK)	0.062	0.030	0.0090		0.26	0.12	0.6	3/12/12 18:15	WSD	
Isopropanol	0.26	1.2	0.018	J	0.64	2.9	0.6	3/12/12 18:15	WSD	

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
 Field Sample #: IA-1-030812
 Sample ID: 12C0234-01
 Sample Matrix: Indoor air
 Sampled: 3/8/2012 08:32

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1463
 Canister Size: 6 liter
 Flow Controller ID: 4102
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -7.4
 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	0.030	0.0084		ND	0.11	0.6	3/12/12 18:15	WSD	
Methylene Chloride	0.94	0.30	0.038		3.3	1.0	0.6	3/12/12 18:15	WSD	
Methyl methacrylate	ND	0.030	0.0090		ND	0.12	0.6	3/12/12 18:15	WSD	
4-Methyl-2-pentanone (MIBK)	0.031	0.030	0.0090		0.13	0.12	0.6	3/12/12 18:15	WSD	
Propene	ND	1.2	0.023		ND	2.1	0.6	3/12/12 18:15	WSD	
Styrene	ND	0.030	0.0066		ND	0.13	0.6	3/12/12 18:15	WSD	
1,1,1,2-Tetrachloroethane	ND	0.055	0.020		ND	0.37	0.6	3/12/12 18:15	WSD	
1,1,2,2-Tetrachloroethane	ND	0.015	0.010		ND	0.10	0.6	3/12/12 18:15	WSD	
Tetrachloroethylene	0.031	0.015	0.0090		0.21	0.10	0.6	3/12/12 18:15	WSD	
Tetrahydrofuran	ND	0.030	0.0096		ND	0.088	0.6	3/12/12 18:15	WSD	
Toluene	0.079	0.030	0.0084		0.30	0.11	0.6	3/12/12 18:15	WSD	
1,2,4-Trichlorobenzene	ND	0.060	0.011		ND	0.45	0.6	3/12/12 18:15	WSD	
1,1,1-Trichloroethane	ND	0.015	0.010		ND	0.082	0.6	3/12/12 18:15	WSD	
1,1,2-Trichloroethane	ND	0.015	0.0096		ND	0.082	0.6	3/12/12 18:15	WSD	
Trichloroethylene	ND	0.015	0.0084		ND	0.081	0.6	3/12/12 18:15	WSD	
Trichlorofluoromethane (Freon 11)	0.16	0.030	0.019		0.89	0.17	0.6	3/12/12 18:15	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.053	0.015	0.010		0.40	0.11	0.6	3/12/12 18:15	WSD	
1,2,4-Trimethylbenzene	ND	0.030	0.010		ND	0.15	0.6	3/12/12 18:15	WSD	
1,3,5-Trimethylbenzene	ND	0.030	0.0090		ND	0.15	0.6	3/12/12 18:15	WSD	
Vinyl Acetate	ND	0.060	0.015		ND	0.21	0.6	3/12/12 18:15	WSD	
Vinyl Chloride	ND	0.015	0.015		ND	0.038	0.6	3/12/12 18:15	WSD	
m&p-Xylene	0.050	0.060	0.016	J	0.22	0.26	0.6	3/12/12 18:15	WSD	
o-Xylene	0.022	0.030	0.0078	J	0.096	0.13	0.6	3/12/12 18:15	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	90.3	70-130	3/12/12 18:15
4-Bromofluorobenzene (2)	92.5	70-130	3/12/12 18:15

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
Field Sample #: IA-2-030812
Sample ID: 12C0234-02
 Sample Matrix: Indoor air
 Sampled: 3/8/2012 08:39

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1132
 Canister Size: 6 liter
 Flow Controller ID: 4077
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -7.7
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3			Date/Time Analyzed			Analyst
		RL	MDL	Flag	Results	RL	Dilution	Analyzed			
Acetone	2.3	1.2	0.14		5.4	2.9	0.6	3/12/12 19:02			WSD
Benzene	0.11	0.030	0.016		0.36	0.096	0.6	3/12/12 19:02			WSD
Benzyl chloride	ND	0.030	0.0054		ND	0.16	0.6	3/12/12 19:02			WSD
Bromodichloromethane	ND	0.015	0.0064		ND	0.10	0.6	3/12/12 19:02			WSD
Bromoform	ND	0.030	0.0078		ND	0.31	0.6	3/12/12 19:02			WSD
Bromomethane	ND	0.030	0.029		ND	0.12	0.6	3/12/12 19:02			WSD
1,3-Butadiene	ND	0.030	0.017		ND	0.066	0.6	3/12/12 19:02			WSD
2-Butanone (MEK)	0.28	1.2	0.023	J	0.84	3.5	0.6	3/12/12 19:02			WSD
Carbon Disulfide	ND	0.30	0.0084		ND	0.93	0.6	3/12/12 19:02			WSD
Carbon Tetrachloride	0.076	0.015	0.0084		0.48	0.094	0.6	3/12/12 19:02			WSD
Chlorobenzene	ND	0.030	0.025		ND	0.14	0.6	3/12/12 19:02			WSD
Chloroethane	ND	0.030	0.017		ND	0.079	0.6	3/12/12 19:02			WSD
Chloroform	ND	0.015	0.011		ND	0.073	0.6	3/12/12 19:02			WSD
Chloromethane	0.50	0.030	0.015		1.0	0.062	0.6	3/12/12 19:02			WSD
Cyclohexane	ND	0.030	0.029		ND	0.10	0.6	3/12/12 19:02			WSD
Dibromochloromethane	ND	0.015	0.0072		ND	0.13	0.6	3/12/12 19:02			WSD
1,2-Dibromoethane (EDB)	ND	0.015	0.0084		ND	0.12	0.6	3/12/12 19:02			WSD
1,2-Dichlorobenzene	ND	0.030	0.016		ND	0.18	0.6	3/12/12 19:02			WSD
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18	0.6	3/12/12 19:02			WSD
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18	0.6	3/12/12 19:02			WSD
Dichlorodifluoromethane (Freon 12)	0.42	0.030	0.013		2.1	0.15	0.6	3/12/12 19:02			WSD
1,1-Dichloroethane	ND	0.015	0.0090		ND	0.061	0.6	3/12/12 19:02			WSD
1,2-Dichloroethane	ND	0.015	0.010		ND	0.061	0.6	3/12/12 19:02			WSD
1,1-Dichloroethylene	ND	0.015	0.0096		ND	0.059	0.6	3/12/12 19:02			WSD
cis-1,2-Dichloroethylene	ND	0.015	0.0084		ND	0.059	0.6	3/12/12 19:02			WSD
trans-1,2-Dichloroethylene	ND	0.015	0.010		ND	0.059	0.6	3/12/12 19:02			WSD
1,2-Dichloropropane	ND	0.015	0.012		ND	0.069	0.6	3/12/12 19:02			WSD
cis-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068	0.6	3/12/12 19:02			WSD
trans-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068	0.6	3/12/12 19:02			WSD
Ethanol	1.1	1.2	0.14	J	2.1	2.3	0.6	3/12/12 19:02			WSD
Ethyl Acetate	0.066	0.030	0.016		0.24	0.11	0.6	3/12/12 19:02			WSD
Ethylbenzene	ND	0.030	0.0084		ND	0.13	0.6	3/12/12 19:02			WSD
4-Ethyltoluene	ND	0.030	0.011		ND	0.15	0.6	3/12/12 19:02			WSD
Heptane	ND	0.030	0.010		ND	0.12	0.6	3/12/12 19:02			WSD
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32	0.6	3/12/12 19:02			WSD
Hexane	0.097	1.2	0.026	J	0.34	4.2	0.6	3/12/12 19:02			WSD
2-Hexanone (MBK)	0.040	0.030	0.0090		0.16	0.12	0.6	3/12/12 19:02			WSD
Isopropanol	0.31	1.2	0.018	J	0.76	2.9	0.6	3/12/12 19:02			WSD

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
 Field Sample #: IA-2-030812
 Sample ID: 12C0234-02
 Sample Matrix: Indoor air
 Sampled: 3/8/2012 08:39

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1132
 Canister Size: 6 liter
 Flow Controller ID: 4077
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -7.7
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m ³			Date/Time		
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst	
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.0084		ND	0.11	0.6	3/12/12 19:02	WSD	
Methylene Chloride	0.34	0.30	0.038		1.2	1.0	0.6	3/12/12 19:02	WSD	
Methyl methacrylate	ND	0.030	0.0090		ND	0.12	0.6	3/12/12 19:02	WSD	
4-Methyl-2-pentanone (MIBK)	0.026	0.030	0.0090	J	0.11	0.12	0.6	3/12/12 19:02	WSD	
Propene	ND	1.2	0.023		ND	2.1	0.6	3/12/12 19:02	WSD	
Styrene	ND	0.030	0.0066		ND	0.13	0.6	3/12/12 19:02	WSD	
1,1,1,2-Tetrachloroethane	ND	0.055	0.020		ND	0.37	0.6	3/12/12 19:02	WSD	
1,1,2,2-Tetrachloroethane	ND	0.015	0.010		ND	0.10	0.6	3/12/12 19:02	WSD	
Tetrachloroethylene	0.034	0.015	0.0090		0.23	0.10	0.6	3/12/12 19:02	WSD	
Tetrahydrofuran	ND	0.030	0.0096		ND	0.088	0.6	3/12/12 19:02	WSD	
Toluene	0.064	0.030	0.0084		0.24	0.11	0.6	3/12/12 19:02	WSD	
1,2,4-Trichlorobenzene	ND	0.060	0.011		ND	0.45	0.6	3/12/12 19:02	WSD	
1,1,1-Trichloroethane	ND	0.015	0.010		ND	0.082	0.6	3/12/12 19:02	WSD	
1,1,2-Trichloroethane	ND	0.015	0.0096		ND	0.082	0.6	3/12/12 19:02	WSD	
Trichloroethylene	ND	0.015	0.0084		ND	0.081	0.6	3/12/12 19:02	WSD	
Trichlorofluoromethane (Freon 11)	0.17	0.030	0.019		0.94	0.17	0.6	3/12/12 19:02	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.055	0.015	0.010		0.42	0.11	0.6	3/12/12 19:02	WSD	
1,2,4-Trimethylbenzene	ND	0.030	0.010		ND	0.15	0.6	3/12/12 19:02	WSD	
1,3,5-Trimethylbenzene	ND	0.030	0.0090		ND	0.15	0.6	3/12/12 19:02	WSD	
Vinyl Acetate	ND	0.060	0.015		ND	0.21	0.6	3/12/12 19:02	WSD	
Vinyl Chloride	ND	0.015	0.015		ND	0.038	0.6	3/12/12 19:02	WSD	
m&p-Xylene	0.041	0.060	0.016	J	0.18	0.26	0.6	3/12/12 19:02	WSD	
o-Xylene	0.019	0.030	0.0078	J	0.083	0.13	0.6	3/12/12 19:02	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	91.4	70-130	3/12/12 19:02
4-Bromofluorobenzene (2)	92.9	70-130	3/12/12 19:02

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
 Field Sample #: IA-3-030812
 Sample ID: 12C0234-03
 Sample Matrix: Indoor air
 Sampled: 3/8/2012 08:34

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1626
 Canister Size: 6 liter
 Flow Controller ID: 4101
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -3
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -6.2
 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	1.6	1.2	0.14		3.9	2.9		0.6	3/12/12 19:49	WSD
Benzene	0.11	0.030	0.016		0.35	0.096		0.6	3/12/12 19:49	WSD
Benzyl chloride	ND	0.030	0.0054		ND	0.16		0.6	3/12/12 19:49	WSD
Bromodichloromethane	ND	0.015	0.0084		ND	0.10		0.6	3/12/12 19:49	WSD
Bromoform	ND	0.030	0.0078		ND	0.31		0.6	3/12/12 19:49	WSD
Bromomethane	ND	0.030	0.029		ND	0.12		0.6	3/12/12 19:49	WSD
1,3-Butadiene	ND	0.030	0.017		ND	0.066		0.6	3/12/12 19:49	WSD
2-Butanone (MEK)	0.15	1.2	0.023	J	0.45	3.5		0.6	3/12/12 19:49	WSD
Carbon Disulfide	ND	0.30	0.0084		ND	0.93		0.6	3/12/12 19:49	WSD
Carbon Tetrachloride	0.078	0.015	0.0084		0.49	0.094		0.6	3/12/12 19:49	WSD
Chlorobenzene	ND	0.030	0.025		ND	0.14		0.6	3/12/12 19:49	WSD
Chloroethane	ND	0.030	0.017		ND	0.079		0.6	3/12/12 19:49	WSD
Chloroform	ND	0.015	0.011		ND	0.073		0.6	3/12/12 19:49	WSD
Chloromethane	0.53	0.030	0.015		1.1	0.062		0.6	3/12/12 19:49	WSD
Cyclohexane	ND	0.030	0.029		ND	0.10		0.6	3/12/12 19:49	WSD
Dibromochloromethane	ND	0.015	0.0072		ND	0.13		0.6	3/12/12 19:49	WSD
1,2-Dibromoethane (EDB)	ND	0.015	0.0084		ND	0.12		0.6	3/12/12 19:49	WSD
1,2-Dichlorobenzene	ND	0.030	0.016		ND	0.18		0.6	3/12/12 19:49	WSD
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18		0.6	3/12/12 19:49	WSD
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18		0.6	3/12/12 19:49	WSD
Dichlorodifluoromethane (Freon 12)	0.43	0.030	0.013		2.1	0.15		0.6	3/12/12 19:49	WSD
1,1-Dichloroethane	ND	0.015	0.0090		ND	0.061		0.6	3/12/12 19:49	WSD
1,2-Dichloroethane	ND	0.015	0.010		ND	0.061		0.6	3/12/12 19:49	WSD
1,1-Dichloroethylene	ND	0.015	0.0096		ND	0.059		0.6	3/12/12 19:49	WSD
cis-1,2-Dichloroethylene	ND	0.015	0.0084		ND	0.059		0.6	3/12/12 19:49	WSD
trans-1,2-Dichloroethylene	ND	0.015	0.010		ND	0.059		0.6	3/12/12 19:49	WSD
1,2-Dichloropropane	ND	0.015	0.012		ND	0.069		0.6	3/12/12 19:49	WSD
cis-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068		0.6	3/12/12 19:49	WSD
trans-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068		0.6	3/12/12 19:49	WSD
Ethanol	1.1	1.2	0.14	J	2.2	2.3		0.6	3/12/12 19:49	WSD
Ethyl Acetate	0.20	0.030	0.016		0.73	0.11		0.6	3/12/12 19:49	WSD
Ethylbenzene	0.025	0.030	0.0084	J	0.11	0.13		0.6	3/12/12 19:49	WSD
4-Ethyltoluene	ND	0.030	0.011		ND	0.15		0.6	3/12/12 19:49	WSD
Heptane	ND	0.030	0.010		ND	0.12		0.6	3/12/12 19:49	WSD
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32		0.6	3/12/12 19:49	WSD
Hexane	0.10	1.2	0.026	J	0.37	4.2		0.6	3/12/12 19:49	WSD
2-Hexanone (MBK)	ND	0.030	0.0090		ND	0.12		0.6	3/12/12 19:49	WSD
Isopropanol	0.23	1.2	0.018	J	0.56	2.9		0.6	3/12/12 19:49	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
 Field Sample #: IA-3-030812
 Sample ID: 12C0234-03
 Sample Matrix: Indoor air
 Sampled: 3/8/2012 08:34

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1626
 Canister Size: 6 liter
 Flow Controller ID: 4101
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -6.2
 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	0.030	0.0084		ND	0.11	0.6	3/12/12 19:49	WSD	
Methylene Chloride	0.33	0.30	0.038		1.1	1.0	0.6	3/12/12 19:49	WSD	
Methyl methacrylate	ND	0.030	0.0090		ND	0.12	0.6	3/12/12 19:49	WSD	
4-Methyl-2-pantanone (MIBK)	ND	0.030	0.0090		ND	0.12	0.6	3/12/12 19:49	WSD	
Propene	ND	1.2	0.023		ND	2.1	0.6	3/12/12 19:49	WSD	
Styrene	ND	0.030	0.0066		ND	0.13	0.6	3/12/12 19:49	WSD	
1,1,1,2-Tetrachloroethane	ND	0.055	0.020		ND	0.37	0.6	3/12/12 19:49	WSD	
1,1,2,2-Tetrachloroethane	ND	0.015	0.010		ND	0.10	0.6	3/12/12 19:49	WSD	
Tetrachloroethylene	0.034	0.015	0.0090		0.23	0.10	0.6	3/12/12 19:49	WSD	
Tetrahydrofuran	ND	0.030	0.0096		ND	0.068	0.6	3/12/12 19:49	WSD	
Toluene	0.072	0.030	0.0084		0.27	0.11	0.6	3/12/12 19:49	WSD	
1,2,4-Trichlorobenzene	ND	0.060	0.011		ND	0.45	0.6	3/12/12 19:49	WSD	
1,1,1-Trichloroethane	ND	0.015	0.010		ND	0.082	0.6	3/12/12 19:49	WSD	
1,1,2-Trichloroethane	ND	0.015	0.0096		ND	0.082	0.6	3/12/12 19:49	WSD	
Trichloroethylene	ND	0.015	0.0084		ND	0.081	0.6	3/12/12 19:49	WSD	
Trichlorofluoromethane (Freon 11)	0.16	0.030	0.019		0.92	0.17	0.6	3/12/12 19:49	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.057	0.015	0.010	J	0.44	0.11	0.6	3/12/12 19:49	WSD	
1,2,4-Trimethylbenzene	0.021	0.030	0.010	J	0.10	0.15	0.6	3/12/12 19:49	WSD	
1,3,5-Trimethylbenzene	ND	0.030	0.0090		ND	0.15	0.6	3/12/12 19:49	WSD	
Vinyl Acetate	ND	0.060	0.015		ND	0.21	0.6	3/12/12 19:49	WSD	
Vinyl Chloride	ND	0.015	0.015		ND	0.038	0.6	3/12/12 19:49	WSD	
m&p-Xylene	0.056	0.060	0.016	J	0.24	0.26	0.6	3/12/12 19:49	WSD	
o-Xylene	0.026	0.030	0.0078	J	0.11	0.13	0.6	3/12/12 19:49	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.8	70-130	3/12/12 19:49
4-Bromofluorobenzene (2)	93.9	70-130	3/12/12 19:49

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
 Field Sample #: IA-4-030812
 Sample ID: 12C0234-04
 Sample Matrix: Indoor air
 Sampled: 3/8/2012 08:41

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1307
 Canister Size: 6 liter
 Flow Controller ID: 4076
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -5.5
 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				
Acetone	2.8	1.2	0.14		6.8	2.9		0.6	3/12/12 20:36	WSD
Benzene	0.11	0.030	0.016		0.35	0.096		0.6	3/12/12 20:36	WSD
Benzyl chloride	ND	0.030	0.0054		ND	0.16		0.6	3/12/12 20:36	WSD
Bromodichloromethane	ND	0.015	0.0084		ND	0.10		0.6	3/12/12 20:36	WSD
Bromoform	ND	0.030	0.0078		ND	0.31		0.6	3/12/12 20:36	WSD
Bromomethane	ND	0.030	0.029		ND	0.12		0.6	3/12/12 20:36	WSD
1,3-Butadiene	ND	0.030	0.017		ND	0.066		0.6	3/12/12 20:36	WSD
2-Butanone (MEK)	0.51	1.2	0.023	J	1.5	3.5		0.6	3/12/12 20:36	WSD
Carbon Disulfide	ND	0.30	0.0084		ND	0.93		0.6	3/12/12 20:36	WSD
Carbon Tetrachloride	0.074	0.015	0.0084		0.47	0.094		0.6	3/12/12 20:36	WSD
Chlorobenzene	ND	0.030	0.025		ND	0.14		0.6	3/12/12 20:36	WSD
Chloroethane	ND	0.030	0.017		ND	0.079		0.6	3/12/12 20:36	WSD
Chloroform	ND	0.015	0.011		ND	0.073		0.6	3/12/12 20:36	WSD
Chloromethane	0.50	0.030	0.015		1.0	0.062		0.6	3/12/12 20:36	WSD
Cyclohexane	ND	0.030	0.029		ND	0.10		0.6	3/12/12 20:36	WSD
Dibromochloromethane	ND	0.015	0.0072		ND	0.13		0.6	3/12/12 20:36	WSD
1,2-Dibromoethane (EDB)	ND	0.015	0.0084		ND	0.12		0.6	3/12/12 20:36	WSD
1,2-Dichlorobenzene	0.031	0.030	0.016		0.18	0.18		0.6	3/12/12 20:36	WSD
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18		0.6	3/12/12 20:36	WSD
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18		0.6	3/12/12 20:36	WSD
Dichlorodifluoromethane (Freon 12)	0.41	0.030	0.013		2.0	0.15		0.6	3/12/12 20:36	WSD
1,1-Dichloroethane	ND	0.015	0.0090		ND	0.061		0.6	3/12/12 20:36	WSD
1,2-Dichloroethane	ND	0.015	0.010		ND	0.061		0.6	3/12/12 20:36	WSD
1,1-Dichloroethylene	ND	0.015	0.0096		ND	0.059		0.6	3/12/12 20:36	WSD
cis-1,2-Dichloroethylene	ND	0.015	0.0084		ND	0.059		0.6	3/12/12 20:36	WSD
trans-1,2-Dichloroethylene	ND	0.015	0.010		ND	0.059		0.6	3/12/12 20:36	WSD
1,2-Dichloropropane	ND	0.015	0.012		ND	0.069		0.6	3/12/12 20:36	WSD
cis-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068		0.6	3/12/12 20:36	WSD
trans-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068		0.6	3/12/12 20:36	WSD
Ethanol	1.3	1.2	0.14		2.5	2.3		0.6	3/12/12 20:36	WSD
Ethyl Acetate	0.059	0.030	0.016		0.21	0.11		0.6	3/12/12 20:36	WSD
Ethylbenzene	0.040	0.030	0.0084		0.17	0.13		0.6	3/12/12 20:36	WSD
4-Ethyltoluene	ND	0.030	0.011		ND	0.15		0.6	3/12/12 20:36	WSD
Heptane	ND	0.030	0.010		ND	0.12		0.6	3/12/12 20:36	WSD
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32		0.6	3/12/12 20:36	WSD
Hexane	0.16	1.2	0.026	J	0.55	4.2		0.6	3/12/12 20:36	WSD
2-Hexanone (MBK)	0.079	0.030	0.0090		0.32	0.12		0.6	3/12/12 20:36	WSD
Isopropanol	ND	1.2	0.018		ND	2.9		0.6	3/12/12 20:36	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
 Field Sample #: IA-4-030812
 Sample ID: 12C0234-04
 Sample Matrix: Indoor air
 Sampled: 3/8/2012 08:41

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1307
 Canister Size: 6 liter
 Flow Controller ID: 4076
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -5.5
 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	
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.0084		ND	0.11	0.6	3/12/12 20:36	WSD	
Methylene Chloride	0.58	0.30	0.038		2.0	1.0	0.6	3/12/12 20:36	WSD	
Methyl methacrylate	ND	0.030	0.0090		ND	0.12	0.6	3/12/12 20:36	WSD	
4-Methyl-2-pentanone (MIBK)	0.038	0.030	0.0090		0.15	0.12	0.6	3/12/12 20:36	WSD	
Propene	ND	1.2	0.023		ND	2.1	0.6	3/12/12 20:36	WSD	
Styrene	0.022	0.030	0.0066	J	0.092	0.13	0.6	3/12/12 20:36	WSD	
1,1,1,2-Tetrachloroethane	ND	0.055	0.020		ND	0.37	0.6	3/12/12 20:36	WSD	
1,1,2,2-Tetrachloroethane	ND	0.015	0.010		ND	0.10	0.6	3/12/12 20:36	WSD	
Tetrachloroethylene	0.045	0.015	0.0090		0.31	0.10	0.6	3/12/12 20:36	WSD	
Tetrahydrofuran	ND	0.030	0.0096		ND	0.088	0.6	3/12/12 20:36	WSD	
Toluene	0.085	0.030	0.0084		0.32	0.11	0.6	3/12/12 20:36	WSD	
1,2,4-Trichlorobenzene	ND	0.060	0.011		ND	0.45	0.6	3/12/12 20:36	WSD	
1,1,1-Trichloroethane	ND	0.015	0.010		ND	0.082	0.6	3/12/12 20:36	WSD	
1,1,2-Trichloroethane	ND	0.015	0.0096		ND	0.082	0.6	3/12/12 20:36	WSD	
Trichloroethylene	0.028	0.015	0.0084		0.15	0.081	0.6	3/12/12 20:36	WSD	
Trichlorofluoromethane (Freon 11)	0.16	0.030	0.019		0.87	0.17	0.6	3/12/12 20:36	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.058	0.015	0.010		0.44	0.11	0.6	3/12/12 20:36	WSD	
1,2,4-Trimethylbenzene	ND	0.030	0.010		ND	0.15	0.6	3/12/12 20:36	WSD	
1,3,5-Trimethylbenzene	ND	0.030	0.0090		ND	0.15	0.6	3/12/12 20:36	WSD	
Vinyl Acetate	ND	0.060	0.015		ND	0.21	0.6	3/12/12 20:36	WSD	
Vinyl Chloride	ND	0.015	0.015		ND	0.038	0.6	3/12/12 20:36	WSD	
m&p-Xylene	0.062	0.060	0.016		0.27	0.26	0.6	3/12/12 20:36	WSD	
o-Xylene	0.026	0.030	0.0078	J	0.11	0.13	0.6	3/12/12 20:36	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.2	70-130	3/12/12 20:36
4-Bromofluorobenzene (2)	94.2	70-130	3/12/12 20:36

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
 Field Sample #: IA-5-030812
 Sample ID: 12C0234-05
 Sample Matrix: Indoor air
 Sampled: 3/8/2012 10:21

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1120
 Canister Size: 6 liter
 Flow Controller ID: 4093
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -5.7
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv		Flag	ug/m3		Dilution	Date/Time	
		RL	MDL		Results	RL		Analyzed	Analyst
Acetone	4.4	1.2	0.14		11	2.9	0.6	3/12/12 21:23	WSD
Benzene	0.11	0.030	0.016		0.34	0.096	0.6	3/12/12 21:23	WSD
Benzyl chloride	ND	0.030	0.0054		ND	0.16	0.6	3/12/12 21:23	WSD
Bromodichloromethane	ND	0.015	0.0084		ND	0.10	0.6	3/12/12 21:23	WSD
Bromoform	ND	0.030	0.0078		ND	0.31	0.6	3/12/12 21:23	WSD
Bromomethane	ND	0.030	0.029		ND	0.12	0.6	3/12/12 21:23	WSD
1,3-Butadiene	ND	0.030	0.017		ND	0.066	0.6	3/12/12 21:23	WSD
2-Butanone (MEK)	0.67	1.2	0.023	J	2.0	3.5	0.6	3/12/12 21:23	WSD
Carbon Disulfide	ND	0.30	0.0084		ND	0.93	0.6	3/12/12 21:23	WSD
Carbon Tetrachloride	0.073	0.015	0.0084		0.46	0.094	0.6	3/12/12 21:23	WSD
Chlorobenzene	ND	0.030	0.025		ND	0.14	0.6	3/12/12 21:23	WSD
Chloroethane	ND	0.030	0.017		ND	0.079	0.6	3/12/12 21:23	WSD
Chloroform	ND	0.015	0.011		ND	0.073	0.6	3/12/12 21:23	WSD
Chloromethane	0.52	0.030	0.015		1.1	0.062	0.6	3/12/12 21:23	WSD
Cyclohexane	ND	0.030	0.029		ND	0.10	0.6	3/12/12 21:23	WSD
Dibromochloromethane	ND	0.015	0.0072		ND	0.13	0.6	3/12/12 21:23	WSD
1,2-Dibromoethane (EDB)	ND	0.015	0.0084		ND	0.12	0.6	3/12/12 21:23	WSD
1,2-Dichlorobenzene	ND	0.030	0.016		ND	0.18	0.6	3/12/12 21:23	WSD
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18	0.6	3/12/12 21:23	WSD
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18	0.6	3/12/12 21:23	WSD
Dichlorodifluoromethane (Freon 12)	0.40	0.030	0.013		2.0	0.15	0.6	3/12/12 21:23	WSD
1,1-Dichloroethane	ND	0.015	0.0090		ND	0.061	0.6	3/12/12 21:23	WSD
1,2-Dichloroethane	ND	0.015	0.010		ND	0.061	0.6	3/12/12 21:23	WSD
1,1-Dichloroethylene	ND	0.015	0.0096		ND	0.059	0.6	3/12/12 21:23	WSD
cis-1,2-Dichloroethylene	ND	0.015	0.0084		ND	0.059	0.6	3/12/12 21:23	WSD
trans-1,2-Dichloroethylene	ND	0.015	0.010		ND	0.059	0.6	3/12/12 21:23	WSD
1,2-Dichloropropane	ND	0.015	0.012		ND	0.069	0.6	3/12/12 21:23	WSD
cis-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068	0.6	3/12/12 21:23	WSD
trans-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068	0.6	3/12/12 21:23	WSD
Ethanol	7.6	1.2	0.14		14	2.3	0.6	3/12/12 21:23	WSD
Ethyl Acetate	0.13	0.030	0.016		0.48	0.11	0.6	3/12/12 21:23	WSD
Ethylbenzene	ND	0.030	0.0084		ND	0.13	0.6	3/12/12 21:23	WSD
4-Ethyltoluene	ND	0.030	0.011		ND	0.15	0.6	3/12/12 21:23	WSD
Heptane	0.022	0.030	0.010	J	0.089	0.12	0.6	3/12/12 21:23	WSD
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32	0.6	3/12/12 21:23	WSD
Hexane	0.14	1.2	0.026	J	0.48	4.2	0.6	3/12/12 21:23	WSD
2-Hexanone (MBK)	0.077	0.030	0.0090		0.32	0.12	0.6	3/12/12 21:23	WSD
Isopropanol	ND	1.2	0.018		ND	2.9	0.6	3/12/12 21:23	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
Field Sample #: IA-5-030812
Sample ID: 12C0234-05
 Sample Matrix: Indoor air
 Sampled: 3/8/2012 10:21

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1120
 Canister Size: 6 liter
 Flow Controller ID: 4093
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -5.7
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv		Flag	ug/m ³		Dilution	Date/Time	
		RL	MDL		Results	RL		Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.0084		ND	0.11	0.6	3/12/12 21:23	WSD
Methylene Chloride	0.47	0.30	0.038		1.6	1.0	0.6	3/12/12 21:23	WSD
Methyl methacrylate	ND	0.030	0.0090		ND	0.12	0.6	3/12/12 21:23	WSD
4-Methyl-2-pentanone (MIBK)	0.044	0.030	0.0090		0.18	0.12	0.6	3/12/12 21:23	WSD
Propene	ND	1.2	0.023		ND	2.1	0.6	3/12/12 21:23	WSD
Styrene	ND	0.030	0.0066		ND	0.13	0.6	3/12/12 21:23	WSD
1,1,1,2-Tetrachloroethane	ND	0.055	0.020		ND	0.37	0.6	3/12/12 21:23	WSD
1,1,2,2-Tetrachloroethane	ND	0.015	0.010		ND	0.10	0.6	3/12/12 21:23	WSD
Tetrachloroethylene	0.022	0.015	0.0090		0.15	0.10	0.6	3/12/12 21:23	WSD
Tetrahydrofuran	ND	0.030	0.0096		ND	0.068	0.6	3/12/12 21:23	WSD
Toluene	0.074	0.030	0.0084		0.28	0.11	0.6	3/12/12 21:23	WSD
1,2,4-Trichlorobenzene	ND	0.060	0.011		ND	0.45	0.6	3/12/12 21:23	WSD
1,1,1-Trichloroethane	ND	0.015	0.010		ND	0.082	0.6	3/12/12 21:23	WSD
1,1,2-Trichloroethane	ND	0.015	0.0096		ND	0.082	0.6	3/12/12 21:23	WSD
Trichloroethylene	ND	0.015	0.0084		ND	0.081	0.6	3/12/12 21:23	WSD
Trichlorofluoromethane (Freon 11)	0.17	0.030	0.019		0.98	0.17	0.6	3/12/12 21:23	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.059	0.015	0.010		0.46	0.11	0.6	3/12/12 21:23	WSD
1,2,4-Trimethylbenzene	ND	0.030	0.010		ND	0.15	0.6	3/12/12 21:23	WSD
1,3,5-Trimethylbenzene	ND	0.030	0.0090		ND	0.15	0.6	3/12/12 21:23	WSD
Vinyl Acetate	ND	0.060	0.015		ND	0.21	0.6	3/12/12 21:23	WSD
Vinyl Chloride	ND	0.015	0.015		ND	0.038	0.6	3/12/12 21:23	WSD
m&p-Xylene	0.028	0.060	0.016	J	0.12	0.26	0.6	3/12/12 21:23	WSD
o-Xylene	ND	0.030	0.0078		ND	0.13	0.6	3/12/12 21:23	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	92.8	70-130	3/12/12 21:23
4-Bromofluorobenzene (2)	94.8	70-130	3/12/12 21:23

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
 Field Sample #: IA-6-030812
 Sample ID: 12C0234-06
 Sample Matrix: Indoor air
 Sampled: 3/8/2012 10:18

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1640
 Canister Size: 6 liter
 Flow Controller ID: 4092
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -7
 Receipt Vacuum(in Hg): -6.4
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv		Flag	ug/m3		Dilution	Date/Time	
		RL	MDL		Results	RL		Analyzed	Analyst
Acetone	3.1	1.2	0.14		7.4	2.9	0.6	3/12/12 22:10	WSD
Benzene	0.12	0.030	0.016		0.39	0.096	0.6	3/12/12 22:10	WSD
Benzyl chloride	ND	0.030	0.0054		ND	0.16	0.6	3/12/12 22:10	WSD
Bromodichloromethane	ND	0.015	0.0084		ND	0.10	0.6	3/12/12 22:10	WSD
Bromoform	ND	0.030	0.0078		ND	0.31	0.6	3/12/12 22:10	WSD
Bromomethane	ND	0.030	0.029		ND	0.12	0.6	3/12/12 22:10	WSD
1,3-Butadiene	ND	0.030	0.017		ND	0.066	0.6	3/12/12 22:10	WSD
2-Butanone (MEK)	0.21	1.2	0.023	J	0.63	3.5	0.6	3/12/12 22:10	WSD
Carbon Disulfide	ND	0.30	0.0084		ND	0.93	0.6	3/12/12 22:10	WSD
Carbon Tetrachloride	0.076	0.015	0.0084		0.48	0.094	0.6	3/12/12 22:10	WSD
Chlorobenzene	ND	0.030	0.025		ND	0.14	0.6	3/12/12 22:10	WSD
Chloroethane	ND	0.030	0.017		ND	0.079	0.6	3/12/12 22:10	WSD
Chloroform	ND	0.015	0.011		ND	0.073	0.6	3/12/12 22:10	WSD
Chloromethane	0.59	0.030	0.015		1.2	0.062	0.6	3/12/12 22:10	WSD
Cyclohexane	ND	0.030	0.029		ND	0.10	0.6	3/12/12 22:10	WSD
Dibromochloromethane	ND	0.015	0.0072		ND	0.13	0.6	3/12/12 22:10	WSD
1,2-Dibromoethane (EDB)	ND	0.015	0.0084		ND	0.12	0.6	3/12/12 22:10	WSD
1,2-Dichlorobenzene	ND	0.030	0.016		ND	0.18	0.6	3/12/12 22:10	WSD
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18	0.6	3/12/12 22:10	WSD
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18	0.6	3/12/12 22:10	WSD
Dichlorodifluoromethane (Freon 12)	0.41	0.030	0.013		2.0	0.15	0.6	3/12/12 22:10	WSD
1,1-Dichloroethane	ND	0.015	0.0090		ND	0.061	0.6	3/12/12 22:10	WSD
1,2-Dichloroethane	ND	0.015	0.010		ND	0.061	0.6	3/12/12 22:10	WSD
1,1-Dichloroethylene	ND	0.015	0.0096		ND	0.059	0.6	3/12/12 22:10	WSD
cis-1,2-Dichloroethylene	ND	0.015	0.0084		ND	0.059	0.6	3/12/12 22:10	WSD
trans-1,2-Dichloroethylene	ND	0.015	0.010		ND	0.059	0.6	3/12/12 22:10	WSD
1,2-Dichloropropane	ND	0.015	0.012		ND	0.069	0.6	3/12/12 22:10	WSD
cis-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068	0.6	3/12/12 22:10	WSD
trans-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068	0.6	3/12/12 22:10	WSD
Ethanol	22	1.2	0.14		41	2.3	0.6	3/12/12 22:10	WSD
Ethyl Acetate	0.19	0.030	0.016		0.69	0.11	0.6	3/12/12 22:10	WSD
Ethylbenzene	0.050	0.030	0.0084		0.22	0.13	0.6	3/12/12 22:10	WSD
4-Ethyltoluene	ND	0.030	0.011		ND	0.15	0.6	3/12/12 22:10	WSD
Heptane	0.037	0.030	0.010		0.15	0.12	0.6	3/12/12 22:10	WSD
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32	0.6	3/12/12 22:10	WSD
Hexane	0.14	1.2	0.026	J	0.48	4.2	0.6	3/12/12 22:10	WSD
2-Hexanone (MBK)	ND	0.030	0.0090		ND	0.12	0.6	3/12/12 22:10	WSD
Isopropanol	ND	1.2	0.018		ND	2.9	0.6	3/12/12 22:10	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
Field Sample #: IA-6-030812
Sample ID: 12C0234-06
 Sample Matrix: Indoor air
 Sampled: 3/8/2012 10:18

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1640
 Canister Size: 6 liter
 Flow Controller ID: 4092
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -7
 Receipt Vacuum(in Hg): -6.4
 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	0.030	0.0084		ND	0.11	0.6	3/12/12 22:10	WSD	
Methylene Chloride	0.52	0.30	0.038		1.8	1.0	0.6	3/12/12 22:10	WSD	
Methyl methacrylate	ND	0.030	0.0090		ND	0.12	0.6	3/12/12 22:10	WSD	
4-Methyl-2-pentanone (MIBK)	ND	0.030	0.0090		ND	0.12	0.6	3/12/12 22:10	WSD	
Propene	ND	1.2	0.023		ND	2.1	0.6	3/12/12 22:10	WSD	
Styrene	ND	0.030	0.0066		ND	0.13	0.6	3/12/12 22:10	WSD	
1,1,1,2-Tetrachloroethane	ND	0.055	0.020		ND	0.37	0.6	3/12/12 22:10	WSD	
1,1,2,2-Tetrachloroethane	ND	0.015	0.010		ND	0.10	0.6	3/12/12 22:10	WSD	
Tetrachloroethylene	0.022	0.015	0.0090		0.15	0.10	0.6	3/12/12 22:10	WSD	
Tetrahydrofuran	ND	0.030	0.0096		ND	0.068	0.6	3/12/12 22:10	WSD	
Toluene	0.37	0.030	0.0084		1.4	0.11	0.6	3/12/12 22:10	WSD	
1,2,4-Trichlorobenzene	ND	0.060	0.011		ND	0.45	0.6	3/12/12 22:10	WSD	
1,1,1-Trichloroethane	ND	0.015	0.010		ND	0.082	0.6	3/12/12 22:10	WSD	
1,1,2-Trichloroethane	ND	0.015	0.0096		ND	0.082	0.6	3/12/12 22:10	WSD	
Trichloroethylene	ND	0.015	0.0084		ND	0.081	0.6	3/12/12 22:10	WSD	
Trichlorofluoromethane (Freon 11)	0.18	0.030	0.019		1.0	0.17	0.6	3/12/12 22:10	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.057	0.015	0.010		0.44	0.11	0.6	3/12/12 22:10	WSD	
1,2,4-Trimethylbenzene	ND	0.030	0.010		ND	0.15	0.6	3/12/12 22:10	WSD	
1,3,5-Trimethylbenzene	ND	0.030	0.0090		ND	0.15	0.6	3/12/12 22:10	WSD	
Vinyl Acetate	ND	0.060	0.015		ND	0.21	0.6	3/12/12 22:10	WSD	
Vinyl Chloride	ND	0.015	0.015		ND	0.038	0.6	3/12/12 22:10	WSD	
m&p-Xylene	0.12	0.060	0.016		0.54	0.26	0.6	3/12/12 22:10	WSD	
o-Xylene	0.030	0.030	0.0078		0.13	0.13	0.6	3/12/12 22:10	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	92.6	70-130	3/12/12 22:10
4-Bromofluorobenzene (2)	94.1	70-130	3/12/12 22:10

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
Field Sample #: IA-7-030812
Sample ID: 12C0234-07
 Sample Matrix: Indoor air
 Sampled: 3/8/2012 11:27

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1297
 Canister Size: 6 liter
 Flow Controller ID: 4069
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -5.7
 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	5.3	1.2	0.14		13	2.9	0.6	3/12/12 22:57	WSD	
Benzene	0.11	0.030	0.016		0.36	0.096	0.6	3/12/12 22:57	WSD	
Benzyl chloride	ND	0.030	0.0054		ND	0.16	0.6	3/12/12 22:57	WSD	
Bromodichloromethane	ND	0.015	0.0084		ND	0.10	0.6	3/12/12 22:57	WSD	
Bromoform	ND	0.030	0.0078		ND	0.31	0.6	3/12/12 22:57	WSD	
Bromomethane	ND	0.030	0.029		ND	0.12	0.6	3/12/12 22:57	WSD	
1,3-Butadiene	ND	0.030	0.017		ND	0.066	0.6	3/12/12 22:57	WSD	
2-Butanone (MEK)	0.33	1.2	0.023	J	0.97	3.5	0.6	3/12/12 22:57	WSD	
Carbon Disulfide	ND	0.30	0.0084		ND	0.93	0.6	3/12/12 22:57	WSD	
Carbon Tetrachloride	0.074	0.015	0.0084		0.46	0.094	0.6	3/12/12 22:57	WSD	
Chlorobenzene	ND	0.030	0.025		ND	0.14	0.6	3/12/12 22:57	WSD	
Chloroethane	ND	0.030	0.017		ND	0.079	0.6	3/12/12 22:57	WSD	
Chloroform	ND	0.015	0.011		ND	0.073	0.6	3/12/12 22:57	WSD	
Chloromethane	0.78	0.030	0.015		1.6	0.062	0.6	3/12/12 22:57	WSD	
Cyclohexane	ND	0.030	0.029		ND	0.10	0.6	3/12/12 22:57	WSD	
Dibromochloromethane	ND	0.015	0.0072		ND	0.13	0.6	3/12/12 22:57	WSD	
1,2-Dibromoethane (EDB)	ND	0.015	0.0084		ND	0.12	0.6	3/12/12 22:57	WSD	
1,2-Dichlorobenzene	ND	0.030	0.016		ND	0.18	0.6	3/12/12 22:57	WSD	
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18	0.6	3/12/12 22:57	WSD	
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18	0.6	3/12/12 22:57	WSD	
Dichlorodifluoromethane (Freon 12)	0.42	0.030	0.013		2.1	0.15	0.6	3/12/12 22:57	WSD	
1,1-Dichloroethane	ND	0.015	0.0090		ND	0.061	0.6	3/12/12 22:57	WSD	
1,2-Dichloroethane	ND	0.015	0.010		ND	0.061	0.6	3/12/12 22:57	WSD	
1,1-Dichloroethylene	ND	0.015	0.0096		ND	0.059	0.6	3/12/12 22:57	WSD	
cis-1,2-Dichloroethylene	ND	0.015	0.0084		ND	0.059	0.6	3/12/12 22:57	WSD	
trans-1,2-Dichloroethylene	ND	0.015	0.010		ND	0.059	0.6	3/12/12 22:57	WSD	
1,2-Dichloropropane	ND	0.015	0.012		ND	0.069	0.6	3/12/12 22:57	WSD	
cis-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068	0.6	3/12/12 22:57	WSD	
trans-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068	0.6	3/12/12 22:57	WSD	
Ethanol	37	1.2	0.14		70	2.3	0.6	3/12/12 22:57	WSD	
Ethyl Acetate	0.26	0.030	0.016		0.94	0.11	0.6	3/12/12 22:57	WSD	
Ethylbenzene	0.027	0.030	0.0084	J	0.12	0.13	0.6	3/12/12 22:57	WSD	
4-Ethyltoluene	0.020	0.030	0.011	J	0.097	0.15	0.6	3/12/12 22:57	WSD	
Heptane	0.12	0.030	0.010		0.47	0.12	0.6	3/12/12 22:57	WSD	
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32	0.6	3/12/12 22:57	WSD	
Hexane	0.23	1.2	0.026	J	0.80	4.2	0.6	3/12/12 22:57	WSD	
2-Hexanone (MBK)	0.020	0.030	0.0090	J	0.081	0.12	0.6	3/12/12 22:57	WSD	
Isopropanol	ND	1.2	0.018		ND	2.9	0.6	3/12/12 22:57	WSD	

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
Field Sample #: IA-7-030812
Sample ID: 12C0234-07
 Sample Matrix: Indoor air
 Sampled: 3/8/2012 11:27

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1297
 Canister Size: 6 liter
 Flow Controller ID: 4069
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -5.7
 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	0.030	0.0084		ND	0.11	0.6	3/12/12 22:57	WSD	
Methylene Chloride	0.80	0.30	0.038		2.8	1.0	0.6	3/12/12 22:57	WSD	
Methyl methacrylate	ND	0.030	0.0090		ND	0.12	0.6	3/12/12 22:57	WSD	
4-Methyl-2-pentanone (MIBK)	0.031	0.030	0.0090		0.13	0.12	0.6	3/12/12 22:57	WSD	
Propene	ND	1.2	0.023		ND	2.1	0.6	3/12/12 22:57	WSD	
Styrene	0.023	0.030	0.0066	J	0.097	0.13	0.6	3/12/12 22:57	WSD	
1,1,1,2-Tetrachloroethane	ND	0.055	0.020		ND	0.37	0.6	3/12/12 22:57	WSD	
1,1,2,2-Tetrachloroethane	ND	0.015	0.010		ND	0.10	0.6	3/12/12 22:57	WSD	
Tetrachloroethylene	0.020	0.015	0.0090		0.14	0.10	0.6	3/12/12 22:57	WSD	
Tetrahydrofuran	ND	0.030	0.0096		ND	0.088	0.6	3/12/12 22:57	WSD	
Toluene	0.13	0.030	0.0084		0.48	0.11	0.6	3/12/12 22:57	WSD	
1,2,4-Trichlorobenzene	ND	0.060	0.011		ND	0.45	0.6	3/12/12 22:57	WSD	
1,1,1-Trichloroethane	ND	0.015	0.010		ND	0.082	0.6	3/12/12 22:57	WSD	
1,1,2-Trichloroethane	ND	0.015	0.0096		ND	0.082	0.6	3/12/12 22:57	WSD	
Trichloroethylene	ND	0.015	0.0084		ND	0.081	0.6	3/12/12 22:57	WSD	
Trichlorofluoromethane (Freon 11)	0.19	0.030	0.019		1.1	0.17	0.6	3/12/12 22:57	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.058	0.015	0.010		0.44	0.11	0.6	3/12/12 22:57	WSD	
1,2,4-Trimethylbenzene	0.073	0.030	0.010		0.36	0.15	0.6	3/12/12 22:57	WSD	
1,3,5-Trimethylbenzene	0.031	0.030	0.0090		0.15	0.15	0.6	3/12/12 22:57	WSD	
Vinyl Acetate	ND	0.060	0.015		ND	0.21	0.6	3/12/12 22:57	WSD	
Vinyl Chloride	ND	0.015	0.015		ND	0.038	0.6	3/12/12 22:57	WSD	
m&p-Xylene	0.070	0.060	0.016		0.30	0.26	0.6	3/12/12 22:57	WSD	
o-Xylene	0.038	0.030	0.0078		0.17	0.13	0.6	3/12/12 22:57	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.7	70-130	3/12/12 22:57
4-Bromofluorobenzene (2)	97.0	70-130	3/12/12 22:57

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
 Field Sample #: AA-1-030812
 Sample ID: 12C0234-08
 Sample Matrix: Ambient Air
 Sampled: 3/8/2012 11:41

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1885
 Canister Size: 6 liter
 Flow Controller ID: 4074
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -8
 Receipt Vacuum(in Hg): -7.3
 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	4.0	1.2	0.14		9.4	2.9	0.6	3/12/12 17:28	WSD	
Benzene	0.092	0.030	0.016		0.29	0.096	0.6	3/12/12 17:28	WSD	
Benzyl chloride	ND	0.030	0.0054		ND	0.16	0.6	3/12/12 17:28	WSD	
Bromodichloromethane	ND	0.015	0.0084		ND	0.10	0.6	3/12/12 17:28	WSD	
Bromoform	ND	0.030	0.0078		ND	0.31	0.6	3/12/12 17:28	WSD	
Bromomethane	ND	0.030	0.029		ND	0.12	0.6	3/12/12 17:28	WSD	
1,3-Butadiene	ND	0.030	0.017		ND	0.066	0.6	3/12/12 17:28	WSD	
2-Butanone (MEK)	0.47	1.2	0.023	J	1.4	3.5	0.6	3/12/12 17:28	WSD	
Carbon Disulfide	ND	0.30	0.0084		ND	0.93	0.6	3/12/12 17:28	WSD	
Carbon Tetrachloride	0.069	0.015	0.0084		0.43	0.094	0.6	3/12/12 17:28	WSD	
Chlorobenzene	ND	0.030	0.025		ND	0.14	0.6	3/12/12 17:28	WSD	
Chloroethane	ND	0.030	0.017		ND	0.079	0.6	3/12/12 17:28	WSD	
Chloroform	ND	0.015	0.011		ND	0.073	0.6	3/12/12 17:28	WSD	
Chloromethane	0.52	0.030	0.015		1.1	0.062	0.6	3/12/12 17:28	WSD	
Cyclohexane	ND	0.030	0.029		ND	0.10	0.6	3/12/12 17:28	WSD	
Dibromochloromethane	ND	0.015	0.0072		ND	0.13	0.6	3/12/12 17:28	WSD	
1,2-Dibromoethane (EDB)	ND	0.015	0.0084		ND	0.12	0.6	3/12/12 17:28	WSD	
1,2-Dichlorobenzene	ND	0.030	0.016		ND	0.18	0.6	3/12/12 17:28	WSD	
1,3-Dichlorobenzene	ND	0.030	0.0084		ND	0.18	0.6	3/12/12 17:28	WSD	
1,4-Dichlorobenzene	ND	0.030	0.0078		ND	0.18	0.6	3/12/12 17:28	WSD	
Dichlorodifluoromethane (Freon 12)	0.40	0.030	0.013		2.0	0.15	0.6	3/12/12 17:28	WSD	
1,1-Dichloroethane	ND	0.015	0.0090		ND	0.061	0.6	3/12/12 17:28	WSD	
1,2-Dichloroethane	ND	0.015	0.010		ND	0.061	0.6	3/12/12 17:28	WSD	
1,1-Dichloroethylene	ND	0.015	0.0096		ND	0.059	0.6	3/12/12 17:28	WSD	
cis-1,2-Dichloroethylene	ND	0.015	0.0084		ND	0.059	0.6	3/12/12 17:28	WSD	
trans-1,2-Dichloroethylene	ND	0.015	0.010		ND	0.059	0.6	3/12/12 17:28	WSD	
1,2-Dichloropropane	ND	0.015	0.012		ND	0.069	0.6	3/12/12 17:28	WSD	
cis-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068	0.6	3/12/12 17:28	WSD	
trans-1,3-Dichloropropene	ND	0.015	0.0060		ND	0.068	0.6	3/12/12 17:28	WSD	
Ethanol	2.2	1.2	0.14		4.1	2.3	0.6	3/12/12 17:28	WSD	
Ethyl Acetate	0.16	0.030	0.016		0.56	0.11	0.6	3/12/12 17:28	WSD	
Ethylbenzene	ND	0.030	0.0084		ND	0.13	0.6	3/12/12 17:28	WSD	
4-Ethyltoluene	ND	0.030	0.011		ND	0.15	0.6	3/12/12 17:28	WSD	
Heptane	0.022	0.030	0.010	J	0.089	0.12	0.6	3/12/12 17:28	WSD	
Hexachlorobutadiene	ND	0.030	0.011		ND	0.32	0.6	3/12/12 17:28	WSD	
Hexane	0.15	1.2	0.026	J	0.54	4.2	0.6	3/12/12 17:28	WSD	
2-Hexanone (MBK)	0.082	0.030	0.0090		0.34	0.12	0.6	3/12/12 17:28	WSD	
Isopropanol	0.36	1.2	0.018	J	0.88	2.9	0.6	3/12/12 17:28	WSD	

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
Field Sample #: AA-1-030812
Sample ID: 12C0234-08
 Sample Matrix: Ambient Air
 Sampled: 3/8/2012 11:41

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1885
 Canister Size: 6 liter
 Flow Controller ID: 4074
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -2
 Final Vacuum(in Hg): -8
 Receipt Vacuum(in Hg): -7.3
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m ³			Date/Time		
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst	
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.0084		ND	0.11	0.6	3/12/12 17:28	WSD	
Methylene Chloride	0.46	0.30	0.038		1.6	1.0	0.6	3/12/12 17:28	WSD	
Methyl methacrylate	ND	0.030	0.0090		ND	0.12	0.6	3/12/12 17:28	WSD	
4-Methyl-2-pentanone (MIBK)	ND	0.030	0.0090		ND	0.12	0.6	3/12/12 17:28	WSD	
Propene	ND	1.2	0.023		ND	2.1	0.6	3/12/12 17:28	WSD	
Styrene	ND	0.030	0.0066		ND	0.13	0.6	3/12/12 17:28	WSD	
1,1,1,2-Tetrachloroethane	ND	0.055	0.020		ND	0.37	0.6	3/12/12 17:28	WSD	
1,1,2,2-Tetrachloroethane	ND	0.015	0.010		ND	0.10	0.6	3/12/12 17:28	WSD	
Tetrachloroethylene	ND	0.015	0.0090		ND	0.10	0.6	3/12/12 17:28	WSD	
Tetrahydrofuran	ND	0.030	0.0096		ND	0.088	0.6	3/12/12 17:28	WSD	
Toluene	0.099	0.030	0.0084		0.37	0.11	0.6	3/12/12 17:28	WSD	
1,2,4-Trichlorobenzene	ND	0.060	0.011		ND	0.45	0.6	3/12/12 17:28	WSD	
1,1,1-Trichloroethane	ND	0.015	0.010		ND	0.082	0.6	3/12/12 17:28	WSD	
1,1,2-Trichloroethane	ND	0.015	0.0096		ND	0.082	0.6	3/12/12 17:28	WSD	
Trichloroethylene	ND	0.015	0.0084		ND	0.081	0.6	3/12/12 17:28	WSD	
Trichlorofluoromethane (Freon 11)	0.20	0.030	0.019		1.1	0.17	0.6	3/12/12 17:28	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.056	0.015	0.010		0.43	0.11	0.6	3/12/12 17:28	WSD	
1,2,4-Trimethylbenzene	ND	0.030	0.010		ND	0.15	0.6	3/12/12 17:28	WSD	
1,3,5-Trimethylbenzene	ND	0.030	0.0090		ND	0.15	0.6	3/12/12 17:28	WSD	
Vinyl Acetate	ND	0.060	0.015		ND	0.21	0.6	3/12/12 17:28	WSD	
Vinyl Chloride	ND	0.015	0.015		ND	0.038	0.6	3/12/12 17:28	WSD	
m&p-Xylene	0.040	0.060	0.016 J		0.17	0.26	0.6	3/12/12 17:28	WSD	
o-Xylene	0.020	0.030	0.0078 J		0.086	0.13	0.6	3/12/12 17:28	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	91.6	70-130	3/12/12 17:28
4-Bromofluorobenzene (2)	92.3	70-130	3/12/12 17:28

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
Field Sample #: EW-5-030812
Sample ID: 12C0234-09
 Sample Matrix: Soil Gas
 Sampled: 3/8/2012 09:36

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1815
 Canister Size: 6 liter
 Flow Controller ID: 4091
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -9
 Final Vacuum(in Hg): -7
 Receipt Vacuum(in Hg): -6.8
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3		Dilution	Date/Time	
		RL	MDL	Flag	Results	RL		Analyzed	Analyst
Acetone	170	40	4.6		400	95	20	3/13/12 9:13	WSD
Benzene	0.64	1.0	0.52	J	2.0	3.2	20	3/13/12 9:13	WSD
Benzyl chloride	ND	1.0	0.18		ND	5.2	20	3/13/12 9:13	WSD
Bromodichloromethane	ND	0.50	0.28		ND	3.4	20	3/13/12 9:13	WSD
Bromoform	ND	1.0	0.26		ND	10	20	3/13/12 9:13	WSD
Bromomethane	ND	1.0	0.96		ND	3.9	20	3/13/12 9:13	WSD
1,3-Butadiene	ND	1.0	0.58		ND	2.2	20	3/13/12 9:13	WSD
2-Butanone (MEK)	600	40	0.76		1800	120	20	3/13/12 9:13	WSD
Carbon Disulfide	3.4	10	0.28	J	11	31	20	3/13/12 9:13	WSD
Carbon Tetrachloride	ND	0.50	0.28		ND	3.1	20	3/13/12 9:13	WSD
Chlorobenzene	ND	1.0	0.84		ND	4.6	20	3/13/12 9:13	WSD
Chloroethane	ND	1.0	0.56		ND	2.6	20	3/13/12 9:13	WSD
Chloroform	ND	0.50	0.36		ND	2.4	20	3/13/12 9:13	WSD
Chloromethane	ND	1.0	0.50		ND	2.1	20	3/13/12 9:13	WSD
Cyclohexane	ND	1.0	0.96		ND	3.4	20	3/13/12 9:13	WSD
Dibromochloromethane	ND	0.50	0.24		ND	4.3	20	3/13/12 9:13	WSD
1,2-Dibromoethane (EDB)	ND	0.50	0.28		ND	3.8	20	3/13/12 9:13	WSD
1,2-Dichlorobenzene	ND	1.0	0.52		ND	6.0	20	3/13/12 9:13	WSD
1,3-Dichlorobenzene	ND	1.0	0.28		ND	6.0	20	3/13/12 9:13	WSD
1,4-Dichlorobenzene	ND	1.0	0.26		ND	6.0	20	3/13/12 9:13	WSD
Dichlorodifluoromethane (Freon 12)	ND	1.0	0.42		ND	4.9	20	3/13/12 9:13	WSD
1,1-Dichloroethane	2.7	0.50	0.30		11	2.0	20	3/13/12 9:13	WSD
1,2-Dichloroethane	ND	0.50	0.34		ND	2.0	20	3/13/12 9:13	WSD
1,1-Dichloroethylene	1.1	0.50	0.32		4.5	2.0	20	3/13/12 9:13	WSD
cis-1,2-Dichloroethylene	1.7	0.50	0.28		6.9	2.0	20	3/13/12 9:13	WSD
trans-1,2-Dichloroethylene	ND	0.50	0.34		ND	2.0	20	3/13/12 9:13	WSD
1,2-Dichloropropane	ND	0.50	0.40		ND	2.3	20	3/13/12 9:13	WSD
cis-1,3-Dichloropropene	ND	0.50	0.20		ND	2.3	20	3/13/12 9:13	WSD
trans-1,3-Dichloropropene	ND	0.50	0.20		ND	2.3	20	3/13/12 9:13	WSD
Ethanol	150	40	4.7		290	75	20	3/13/12 9:13	WSD
Ethyl Acetate	7.3	1.0	0.52		26	3.6	20	3/13/12 9:13	WSD
Ethylbenzene	ND	1.0	0.28		ND	4.3	20	3/13/12 9:13	WSD
4-Ethyltoluene	ND	1.0	0.36		ND	4.9	20	3/13/12 9:13	WSD
Heptane	ND	1.0	0.34		ND	4.1	20	3/13/12 9:13	WSD
Hexachlorobutadiene	ND	1.0	0.36		ND	11	20	3/13/12 9:13	WSD
Hexane	2.7	40	0.88	J	9.4	140	20	3/13/12 9:13	WSD
2-Hexanone (MBK)	ND	1.0	0.30		ND	4.1	20	3/13/12 9:13	WSD
Isopropanol	5.4	40	0.60	J	13	98	20	3/13/12 9:13	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
Field Sample #: EW-5-030812
Sample ID: 12C0234-09
 Sample Matrix: Soil Gas
 Sampled: 3/8/2012 09:36

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1815
 Canister Size: 6 liter
 Flow Controller ID: 4091
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -2
 Final Vacuum(in Hg): -7
 Receipt Vacuum(in Hg): -6.8
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m ³			Date/Time		
		RL	MDL	Flag	Results	RL	Dilution	Analyzed	Analyst	
Methyl tert-Butyl Ether (MTBE)	ND	1.0	0.28		ND	3.6	20	3/13/12 9:13	WSD	
Methylene Chloride	4.4	10	1.3	J	15	35	20	3/13/12 9:13	WSD	
Methyl methacrylate	ND	1.0	0.30		ND	4.1	20	3/13/12 9:13	WSD	
4-Methyl-2-pentanone (MIBK)	ND	1.0	0.30		ND	4.1	20	3/13/12 9:13	WSD	
Propene	8.5	40	0.76	J	15	69	20	3/13/12 9:13	WSD	
Styrene	ND	1.0	0.22		ND	4.3	20	3/13/12 9:13	WSD	
1,1,1,2-Tetrachloroethane	ND	1.8	0.66		ND	12	20	3/13/12 9:13	WSD	
1,1,2,2-Tetrachloroethane	ND	0.50	0.34		ND	3.4	20	3/13/12 9:13	WSD	
Tetrachloroethylene	ND	0.50	0.30		ND	3.4	20	3/13/12 9:13	WSD	
Tetrahydrofuran	1500	1.0	0.32		4500	2.9	20	3/13/12 9:13	WSD	
Toluene	9.7	1.0	0.28		37	3.8	20	3/13/12 9:13	WSD	
1,2,4-Trichlorobenzene	ND	2.0	0.38		ND	15	20	3/13/12 9:13	WSD	
1,1,1-Trichloroethane	15	0.50	0.34		81	2.7	20	3/13/12 9:13	WSD	
1,1,2-Trichloroethane	ND	0.50	0.32		ND	2.7	20	3/13/12 9:13	WSD	
Trichloroethylene	32	0.50	0.28		170	2.7	20	3/13/12 9:13	WSD	
Trichlorofluoromethane (Freon 11)	ND	1.0	0.62		ND	5.6	20	3/13/12 9:13	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	0.34		ND	3.8	20	3/13/12 9:13	WSD	
1,2,4-Trimethylbenzene	ND	1.0	0.34		ND	4.9	20	3/13/12 9:13	WSD	
1,3,5-Trimethylbenzene	ND	1.0	0.30		ND	4.9	20	3/13/12 9:13	WSD	
Vinyl Acetate	ND	2.0	0.50		ND	7.0	20	3/13/12 9:13	WSD	
Vinyl Chloride	ND	0.50	0.50		ND	1.3	20	3/13/12 9:13	WSD	
m&p-Xylene	1.2	2.0	0.52	J	5.4	8.7	20	3/13/12 9:13	WSD	
o-Xylene	ND	1.0	0.26		ND	4.3	20	3/13/12 9:13	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	92.3	70-130	3/13/12 9:13
4-Bromofluorobenzene (2)	94.8	70-130	3/13/12 9:13

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
 Field Sample #: EW-6-030812
 Sample ID: 12C0234-10
 Sample Matrix: Soil Gas
 Sampled: 3/8/2012 11:20

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1461
 Canister Size: 6 liter
 Flow Controller ID: 4090
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -15
 Receipt Vacuum(in Hg): -14.2
 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	4.2	4.0	0.46		9.9	9.5		2	3/13/12 9:54	WSD
Benzene	0.098	0.10	0.052	J	0.31	0.32		2	3/13/12 9:54	WSD
Benzyl chloride	ND	0.10	0.018		ND	0.52		2	3/13/12 9:54	WSD
Bromodichloromethane	ND	0.050	0.028		ND	0.34		2	3/13/12 9:54	WSD
Bromoform	ND	0.10	0.026		ND	1.0		2	3/13/12 9:54	WSD
Bromomethane	ND	0.10	0.096		ND	0.39		2	3/13/12 9:54	WSD
1,3-Butadiene	ND	0.10	0.058		ND	0.22		2	3/13/12 9:54	WSD
2-Butanone (MEK)	0.72	4.0	0.076	J	2.1	12		2	3/13/12 9:54	WSD
Carbon Disulfide	ND	1.0	0.028		ND	3.1		2	3/13/12 9:54	WSD
Carbon Tetrachloride	0.062	0.050	0.028		0.39	0.31		2	3/13/12 9:54	WSD
Chlorobenzene	ND	0.10	0.084		ND	0.46		2	3/13/12 9:54	WSD
Chloroethane	ND	0.10	0.056		ND	0.26		2	3/13/12 9:54	WSD
Chloroform	0.074	0.050	0.036		0.36	0.24		2	3/13/12 9:54	WSD
Chloromethane	0.70	0.10	0.050		1.5	0.21		2	3/13/12 9:54	WSD
Cyclohexane	ND	0.10	0.096		ND	0.34		2	3/13/12 9:54	WSD
Dibromochloromethane	ND	0.050	0.024		ND	0.43		2	3/13/12 9:54	WSD
1,2-Dibromoethane (EDB)	ND	0.050	0.028		ND	0.38		2	3/13/12 9:54	WSD
1,2-Dichlorobenzene	ND	0.10	0.052		ND	0.60		2	3/13/12 9:54	WSD
1,3-Dichlorobenzene	ND	0.10	0.028		ND	0.60		2	3/13/12 9:54	WSD
1,4-Dichlorobenzene	ND	0.10	0.026		ND	0.60		2	3/13/12 9:54	WSD
Dichlorodifluoromethane (Freon 12)	0.45	0.10	0.042		2.2	0.49		2	3/13/12 9:54	WSD
1,1-Dichloroethane	ND	0.050	0.030		ND	0.20		2	3/13/12 9:54	WSD
1,2-Dichloroethane	ND	0.050	0.034		ND	0.20		2	3/13/12 9:54	WSD
1,1-Dichloroethylene	ND	0.050	0.032		ND	0.20		2	3/13/12 9:54	WSD
cis-1,2-Dichloroethylene	ND	0.050	0.028		ND	0.20		2	3/13/12 9:54	WSD
trans-1,2-Dichloroethylene	ND	0.050	0.034		ND	0.20		2	3/13/12 9:54	WSD
1,2-Dichloropropane	ND	0.050	0.040		ND	0.23		2	3/13/12 9:54	WSD
cis-1,3-Dichloropropene	ND	0.050	0.020		ND	0.23		2	3/13/12 9:54	WSD
trans-1,3-Dichloropropene	ND	0.050	0.020		ND	0.23		2	3/13/12 9:54	WSD
Ethanol	15	4.0	0.47		29	7.5		2	3/13/12 9:54	WSD
Ethyl Acetate	0.14	0.10	0.052		0.52	0.36		2	3/13/12 9:54	WSD
Ethylbenzene	ND	0.10	0.028		ND	0.43		2	3/13/12 9:54	WSD
4-Ethyltoluene	ND	0.10	0.036		ND	0.49		2	3/13/12 9:54	WSD
Heptane	ND	0.10	0.034		ND	0.41		2	3/13/12 9:54	WSD
Hexachlorobutadiene	ND	0.10	0.036		ND	1.1		2	3/13/12 9:54	WSD
Hexane	0.39	4.0	0.088	J	1.4	14		2	3/13/12 9:54	WSD
2-Hexanone (MBK)	ND	0.10	0.030		ND	0.41		2	3/13/12 9:54	WSD
Isopropanol	0.54	4.0	0.060	J	1.3	9.8		2	3/13/12 9:54	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
Field Sample #: EW-6-030812
Sample ID: 12C0234-10
 Sample Matrix: Soil Gas
 Sampled: 3/8/2012 11:20

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1461
 Canister Size: 6 liter
 Flow Controller ID: 4090
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -15
 Receipt Vacuum(in Hg): -14.2
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			ug/m3		Dilution	Date/Time	
		RL	MDL	Flag	Results	RL		Analyzed	Analyst
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.028		ND	0.36	2	3/13/12 9:54	WSD
Methylene Chloride	1.4	1.0	0.13		4.8	3.5	2	3/13/12 9:54	WSD
Methyl methacrylate	ND	0.10	0.030		ND	0.41	2	3/13/12 9:54	WSD
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.030		ND	0.41	2	3/13/12 9:54	WSD
Propene	ND	4.0	0.076		ND	6.9	2	3/13/12 9:54	WSD
Styrene	ND	0.10	0.022		ND	0.43	2	3/13/12 9:54	WSD
1,1,1,2-Tetrachloroethane	ND	0.18	0.066		ND	1.2	2	3/13/12 9:54	WSD
1,1,2,2-Tetrachloroethane	ND	0.050	0.034		ND	0.34	2	3/13/12 9:54	WSD
Tetrachloroethylene	0.11	0.050	0.030		0.76	0.34	2	3/13/12 9:54	WSD
Tetrahydrofuran	1.3	0.10	0.032		3.7	0.29	2	3/13/12 9:54	WSD
Toluene	0.096	0.10	0.028	J	0.36	0.38	2	3/13/12 9:54	WSD
1,2,4-Trichlorobenzene	ND	0.20	0.038		ND	1.5	2	3/13/12 9:54	WSD
1,1,1-Trichloroethane	ND	0.050	0.034		ND	0.27	2	3/13/12 9:54	WSD
1,1,2-Trichloroethane	ND	0.050	0.032		ND	0.27	2	3/13/12 9:54	WSD
Trichloroethylene	ND	0.050	0.028		ND	0.27	2	3/13/12 9:54	WSD
Trichlorofluoromethane (Freon 11)	0.18	0.10	0.062		1.0	0.56	2	3/13/12 9:54	WSD
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.050	0.034		ND	0.38	2	3/13/12 9:54	WSD
1,2,4-Trimethylbenzene	ND	0.10	0.034		ND	0.49	2	3/13/12 9:54	WSD
1,3,5-Trimethylbenzene	ND	0.10	0.030		ND	0.49	2	3/13/12 9:54	WSD
Vinyl Acetate	ND	0.20	0.050		ND	0.70	2	3/13/12 9:54	WSD
Vinyl Chloride	ND	0.050	0.050		ND	0.13	2	3/13/12 9:54	WSD
m&p-Xylene	ND	0.20	0.052		ND	0.87	2	3/13/12 9:54	WSD
o-Xylene	ND	0.10	0.026		ND	0.43	2	3/13/12 9:54	WSD

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.5	70-130	3/13/12 9:54
4-Bromofluorobenzene (2)	95.5	70-130	3/13/12 9:54

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
Date Received: 3/8/2012
Field Sample #: EW-7-030812
Sample ID: 12C0234-11
Sample Matrix: Soil Gas
Sampled: 3/8/2012 11:31

Sample Description/Location:
Sub Description/Location:
Canister ID: 1824
Canister Size: 6 liter
Flow Controller ID: 4068
Sample Type: 30 min

Work Order: 12C0234
Initial Vacuum(in Hg): -2
Final Vacuum(in Hg): -7
Receipt Vacuum(in Hg): -5.3
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		Analyzed	Analyst	
Acetone	19	40	4.6	J	46	95	20	3/13/12 10:31	WSD	
Benzene	ND	1.0	0.52		ND	3.2	20	3/13/12 10:31	WSD	
Benzyl chloride	ND	1.0	0.18		ND	5.2	20	3/13/12 10:31	WSD	
Bromodichloromethane	ND	0.50	0.28		ND	3.4	20	3/13/12 10:31	WSD	
Bromoform	ND	1.0	0.26		ND	10	20	3/13/12 10:31	WSD	
Bromomethane	ND	1.0	0.96		ND	3.9	20	3/13/12 10:31	WSD	
1,3-Butadiene	ND	1.0	0.58		ND	2.2	20	3/13/12 10:31	WSD	
2-Butanone (MEK)	34	40	0.76	J	100	120	20	3/13/12 10:31	WSD	
Carbon Disulfide	ND	10	0.28		ND	31	20	3/13/12 10:31	WSD	
Carbon Tetrachloride	ND	0.50	0.28		ND	3.1	20	3/13/12 10:31	WSD	
Chlorobenzene	ND	1.0	0.84		ND	4.6	20	3/13/12 10:31	WSD	
Chloroethane	ND	1.0	0.56		ND	2.6	20	3/13/12 10:31	WSD	
Chloroform	ND	0.50	0.36		ND	2.4	20	3/13/12 10:31	WSD	
Chloromethane	ND	1.0	0.50		ND	2.1	20	3/13/12 10:31	WSD	
Cyclohexane	ND	1.0	0.96		ND	3.4	20	3/13/12 10:31	WSD	
Dibromochloromethane	ND	0.50	0.24		ND	4.3	20	3/13/12 10:31	WSD	
1,2-Dibromoethane (EDB)	ND	0.50	0.28		ND	3.8	20	3/13/12 10:31	WSD	
1,2-Dichlorobenzene	ND	1.0	0.52		ND	6.0	20	3/13/12 10:31	WSD	
1,3-Dichlorobenzene	ND	1.0	0.28		ND	6.0	20	3/13/12 10:31	WSD	
1,4-Dichlorobenzene	ND	1.0	0.26		ND	6.0	20	3/13/12 10:31	WSD	
Dichlorodifluoromethane (Freon 12)	ND	1.0	0.42		ND	4.9	20	3/13/12 10:31	WSD	
1,1-Dichloroethane	1.6	0.50	0.30		6.4	2.0	20	3/13/12 10:31	WSD	
1,2-Dichloroethane	ND	0.50	0.34		ND	2.0	20	3/13/12 10:31	WSD	
1,1-Dichloroethylene	ND	0.50	0.32		ND	2.0	20	3/13/12 10:31	WSD	
cis-1,2-Dichloroethylene	1.3	0.50	0.28		5.1	2.0	20	3/13/12 10:31	WSD	
trans-1,2-Dichloroethylene	0.96	0.50	0.34		3.8	2.0	20	3/13/12 10:31	WSD	
1,2-Dichloropropane	ND	0.50	0.40		ND	2.3	20	3/13/12 10:31	WSD	
cis-1,3-Dichloropropene	ND	0.50	0.20		ND	2.3	20	3/13/12 10:31	WSD	
trans-1,3-Dichloropropene	ND	0.50	0.20		ND	2.3	20	3/13/12 10:31	WSD	
Ethanol	86	40	4.7		160	75	20	3/13/12 10:31	WSD	
Ethyl Acetate	3.1	1.0	0.52		11	3.6	20	3/13/12 10:31	WSD	
Ethylbenzene	ND	1.0	0.28		ND	4.3	20	3/13/12 10:31	WSD	
4-Ethyltoluene	ND	1.0	0.36		ND	4.9	20	3/13/12 10:31	WSD	
Heptane	ND	1.0	0.34		ND	4.1	20	3/13/12 10:31	WSD	
Hexachlorobutadiene	ND	1.0	0.36		ND	11	20	3/13/12 10:31	WSD	
Hexane	1.1	40	0.88	J	4.0	140	20	3/13/12 10:31	WSD	
2-Hexanone (MBK)	ND	1.0	0.30		ND	4.1	20	3/13/12 10:31	WSD	
Isopropanol	ND	40	0.60		ND	98	20	3/13/12 10:31	WSD	

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
 Field Sample #: EW-7-030812
 Sample ID: 12C0234-11
 Sample Matrix: Soil Gas
 Sampled: 3/8/2012 11:31

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1824
 Canister Size: 6 liter
 Flow Controller ID: 4068
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -7
 Receipt Vacuum(in Hg): -5.3
 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	1.0	0.28		ND	3.6	20	3/13/12 10:31	WSD	
Methylene Chloride	9.6	10	1.3	J	33	35	20	3/13/12 10:31	WSD	
Methyl methacrylate	ND	1.0	0.30		ND	4.1	20	3/13/12 10:31	WSD	
4-Methyl-2-pentanone (MIBK)	ND	1.0	0.30		ND	4.1	20	3/13/12 10:31	WSD	
Propene	7.3	40	0.76	J	13	69	20	3/13/12 10:31	WSD	
Styrene	ND	1.0	0.22		ND	4.3	20	3/13/12 10:31	WSD	
1,1,1,2-Tetrachloroethane	ND	1.8	0.66		ND	12	20	3/13/12 10:31	WSD	
1,1,2,2-Tetrachloroethane	ND	0.50	0.34		ND	3.4	20	3/13/12 10:31	WSD	
Tetrachloroethylene	0.82	0.50	0.30		5.6	3.4	20	3/13/12 10:31	WSD	
Tetrahydrofuran	340	1.0	0.32		1000	2.9	20	3/13/12 10:31	WSD	
Toluene	2.1	1.0	0.28		8.1	3.8	20	3/13/12 10:31	WSD	
1,2,4-Trichlorobenzene	ND	2.0	0.38		ND	15	20	3/13/12 10:31	WSD	
1,1,1-Trichloroethane	2.1	0.50	0.34		11	2.7	20	3/13/12 10:31	WSD	
1,1,2-Trichloroethane	ND	0.50	0.32		ND	2.7	20	3/13/12 10:31	WSD	
Trichloroethylene	9.8	0.50	0.28		53	2.7	20	3/13/12 10:31	WSD	
Trichlorofluoromethane (Freon 11)	32	1.0	0.62		180	5.6	20	3/13/12 10:31	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	0.34		ND	3.8	20	3/13/12 10:31	WSD	
1,2,4-Trimethylbenzene	ND	1.0	0.34		ND	4.9	20	3/13/12 10:31	WSD	
1,3,5-Trimethylbenzene	ND	1.0	0.30		ND	4.9	20	3/13/12 10:31	WSD	
Vinyl Acetate	ND	2.0	0.50		ND	7.0	20	3/13/12 10:31	WSD	
Vinyl Chloride	ND	0.50	0.50		ND	1.3	20	3/13/12 10:31	WSD	
m&p-Xylene	ND	2.0	0.52		ND	8.7	20	3/13/12 10:31	WSD	
o-Xylene	ND	1.0	0.26		ND	4.3	20	3/13/12 10:31	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	92.2	70-130	3/13/12 10:31
4-Bromofluorobenzene (2)	94.0	70-130	3/13/12 10:31

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
Field Sample #: EW-Combined-030812
Sample ID: 12C0234-12
 Sample Matrix: Soil Gas
 Sampled: 3/8/2012 12:19

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1483
 Canister Size: 6 liter
 Flow Controller ID: 4038
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -6.7
 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	9.1	40	4.6	J	22	95		20	3/13/12 11:09	WSD
Benzene	ND	1.0	0.52		ND	3.2		20	3/13/12 11:09	WSD
Benzyl chloride	ND	1.0	0.18		ND	5.2		20	3/13/12 11:09	WSD
Bromodichloromethane	ND	0.50	0.28		ND	3.4		20	3/13/12 11:09	WSD
Bromoform	ND	1.0	0.26		ND	10		20	3/13/12 11:09	WSD
Bromomethane	ND	1.0	0.96		ND	3.9		20	3/13/12 11:09	WSD
1,3-Butadiene	ND	1.0	0.58		ND	2.2		20	3/13/12 11:09	WSD
2-Butanone (MEK)	ND	40	0.76		ND	120		20	3/13/12 11:09	WSD
Carbon Disulfide	ND	10	0.28		ND	31		20	3/13/12 11:09	WSD
Carbon Tetrachloride	ND	0.50	0.28		ND	3.1		20	3/13/12 11:09	WSD
Chlorobenzene	ND	1.0	0.84		ND	4.6		20	3/13/12 11:09	WSD
Chloroethane	ND	1.0	0.56		ND	2.6		20	3/13/12 11:09	WSD
Chloroform	0.66	0.50	0.36		3.2	2.4		20	3/13/12 11:09	WSD
Chloromethane	ND	1.0	0.50		ND	2.1		20	3/13/12 11:09	WSD
Cyclohexane	ND	1.0	0.96		ND	3.4		20	3/13/12 11:09	WSD
Dibromochloromethane	ND	0.50	0.24		ND	4.3		20	3/13/12 11:09	WSD
1,2-Dibromoethane (EDB)	ND	0.50	0.28		ND	3.8		20	3/13/12 11:09	WSD
1,2-Dichlorobenzene	1.2	1.0	0.52		7.3	6.0		20	3/13/12 11:09	WSD
1,3-Dichlorobenzene	ND	1.0	0.28		ND	6.0		20	3/13/12 11:09	WSD
1,4-Dichlorobenzene	ND	1.0	0.26		ND	6.0		20	3/13/12 11:09	WSD
Dichlorodifluoromethane (Freon 12)	ND	1.0	0.42		ND	4.9		20	3/13/12 11:09	WSD
1,1-Dichloroethane	19	0.50	0.30		78	2.0		20	3/13/12 11:09	WSD
1,2-Dichloroethane	ND	0.50	0.34		ND	2.0		20	3/13/12 11:09	WSD
1,1-Dichloroethylene	8.6	0.50	0.32		34	2.0		20	3/13/12 11:09	WSD
cis-1,2-Dichloroethylene	12	0.50	0.28		47	2.0		20	3/13/12 11:09	WSD
trans-1,2-Dichloroethylene	ND	0.50	0.34		ND	2.0		20	3/13/12 11:09	WSD
1,2-Dichloropropane	ND	0.50	0.40		ND	2.3		20	3/13/12 11:09	WSD
cis-1,3-Dichloropropene	ND	0.50	0.20		ND	2.3		20	3/13/12 11:09	WSD
trans-1,3-Dichloropropene	ND	0.50	0.20		ND	2.3		20	3/13/12 11:09	WSD
Ethanol	ND	40	4.7		ND	75		20	3/13/12 11:09	WSD
Ethyl Acetate	ND	1.0	0.52		ND	3.6		20	3/13/12 11:09	WSD
Ethylbenzene	ND	1.0	0.28		ND	4.3		20	3/13/12 11:09	WSD
4-Ethyltoluene	ND	1.0	0.36		ND	4.9		20	3/13/12 11:09	WSD
Heptane	ND	1.0	0.34		ND	4.1		20	3/13/12 11:09	WSD
Hexachlorobutadiene	ND	1.0	0.36		ND	11		20	3/13/12 11:09	WSD
Hexane	ND	40	0.88		ND	140		20	3/13/12 11:09	WSD
2-Hexanone (MBK)	ND	1.0	0.30		ND	4.1		20	3/13/12 11:09	WSD
Isopropanol	ND	40	0.60		ND	98		20	3/13/12 11:09	WSD

ANALYTICAL RESULTS

Project Location: Providence, RI - Gorham Site
 Date Received: 3/8/2012
Field Sample #: EW-Combined-030812
Sample ID: 12C0234-12
 Sample Matrix: Soil Gas
 Sampled: 3/8/2012 12:19

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1483
 Canister Size: 6 liter
 Flow Controller ID: 4038
 Sample Type: 30 min

Work Order: 12C0234
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -6.7
 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	1.0	0.28		ND	3.6	20	3/13/12 11:09	WSD	
Methylene Chloride	2.3	10	1.3	J	8.1	35	20	3/13/12 11:09	WSD	
Methyl methacrylate	ND	1.0	0.30		ND	4.1	20	3/13/12 11:09	WSD	
4-Methyl-2-pentanone (MIBK)	ND	1.0	0.30		ND	4.1	20	3/13/12 11:09	WSD	
Propene	7.7	40	0.76	J	13	69	20	3/13/12 11:09	WSD	
Styrene	ND	1.0	0.22		ND	4.3	20	3/13/12 11:09	WSD	
1,1,1,2-Tetrachloroethane	ND	1.8	0.66		ND	12	20	3/13/12 11:09	WSD	
1,1,2,2-Tetrachloroethane	ND	0.50	0.34		ND	3.4	20	3/13/12 11:09	WSD	
Tetrachloroethylene	24	0.50	0.30		170	3.4	20	3/13/12 11:09	WSD	
Tetrahydrofuran	2.8	1.0	0.32		8.3	2.9	20	3/13/12 11:09	WSD	
Toluene	ND	1.0	0.28		ND	3.8	20	3/13/12 11:09	WSD	
1,2,4-Trichlorobenzene	510	2.0	0.38		3800	15	20	3/13/12 11:09	WSD	
1,1,1-Trichloroethane	200	0.50	0.34		1100	2.7	20	3/13/12 11:09	WSD	
1,1,2-Trichloroethane	ND	0.50	0.32		ND	2.7	20	3/13/12 11:09	WSD	
Trichloroethylene	140	0.50	0.28		730	2.7	20	3/13/12 11:09	WSD	
Trichlorofluoromethane (Freon 11)	26	1.0	0.62		150	5.6	20	3/13/12 11:09	WSD	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	0.34		ND	3.8	20	3/13/12 11:09	WSD	
1,2,4-Trimethylbenzene	ND	1.0	0.34		ND	4.9	20	3/13/12 11:09	WSD	
1,3,5-Trimethylbenzene	ND	1.0	0.30		ND	4.9	20	3/13/12 11:09	WSD	
Vinyl Acetate	ND	2.0	0.50		ND	7.0	20	3/13/12 11:09	WSD	
Vinyl Chloride	ND	0.50	0.50		ND	1.3	20	3/13/12 11:09	WSD	
m&p-Xylene	ND	2.0	0.52		ND	8.7	20	3/13/12 11:09	WSD	
o-Xylene	ND	1.0	0.26		ND	4.3	20	3/13/12 11:09	WSD	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.1	70-130	3/13/12 11:09
4-Bromofluorobenzene (2)	95.1	70-130	3/13/12 11:09

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
12C0234-01 [IA-1-030812]	B047800	1.5	1	N/A	1000	400	1000	03/12/12
12C0234-02 [IA-2-030812]	B047800	1.5	1	N/A	1000	400	1000	03/12/12
12C0234-03 [IA-3-030812]	B047800	1.5	1	N/A	1000	400	1000	03/12/12
12C0234-04 [IA-4-030812]	B047800	1.5	1	N/A	1000	400	1000	03/12/12
12C0234-05 [IA-5-030812]	B047800	1.5	1	N/A	1000	400	1000	03/12/12
12C0234-06 [IA-6-030812]	B047800	1.5	1	N/A	1000	400	1000	03/12/12
12C0234-07 [IA-7-030812]	B047800	1.5	1	N/A	1000	400	1000	03/12/12
12C0234-08 [AA-1-030812]	B047800	1.5	1	N/A	1000	400	1000	03/12/12
12C0234-09 [EW-5-030812]	B047800	2	1	N/A	1000	400	40	03/12/12
12C0234-10 [EW-6-030812]	B047800	2	1	N/A	1000	400	400	03/12/12
12C0234-11 [EW-7-030812]	B047800	2	1	N/A	1000	400	40	03/12/12
12C0234-12 [EW-Combined-030812]	B047800	2	1	N/A	1000	400	40	03/12/12

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 B047800 - TO-15 Prep											
Blank (B047800-BLK1)											
			Prepared & Analyzed: 03/12/12								
Acetone	0.93	1.0									J
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)	0.21	1.0									J
Carbon Disulfide	ND	0.25									
Carbon Tetrachloride	ND	0.025									
Chlorobenzene	ND	0.025									
Chloroethane	ND	0.025									
Chloroform	ND	0.025									
Chloromethane	ND	0.025									
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	0.26	1.0									J
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	0.074	1.0									J
Methyl tert-Butyl Ether (MTBE)	ND	0.025									
Methylene Chloride	0.060	0.25									J
Methyl methacrylate	ND	0.025									
4-Methyl-2-pentanone (MIBK)	ND	0.025									
Propene	0.19	1.0									J
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 Limits	%REC Limits	RPD RPD	RPD Limit	Flag
Batch B047800 - TO-15 Prep											
Blank (B047800-BLK1)											
Prepared & Analyzed: 03/12/12											
Tetrachloroethylene	ND	0.025									
Tetrahydrofuran	ND	0.025									
Toluene	ND	0.025									
1,2,4-Trichlorobenzene	ND	0.050									
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	0.050									
Vinyl Chloride	ND	0.025									
m&p-Xylene	ND	0.050									
o-Xylene	ND	0.025									
Surrogate: 4-Bromofluorobenzene (1)	7.29		8.00		97.1	70-130					
Surrogate: 4-Bromofluorobenzene (2)	7.44		8.00		93.0	70-130					
LCS (B047800-BS1)											
Prepared & Analyzed: 03/12/12											
Acetone	5.51		5.00		110	50-150					
Benzene	4.46		5.00		89.2	70-130					
Benzyl chloride	6.41		5.00		128	70-130					
Bromodichloromethane	5.07		5.00		101	70-130					
Bromoform	4.91		5.00		98.1	70-130					
Bromomethane	4.23		5.00		84.5	70-130					
1,3-Butadiene	5.74		5.00		115	70-130					
2-Butanone (MEK)	4.79		5.00		95.9	70-130					
Carbon Disulfide	3.75		5.00		75.0	70-130					
Carbon Tetrachloride	5.27		5.00		105	70-130					
Chlorobenzene	4.21		5.00		84.1	70-130					
Chloroethane	5.37		5.00		107	70-130					
Chloroform	3.84		5.00		76.8	70-130					
Chloromethane	5.66		5.00		113	70-130					
Cyclohexane	4.64		5.00		92.9	50-150					
Dibromochloromethane	4.78		5.00		95.6	70-130					
1,2-Dibromoethane (EDB)	4.31		5.00		86.2	70-130					
1,2-Dichlorobenzene	4.46		5.00		89.3	70-130					
1,3-Dichlorobenzene	4.58		5.00		91.5	70-130					
1,4-Dichlorobenzene	4.43		5.00		88.7	70-130					
Dichlorodifluoromethane (Freon 12)	4.26		5.00		85.3	70-130					
1,1-Dichloroethane	4.04		5.00		80.8	70-130					
1,2-Dichloroethane	4.15		5.00		83.0	70-130					
1,1-Dichloroethylene	4.15		5.00		82.9	70-130					
cis-1,2-Dichloroethylene	4.00		5.00		80.0	70-130					
trans-1,2-Dichloroethylene	4.00		5.00		80.0	70-130					
1,2-Dichloropropane	4.91		5.00		98.2	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 Limits	%REC Limits	RPD RPD	RPD Limit	Flag
Batch B047800 - TO-15 Prep											
LCS (B047800-BS1)											
Prepared & Analyzed: 03/12/12											
cis-1,3-Dichloropropene	5.35				5.00	107	70-130				
trans-1,3-Dichloropropene	4.96				5.00	99.3	70-130				
Ethanol	5.74				5.00	115	50-150				
Ethyl Acetate	4.18				5.00	83.7	50-150				
Ethylbenzene	4.89				5.00	97.8	70-130				
4-Ethyltoluene	4.93				5.00	98.7	50-150				
Heptane	5.58				5.00	112	50-150				
Hexachlorobutadiene	4.35				5.00	87.0	70-130				
Hexane	5.00				5.00	100	70-130				
2-Hexanone (MBK)	5.19				5.00	104	50-150				
Isopropanol	4.04				5.00	80.8	50-150				
Methyl tert-Butyl Ether (MTBE)	4.22				5.00	84.4	70-130				
Methylene Chloride	4.55				5.00	91.1	70-130				
Methyl methacrylate	5.25				5.00	105	70-130				
4-Methyl-2-pentanone (MIBK)	5.58				5.00	112	70-130				
Propene	5.48				5.00	110	50-150				
Styrene	4.41				5.00	88.1	70-130				
1,1,1,2-Tetrachloroethane	0.780				0.910	85.7	50-150				
1,1,2,2-Tetrachloroethane	4.65				5.00	93.1	70-130				
Tetrachloroethylene	3.82				5.00	76.4	70-130				
Tetrahydrofuran	4.14				5.00	82.7	50-150				
Toluene	4.65				5.00	92.9	70-130				
1,2,4-Trichlorobenzene	4.72				5.00	94.4	70-130				
1,1,1-Trichloroethane	4.94				5.00	98.8	70-130				
1,1,2-Trichloroethane	4.38				5.00	87.5	70-130				
Trichloroethylene	4.48				5.00	89.5	70-130				
Trichlorofluoromethane (Freon 11)	3.68				5.00	73.5	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	3.68				5.00	73.7	70-130				
1,2,4-Trimethylbenzene	4.93				5.00	98.5	70-130				
1,3,5-Trimethylbenzene	4.91				5.00	98.1	70-130				
Vinyl Acetate	4.86				5.00	97.2	70-130				
Vinyl Chloride	5.11				5.00	102	70-130				
m&p-Xylene	10.2				10.0	102	70-130				
o-Xylene	4.93				5.00	98.6	70-130				
Surrogate: 4-Bromofluorobenzene (1)	7.58				8.00	94.7	70-130				
Surrogate: 4-Bromofluorobenzene (2)	7.48				8.00	93.5	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	%REC Limits	RPD RPD	RPD Limit	Flag
Batch B047800 - TO-15 Prep											
Duplicate (B047800-DUP1)											
Source: 12C0234-04 Prepared: 03/12/12 Analyzed: 03/13/12											
Acetone	3.2	1.2	7.7	2.9	2.8			12.3	25		
Benzene	0.11	0.030	0.34	0.096	0.11			2.21	25		
Benzyl chloride	ND	0.030	ND	0.16	ND			25			
Bromodichloromethane	ND	0.030	ND	0.20	ND			25			
Bromoform	ND	0.030	ND	0.31	ND			25			
Bromomethane	ND	0.030	ND	0.12	ND			25			
1,3-Butadiene	ND	0.030	ND	0.066	ND			25			
2-Butanone (MEK)	0.56	1.2	1.7	3.5	0.51			10.3	25		J
Carbon Disulfide	ND	0.30	ND	0.93	ND			25			
Carbon Tetrachloride	0.076	0.030	0.48	0.19	0.074			1.60	25		
Chlorobenzene	ND	0.030	ND	0.14	ND			25			
Chloroethane	ND	0.030	ND	0.079	ND			25			
Chloroform	ND	0.030	ND	0.15	ND			25			
Chloromethane	0.69	0.030	1.4	0.062	0.50			32.2	25		R-01
Cyclohexane	ND	0.030	ND	0.10	ND			25			
Dibromochloromethane	ND	0.030	ND	0.26	ND			25			
1,2-Dibromoethane (EDB)	ND	0.030	ND	0.23	ND			25			
1,2-Dichlorobenzene	0.033	0.030	0.20	0.18	0.031			7.55	25		
1,3-Dichlorobenzene	ND	0.030	ND	0.18	ND			25			
1,4-Dichlorobenzene	ND	0.030	ND	0.18	ND			25			
Dichlorodifluoromethane (Freon 12)	0.39	0.030	1.9	0.15	0.41			4.69	25		
1,1-Dichloroethane	ND	0.030	ND	0.12	ND			25			
1,2-Dichloroethane	ND	0.030	ND	0.12	ND			25			
1,1-Dichloroethylene	ND	0.030	ND	0.12	ND			25			
cis-1,2-Dichloroethylene	ND	0.030	ND	0.12	ND			25			
trans-1,2-Dichloroethylene	ND	0.030	ND	0.12	ND			25			
1,2-Dichloropropane	ND	0.030	ND	0.14	ND			25			
cis-1,3-Dichloropropene	ND	0.030	ND	0.14	ND			25			
trans-1,3-Dichloropropene	ND	0.030	ND	0.14	ND			25			
Ethanol	1.9	1.2	3.6	2.3	1.3			35.2	25		R-01
Ethyl Acetate	0.070	0.030	0.25	0.11	0.059			15.8	25		
Ethylbenzene	0.041	0.030	0.18	0.13	0.040			4.44	25		
4-Ethyltoluene	ND	0.030	ND	0.15	ND			25			
Heptane	0.019	0.030	0.079	0.12	ND			25			J
Hexachlorobutadiene	ND	0.030	ND	0.32	ND			25			
Hexane	0.17	1.2	0.60	4.2	0.16			8.86	25		J
2-Hexanone (MBK)	0.089	0.030	0.36	0.12	0.079			11.4	25		
Isopropanol	ND	1.2	ND	2.9	ND			25			
Methyl tert-Butyl Ether (MTBE)	ND	0.030	ND	0.11	ND			25			
Methylene Chloride	0.58	0.30	2.0	1.0	0.58			0.103	25		
Methyl methacrylate	ND	0.030	ND	0.12	ND			25			
4-Methyl-2-pentanone (MIBK)	0.043	0.030	0.17	0.12	0.038			11.9	25		
Propene	ND	1.2	ND	2.1	ND			25			
Styrene	0.022	0.030	0.095	0.13	0.022			2.74	25		J
1,1,1,2-Tetrachloroethane	ND	0.055	ND	0.37	ND			25			
1,1,2,2-Tetrachloroethane	ND	0.030	ND	0.21	ND			25			



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

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC Limits	%REC RPD	RPD Limit	Flag
Batch B047800 - TO-15 Prep										
Duplicate (B047800-DUP1)										
Source: 12C0234-04 Prepared: 03/12/12 Analyzed: 03/13/12										
Tetrachloroethylene	0.050	0.030	0.34	0.20		0.045		11.3	25	
Tetrahydrofuran	ND	0.030	ND	0.088		ND			25	
Toluene	0.092	0.030	0.35	0.11		0.085		8.11	25	
1,2,4-Trichlorobenzene	ND	0.060	ND	0.45		ND			25	
1,1,1-Trichloroethane	ND	0.030	ND	0.16		ND			25	
1,1,2-Trichloroethane	ND	0.030	ND	0.16		ND			25	
Trichloroethylene	0.029	0.030	0.15	0.16		0.028		2.11	25	J
Trichlorofluoromethane (Freon 11)	0.17	0.030	0.95	0.17		0.16		8.86	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.056	0.030	0.43	0.23		0.058		2.11	25	
1,2,4-Trimethylbenzene	ND	0.030	ND	0.15		ND			25	
1,3,5-Trimethylbenzene	ND	0.030	ND	0.15		ND			25	
Vinyl Acetate	ND	0.060	ND	0.21		ND			25	
Vinyl Chloride	ND	0.030	ND	0.077		ND			25	
m&p-Xylene	0.064	0.060	0.28	0.26		0.062		2.87	25	
o-Xylene	0.029	0.030	0.13	0.13		0.026		8.70	25	J
Surrogate: 4-Bromofluorobenzene (1)	7.56				8.00		94.5	70-130		
Surrogate: 4-Bromofluorobenzene (2)	7.66				8.00		95.7	70-130		

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

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).
- R-01 Duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result.

CERTIFICATIONS

Certified Analyses included in this Report

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



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

Certified Analyses included in this Report

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

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	06/30/2012
CT	Connecticut Department of Public Health	PH-0567	09/30/2013
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2013
RI	Rhode Island Department of Health	LA000112	12/30/2012
NC	North Carolina Div. of Water Quality	652	12/31/2012
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	EST1027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2013
ME	State of Maine	2011028	06/9/2013
VA	Commonwealth of Virginia	1381	12/14/2012



Phone: 413-525-2332

Fax: 413-525-6405

Email: info@contestlabs.com

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AIR SAMPLE CHAIN OF CUSTODY

RECORD

39 SPRUCE ST

EAST LONGMEADOW, MA 01028

Page 1 of 2

Company Name: AMEC
 Address: 107A Durban Rd Suite 301
Wellesfield 01880
 Attention: Kelly Chatterton

Project Location: Providence, RI Texton Gorham
 Sampled By: Marti Maggiore

Proposal Provided? (For Billing purposes)

 yes proposal date

Field ID	Sample Description	Media	Lab #	Date	Date	Minutes Sampled	M³/Min. or L / Min.	Liters or M³	Matrix Code*	Start	Stop	ONLY USE WHEN USING PUMPS			Summa Canister ID	Flow Controller ID
				Time	Time							Total	Flow Rate	Volume		
	IA-1-030812	S	01	3/8/12	3/8/12	30	0.2	6	IA	X		-28	-5	24	1463	4102
	IA-2-030812	S	02	3/8/12	3/8/12	30	0.2	6	IA	X		-28	-6	25	1132	4077
	IA-3-030812	S	03	3/8/12	3/8/12	30	0.2	6	IA	X		-30	-6	26	1626	4101
	IA-4-030812	S	04	3/8/12	3/8/12	30	0.2	6	IA	X		-28	-6	25	1307	41076
	IA-5-030812	S	05	3/8/12	3/8/12	30	0.2	6	IA	X		-28	-6	25	1120	4093
	IA-6-030812	S	06	3/8/12	3/8/12	30	0.2	6	IA	X		-28	-7	26	1640	4092
	IA-7-030812	S	07	3/8/12	3/8/12	30	0.2	6	IA	X		-29	-6	25	1297	4069
	AA-1-030812	S	08	3/8/12	3/8/12	30	0.2	6	AMB	Y		-29	-8	27	1885	4074

Laboratory Comments:

CLIENT COMMENTS:

Cell: 339-927-3797

Quarly sampling
Use PD: above

Relinquished by: (signature) <i>Paul Racicot</i>	Date/Time: 3/8/12 1430	Turnaround ** <input checked="" type="checkbox"/> 7-Day <input type="checkbox"/> 10-Day <input type="checkbox"/> Other _____ <u>RUSH*</u> <input type="checkbox"/> *24-Hr <input type="checkbox"/> *48-Hr <input type="checkbox"/> *72-Hr <input type="checkbox"/> *4-Day *Approval Required	Special Requirements Regulations: CT Target Indoor A:- 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) Required Detection Limits: CT Target Indoor Other: Air (one (Summer))	*Matrix Code: SG= SOIL GAS IA= INDOOR AIR AMB=AMBIENT SS = SUB SLAB D = DUP BL = BLANK O = other	**Media Codes: S=summa can TB=tediar bag P=PUF T=tube F= filter C=cassette O= Other
Received by: (signature) <i>Paul Racicot</i>	Date/Time: 3/8/12 1430				
Relinquished by: (signature) <i>Paul Racicot</i>	Date/Time: 3/8/12 18:00				
Received by: (signature) <i>Paul Racicot</i>	Date/Time: 3/8/12				

** 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.

AIHA, NELAC & WBE/DBE Certified



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39 SPRUCE ST
EAST LONGMEADOW, MA 01028

Page 2 of 2

Page 38 of 39

Company Name: AMEC
Address: 107 Audubon Rd., Suite 3c.1
Wakefield, MA 01880
Attention: Kelly Chatterton
Project Location: Providence, RI Gehan
Sampled By: Mark Maggioni

Proposal Provided? (For Billing purposes)

yes proposal date

Field ID	Sample Description	Media	Lab #	Date Sampled					ONLY USE WHEN USING PUMPS						
				Start	Stop	Total	Flow Rate	Volume	Date	Time	Minutes	M³/Min. or L / Min.	Liters or M³	Matrix Code*	Summa Canister ID
	Ew-5-030812	S	09	3/8/12	3/8/12 906	30	0.2	6	SG			-29	-7	1815	4041
	Ew-6-030812	S	10	3/8/12	3/8/12 1050	30	0.2	6	SG			-28	-15	1447	4046
	Ew-7-030812	S	11	3/8/12	3/8/12 1101	30	0.2	6	SG			-28	-7	531224	4068
	Ew-combined-030812	S	12	3/8/12	3/8/12 1149	30	0.2	6	SG			-30	-6	1183	4038

Laboratory Comments:

CLIENT COMMENTS:

Cell: 339-927-3797

One canister not used

Relinquished by: (signature) <i>Paul Racicot</i>	Date/Time: 3/8/12 1430	Turnaround ** <input type="checkbox"/> 7-Day <input type="checkbox"/> 10-Day <input type="checkbox"/> Other _____ <u>RUSH</u> * <input type="checkbox"/> *24-Hr <input type="checkbox"/> *48-Hr <input type="checkbox"/> *72-Hr <input type="checkbox"/> *4-Day *Approval Required	Special Requirements Regulations: _____ Data Enhancement/RCP? <input type="checkbox"/> Y <input type="checkbox"/> N Enhanced Data Package <input type="checkbox"/> Y <input type="checkbox"/> N (Surcharge Applies) Required Detection Limits: _____ Other: _____	Matrix Code: SG = SOIL GAS IA = INDOOR AIR AMB = AMBIENT SS = SUB SLAB D = DUP BL = BLANK O = other	**Media Codes: S = summa can TB = teflar bag P = PUF T = tube F = filter C = cassette O = Other
Received by: (signature) <i>Paul Racicot</i>	Date/Time: 3/8/12 1430				
Relinquished by: (Signature) <i>Paul Racicot</i>	Date/Time: 3/8/12 18:00				
Received by: (signature) <i>Paul Racicot</i>	Date/Time: 3/8/12 1800				

* 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.

AIHA, NELAC & WBE/DBE Certified



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AIR Only Receipt Checklist

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

CLIENT NAME: _____ RECEIVED BY: _____ DATE: _____

- 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: _____

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

Air Media received at Con-Test

		# of Containers	Types (Size, Duration)
Air Sampling Media	Summa Cans		
	Tedlar Bags		
	Tubes		
Flow Controllers	Regulators		30 min
	Restrictors		
Extras	Tubing		
	Other		

Unused Summas:

Unused Regulators: 4094 4092 4102
4069 4091 4093 4101
4068 4090 4077 4038
4076 4074

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

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

Laboratory Comments:

Textron, Inc.
Former Gorham Manufacturing Facility, Providence, RI
Retail Complex, Active Sub-Slab Depressurization System
Air Monitoring Report, First Quarter, 2012

APPENDIX B

Analytical Laboratory Detection Limits



39 Spruce Street, 2nd Floor
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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
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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



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East Longmeadow, MA 01028
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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



39 Spruce Street, 2nd Floor
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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