

October 31, 2011

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
Third Quarter, 2011
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. (formerly MACTEC Engineering and Consulting, 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 July 2011 through September 2011 and includes one quarterly compliance sampling event (September 15, 2011).

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 September 15, 2011.

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 (11I0571) associated with the September 15, 2011 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 occupied. The radon fan at this space had been continually operating since 2008 and failed on May 30, 2011. The replacement fan was installed on August 4, 2011.
- The mitigation systems are functioning as designed and are achieving desired results with respect to indoor quality in the three small retail units.

Large Retail Space

The quarterly monitoring event for the large retail space, consistent with the requirements of the Orders of Approval, was completed on September 15, 2011. 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 (11I0571) associated with the September 15, 2011 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 September 2011 quarterly sampling event in the large retail space (sample locations IA-1 through IA-4). The concentration of carbon tetrachloride in the sample collected from location IA-1 during the quarterly sampling in September 2011 was slightly above the action level. As communicated to RIDEM in previous reports, carbon tetrachloride is ubiquitous to urban settings and is not one of the compounds for which the vapor mitigation system was installed. Thus, the concentration of carbon tetrachloride above the action level does not constitute a violation of the action levels contained in the order.
- 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 three system shutdowns during the reporting period. The first shutdown occurred on July 02, 2011 for approximately 2 hours. On August 04, 2011, the replacement fan was installed for the western small retail space (sample location IA-7) of the retail complex. The system was down for approximately 15 minutes. The last shutdown was on August 07, 2011 for approximately 2 hours.

Next Reporting Period

The next quarterly report (fourth quarter 2011) will include monitoring from October 2011 through December 2011. The report will be prepared and submitted to the Rhode Island Department of Environmental Management (RIDEM) in January 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.

Annelise Swanson
for Mark Maggiore
Environmental Scientist with permission

M J Murphy

Michael Murphy
Principal Scientist

- 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:

- T. Deller, City of Providence
- G. Simpson, Textron, Inc. (Electronic)
- Knight Memorial Library Repository
- G. Wilson, Kimco Realty Corporation (including tenants)
- J. Morgan, The Stop & Shop Supermarket Co., LLC
- AMEC Project File

[P:\3650080114 - Textron Gorham Vapor Mitigation System\4.0 Project Deliverables\4.1 Reports\Q3 2011 Report\QTR 3_2011 RPT.docx]

TABLES

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 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
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	0.14 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	0.2 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-Dichlortetrafluoroethane	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				
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	0.11 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	4.2
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
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
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
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	0.34 U	0.52	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				
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
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
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
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
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
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

Table 1.
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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
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
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
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
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
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
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	0.74 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	0.94	0.25 U	1.1	0.25 U
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	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	0.3 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	0.2 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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	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	0.28	0.25 U	0.33	0.25 U	0.25 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	0.11 U	0.23 U	0.11 U	0.11 U	0.29	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	0.3 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	0.3 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															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
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
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	0.3	0.25 U	0.34	0.25 U
4-Methyl-2-pentanone	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.34	0.2 U	0.2 U	0.2 U	0.2 U	2.8	0.2 U	0.2 U	0.2 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
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
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
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
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
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
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	0.38	0.16 U	0.16 U	1.6 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
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
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
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
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
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
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
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	0.46	0.17 U	0.17 U	0.17 U
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	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
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	5.8
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
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	0.82	1.4	0.22 U	1.1	0.22 U
Hexachlorobutadiene	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 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
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
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	2.2	3.7	0.43 U	3.3	0.43 U

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

Parameter ($\mu\text{g}/\text{m}^3$)	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
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	
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	0.18 U	
n-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
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	0.22 U	0.46	1.2	0.22 U	1.1	0.22 U	0.22 U	0.22 U
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	1.9	0.86 U	0.86 U	0.86 U	0.86 U	3.4 U
Styrene	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 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	0.49	0.34 U	5.3	0.34 U	0.34 U	0.34 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
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
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
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	0.23 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
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
Trichlorotrifluoroethane	0.45	0.46	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
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
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

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	
1,1,1-Trichloroethane	190000	41000	17000	7100	1800	2600	3100	1900	3500	920	540	550	460	210 D	400 D	340 D	430	
1,1,2-Tetrachloroethane	6.8 U	6.8 U	6.8 U	6.8 U	1.7 U	68 U	3.4 U	3.4 U	3.4 U	3.4 U	6.8 U	3.4 U	6.8 U	1.4 UD	6.9 UD	14 UD		
1,1,2-Trichloroethane	5.4 U	5.4 U	5.4 U	5.4 U	1.4 U	54 U	2.7 U	2.7 U	2.7 U	2.7 U	5.4 U	2.7 U	5.4 U	1.1 UD	1.1 UD	5.5 UD	11 UD	
1,1-Dichloroethane	11000	1900	890	770	190	360	450	430	230	100	50	53	42	29 D	34 D	33 D	44	
1,1-Dichloroethene	2500	290	130	190	61	160	160	160	98	30	18	21	15	13 D	15 D	11 D	14	
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 UD		
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 UD		
1,2-Dibromoethane (EDB)	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	76 U	3.8 U	3.8 U	3.8 U	7.6 U	3.8 U	7.6 U	1.5 UD	1.5 UD	7.7 UD	15 UD		
1,2-Dichlorobenzene	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 UD	1.2 UD	6 UD	12 UD	
1,2-Dichloroethane	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.81 UD	0.81 UD	4 UD	8.1 UD	
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 UD		
1,2-Dichlortetrafluoroethane	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 UD		
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 UD	
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 UD		
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 UD		
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	
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 UD		
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 UD		
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 UD		
Acetone	530	32	52	29	29	460	5600	14000	6900	9200	1700	3200	6000	4500	2000 BD	1800 BD	2200 BD	3400
Benzene	13	12	6.2	4.8	5.6	32 U	11	7.1	11	6.3	5.5	8.2	5	4.2 D	4.5 D	4.2 D	6.4 UD	
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 UD		
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 UD		
Bromoform	11 U	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 UD	
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 UD		
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 UD	
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 UD		
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 UD		
Chloroethane	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	
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 UD	
Chloromethane	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 UD		
cis-1,2-Dichloroethene	2900	710	400	410	100	150	270	250	170	58	32	43	31	17 D	27 D	27 D	35	
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 UD		
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 UD		
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 UD		
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 UD	
Ethanol	320	36	46	33	22	130	30	26	3.8 U	45	28	68	89	23 D	19 D	24 JD	150 UD	
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	3.6 U	6.8	3.4 D	0.72 UD	3.8 D	7.2 UD	
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 UD		
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 UD	
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	3.6 U	7.1 U	1.4 UD	0.7 UD	3.5 UD	280 UD	
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 UD	
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 UD		

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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	
Methyl methacrylate																0.82 UD	4.1 UD	8.2 U
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	
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		
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		
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		
Propylene (Propene)	3.5 U	1.8 U	1.8 U	3.5 U	0.45 U	35 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	
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		
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	
Tetrahydrofuran	16	110	69	140	2200	42000	61000	150000	94000	9700	23000	37000	29000	8200 D	11000 D	30000 D	41000	
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	
trans-1,2-Dichloroethene	26	6.1	4 U	4.7	1 U	40 U	2.6	2.8	2 U	2 U	4 U	2 U	4 U	0.79 UD	4 UD	7.9 UD		
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		
Trichloroethene	51000	20000	14000	8900	2400	3800	4400	2700	6800	1600	1100	1200	1100	410 D	660 D	790 D	940	
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	
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		
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	
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	

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 - 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	
1,1,1-Trichloroethane	69000	32000	21000	16000	16000	5600	8200	5700	5400	1100	430	390	130 D	0.55 UD	80	230	
1,1,2,2-Tetrachloroethane	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	68 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	6.8 U	0.69 UD	0.69 UD	6.9 U	14 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	2.7 U	5.4 U	0.55 UD	0.55 UD	5.5 U	11 U	
1,1-Dichloroethane	5200	2500	2100	2200	1600	780	1200	1100	930	580	47	38	21 D	0.4 UD	12	27	
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	
1,2,4-Trichlorobenzene	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	74 U	3.7 U	3.7 U	3.7 U	7.5 U	3.7 U	7.4 U	0.74 UD	0.74 UD	7.4 U	30 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	2.5 U	5 U	0.49 UD	0.49 UD	4.9 U	9.8 U	
1,2-Dibromoethane (EDB)	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	0.77 UD	0.77 UD	7.7 U	15 U	
1,2-Dichlorobenzene	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	3 U	6 U	0.6 UD	0.6 UD	6 U	12 U	
1,2-Dichloroethane	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	2 U	4 U	0.4 UD	0.4 UD	4 U	8.1 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	2.3 U	4.6 U	0.46 UD	0.46 UD	4.6 U	9.2 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	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	2.5 U	5 U	0.49 UD	0.49 UD	4.9 U	9.8 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	
1,3-Dichlorobenzene	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	3 U	6 U	0.6 UD	0.6 UD	6 U	12 U	
1,4-Dichlorobenzene	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	3 U	6 U	0.6 UD	0.6 UD	6 U	12 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	
2-Hexanone	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	2 U	4 U	0.41 UD	0.41 UD	82 U	8.2 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	2.5 U	5 U	0.49 UD	0.49 UD	4.9 U	9.8 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	2 U	4 U	0.41 UD	0.41 UD	4.1 U	8.2 U	
Acetone	580	64	81	33	22	410	16	20	4.8 U	27	490	70	15 BD	15 BD	48 U	190 U	
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	
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	2.6 U	5.2 U	0.52 UD	0.52 UD	5.2 U	10 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	3.3 U	6.6 U	0.67 UD	0.67 UD	6.7 U	13 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	5.1 U	11 U	1 UD	1 UD	10 U	21 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	1.9 U	3.8 U	0.39 UD	0.39 UD	3.9 U	7.8 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	1.6 U	8	12	0.66 D	0.31 UD	11 D	62 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	3.1 U	6.2 U	0.63 UD	0.63 UD	6.3 UD	13 U	
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	2.3 U	4.6 U	0.46 UD	0.46 UD	4.6 U	9.2 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 UD	5.3 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 UD	9.8 U	
Chloromethane	2 U	2 U	2 U	2 U	2 U	34	1 U	1 U	1 U	1 U	38	40	0.21 UD	1 D	16 D	45	
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	
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	2.2 U	4.4 U	0.45 UD	0.45 UD	4.5 UD	9.1 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	1.7 U	3.4 U	0.34 UD	0.34 UD	3.4 UD	6.9 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	4.3 U	8.6 U	0.85 UD	0.85 UD	8.5 UD	17 U	
Dichlorodifluoromethane	5 U	5 U	5 U	5 U	5 U	50 U	3.6	3.9	2.7	2.5 U	2.5 U	5 U	2.3 D	3.6 D	4.9 UD	9.9 U	
Ethanol	360	38	73	38	25	110	18	14	6.7	18	15	19 U	4.6 D	11 D	38 UD	150 U	
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	1.8 U	3.6 U	0.36 UD	0.36 UD	3.6 UD	7.2 U	
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	2.2 U	4.4 U	0.43 UD	0.43 UD	4.3 UD	8.7 U	
Hexachlorobutadiene	22 U	22 U	22 U	22 U	22 U	220 U	11 U	11 U	5.3 U	11 U	5.3 U	11 U	1.1 UD	1.1 UD	11 UD	21 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	7.1 U	0.7 UD	1.3 D	3.5 UD	280 U	
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	
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	4.3 U	8.6 U	0.87 UD	0.94 D	8.7 UD	17 U	

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

Parameter (ug/m ³)	Extraction Well - 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
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	0.41 UD	4.1 UD	8.2 U
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	
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	
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	
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	3.5 U	8.7 U	6.9 U	0.69 UD	1.7 UD	17 UD	140 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	
Tetrachloroethene	330	290	130	290	190	300	190	210	250	68	34	23	8.1 D	1.2 D	6.8 UD	17
Tetrahydrofuran	75	480	260	730	570	130	110	87	9.1	31	42000	53000	480 D	0.29 UD	13000 D	32000
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
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
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	
Trichloroethene	12000	6900	4200	4400	4800	3900	5400	4700	6100	2000	730	650	250 D	0.54 UD	190 D	390
Trichlorofluoromethane	2300	870	630	350	250	150	230	440	700	320	6.7	25	28 D	1.7 D	11 D	34
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	
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
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

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

Parameter (ug/n 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 9/15/11
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
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	0.68 U	0.69 UD	0.69 UD	1.4 UD	1.4 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	0.54 U	0.55 UD	0.55 UD	5.5 UD	1.1 U
1,1-Dichloroethane	1700	1800	1600	2100	1700	590	1000	1100	970	470	85	320	340	220 D	150 D	45 D	150
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 U	4 UD	0.79 UD
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	7.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 UD	0.74 UD	7.4 UD	3.0 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	0.5 U	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.98 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	0.76 U	0.77 UD	0.77 UD	7.7 UD	1.5 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	3 U	0.6 U	0.6 U	0.6 U	0.6 UD	0.6 UD	6 UD	1.2 U
1,2-Dichloroethane	4 U	0.8 U	1 U	1 U	1 U	4 U	2 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 UD
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 U	0.46 UD	0.46 UD	4.6 UD	0.92 UD
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	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.98 UD
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	2.3 U	1.1 U	0.22 U	0.22 U	0.22 U	0.22 UD	0.22 UD	2.2 UD	0.44 UD
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 U	0.6 UD	0.6 UD	6 UD	1.2 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 U	0.6 UD	0.6 UD	6 UD	1.2 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
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	
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	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.98 UD
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	0.4 U	0.41 UD	0.41 UD	4.1 UD	0.82 UD
Acetone	580	38	58	30	24	15	24	24	7.9	49	26	25	12	42 BD	35 BD	48 UD	23
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
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 U	0.52 UD	0.52 UD	5.2 UD	1.0 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	0.66 U	0.67 UD	0.67 UD	6.7 UD	1.3 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	5.1 U	1.1 U	1.1 U	1.1 U	1 UD	1 UD	10 UD	2.1 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	0.38 U	0.39 UD	0.39 UD	3.9 UD	0.78 UD
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 UD
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	0.62 U	0.63 UD	0.63 UD	6.3 UD	1.3 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 U	0.46 UD	0.46 UD	4.6 UD	0.92 UD
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
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
Chloromethane	2 U	0.4 U	0.5 U	0.5 U	0.5 U	2 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.2 U	0.21 UD	0.21 UD	2.1 UD	0.41 UD
cis-1,2-Dichloroethene	1100	1300	1200	1700	1200	520	1100	1200	1300	680	120	660	490	350 D	250 D	65 D	210
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	0.44 U	0.45 UD	0.45 UD	4.5 UD	0.91 UD
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 UD	
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	0.86 U	0.85 UD	0.85 UD	8.5 UD	1.7 UD
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
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
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	1.8 U	0.36 U	0.36 U	0.36 U	0.36 UD	0.36 UD	3.6 UD	0.72 UD
Ethylbenzene	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	0.57	0.44 U	0.44 U	0.43 UD	0.43 UD	4.3 UD	0.87 UD	
Hexachlorobutadiene	22 U	4.3 U	5.4 U	5.4 U	5.4 U	22 U	11 U	11 U	5.3 U	11 U	2.2 U	1.1 U	1.1 U	1.1 UD	1.1 UD	11 UD	2.1 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
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
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	

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 - 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 9/15/11
Methyl methacrylate															0.41 UD	4.1 UD	0.82 UD
Methylene chloride	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	2.4 D	6.9 UD	6.9 U
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 UD	
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 UD	
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 UD	
Propylene (Propene)	3.5 U	160	110	0.87 U	0.45 U	3.5 U	0.9 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
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 UD	
Tetrachloroethene	66	69	56	84	69	40	140	230	410	130	74	510	610	190 D	110 D	120 D	450
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
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
trans-1,2-Dichloroethene	150	140	90	90	80	48	120	140	150	84	22	120	110	78 D	58 D	4 UD	82
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	0.44 U	0.45 UD	0.45 UD	4.5 UD	0.91 UD	
Trichloroethene	230	210	180	180	200	110	330	420	920	420	190	690	730	440 D	310 D	260 D	680
Trichlorofluoromethane	1800	1400	900	690	640	190	310	660	1400	620	210	690	700	530 D	740 D	330 D	2500
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	
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
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

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 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	0.38 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	590	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	0.53 U	0.53 U
Hexane	NA	0.84	0.54	1.1	0.99	0.39	0.5	0.71	0.58	1	0.52	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 (ug/m ³)	CT IACTIND 2003 (ug/m ³)	Indoor Air - Eastern Small Retail Space													
		IA-5 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	0.18 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	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	0.21
o-Xylene	500	0.23	0.27	0.35	0.47	0.22 U	0.22 U	0.23	0.23	0.32	0.22 U	0.22 U	0.22 U	0.22 U	0.31
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	0.5	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 (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-6-1/16/2009 2/3/2009	IA-6-020309 2/11/2009	IA-6-021109 2/18/2009	IA-6-021809 2/26/2009	IA-6-022609 3/6/2009	IA-6-030609 4/14/2009	IA-6-041409 5/15/2009	IA-6-051509 6/11/2009	IA-6-061109 9/17/2009	IA-6-091709 12/29/2009	IA-6-1222909 3/26/2010		
1,1,1-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 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	0.35	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	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	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	0.20 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	
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.20 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	
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.74 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	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	0.38 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	0.30 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	0.20 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	0.23 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	0.25 U	0.25 U	0.25 U	0.38	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	0.11 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	0.30 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	0.30 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			0.18 U													
2-Butanone	0.78	0.78 B	3.6	5.9 U	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	0.2 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 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	0.25 U
4-Methyl-2-pentanone	0.2 U	0.2 U	0.31	0.20 U	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	0.2 U
Acetone	6.4 B	9.5 B	24 B	15	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	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	0.26 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	
Bromodichloromethane	0.34 U	0.34 U	0.34 U	0.34 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	0.51 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	0.19 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	0.16 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	0.48	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	0.55
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	0.17 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	0.13 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	0.24 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	1.3	0.9	1.4	1.5	1	1.1	1.1	1.1	1.9	0.97	1.8	1.4	1
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.20 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	0.2 U
cis-1,3-Dichloropropene	0.23 U	0.23 U	0.23 U	0.23 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
Cyclohexane	0.17 U	0.17 U	0.46	0.17 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	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	0.31 U	0.43 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	2.1	2.6	2.8	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	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	0.37 U	0.37 U	0.18 U	0.22	0.37 U	0.18 U	0.26 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	0.22 U	0.3	0.36	0.22 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	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	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	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	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-6-1/16/2009 2/3/2009	IA-6-020309 2/11/2009	IA-6-021109 2/18/2009	IA-6-021809 2/26/2009	IA-6-022609 3/6/2009	IA-6-030609 4/14/2009	IA-6-041409 5/15/2009	IA-6-051509 6/11/2009	IA-6-061109 9/17/2009	IA-6-091709 12/29/2009	IA-6-1222909 3/26/2010	IA-6-032610 7/1/2010	
Methyl methacrylate	0.2 U	0.2 U	0.2 U	0.20 U													
Methylene chloride	0.65	2.8	4.2	7.7	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	0.18 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	0.2 U	0.33	0.2 U	0.20 U	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	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	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	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	0.24
Tetrachloroethene	0.39	2.4	0.34 U	0.58	1.2	0.34 U	0.45	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	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	1.8	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	0.2 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
trans-1,3-Dichloropropene	0.23 U	0.23 U	0.23 U	0.23 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	0.27 U	0.27 U	0.27 U	0.27 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	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	0.64	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	0.71 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	0.13 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 (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-7-1/16/2009 2/3/2009	IA-7-020309 2/11/2009	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	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	0.34 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	0.27 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	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	0.52	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	0.37 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	0.25	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	0.38 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	0.3 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	0.2 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	0.23 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	0.35 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	0.25 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	0.11 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	0.3 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	0.3 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	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	0.2 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	0.25 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
4-Methyl-2-pentanone	0.4	0.2 U	0.2 U	0.28	0.31	0.2 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
Acetone	13	11 B	14 B	19 B	26	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	0.95	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	0.26 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	0.33 U	0.34 U	0.34 U	0.34 U	0.34 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	0.52 U	0.52 U	0.52 U	0.52 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	0.19 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	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.26	0.16 U	0.26	0.16 U	0.26	0.16 U
Carbon tetrachloride	0.44	0.46	0.57	0.64	0.52	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	0.23 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	0.13 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	0.36	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	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	1.1	0.95	0.92	1.1	1.4	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	0.29	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14	0.2 U	0.2 U	0.2 U	0.27	0.2 U
cis-1,3-Dichloropropene	0.22 U	0.23 U	0.23 U	0.23 U	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	0.22 U
Cyclohexane	0.17 U	0.17 U	0.17 U	0.29	0.17 U	0.17 U	0.17 U	0.32	0.7	0.17 U	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	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	2.1	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	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	0.37 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
Ethylbenzene	0.43	0.22 U	0.45	0.22 U	0.22 U	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	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	0.53 U	1.1 U	1.1 U
Hexane	0.69	0.39	1.5	0.41	7.0 U	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	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	0.48	0.59	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-7-1/16/2009 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													
Methylene chloride	0.64	0.94	3	1	1.7 U	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	0.18 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	0.2	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	0.24	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	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	0.21 U	0.21 U	0.21 U	0.21 U	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	1.6	0.34 U	0.65	0.63	0.34 U	0.34 U	0.48	0.34 U	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	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	1.5	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	0.2 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
trans-1,3-Dichloropropene	0.22 U	0.23 U	0.23 U	0.23 U	0.23 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
Trichloroethene	0.3	0.27 U	0.27 U	0.27 U	0.27 U	4.6	1.1	0.28	0.58	0.27 U	0.27 U	0.3	0.27 U	0.27 U	0.27 U	0.4	0.27 U
Trichlorofluoromethane	3.1	1.1	1.6	1.1	1.7	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	0.62	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	0.71 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	0.13 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

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
1,1,1-Trichloroethane	0.27 U	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	0.34 U
1,1,2-Trichloroethane	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	0.20 U
1,1-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U
1,2,4-Trimethylbenzene	0.36	0.36	0.25 U	0.25 U	0.56	0.41
1,2-Dibromoethane (EDB)	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	0.30 U
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U
1,2-Dichloropropane	0.3	0.23 U	0.23 U	0.23 U	0.63	0.23 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	0.25 U
1,3-Butadiene	0.11 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	0.30 U
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 U
1,4-Dioxane						0.18 U
2-Butanone	4.3	1.8	0.42	1.7 B	4.7	5.9 U
2-Hexanone	0.82	0.55	0.2 U	0.2 U	1.4 J	0.73
4-Ethyltoluene	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Methyl-2-pentanone	0.43	0.61	0.2 U	0.2 U	0.53	0.36
Acetone	41	27	12 B	15 B	48 B	38
Benzene	0.27	0.56	0.45	1.1	0.41	0.34
Benzyl chloride	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	0.34 U	0.34 U	0.34 U	0.34 U
Bromoform	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.27	1.6 U
Carbon tetrachloride	0.5	0.47	0.45	0.56	0.69	0.5
Chlorobenzene	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
Chloroform	0.24 U	0.38	0.24 U	0.24 U	0.24 U	0.34
Chloromethane	1.3	1.4	0.99	1	1.6	1.6
cis-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U
Cyclohexane	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
Dichlorodifluoromethane	2.7	1.7	2	3.1	2.5	1.8
Ethanol	39	240	13	14	28	76
Ethyl acetate	0.18 U	0.18 U	0.18 U	0.18 U	0.7	0.21
Ethylbenzene	0.45	0.45	0.22 U	0.22 U	0.68	0.45
Hexachlorobutadiene	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Hexane	0.7	0.64	0.5	1.3	0.58	7.0 U
Isopropyl alcohol	5.8	28	2.8	11	1.2 U	77
m,p-Xylene	1.2	1.2	0.43 U	0.43 J	1.5	1.1

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
Methyl methacrylate			0.2 U	0.2 U	0.2 U	0.20 U
Methylene chloride	1.3	0.6	1.3	2.5	1.1	1.7 U
Methyl-t-butyl ether	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
n-Heptane	0.5	0.68	0.33	0.47	2	1.1
o-Xylene	0.43	0.43	0.22 U	0.22 U	0.69	0.41
Propylene (Propene)	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 U
Styrene	0.7	0.39	0.21 U	0.21 U	0.97	0.63
Tetrachloroethene	0.34 U	0.36	0.34 U	1.7	0.34 U	0.62
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.24	0.18
Toluene	8.4	3.5	0.48	1.6	6.6	3.7
trans-1,2-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	
trans-1,3-Dichloropropene	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U
Trichloroethene	0.27 U	0.77	0.27 U	0.27 U	0.27 U	0.27 U
Trichlorotrifluoromethane	1.3	2.9	1.2	1.6	1.3	1.6
Trichlorotrifluoroethane	0.54	0.43	0.55	0.67	0.76	0.54
Vinyl acetate	0.18 U	0.36 U	0.35 U	0.18 U	3.5 U	0.18 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 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 10/12/11

Checked by / Date: MAM 10/12/11

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

** ASD system offline.

Prepared by/Date: MAM 10/10/11

Checked by/Date: SFR 10/14/11

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

Parameter ($\mu\text{g}/\text{m}^3$)	Outdoor Air Reference Locations														
	AA-1 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
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	0.14 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	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
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	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U						
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	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	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	0.35 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						
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						
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	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	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	0.2 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	0.25 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	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	0.26 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	0.12 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	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	0.2 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	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	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 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	0.22 U	0.16 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	0.34 U	0.52	0.34 U	0.34 U	0.34 U
Tetrahydrofuran	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.11 U	0.15 U						
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/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
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
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
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
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
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
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	0.74 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	0.94	0.25 U	1.1	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	0.38 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	0.3 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	0.2 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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	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	0.28	0.25 U	0.33	0.25 U	0.25 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	0.29	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	0.3 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	0.3 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														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
2-Hexanone	0.2 U	0.2 U	0.32	0.2 U	0.2 U	0.29	0.29	0.49	0.49	0.41	0.2 U	0.2 U	4.1 U	0.67
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	0.3	0.25 U	0.34	0.25 U	0.25 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	2.8	0.2 U	0.2 U	0.2 U	0.2 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
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
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
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 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
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	0.38	0.16 U	0.16 U	1.6 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
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
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
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
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
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
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
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	0.46	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 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
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
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

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
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
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	0.53 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
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
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
Methyl methacrylate											0.2 U	0.48	0.2 U	0.20 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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

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

Parameter ($\mu\text{g}/\text{m}^3$)	Extraction Well - Large Retail Space													
	EW-Combined-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-102810 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-Dichlorotetrafluoroethane	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-pentanone	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-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	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	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	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	4100	4400	5700	7000	1600	2300	690	1400
1,1-Dichloroethene	30	40	52	81	7.3 D	58 D	44	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	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	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	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	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	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	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-Dichlortetrafluoroethane	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	0.49 UD	0.49 UD	0.98 U	5 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	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	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	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	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	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	0.49 UD	0.49 UD	0.98 U	5 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	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	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	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	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	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	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	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	3.2 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	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	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	170	250	700	590	41	44	17	33
Chloroform	6	7.9	8	8.3	1.6 D	6.9 D	7.6	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	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	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	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	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	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	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	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 U	0.36 UD	0.36 UD	0.72 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-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	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	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	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	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	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								
Methylene chloride	1.4 U	7 U	2.1	0.9	0.78 D	2.9 D	6.9 U	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	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	4 U	4 U	4 U	4 U	4 U	4 U	4 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	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	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	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	600	1200	2300	2500	73	310	31	170
Tetrahydrofuran	34	54	65	31	11 D	11 D	21	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	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	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	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	31000	42000	25000	25000	8600	19000	2700	5500
Trichlorofluoromethane	210	300	440	410	71 D	200 D	610	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	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	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	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

Table 3.
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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

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

Parameter (ug/m ³)	CT IACTIND 2003 (ug/m ³)	Indoor Air - Large Retail Space													
		IA-1 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- 122029 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	0.2 U	0.14 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	0.25 U	0.18 U	0.48	0.29	0.35	0.28	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	0.3 U	0.21 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	0.2 U	0.14 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	0.25 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	0.3 U	0.21 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	0.3 U	0.21 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	0.33 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	0.51 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	0.19 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	0.23 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	0.24 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	0.13 U	

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		IA-1 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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Summary of Analytical Results - Air Sampling for Large Retail Space
Former Gorham Manufacturing Site
Providence, Rhode Island

Parameter (ug/m ³)	Indoor Air - Large Retail Space															
	IA-1-010810 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-1-201711 2/17/2011	IA-1-060211 6/2/2011	IA-1-091511 9/15/2011	IA-2-0116/2009 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	9.9	0.63
1,1,2-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
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
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
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
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.37 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	0.25 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	0.38 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	0.3 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	0.2 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	0.23 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
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
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	0.11 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	0.3 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	0.3 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	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	0.2 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	0.25 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	0.2 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	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	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	0.26 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	0.33 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	0.52 U	0.52 U	0.52 U	0.52 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	0.19 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	0.16 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	0.33	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	0.23 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	0.13 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	3.8	0.24 U	0.24 U	0.24 U	0.24 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	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	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	0.23 U	0.23 U	0.23 U	0.23 U	0.22 U	0.22 U	0.22 U
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 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	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	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	0.18 U	0.18 U	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-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-1-201711 2/17/2011	IA-1-060211 6/2/2011	IA-1-091511 9/15/2011	IA-2-116/2009 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	0.26	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	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	0.88	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	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	0.76	0.88	
Methyl methacrylate											0.2 U	0.2 U	0.2 U	0.2 U	0.20 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	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	0.18 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	0.23	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	0.3	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	0.35 U	0.87 U	0.87 U	0.35 U	0.86 U	0.86 U	0.86 U	3.4 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	0.21 U	0.25	0.31	0.24	0.21 U	0.21 U	0.21 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	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	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	1.7	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	0.2 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	0.22 U	0.23 U	0.23 U	0.23 U	0.23 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	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	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	0.58	
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	0.71 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	0.27	0.13 U	

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Parameter (ug/m³)	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	0.75 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	0.79	0.48	0.58	0.2 U	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					

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
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	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	0.34	0.83	0.2 U	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 (ug/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-3-1/16/2009	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	9.8	0.57	1.1	1.1	0.28	1.5	2.2	0.27 U	0.27 U	
1,1,2-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	0.24 U	0.34 U	0.34 U	0.34 U	
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 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	0.20 U	0.68	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-Dichloroethene	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 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	
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	
1,2,4-Trimethylbenzene	0.35	0.48	0.52	0.25 U	0.52	0.25 U	0.25 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	0.38 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	0.30 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	
1,2-Dichloroethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 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	
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	0.17 U	0.23 U	0.23 U	0.23 U	
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U					0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	
1,3,5-Trimethylbenzene	0.25 U	0.25 U	0.25 U	0.25 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	0.18 U	0.25 U	0.25 U	0.25 U	
1,3-Butadiene	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.077	0.11 U	0.08 U	0.11 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	0.30 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	
1,4-Dichlorobenzene	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.30 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	
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	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	0.2 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	0.25 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	
4-Methyl-2-pentanone	0.28	0.49	0.34	0.2 U	0.2 U	0.2 U	0.24	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	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	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	0.26 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	0.34 U	0.34 U	0.34 U	0.34 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	
Bromoform	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	
Bromomethane	0.19 U	0.22	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	0.14 U	0.19 U	0.19 U	0.19 U	
Carbon disulfide	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	
Carbon tetrachloride	0.5	0.52	0.5	0.48	0.31 U	0.62	0.52	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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 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	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	
Chloromethane	1.2	1.2	1.1	0.96	0.97	0.95	1.2	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	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	0.22 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	0.2	0.17 U	0.17 U	0.17 U	0.17 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	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	
Dichlorodifluoromethane	2.4	2.6	1.7	1.9	3.2	1.6	2	1.9	2.3	2.5	2.9	2.6	2	2.9	2.1	2.1	
Ethanol	5	7.6	9	2.7	10	2.5	8.5	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	0.37 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	

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-2-091610 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-3-1/16/2009	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	0.25	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	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
Hexane	0.51	0.49	0.53	0.35 U	1.6	0.31	7.0 U	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	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	0.75	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	0.20 U									
Methylene chloride	0.35 U	1.3	0.53	0.61	4.2	1	7.5	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	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
n-Heptane	0.2 U	0.8	0.34	0.2 U	0.48	0.2 U	0.20 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	0.28	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	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	0.21 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	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	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	1.7	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	0.2 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	0.22 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	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	1.9	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	0.6	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	0.71 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	0.23	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/m³)	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
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
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
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
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
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
1,2,4-Trichlorobenzene	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U
1,2,4-Trimethylbenzene	0.25 U	0.39	0.44	0.25 U	0.25 U	0.25 U	0.25 U	0.26	0.34	0.46	0.6	0.25 U	0.49	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	0.38 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	0.3 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	0.2 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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	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
1,3-Butadiene	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
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
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
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
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
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
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
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
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
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
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
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	0.52 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
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	0.4	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
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
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
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
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
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
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
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
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
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
Ethanol	4.5	5	13	40	17	38	3.6	5.3	5.5	7	8	2.4	9.4	3.6	5.8
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	0.18 U	0.18 U

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

Parameter (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
Ethylbenzene	0.22 U	0.24	0.43	0.22 U	0.22 U	0.22 U	0.22 U	0.26	0.23	0.29	0.47	0.22 U	0.47	0.36	0.22 U
Hexachlorobutadiene	0.53 U	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
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
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
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
Methyl methacrylate												0.2 U	0.2 U	0.2 U	0.20 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
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	0.18 U
n-Heptane	0.2 U	0.24	0.73	0.2 U	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	0.20 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
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
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
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
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
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
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
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
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
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
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
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
Vinyl chloride	0.18	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.13	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)	Indoor Air - Large Retail Space														
	IA-4 1/16/2009	IA-4- 020309 2/3/2009	IA-4- 021109 2/11/2009	IA-4- 021809 2/18/2009	IA-4- 022609 2/26/2009	IA-4- 041409 4/14/2009	IA-4- 042409 4/24/2009	IA-4- 091709 9/17/2009	IA-4- 092409 9/24/2009	IA-4- 100109 10/1/2009	IA-4- 100809 10/8/2009	IA-4- 012810 1/28/2010	IA-4- 020510 2/5/2010	IA-4- 021210 2/12/2010	IA-4- 021910 2/19/2010
1,1,1-Trichloroethane	10	0.62	1.1	1.1	0.45	1.5	2.2	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						
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						
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
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
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						
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
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						
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
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
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						
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						
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						
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					
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
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
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
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						
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
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						
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						
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						
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						
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						
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						
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
Chloroform	0.24 U	0.24 U	0.24 U	0.24 U	0.26	0.17 U	0.24 U	0.46	0.39	0.24 U					
Chloromethane	1.2	0.99	1.4	1.3	1	1.1	1.2	0.9	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	0.59
cis-1,3-Dichloropropene	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U							
Cyclohexane	0.17 U	0.17 U	0.44	0.64	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U						
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 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					

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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	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	0.27 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	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	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	0.2 U	0.20 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	0.2 U	0.20 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	0.37 U	0.74 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	0.25 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	0.38 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	0.3 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	0.2 U	0.2 U	0.20 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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U					0.35 U					
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
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	0.11 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	0.3 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	0.3 U	0.3 U	0.3 U	0.30 U	0.3 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	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	0.73	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	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Methyl-2-pentanone	0.2 U	0.2 U	0.2 U	0.43	0.45	0.2 U	0.2 U	0.2 U	0.20 U	0.42	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	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	0.54	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	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	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	0.16 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	0.7	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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	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	3.3	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	1.1	0.77	1.2	1.2	1	0.95	0.95	1.1	1.5	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	0.2 U	0.20 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	0.23 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	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	2.5	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	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	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U

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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	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	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	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	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	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	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	0.58	0.57	0.58	0.55	0.49	0.5
Methyl methacrylate						0.2 U	0.2 U	0.2 U	0.20 U						
Methylene chloride	0.7 U	0.7 U	0.35 U	7.7	0.68	0.79	5.1	3.2	1.7 U	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	0.18 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	0.2 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	0.28	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	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	0.23	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	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	0.15 U	0.15 U	0.15 U	0.15 U	0.2	0.15 U
Toluene	0.83	1.4	0.98	1	2	0.43	2.7	0.56	0.95	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	0.2 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	0.22 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	0.27 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	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	0.63	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	0.18 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	0.13 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
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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
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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	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 10/12/11

Checked by/Date: MAM 10/12/11

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

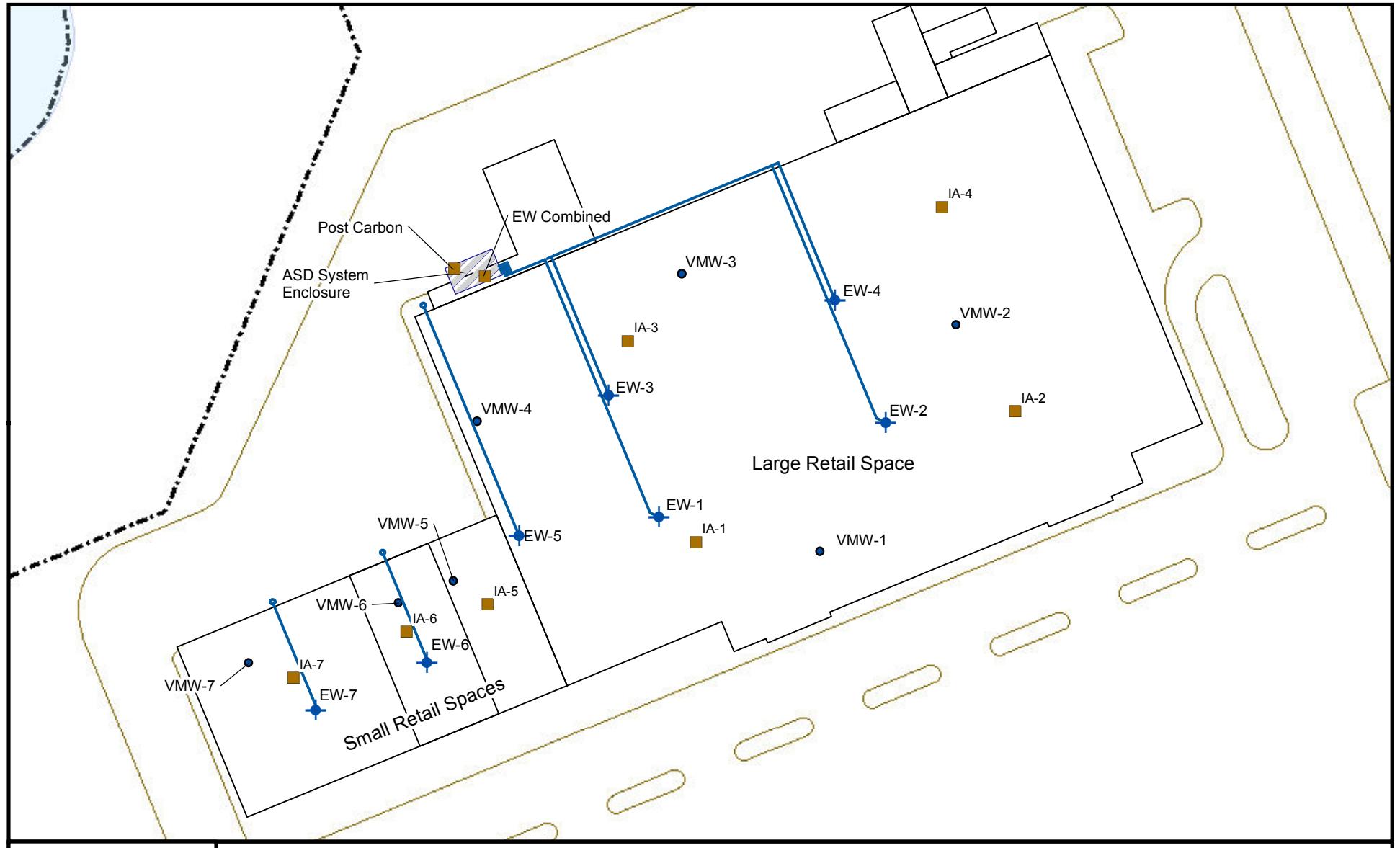
* vacuum reduced at extraction wells

** ASD system offline

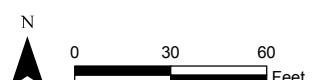
Prepared by/Date: MAM 10/10/11

Checked by/Date: SFR 10/14/11

FIGURES



All locations are approximate



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

Legend

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



Figure 1
Vapor Mitigation
Sample Locations

Former Gorham Manufacturing Facility
333 Adelaide Avenue
Providence, Rhode Island

APPENDIX A

Laboratory Reports

September 26, 2011

Accounts Payable
Mactec, Inc. - NH
1105 Lakewood Parkway, Suite 300
Alpharetta, GA 30009

Project Location: Providence RI, Gorham
Client Job Number:
Project Number: 3650080114
Laboratory Work Order Number: 11I0571

Enclosed are results of analyses for samples received by the laboratory on September 15, 2011. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



James M. Georgantas
Project Manager

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

REPORT DATE: 9/26/2011

Mactec, Inc. - NH
1105 Lakewood Parkway, Suite 300
Alpharetta, GA 30009
ATTN: Accounts Payable

PURCHASE ORDER NUMBER: 200900578

PROJECT NUMBER: 3650080114

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 11I0571

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

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
IA-1-091511	11I0571-01	Indoor air		EPA TO-15	
IA-2-091511	11I0571-02	Indoor air		EPA TO-15	
IA-3-091511	11I0571-03	Indoor air		EPA TO-15	
IA-4-091511	11I0571-04	Indoor air		EPA TO-15	
IA-5-091511	11I0571-05	Indoor air		EPA TO-15	
IA-6-091511	11I0571-06	Indoor air		EPA TO-15	
IA-7-091511	11I0571-07	Indoor air		EPA TO-15	
AA-1-091511	11I0571-08	Ambient Air		EPA TO-15	
EW-6-091511	11I0571-09	Soil Gas		EPA TO-15	
EW-7-091511	11I0571-10	Soil Gas		EPA TO-15	
EW-5-091511	11I0571-11	Soil Gas		EPA TO-15	
EW-COMBINED-091511	11I0571-12	Soil Gas		EPA TO-15	

CASE NARRATIVE SUMMARY

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

EPA TO-15

Qualifications:

Elevated reporting limit due to high concentration of non-target compounds. Requested detection limit not met.

Analyte & Samples(s) Qualified:

11I0571-09[EW-6-091511], 11I0571-10[EW-7-091511], 11I0571-11[EW-5-091511], 11I0571-12[EW-COMBINED-091511]

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

Analyte & Samples(s) Qualified:

Bromoform

B037894-BS1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Daren J. Damboragian
Laboratory Manager

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: IA-1-091511

Sample ID: 11I0571-01

Sample Matrix: Indoor air

Sampled: 9/15/2011 09:59

Sample Description/Location:

Sub Description/Location:

Canister ID: 1823

Canister Size: 6 liter

Flow Controller ID: 4068

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Acetone	7.6	2.0		18	4.8		1	9/22/11 1:30	TPH
Benzene	0.099	0.050		0.32	0.16		1	9/22/11 1:30	TPH
Benzyl chloride	ND	0.050		ND	0.26		1	9/22/11 1:30	TPH
Bromodichloromethane	ND	0.050		ND	0.34		1	9/22/11 1:30	TPH
Bromoform	ND	0.050		ND	0.52		1	9/22/11 1:30	TPH
Bromomethane	ND	0.050		ND	0.19		1	9/22/11 1:30	TPH
1,3-Butadiene	ND	0.050		ND	0.11		1	9/22/11 1:30	TPH
2-Butanone (MEK)	ND	2.0		ND	5.9		1	9/22/11 1:30	TPH
Carbon Disulfide	ND	0.50		ND	1.6		1	9/22/11 1:30	TPH
Carbon Tetrachloride	0.091	0.050		0.57	0.31		1	9/22/11 1:30	TPH
Chlorobenzene	ND	0.050		ND	0.23		1	9/22/11 1:30	TPH
Chloroethane	ND	0.050		ND	0.13		1	9/22/11 1:30	TPH
Chloroform	ND	0.050		ND	0.24		1	9/22/11 1:30	TPH
Chloromethane	0.62	0.050		1.3	0.10		1	9/22/11 1:30	TPH
Cyclohexane	ND	0.050		ND	0.17		1	9/22/11 1:30	TPH
Dibromochloromethane	ND	0.050		ND	0.43		1	9/22/11 1:30	TPH
1,2-Dibromoethane (EDB)	ND	0.050		ND	0.38		1	9/22/11 1:30	TPH
1,2-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 1:30	TPH
1,3-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 1:30	TPH
1,4-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 1:30	TPH
Dichlorodifluoromethane (Freon 12)	0.40	0.050		2.0	0.25		1	9/22/11 1:30	TPH
1,1-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 1:30	TPH
1,2-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 1:30	TPH
1,1-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 1:30	TPH
cis-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 1:30	TPH
trans-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 1:30	TPH
1,2-Dichloropropane	ND	0.050		ND	0.23		1	9/22/11 1:30	TPH
cis-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 1:30	TPH
trans-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 1:30	TPH
1,4-Dioxane	ND	0.050		ND	0.18		1	9/22/11 1:30	TPH
Ethanol	3.4	2.0		6.4	3.8		1	9/22/11 1:30	TPH
Ethyl Acetate	ND	0.050		ND	0.18		1	9/22/11 1:30	TPH
Ethylbenzene	ND	0.050		ND	0.22		1	9/22/11 1:30	TPH
4-Ethyltoluene	ND	0.050		ND	0.25		1	9/22/11 1:30	TPH
Heptane	ND	0.050		ND	0.20		1	9/22/11 1:30	TPH
Hexachlorobutadiene	ND	0.050		ND	0.53		1	9/22/11 1:30	TPH
Hexane	ND	2.0		ND	7.0		1	9/22/11 1:30	TPH
2-Hexanone (MBK)	0.15	0.050		0.62	0.20		1	9/22/11 1:30	TPH

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: IA-1-091511

Sample ID: 11I0571-01

Sample Matrix: Indoor air

Sampled: 9/15/2011 09:59

Sample Description/Location:

Sub Description/Location:

Canister ID: 1823

Canister Size: 6 liter

Flow Controller ID: 4068

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Isopropanol	ND	2.0		ND	4.9		1	9/22/11 1:30	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.050		ND	0.18		1	9/22/11 1:30	TPH
Methylene Chloride	ND	0.50		ND	1.7		1	9/22/11 1:30	TPH
Methyl methacrylate	ND	0.050		ND	0.20		1	9/22/11 1:30	TPH
4-Methyl-2-pentanone (MIBK)	0.056	0.050		0.23	0.20		1	9/22/11 1:30	TPH
Propene	ND	2.0		ND	3.4		1	9/22/11 1:30	TPH
Styrene	ND	0.050		ND	0.21		1	9/22/11 1:30	TPH
1,1,1,2-Tetrachloroethane	ND	0.091		ND	0.62		1	9/22/11 1:30	TPH
1,1,2,2-Tetrachloroethane	ND	0.050		ND	0.34		1	9/22/11 1:30	TPH
Tetrachloroethylene	0.069	0.050		0.47	0.34		1	9/22/11 1:30	TPH
Tetrahydrofuran	ND	0.050		ND	0.15		1	9/22/11 1:30	TPH
Toluene	0.25	0.050		0.93	0.19		1	9/22/11 1:30	TPH
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74		1	9/22/11 1:30	TPH
1,1,1-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 1:30	TPH
1,1,2-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 1:30	TPH
Trichloroethylene	ND	0.050		ND	0.27		1	9/22/11 1:30	TPH
Trichlorofluoromethane (Freon 11)	0.32	0.050		1.8	0.28		1	9/22/11 1:30	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.077	0.050		0.59	0.38		1	9/22/11 1:30	TPH
1,2,4-Trimethylbenzene	ND	0.050		ND	0.25		1	9/22/11 1:30	TPH
1,3,5-Trimethylbenzene	ND	0.050		ND	0.25		1	9/22/11 1:30	TPH
Vinyl Acetate	ND	0.050		ND	0.18		1	9/22/11 1:30	TPH
Vinyl Chloride	ND	0.050		ND	0.13		1	9/22/11 1:30	TPH
m&p-Xylene	0.12	0.10		0.51	0.43		1	9/22/11 1:30	TPH
o-Xylene	ND	0.050		ND	0.22		1	9/22/11 1:30	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	103	70-130	9/22/11 1:30
4-Bromofluorobenzene (2)	96.0	70-130	9/22/11 1:30

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: IA-2-091511
Sample ID: 11I0571-02

Sample Matrix: Indoor air

Sampled: 9/15/2011 10:02

Sample Description/Location:

Sub Description/Location:

Canister ID: 1841

Canister Size: 6 liter

Flow Controller ID: 4071

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29.5

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Acetone	7.6	2.0		18	4.8		1	9/22/11 2:56	TPH
Benzene	0.095	0.050		0.30	0.16		1	9/22/11 2:56	TPH
Benzyl chloride	ND	0.050		ND	0.26		1	9/22/11 2:56	TPH
Bromodichloromethane	ND	0.050		ND	0.34		1	9/22/11 2:56	TPH
Bromoform	ND	0.050		ND	0.52		1	9/22/11 2:56	TPH
Bromomethane	ND	0.050		ND	0.19		1	9/22/11 2:56	TPH
1,3-Butadiene	ND	0.050		ND	0.11		1	9/22/11 2:56	TPH
2-Butanone (MEK)	ND	2.0		ND	5.9		1	9/22/11 2:56	TPH
Carbon Disulfide	ND	0.50		ND	1.6		1	9/22/11 2:56	TPH
Carbon Tetrachloride	0.083	0.050		0.52	0.31		1	9/22/11 2:56	TPH
Chlorobenzene	ND	0.050		ND	0.23		1	9/22/11 2:56	TPH
Chloroethane	ND	0.050		ND	0.13		1	9/22/11 2:56	TPH
Chloroform	ND	0.050		ND	0.24		1	9/22/11 2:56	TPH
Chloromethane	0.59	0.050		1.2	0.10		1	9/22/11 2:56	TPH
Cyclohexane	ND	0.050		ND	0.17		1	9/22/11 2:56	TPH
Dibromochloromethane	ND	0.050		ND	0.43		1	9/22/11 2:56	TPH
1,2-Dibromoethane (EDB)	ND	0.050		ND	0.38		1	9/22/11 2:56	TPH
1,2-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 2:56	TPH
1,3-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 2:56	TPH
1,4-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 2:56	TPH
Dichlorodifluoromethane (Freon 12)	0.41	0.050		2.0	0.25		1	9/22/11 2:56	TPH
1,1-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 2:56	TPH
1,2-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 2:56	TPH
1,1-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 2:56	TPH
cis-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 2:56	TPH
trans-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 2:56	TPH
1,2-Dichloropropane	ND	0.050		ND	0.23		1	9/22/11 2:56	TPH
cis-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 2:56	TPH
trans-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 2:56	TPH
1,4-Dioxane	ND	0.050		ND	0.18		1	9/22/11 2:56	TPH
Ethanol	4.5	2.0		8.5	3.8		1	9/22/11 2:56	TPH
Ethyl Acetate	ND	0.050		ND	0.18		1	9/22/11 2:56	TPH
Ethylbenzene	ND	0.050		ND	0.22		1	9/22/11 2:56	TPH
4-Ethyltoluene	ND	0.050		ND	0.25		1	9/22/11 2:56	TPH
Heptane	ND	0.050		ND	0.20		1	9/22/11 2:56	TPH
Hexachlorobutadiene	ND	0.050		ND	0.53		1	9/22/11 2:56	TPH
Hexane	ND	2.0		ND	7.0		1	9/22/11 2:56	TPH
2-Hexanone (MBK)	0.12	0.050		0.50	0.20		1	9/22/11 2:56	TPH

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: IA-2-091511
Sample ID: 11I0571-02

Sample Matrix: Indoor air

Sampled: 9/15/2011 10:02

Sample Description/Location:

Sub Description/Location:

Canister ID: 1841

Canister Size: 6 liter

Flow Controller ID: 4071

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29.5

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Isopropanol	ND	2.0		ND	4.9		1	9/22/11 2:56	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.050		ND	0.18		1	9/22/11 2:56	TPH
Methylene Chloride	2.2	0.50		7.5	1.7		1	9/22/11 2:56	TPH
Methyl methacrylate	ND	0.050		ND	0.20		1	9/22/11 2:56	TPH
4-Methyl-2-pentanone (MIBK)	0.058	0.050		0.24	0.20		1	9/22/11 2:56	TPH
Propene	ND	2.0		ND	3.4		1	9/22/11 2:56	TPH
Styrene	ND	0.050		ND	0.21		1	9/22/11 2:56	TPH
1,1,1,2-Tetrachloroethane	ND	0.091		ND	0.62		1	9/22/11 2:56	TPH
1,1,2,2-Tetrachloroethane	ND	0.050		ND	0.34		1	9/22/11 2:56	TPH
Tetrachloroethylene	0.067	0.050		0.45	0.34		1	9/22/11 2:56	TPH
Tetrahydrofuran	ND	0.050		ND	0.15		1	9/22/11 2:56	TPH
Toluene	0.26	0.050		0.99	0.19		1	9/22/11 2:56	TPH
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74		1	9/22/11 2:56	TPH
1,1,1-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 2:56	TPH
1,1,2-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 2:56	TPH
Trichloroethylene	ND	0.050		ND	0.27		1	9/22/11 2:56	TPH
Trichlorofluoromethane (Freon 11)	0.34	0.050		1.9	0.28		1	9/22/11 2:56	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.079	0.050		0.61	0.38		1	9/22/11 2:56	TPH
1,2,4-Trimethylbenzene	ND	0.050		ND	0.25		1	9/22/11 2:56	TPH
1,3,5-Trimethylbenzene	ND	0.050		ND	0.25		1	9/22/11 2:56	TPH
Vinyl Acetate	ND	0.050		ND	0.18		1	9/22/11 2:56	TPH
Vinyl Chloride	ND	0.050		ND	0.13		1	9/22/11 2:56	TPH
m&p-Xylene	0.13	0.10		0.57	0.43		1	9/22/11 2:56	TPH
o-Xylene	0.052	0.050		0.23	0.22		1	9/22/11 2:56	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	98.7	70-130	9/22/11 2:56
4-Bromofluorobenzene (2)	92.2	70-130	9/22/11 2:56

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: IA-3-091511
Sample ID: 11I0571-03

Sample Matrix: Indoor air

Sampled: 9/15/2011 10:01

Sample Description/Location:

Sub Description/Location:

Canister ID: 1616

Canister Size: 6 liter

Flow Controller ID: 4091

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Acetone	5.6	2.0		13	4.8		1	9/22/11 3:39	TPH
Benzene	0.095	0.050		0.30	0.16		1	9/22/11 3:39	TPH
Benzyl chloride	ND	0.050		ND	0.26		1	9/22/11 3:39	TPH
Bromodichloromethane	ND	0.050		ND	0.34		1	9/22/11 3:39	TPH
Bromoform	ND	0.050		ND	0.52		1	9/22/11 3:39	TPH
Bromomethane	ND	0.050		ND	0.19		1	9/22/11 3:39	TPH
1,3-Butadiene	ND	0.050		ND	0.11		1	9/22/11 3:39	TPH
2-Butanone (MEK)	ND	2.0		ND	5.9		1	9/22/11 3:39	TPH
Carbon Disulfide	ND	0.50		ND	1.6		1	9/22/11 3:39	TPH
Carbon Tetrachloride	0.081	0.050		0.51	0.31		1	9/22/11 3:39	TPH
Chlorobenzene	ND	0.050		ND	0.23		1	9/22/11 3:39	TPH
Chloroethane	ND	0.050		ND	0.13		1	9/22/11 3:39	TPH
Chloroform	ND	0.050		ND	0.24		1	9/22/11 3:39	TPH
Chloromethane	0.66	0.050		1.4	0.10		1	9/22/11 3:39	TPH
Cyclohexane	ND	0.050		ND	0.17		1	9/22/11 3:39	TPH
Dibromochloromethane	ND	0.050		ND	0.43		1	9/22/11 3:39	TPH
1,2-Dibromoethane (EDB)	ND	0.050		ND	0.38		1	9/22/11 3:39	TPH
1,2-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 3:39	TPH
1,3-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 3:39	TPH
1,4-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 3:39	TPH
Dichlorodifluoromethane (Freon 12)	0.35	0.050		1.8	0.25		1	9/22/11 3:39	TPH
1,1-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 3:39	TPH
1,2-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 3:39	TPH
1,1-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 3:39	TPH
cis-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 3:39	TPH
trans-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 3:39	TPH
1,2-Dichloropropane	ND	0.050		ND	0.23		1	9/22/11 3:39	TPH
cis-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 3:39	TPH
trans-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 3:39	TPH
1,4-Dioxane	ND	0.050		ND	0.18		1	9/22/11 3:39	TPH
Ethanol	3.1	2.0		5.8	3.8		1	9/22/11 3:39	TPH
Ethyl Acetate	ND	0.050		ND	0.18		1	9/22/11 3:39	TPH
Ethylbenzene	ND	0.050		ND	0.22		1	9/22/11 3:39	TPH
4-Ethyltoluene	ND	0.050		ND	0.25		1	9/22/11 3:39	TPH
Heptane	ND	0.050		ND	0.20		1	9/22/11 3:39	TPH
Hexachlorobutadiene	ND	0.050		ND	0.53		1	9/22/11 3:39	TPH
Hexane	ND	2.0		ND	7.0		1	9/22/11 3:39	TPH
2-Hexanone (MBK)	0.059	0.050		0.24	0.20		1	9/22/11 3:39	TPH

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: IA-3-091511
Sample ID: 11I0571-03

Sample Matrix: Indoor air

Sampled: 9/15/2011 10:01

Sample Description/Location:

Sub Description/Location:

Canister ID: 1616

Canister Size: 6 liter

Flow Controller ID: 4091

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Isopropanol	ND	2.0		ND	4.9		1	9/22/11 3:39	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.050		ND	0.18		1	9/22/11 3:39	TPH
Methylene Chloride	ND	0.50		ND	1.7		1	9/22/11 3:39	TPH
Methyl methacrylate	ND	0.050		ND	0.20		1	9/22/11 3:39	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.050		ND	0.20		1	9/22/11 3:39	TPH
Propene	ND	2.0		ND	3.4		1	9/22/11 3:39	TPH
Styrene	ND	0.050		ND	0.21		1	9/22/11 3:39	TPH
1,1,1,2-Tetrachloroethane	ND	0.091		ND	0.62		1	9/22/11 3:39	TPH
1,1,2,2-Tetrachloroethane	ND	0.050		ND	0.34		1	9/22/11 3:39	TPH
Tetrachloroethylene	0.070	0.050		0.47	0.34		1	9/22/11 3:39	TPH
Tetrahydrofuran	ND	0.050		ND	0.15		1	9/22/11 3:39	TPH
Toluene	0.25	0.050		0.95	0.19		1	9/22/11 3:39	TPH
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74		1	9/22/11 3:39	TPH
1,1,1-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 3:39	TPH
1,1,2-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 3:39	TPH
Trichloroethylene	ND	0.050		ND	0.27		1	9/22/11 3:39	TPH
Trichlorofluoromethane (Freon 11)	0.30	0.050		1.7	0.28		1	9/22/11 3:39	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.071	0.050		0.54	0.38		1	9/22/11 3:39	TPH
1,2,4-Trimethylbenzene	ND	0.050		ND	0.25		1	9/22/11 3:39	TPH
1,3,5-Trimethylbenzene	ND	0.050		ND	0.25		1	9/22/11 3:39	TPH
Vinyl Acetate	ND	0.050		ND	0.18		1	9/22/11 3:39	TPH
Vinyl Chloride	ND	0.050		ND	0.13		1	9/22/11 3:39	TPH
m&p-Xylene	0.12	0.10		0.54	0.43		1	9/22/11 3:39	TPH
o-Xylene	0.052	0.050		0.23	0.22		1	9/22/11 3:39	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	98.6	70-130	9/22/11 3:39
4-Bromofluorobenzene (2)	93.2	70-130	9/22/11 3:39

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: IA-4-091511
Sample ID: 11I0571-04

Sample Matrix: Indoor air

Sampled: 9/15/2011 10:03

Sample Description/Location:

Sub Description/Location:

Canister ID: 1633

Canister Size: 6 liter

Flow Controller ID: 4105

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Acetone	6.3	2.0		15	4.8		1	9/22/11 4:22	TPH
Benzene	0.094	0.050		0.30	0.16		1	9/22/11 4:22	TPH
Benzyl chloride	ND	0.050		ND	0.26		1	9/22/11 4:22	TPH
Bromodichloromethane	ND	0.050		ND	0.34		1	9/22/11 4:22	TPH
Bromoform	ND	0.050		ND	0.52		1	9/22/11 4:22	TPH
Bromomethane	ND	0.050		ND	0.19		1	9/22/11 4:22	TPH
1,3-Butadiene	ND	0.050		ND	0.11		1	9/22/11 4:22	TPH
2-Butanone (MEK)	ND	2.0		ND	5.9		1	9/22/11 4:22	TPH
Carbon Disulfide	ND	0.50		ND	1.6		1	9/22/11 4:22	TPH
Carbon Tetrachloride	0.083	0.050		0.52	0.31		1	9/22/11 4:22	TPH
Chlorobenzene	ND	0.050		ND	0.23		1	9/22/11 4:22	TPH
Chloroethane	ND	0.050		ND	0.13		1	9/22/11 4:22	TPH
Chloroform	ND	0.050		ND	0.24		1	9/22/11 4:22	TPH
Chloromethane	0.73	0.050		1.5	0.10		1	9/22/11 4:22	TPH
Cyclohexane	ND	0.050		ND	0.17		1	9/22/11 4:22	TPH
Dibromochloromethane	ND	0.050		ND	0.43		1	9/22/11 4:22	TPH
1,2-Dibromoethane (EDB)	ND	0.050		ND	0.38		1	9/22/11 4:22	TPH
1,2-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 4:22	TPH
1,3-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 4:22	TPH
1,4-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 4:22	TPH
Dichlorodifluoromethane (Freon 12)	0.35	0.050		1.7	0.25		1	9/22/11 4:22	TPH
1,1-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 4:22	TPH
1,2-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 4:22	TPH
1,1-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 4:22	TPH
cis-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 4:22	TPH
trans-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 4:22	TPH
1,2-Dichloropropane	ND	0.050		ND	0.23		1	9/22/11 4:22	TPH
cis-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 4:22	TPH
trans-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 4:22	TPH
1,4-Dioxane	ND	0.050		ND	0.18		1	9/22/11 4:22	TPH
Ethanol	3.7	2.0		7.0	3.8		1	9/22/11 4:22	TPH
Ethyl Acetate	ND	0.050		ND	0.18		1	9/22/11 4:22	TPH
Ethylbenzene	ND	0.050		ND	0.22		1	9/22/11 4:22	TPH
4-Ethyltoluene	ND	0.050		ND	0.25		1	9/22/11 4:22	TPH
Heptane	ND	0.050		ND	0.20		1	9/22/11 4:22	TPH
Hexachlorobutadiene	ND	0.050		ND	0.53		1	9/22/11 4:22	TPH
Hexane	ND	2.0		ND	7.0		1	9/22/11 4:22	TPH
2-Hexanone (MBK)	0.085	0.050		0.35	0.20		1	9/22/11 4:22	TPH

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: IA-4-091511

Sample ID: 11I0571-04

Sample Matrix: Indoor air

Sampled: 9/15/2011 10:03

Sample Description/Location:

Sub Description/Location:

Canister ID: 1633

Canister Size: 6 liter

Flow Controller ID: 4105

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Isopropanol	ND	2.0		ND	4.9		1	9/22/11 4:22	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.050		ND	0.18		1	9/22/11 4:22	TPH
Methylene Chloride	ND	0.50		ND	1.7		1	9/22/11 4:22	TPH
Methyl methacrylate	ND	0.050		ND	0.20		1	9/22/11 4:22	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.050		ND	0.20		1	9/22/11 4:22	TPH
Propene	ND	2.0		ND	3.4		1	9/22/11 4:22	TPH
Styrene	ND	0.050		ND	0.21		1	9/22/11 4:22	TPH
1,1,1,2-Tetrachloroethane	ND	0.091		ND	0.62		1	9/22/11 4:22	TPH
1,1,2,2-Tetrachloroethane	ND	0.050		ND	0.34		1	9/22/11 4:22	TPH
Tetrachloroethylene	0.066	0.050		0.45	0.34		1	9/22/11 4:22	TPH
Tetrahydrofuran	ND	0.050		ND	0.15		1	9/22/11 4:22	TPH
Toluene	0.25	0.050		0.95	0.19		1	9/22/11 4:22	TPH
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74		1	9/22/11 4:22	TPH
1,1,1-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 4:22	TPH
1,1,2-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 4:22	TPH
Trichloroethylene	ND	0.050		ND	0.27		1	9/22/11 4:22	TPH
Trichlorofluoromethane (Freon 11)	0.32	0.050		1.8	0.28		1	9/22/11 4:22	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.068	0.050		0.52	0.38		1	9/22/11 4:22	TPH
1,2,4-Trimethylbenzene	ND	0.050		ND	0.25		1	9/22/11 4:22	TPH
1,3,5-Trimethylbenzene	ND	0.050		ND	0.25		1	9/22/11 4:22	TPH
Vinyl Acetate	ND	0.050		ND	0.18		1	9/22/11 4:22	TPH
Vinyl Chloride	ND	0.050		ND	0.13		1	9/22/11 4:22	TPH
m&p-Xylene	0.12	0.10		0.53	0.43		1	9/22/11 4:22	TPH
o-Xylene	ND	0.050		ND	0.22		1	9/22/11 4:22	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	9/22/11 4:22
4-Bromofluorobenzene (2)	96.1	70-130	9/22/11 4:22

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: IA-5-091511
Sample ID: 11I0571-05

Sample Matrix: Indoor air

Sampled: 9/15/2011 11:45

Sample Description/Location:

Sub Description/Location:

Canister ID: 1221

Canister Size: 6 liter

Flow Controller ID: 4075

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -4

Receipt Vacuum(in Hg): -4

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Acetone	6.4	2.0		15	4.8		1	9/22/11 5:05	TPH
Benzene	0.091	0.050		0.29	0.16		1	9/22/11 5:05	TPH
Benzyl chloride	ND	0.050		ND	0.26		1	9/22/11 5:05	TPH
Bromodichloromethane	ND	0.050		ND	0.34		1	9/22/11 5:05	TPH
Bromoform	ND	0.050		ND	0.52		1	9/22/11 5:05	TPH
Bromomethane	ND	0.050		ND	0.19		1	9/22/11 5:05	TPH
1,3-Butadiene	ND	0.050		ND	0.11		1	9/22/11 5:05	TPH
2-Butanone (MEK)	ND	2.0		ND	5.9		1	9/22/11 5:05	TPH
Carbon Disulfide	ND	0.50		ND	1.6		1	9/22/11 5:05	TPH
Carbon Tetrachloride	0.077	0.050		0.48	0.31		1	9/22/11 5:05	TPH
Chlorobenzene	ND	0.050		ND	0.23		1	9/22/11 5:05	TPH
Chloroethane	ND	0.050		ND	0.13		1	9/22/11 5:05	TPH
Chloroform	ND	0.050		ND	0.24		1	9/22/11 5:05	TPH
Chloromethane	0.65	0.050		1.3	0.10		1	9/22/11 5:05	TPH
Cyclohexane	ND	0.050		ND	0.17		1	9/22/11 5:05	TPH
Dibromochloromethane	ND	0.050		ND	0.43		1	9/22/11 5:05	TPH
1,2-Dibromoethane (EDB)	ND	0.050		ND	0.38		1	9/22/11 5:05	TPH
1,2-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 5:05	TPH
1,3-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 5:05	TPH
1,4-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 5:05	TPH
Dichlorodifluoromethane (Freon 12)	0.40	0.050		2.0	0.25		1	9/22/11 5:05	TPH
1,1-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 5:05	TPH
1,2-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 5:05	TPH
1,1-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 5:05	TPH
cis-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 5:05	TPH
trans-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 5:05	TPH
1,2-Dichloropropane	ND	0.050		ND	0.23		1	9/22/11 5:05	TPH
cis-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 5:05	TPH
trans-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 5:05	TPH
1,4-Dioxane	ND	0.050		ND	0.18		1	9/22/11 5:05	TPH
Ethanol	4.2	2.0		7.9	3.8		1	9/22/11 5:05	TPH
Ethyl Acetate	ND	0.050		ND	0.18		1	9/22/11 5:05	TPH
Ethylbenzene	ND	0.050		ND	0.22		1	9/22/11 5:05	TPH
4-Ethyltoluene	ND	0.050		ND	0.25		1	9/22/11 5:05	TPH
Heptane	ND	0.050		ND	0.20		1	9/22/11 5:05	TPH
Hexachlorobutadiene	ND	0.050		ND	0.53		1	9/22/11 5:05	TPH
Hexane	ND	2.0		ND	7.0		1	9/22/11 5:05	TPH
2-Hexanone (MBK)	ND	0.050		ND	0.20		1	9/22/11 5:05	TPH

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: IA-5-091511
Sample ID: 11I0571-05

Sample Matrix: Indoor air

Sampled: 9/15/2011 11:45

Sample Description/Location:

Sub Description/Location:

Canister ID: 1221

Canister Size: 6 liter

Flow Controller ID: 4075

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -4

Receipt Vacuum(in Hg): -4

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Isopropanol	2.6	2.0		6.4	4.9		1	9/22/11 5:05	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.050		ND	0.18		1	9/22/11 5:05	TPH
Methylene Chloride	2.2	0.50		7.7	1.7		1	9/22/11 5:05	TPH
Methyl methacrylate	ND	0.050		ND	0.20		1	9/22/11 5:05	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.050		ND	0.20		1	9/22/11 5:05	TPH
Propene	ND	2.0		ND	3.4		1	9/22/11 5:05	TPH
Styrene	ND	0.050		ND	0.21		1	9/22/11 5:05	TPH
1,1,1,2-Tetrachloroethane	ND	0.091		ND	0.62		1	9/22/11 5:05	TPH
1,1,2,2-Tetrachloroethane	ND	0.050		ND	0.34		1	9/22/11 5:05	TPH
Tetrachloroethylene	0.086	0.050		0.58	0.34		1	9/22/11 5:05	TPH
Tetrahydrofuran	ND	0.050		ND	0.15		1	9/22/11 5:05	TPH
Toluene	0.26	0.050		0.97	0.19		1	9/22/11 5:05	TPH
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74		1	9/22/11 5:05	TPH
1,1,1-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 5:05	TPH
1,1,2-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 5:05	TPH
Trichloroethylene	ND	0.050		ND	0.27		1	9/22/11 5:05	TPH
Trichlorofluoromethane (Freon 11)	0.30	0.050		1.7	0.28		1	9/22/11 5:05	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.082	0.050		0.63	0.38		1	9/22/11 5:05	TPH
1,2,4-Trimethylbenzene	ND	0.050		ND	0.25		1	9/22/11 5:05	TPH
1,3,5-Trimethylbenzene	ND	0.050		ND	0.25		1	9/22/11 5:05	TPH
Vinyl Acetate	ND	0.050		ND	0.18		1	9/22/11 5:05	TPH
Vinyl Chloride	ND	0.050		ND	0.13		1	9/22/11 5:05	TPH
m&p-Xylene	0.12	0.10		0.53	0.43		1	9/22/11 5:05	TPH
o-Xylene	ND	0.050		ND	0.22		1	9/22/11 5:05	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	101	70-130	9/22/11 5:05
4-Bromofluorobenzene (2)	95.1	70-130	9/22/11 5:05

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: IA-6-091511
Sample ID: 11I0571-06

Sample Matrix: Indoor air

Sampled: 9/15/2011 11:50

Sample Description/Location:

Sub Description/Location:

Canister ID: 1504

Canister Size: 6 liter

Flow Controller ID: 4084

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Acetone	11	2.0		26	4.8		1	9/22/11 5:48	TPH
Benzene	0.097	0.050		0.31	0.16		1	9/22/11 5:48	TPH
Benzyl chloride	ND	0.050		ND	0.26		1	9/22/11 5:48	TPH
Bromodichloromethane	ND	0.050		ND	0.34		1	9/22/11 5:48	TPH
Bromoform	ND	0.050		ND	0.52		1	9/22/11 5:48	TPH
Bromomethane	ND	0.050		ND	0.19		1	9/22/11 5:48	TPH
1,3-Butadiene	ND	0.050		ND	0.11		1	9/22/11 5:48	TPH
2-Butanone (MEK)	ND	2.0		ND	5.9		1	9/22/11 5:48	TPH
Carbon Disulfide	ND	0.50		ND	1.6		1	9/22/11 5:48	TPH
Carbon Tetrachloride	0.083	0.050		0.52	0.31		1	9/22/11 5:48	TPH
Chlorobenzene	ND	0.050		ND	0.23		1	9/22/11 5:48	TPH
Chloroethane	ND	0.050		ND	0.13		1	9/22/11 5:48	TPH
Chloroform	ND	0.050		ND	0.24		1	9/22/11 5:48	TPH
Chloromethane	0.68	0.050		1.4	0.10		1	9/22/11 5:48	TPH
Cyclohexane	ND	0.050		ND	0.17		1	9/22/11 5:48	TPH
Dibromochloromethane	ND	0.050		ND	0.43		1	9/22/11 5:48	TPH
1,2-Dibromoethane (EDB)	ND	0.050		ND	0.38		1	9/22/11 5:48	TPH
1,2-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 5:48	TPH
1,3-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 5:48	TPH
1,4-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 5:48	TPH
Dichlorodifluoromethane (Freon 12)	0.38	0.050		1.9	0.25		1	9/22/11 5:48	TPH
1,1-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 5:48	TPH
1,2-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 5:48	TPH
1,1-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 5:48	TPH
cis-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 5:48	TPH
trans-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 5:48	TPH
1,2-Dichloropropane	ND	0.050		ND	0.23		1	9/22/11 5:48	TPH
cis-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 5:48	TPH
trans-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 5:48	TPH
1,4-Dioxane	ND	0.050		ND	0.18		1	9/22/11 5:48	TPH
Ethanol	7.4	2.0		14	3.8		1	9/22/11 5:48	TPH
Ethyl Acetate	ND	0.050		ND	0.18		1	9/22/11 5:48	TPH
Ethylbenzene	ND	0.050		ND	0.22		1	9/22/11 5:48	TPH
4-Ethyltoluene	ND	0.050		ND	0.25		1	9/22/11 5:48	TPH
Heptane	0.050	0.050		0.20	0.20		1	9/22/11 5:48	TPH
Hexachlorobutadiene	ND	0.050		ND	0.53		1	9/22/11 5:48	TPH
Hexane	ND	2.0		ND	7.0		1	9/22/11 5:48	TPH
2-Hexanone (MBK)	0.15	0.050		0.60	0.20		1	9/22/11 5:48	TPH

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: IA-6-091511
Sample ID: 11I0571-06

Sample Matrix: Indoor air

Sampled: 9/15/2011 11:50

Sample Description/Location:

Sub Description/Location:

Canister ID: 1504

Canister Size: 6 liter

Flow Controller ID: 4084

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Isopropanol	4.4	2.0		11	4.9		1	9/22/11 5:48	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.050		ND	0.18		1	9/22/11 5:48	TPH
Methylene Chloride	ND	0.50		ND	1.7		1	9/22/11 5:48	TPH
Methyl methacrylate	ND	0.050		ND	0.20		1	9/22/11 5:48	TPH
4-Methyl-2-pentanone (MIBK)	0.076	0.050		0.31	0.20		1	9/22/11 5:48	TPH
Propene	ND	2.0		ND	3.4		1	9/22/11 5:48	TPH
Styrene	0.052	0.050		0.22	0.21		1	9/22/11 5:48	TPH
1,1,1,2-Tetrachloroethane	ND	0.091		ND	0.62		1	9/22/11 5:48	TPH
1,1,2,2-Tetrachloroethane	ND	0.050		ND	0.34		1	9/22/11 5:48	TPH
Tetrachloroethylene	0.085	0.050		0.58	0.34		1	9/22/11 5:48	TPH
Tetrahydrofuran	0.052	0.050		0.15	0.15		1	9/22/11 5:48	TPH
Toluene	0.31	0.050		1.2	0.19		1	9/22/11 5:48	TPH
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74		1	9/22/11 5:48	TPH
1,1,1-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 5:48	TPH
1,1,2-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 5:48	TPH
Trichloroethylene	ND	0.050		ND	0.27		1	9/22/11 5:48	TPH
Trichlorofluoromethane (Freon 11)	0.30	0.050		1.7	0.28		1	9/22/11 5:48	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.073	0.050		0.56	0.38		1	9/22/11 5:48	TPH
1,2,4-Trimethylbenzene	0.051	0.050		0.25	0.25		1	9/22/11 5:48	TPH
1,3,5-Trimethylbenzene	ND	0.050		ND	0.25		1	9/22/11 5:48	TPH
Vinyl Acetate	ND	0.050		ND	0.18		1	9/22/11 5:48	TPH
Vinyl Chloride	ND	0.050		ND	0.13		1	9/22/11 5:48	TPH
m&p-Xylene	0.14	0.10		0.59	0.43		1	9/22/11 5:48	TPH
o-Xylene	0.050	0.050		0.22	0.22		1	9/22/11 5:48	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	104	70-130	9/22/11 5:48
4-Bromofluorobenzene (2)	96.6	70-130	9/22/11 5:48

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: IA-7-091511
Sample ID: 11I0571-07

Sample Matrix: Indoor air

Sampled: 9/15/2011 11:38

Sample Description/Location:

Sub Description/Location:

Canister ID: 1063

Canister Size: 6 liter

Flow Controller ID: 4073

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Acetone	16	2.0		38	4.8		1	9/22/11 6:31	TPH
Benzene	0.10	0.050		0.34	0.16		1	9/22/11 6:31	TPH
Benzyl chloride	ND	0.050		ND	0.26		1	9/22/11 6:31	TPH
Bromodichloromethane	ND	0.050		ND	0.34		1	9/22/11 6:31	TPH
Bromoform	ND	0.050		ND	0.52		1	9/22/11 6:31	TPH
Bromomethane	ND	0.050		ND	0.19		1	9/22/11 6:31	TPH
1,3-Butadiene	ND	0.050		ND	0.11		1	9/22/11 6:31	TPH
2-Butanone (MEK)	ND	2.0		ND	5.9		1	9/22/11 6:31	TPH
Carbon Disulfide	ND	0.50		ND	1.6		1	9/22/11 6:31	TPH
Carbon Tetrachloride	0.080	0.050		0.50	0.31		1	9/22/11 6:31	TPH
Chlorobenzene	ND	0.050		ND	0.23		1	9/22/11 6:31	TPH
Chloroethane	ND	0.050		ND	0.13		1	9/22/11 6:31	TPH
Chloroform	0.069	0.050		0.34	0.24		1	9/22/11 6:31	TPH
Chloromethane	0.78	0.050		1.6	0.10		1	9/22/11 6:31	TPH
Cyclohexane	ND	0.050		ND	0.17		1	9/22/11 6:31	TPH
Dibromochloromethane	ND	0.050		ND	0.43		1	9/22/11 6:31	TPH
1,2-Dibromoethane (EDB)	ND	0.050		ND	0.38		1	9/22/11 6:31	TPH
1,2-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 6:31	TPH
1,3-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 6:31	TPH
1,4-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 6:31	TPH
Dichlorodifluoromethane (Freon 12)	0.36	0.050		1.8	0.25		1	9/22/11 6:31	TPH
1,1-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 6:31	TPH
1,2-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 6:31	TPH
1,1-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 6:31	TPH
cis-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 6:31	TPH
trans-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 6:31	TPH
1,2-Dichloropropane	ND	0.050		ND	0.23		1	9/22/11 6:31	TPH
cis-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 6:31	TPH
trans-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 6:31	TPH
1,4-Dioxane	ND	0.050		ND	0.18		1	9/22/11 6:31	TPH
Ethanol	40	2.0		76	3.8		1	9/22/11 6:31	TPH
Ethyl Acetate	0.059	0.050		0.21	0.18		1	9/22/11 6:31	TPH
Ethylbenzene	0.10	0.050		0.45	0.22		1	9/22/11 6:31	TPH
4-Ethyltoluene	ND	0.050		ND	0.25		1	9/22/11 6:31	TPH
Heptane	0.27	0.050		1.1	0.20		1	9/22/11 6:31	TPH
Hexachlorobutadiene	ND	0.050		ND	0.53		1	9/22/11 6:31	TPH
Hexane	ND	2.0		ND	7.0		1	9/22/11 6:31	TPH
2-Hexanone (MBK)	0.18	0.050		0.73	0.20		1	9/22/11 6:31	TPH

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: IA-7-091511
Sample ID: 11I0571-07

Sample Matrix: Indoor air

Sampled: 9/15/2011 11:38

Sample Description/Location:

Sub Description/Location:

Canister ID: 1063

Canister Size: 6 liter

Flow Controller ID: 4073

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Isopropanol	31	2.0		77	4.9		1	9/22/11 6:31	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.050		ND	0.18		1	9/22/11 6:31	TPH
Methylene Chloride	ND	0.50		ND	1.7		1	9/22/11 6:31	TPH
Methyl methacrylate	ND	0.050		ND	0.20		1	9/22/11 6:31	TPH
4-Methyl-2-pentanone (MIBK)	0.089	0.050		0.36	0.20		1	9/22/11 6:31	TPH
Propene	ND	2.0		ND	3.4		1	9/22/11 6:31	TPH
Styrene	0.15	0.050		0.63	0.21		1	9/22/11 6:31	TPH
1,1,1,2-Tetrachloroethane	ND	0.091		ND	0.62		1	9/22/11 6:31	TPH
1,1,2,2-Tetrachloroethane	ND	0.050		ND	0.34		1	9/22/11 6:31	TPH
Tetrachloroethylene	0.091	0.050		0.62	0.34		1	9/22/11 6:31	TPH
Tetrahydrofuran	0.060	0.050		0.18	0.15		1	9/22/11 6:31	TPH
Toluene	0.99	0.050		3.7	0.19		1	9/22/11 6:31	TPH
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74		1	9/22/11 6:31	TPH
1,1,1-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 6:31	TPH
1,1,2-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 6:31	TPH
Trichloroethylene	ND	0.050		ND	0.27		1	9/22/11 6:31	TPH
Trichlorofluoromethane (Freon 11)	0.28	0.050		1.6	0.28		1	9/22/11 6:31	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.070	0.050		0.54	0.38		1	9/22/11 6:31	TPH
1,2,4-Trimethylbenzene	0.083	0.050		0.41	0.25		1	9/22/11 6:31	TPH
1,3,5-Trimethylbenzene	ND	0.050		ND	0.25		1	9/22/11 6:31	TPH
Vinyl Acetate	ND	0.050		ND	0.18		1	9/22/11 6:31	TPH
Vinyl Chloride	ND	0.050		ND	0.13		1	9/22/11 6:31	TPH
m&p-Xylene	0.26	0.10		1.1	0.43		1	9/22/11 6:31	TPH
o-Xylene	0.094	0.050		0.41	0.22		1	9/22/11 6:31	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	100	70-130	9/22/11 6:31
4-Bromofluorobenzene (2)	96.5	70-130	9/22/11 6:31

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: AA-1-091511

Sample ID: 11I0571-08

Sample Matrix: Ambient Air

Sampled: 9/15/2011 12:35

Sample Description/Location:

Sub Description/Location:

Canister ID: 1855

Canister Size: 6 liter

Flow Controller ID: 4086

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Acetone	8.4	2.0		20	4.8		1	9/22/11 7:14	TPH
Benzene	0.059	0.050		0.19	0.16		1	9/22/11 7:14	TPH
Benzyl chloride	ND	0.050		ND	0.26		1	9/22/11 7:14	TPH
Bromodichloromethane	ND	0.050		ND	0.34		1	9/22/11 7:14	TPH
Bromoform	ND	0.050		ND	0.52		1	9/22/11 7:14	TPH
Bromomethane	ND	0.050		ND	0.19		1	9/22/11 7:14	TPH
1,3-Butadiene	ND	0.050		ND	0.11		1	9/22/11 7:14	TPH
2-Butanone (MEK)	ND	2.0		ND	5.9		1	9/22/11 7:14	TPH
Carbon Disulfide	ND	0.50		ND	1.6		1	9/22/11 7:14	TPH
Carbon Tetrachloride	0.077	0.050		0.48	0.31		1	9/22/11 7:14	TPH
Chlorobenzene	ND	0.050		ND	0.23		1	9/22/11 7:14	TPH
Chloroethane	ND	0.050		ND	0.13		1	9/22/11 7:14	TPH
Chloroform	ND	0.050		ND	0.24		1	9/22/11 7:14	TPH
Chloromethane	0.68	0.050		1.4	0.10		1	9/22/11 7:14	TPH
Cyclohexane	ND	0.050		ND	0.17		1	9/22/11 7:14	TPH
Dibromochloromethane	ND	0.050		ND	0.43		1	9/22/11 7:14	TPH
1,2-Dibromoethane (EDB)	ND	0.050		ND	0.38		1	9/22/11 7:14	TPH
1,2-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 7:14	TPH
1,3-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 7:14	TPH
1,4-Dichlorobenzene	ND	0.050		ND	0.30		1	9/22/11 7:14	TPH
Dichlorodifluoromethane (Freon 12)	0.34	0.050		1.7	0.25		1	9/22/11 7:14	TPH
1,1-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 7:14	TPH
1,2-Dichloroethane	ND	0.050		ND	0.20		1	9/22/11 7:14	TPH
1,1-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 7:14	TPH
cis-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 7:14	TPH
trans-1,2-Dichloroethylene	ND	0.050		ND	0.20		1	9/22/11 7:14	TPH
1,2-Dichloropropane	ND	0.050		ND	0.23		1	9/22/11 7:14	TPH
cis-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 7:14	TPH
trans-1,3-Dichloropropene	ND	0.050		ND	0.23		1	9/22/11 7:14	TPH
1,4-Dioxane	ND	0.050		ND	0.18		1	9/22/11 7:14	TPH
Ethanol	3.1	2.0		5.8	3.8		1	9/22/11 7:14	TPH
Ethyl Acetate	ND	0.050		ND	0.18		1	9/22/11 7:14	TPH
Ethylbenzene	ND	0.050		ND	0.22		1	9/22/11 7:14	TPH
4-Ethyltoluene	ND	0.050		ND	0.25		1	9/22/11 7:14	TPH
Heptane	ND	0.050		ND	0.20		1	9/22/11 7:14	TPH
Hexachlorobutadiene	ND	0.050		ND	0.53		1	9/22/11 7:14	TPH
Hexane	ND	2.0		ND	7.0		1	9/22/11 7:14	TPH
2-Hexanone (MBK)	0.16	0.050		0.67	0.20		1	9/22/11 7:14	TPH

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: AA-1-091511

Sample ID: 11I0571-08

Sample Matrix: Ambient Air

Sampled: 9/15/2011 12:35

Sample Description/Location:

Sub Description/Location:

Canister ID: 1855

Canister Size: 6 liter

Flow Controller ID: 4086

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Isopropanol	ND	2.0		ND	4.9		1	9/22/11 7:14	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.050		ND	0.18		1	9/22/11 7:14	TPH
Methylene Chloride	ND	0.50		ND	1.7		1	9/22/11 7:14	TPH
Methyl methacrylate	ND	0.050		ND	0.20		1	9/22/11 7:14	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.050		ND	0.20		1	9/22/11 7:14	TPH
Propene	ND	2.0		ND	3.4		1	9/22/11 7:14	TPH
Styrene	ND	0.050		ND	0.21		1	9/22/11 7:14	TPH
1,1,1,2-Tetrachloroethane	ND	0.091		ND	0.62		1	9/22/11 7:14	TPH
1,1,2,2-Tetrachloroethane	ND	0.050		ND	0.34		1	9/22/11 7:14	TPH
Tetrachloroethylene	ND	0.050		ND	0.34		1	9/22/11 7:14	TPH
Tetrahydrofuran	ND	0.050		ND	0.15		1	9/22/11 7:14	TPH
Toluene	0.12	0.050		0.47	0.19		1	9/22/11 7:14	TPH
1,2,4-Trichlorobenzene	ND	0.10		ND	0.74		1	9/22/11 7:14	TPH
1,1,1-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 7:14	TPH
1,1,2-Trichloroethane	ND	0.050		ND	0.27		1	9/22/11 7:14	TPH
Trichloroethylene	ND	0.050		ND	0.27		1	9/22/11 7:14	TPH
Trichlorofluoromethane (Freon 11)	0.27	0.050		1.5	0.28		1	9/22/11 7:14	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.076	0.050		0.58	0.38		1	9/22/11 7:14	TPH
1,2,4-Trimethylbenzene	ND	0.050		ND	0.25		1	9/22/11 7:14	TPH
1,3,5-Trimethylbenzene	ND	0.050		ND	0.25		1	9/22/11 7:14	TPH
Vinyl Acetate	ND	0.050		ND	0.18		1	9/22/11 7:14	TPH
Vinyl Chloride	ND	0.050		ND	0.13		1	9/22/11 7:14	TPH
m&p-Xylene	ND	0.10		ND	0.43		1	9/22/11 7:14	TPH
o-Xylene	ND	0.050		ND	0.22		1	9/22/11 7:14	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	9/22/11 7:14
4-Bromofluorobenzene (2)	95.8	70-130	9/22/11 7:14

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: EW-6-091511

Sample ID: 11I0571-09

Sample Matrix: Soil Gas

Sampled: 9/15/2011 13:23

Sample Description/Location:

Sub Description/Location:

Canister ID: 1118

Canister Size: 6 liter

Flow Controller ID: 4083

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -7

Receipt Vacuum(in Hg): -8

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-02

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Acetone	ND	80		ND	190		40	9/22/11 12:39	TPH
Benzene	ND	2.0		ND	6.4		40	9/22/11 12:39	TPH
Benzyl chloride	ND	2.0		ND	10		40	9/22/11 12:39	TPH
Bromodichloromethane	ND	2.0		ND	13		40	9/22/11 12:39	TPH
Bromoform	ND	2.0		ND	21		40	9/22/11 12:39	TPH
Bromomethane	ND	2.0		ND	7.8		40	9/22/11 12:39	TPH
1,3-Butadiene	ND	2.0		ND	4.4		40	9/22/11 12:39	TPH
2-Butanone (MEK)	ND	80		ND	240		40	9/22/11 12:39	TPH
Carbon Disulfide	ND	20		ND	62		40	9/22/11 12:39	TPH
Carbon Tetrachloride	ND	2.0		ND	13		40	9/22/11 12:39	TPH
Chlorobenzene	ND	2.0		ND	9.2		40	9/22/11 12:39	TPH
Chloroethane	ND	2.0		ND	5.3		40	9/22/11 12:39	TPH
Chloroform	ND	2.0		ND	9.8		40	9/22/11 12:39	TPH
Chloromethane	22	2.0		45	4.1		40	9/22/11 12:39	TPH
Cyclohexane	ND	2.0		ND	6.9		40	9/22/11 12:39	TPH
Dibromochloromethane	ND	2.0		ND	17		40	9/22/11 12:39	TPH
1,2-Dibromoethane (EDB)	ND	2.0		ND	15		40	9/22/11 12:39	TPH
1,2-Dichlorobenzene	ND	2.0		ND	12		40	9/22/11 12:39	TPH
1,3-Dichlorobenzene	ND	2.0		ND	12		40	9/22/11 12:39	TPH
1,4-Dichlorobenzene	ND	2.0		ND	12		40	9/22/11 12:39	TPH
Dichlorodifluoromethane (Freon 12)	ND	2.0		ND	9.9		40	9/22/11 12:39	TPH
1,1-Dichloroethane	6.6	2.0		27	8.1		40	9/22/11 12:39	TPH
1,2-Dichloroethane	ND	2.0		ND	8.1		40	9/22/11 12:39	TPH
1,1-Dichloroethylene	ND	2.0		ND	7.9		40	9/22/11 12:39	TPH
cis-1,2-Dichloroethylene	ND	2.0		ND	7.9		40	9/22/11 12:39	TPH
trans-1,2-Dichloroethylene	ND	2.0		ND	7.9		40	9/22/11 12:39	TPH
1,2-Dichloropropane	ND	2.0		ND	9.2		40	9/22/11 12:39	TPH
cis-1,3-Dichloropropene	ND	2.0		ND	9.1		40	9/22/11 12:39	TPH
trans-1,3-Dichloropropene	ND	2.0		ND	9.1		40	9/22/11 12:39	TPH
1,4-Dioxane	ND	2.0		ND	7.2		40	9/22/11 12:39	TPH
Ethanol	ND	80		ND	150		40	9/22/11 12:39	TPH
Ethyl Acetate	ND	2.0		ND	7.2		40	9/22/11 12:39	TPH
Ethylbenzene	ND	2.0		ND	8.7		40	9/22/11 12:39	TPH
4-Ethyltoluene	ND	2.0		ND	9.8		40	9/22/11 12:39	TPH
Heptane	ND	2.0		ND	8.2		40	9/22/11 12:39	TPH
Hexachlorobutadiene	ND	2.0		ND	21		40	9/22/11 12:39	TPH
Hexane	ND	80		ND	280		40	9/22/11 12:39	TPH
2-Hexanone (MBK)	ND	2.0		ND	8.2		40	9/22/11 12:39	TPH

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: EW-6-091511

Sample ID: 11I0571-09

Sample Matrix: Soil Gas

Sampled: 9/15/2011 13:23

Sample Description/Location:

Sub Description/Location:

Canister ID: 1118

Canister Size: 6 liter

Flow Controller ID: 4083

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -7

Receipt Vacuum(in Hg): -8

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-02

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Isopropanol	ND	80		ND	200		40	9/22/11 12:39	TPH
Methyl tert-Butyl Ether (MTBE)	ND	2.0		ND	7.2		40	9/22/11 12:39	TPH
Methylene Chloride	ND	20		ND	69		40	9/22/11 12:39	TPH
Methyl methacrylate	ND	2.0		ND	8.2		40	9/22/11 12:39	TPH
4-Methyl-2-pentanone (MIBK)	ND	2.0		ND	8.2		40	9/22/11 12:39	TPH
Propene	ND	80		ND	140		40	9/22/11 12:39	TPH
Styrene	ND	2.0		ND	8.5		40	9/22/11 12:39	TPH
1,1,1,2-Tetrachloroethane	ND	3.6		ND	25		40	9/22/11 12:39	TPH
1,1,2,2-Tetrachloroethane	ND	2.0		ND	14		40	9/22/11 12:39	TPH
Tetrachloroethylene	2.5	2.0		17	14		40	9/22/11 12:39	TPH
Tetrahydrofuran	11000	4.0		32000	12		80	9/22/11 15:08	TPH
Toluene	2.6	2.0		9.8	7.5		40	9/22/11 12:39	TPH
1,2,4-Trichlorobenzene	ND	4.0		ND	30		40	9/22/11 12:39	TPH
1,1,1-Trichloroethane	43	2.0		230	11		40	9/22/11 12:39	TPH
1,1,2-Trichloroethane	ND	2.0		ND	11		40	9/22/11 12:39	TPH
Trichloroethylene	72	2.0		390	11		40	9/22/11 12:39	TPH
Trichlorofluoromethane (Freon 11)	6.0	2.0		34	11		40	9/22/11 12:39	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	2.0		ND	15		40	9/22/11 12:39	TPH
1,2,4-Trimethylbenzene	ND	2.0		ND	9.8		40	9/22/11 12:39	TPH
1,3,5-Trimethylbenzene	ND	2.0		ND	9.8		40	9/22/11 12:39	TPH
Vinyl Acetate	ND	2.0		ND	7.0		40	9/22/11 12:39	TPH
Vinyl Chloride	ND	2.0		ND	5.1		40	9/22/11 12:39	TPH
m&p-Xylene	ND	4.0		ND	17		40	9/22/11 12:39	TPH
o-Xylene	ND	2.0		ND	8.7		40	9/22/11 12:39	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	103	70-130	9/22/11 15:08
4-Bromofluorobenzene (1)	103	70-130	9/22/11 12:39
4-Bromofluorobenzene (2)	96.0	70-130	9/22/11 15:08
4-Bromofluorobenzene (2)	98.5	70-130	9/22/11 12:39

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: EW-7-091511
Sample ID: 11I0571-10

Sample Matrix: Soil Gas

Sampled: 9/15/2011 11:36

Sample Description/Location:

Sub Description/Location:

Canister ID: 1255

Canister Size: 6 liter

Flow Controller ID: 4080

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-02

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Acetone	9.5	8.0		23	19		4	9/22/11 16:24	TPH
Benzene	0.79	0.20		2.5	0.64		4	9/22/11 16:24	TPH
Benzyl chloride	ND	0.20		ND	1.0		4	9/22/11 16:24	TPH
Bromodichloromethane	ND	0.20		ND	1.3		4	9/22/11 16:24	TPH
Bromoform	ND	0.20		ND	2.1		4	9/22/11 16:24	TPH
Bromomethane	ND	0.20		ND	0.78		4	9/22/11 16:24	TPH
1,3-Butadiene	ND	0.20		ND	0.44		4	9/22/11 16:24	TPH
2-Butanone (MEK)	ND	8.0		ND	24		4	9/22/11 16:24	TPH
Carbon Disulfide	ND	2.0		ND	6.2		4	9/22/11 16:24	TPH
Carbon Tetrachloride	ND	0.20		ND	1.3		4	9/22/11 16:24	TPH
Chlorobenzene	ND	0.20		ND	0.92		4	9/22/11 16:24	TPH
Chloroethane	0.70	0.20		1.9	0.53		4	9/22/11 16:24	TPH
Chloroform	1.0	0.20		5.0	0.98		4	9/22/11 16:24	TPH
Chloromethane	ND	0.20		ND	0.41		4	9/22/11 16:24	TPH
Cyclohexane	ND	0.20		ND	0.69		4	9/22/11 16:24	TPH
Dibromochloromethane	ND	0.20		ND	1.7		4	9/22/11 16:24	TPH
1,2-Dibromoethane (EDB)	ND	0.20		ND	1.5		4	9/22/11 16:24	TPH
1,2-Dichlorobenzene	ND	0.20		ND	1.2		4	9/22/11 16:24	TPH
1,3-Dichlorobenzene	ND	0.20		ND	1.2		4	9/22/11 16:24	TPH
1,4-Dichlorobenzene	ND	0.20		ND	1.2		4	9/22/11 16:24	TPH
Dichlorodifluoromethane (Freon 12)	0.55	0.20		2.7	0.99		4	9/22/11 16:24	TPH
1,1-Dichloroethane	37	0.20		150	0.81		4	9/22/11 16:24	TPH
1,2-Dichloroethane	ND	0.20		ND	0.81		4	9/22/11 16:24	TPH
1,1-Dichloroethylene	ND	0.20		ND	0.79		4	9/22/11 16:24	TPH
cis-1,2-Dichloroethylene	53	0.20		210	0.79		4	9/22/11 16:24	TPH
trans-1,2-Dichloroethylene	21	0.20		82	0.79		4	9/22/11 16:24	TPH
1,2-Dichloropropane	ND	0.20		ND	0.92		4	9/22/11 16:24	TPH
cis-1,3-Dichloropropene	ND	0.20		ND	0.91		4	9/22/11 16:24	TPH
trans-1,3-Dichloropropene	ND	0.20		ND	0.91		4	9/22/11 16:24	TPH
1,4-Dioxane	ND	0.20		ND	0.72		4	9/22/11 16:24	TPH
Ethanol	12	8.0		22	15		4	9/22/11 16:24	TPH
Ethyl Acetate	ND	0.20		ND	0.72		4	9/22/11 16:24	TPH
Ethylbenzene	ND	0.20		ND	0.87		4	9/22/11 16:24	TPH
4-Ethyltoluene	ND	0.20		ND	0.98		4	9/22/11 16:24	TPH
Heptane	ND	0.20		ND	0.82		4	9/22/11 16:24	TPH
Hexachlorobutadiene	ND	0.20		ND	2.1		4	9/22/11 16:24	TPH
Hexane	ND	8.0		ND	28		4	9/22/11 16:24	TPH
2-Hexanone (MBK)	ND	0.20		ND	0.82		4	9/22/11 16:24	TPH

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: EW-7-091511

Sample ID: 11I0571-10

Sample Matrix: Soil Gas

Sampled: 9/15/2011 11:36

Sample Description/Location:

Sub Description/Location:

Canister ID: 1255

Canister Size: 6 liter

Flow Controller ID: 4080

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-02

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Isopropanol	12	8.0		30	20		4	9/22/11 16:24	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72		4	9/22/11 16:24	TPH
Methylene Chloride	ND	2.0		ND	6.9		4	9/22/11 16:24	TPH
Methyl methacrylate	ND	0.20		ND	0.82		4	9/22/11 16:24	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.20		ND	0.82		4	9/22/11 16:24	TPH
Propene	ND	8.0		ND	14		4	9/22/11 16:24	TPH
Styrene	ND	0.20		ND	0.85		4	9/22/11 16:24	TPH
1,1,1,2-Tetrachloroethane	ND	0.36		ND	2.5		4	9/22/11 16:24	TPH
1,1,2,2-Tetrachloroethane	ND	0.20		ND	1.4		4	9/22/11 16:24	TPH
Tetrachloroethylene	66	0.20		450	1.4		4	9/22/11 16:24	TPH
Tetrahydrofuran	2.7	0.20		7.9	0.59		4	9/22/11 16:24	TPH
Toluene	0.51	0.20		1.9	0.75		4	9/22/11 16:24	TPH
1,2,4-Trichlorobenzene	ND	0.40		ND	3.0		4	9/22/11 16:24	TPH
1,1,1-Trichloroethane	21	0.20		110	1.1		4	9/22/11 16:24	TPH
1,1,2-Trichloroethane	ND	0.20		ND	1.1		4	9/22/11 16:24	TPH
Trichloroethylene	130	0.20		680	1.1		4	9/22/11 16:24	TPH
Trichlorofluoromethane (Freon 11)	440	2.0		2500	11		40	9/22/11 13:16	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.20		ND	1.5		4	9/22/11 16:24	TPH
1,2,4-Trimethylbenzene	ND	0.20		ND	0.98		4	9/22/11 16:24	TPH
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98		4	9/22/11 16:24	TPH
Vinyl Acetate	ND	0.20		ND	0.70		4	9/22/11 16:24	TPH
Vinyl Chloride	ND	0.20		ND	0.51		4	9/22/11 16:24	TPH
m&p-Xylene	ND	0.40		ND	1.7		4	9/22/11 16:24	TPH
o-Xylene	ND	0.20		ND	0.87		4	9/22/11 16:24	TPH

Surrogates % Recovery % REC Limits

4-Bromofluorobenzene (1)	102	70-130	9/22/11 13:16
4-Bromofluorobenzene (1)	103	70-130	9/22/11 16:24
4-Bromofluorobenzene (2)	96.2	70-130	9/22/11 13:16
4-Bromofluorobenzene (2)	94.8	70-130	9/22/11 16:24

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: EW-5-091511
Sample ID: 11I0571-11

Sample Matrix: Soil Gas

Sampled: 9/15/2011 10:53

Sample Description/Location:

Sub Description/Location:

Canister ID: 1192

Canister Size: 6 liter

Flow Controller ID: 4072

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-02

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Acetone	1400	80		3400	190		40	9/22/11 13:53	TPH
Benzene	ND	2.0		ND	6.4		40	9/22/11 13:53	TPH
Benzyl chloride	ND	2.0		ND	10		40	9/22/11 13:53	TPH
Bromodichloromethane	ND	2.0		ND	13		40	9/22/11 13:53	TPH
Bromoform	ND	2.0		ND	21		40	9/22/11 13:53	TPH
Bromomethane	ND	2.0		ND	7.8		40	9/22/11 13:53	TPH
1,3-Butadiene	ND	2.0		ND	4.4		40	9/22/11 13:53	TPH
2-Butanone (MEK)	4300	80		13000	240		40	9/22/11 13:53	TPH
Carbon Disulfide	ND	20		ND	62		40	9/22/11 13:53	TPH
Carbon Tetrachloride	ND	2.0		ND	13		40	9/22/11 13:53	TPH
Chlorobenzene	ND	2.0		ND	9.2		40	9/22/11 13:53	TPH
Chloroethane	2.8	2.0		7.5	5.3		40	9/22/11 13:53	TPH
Chloroform	ND	2.0		ND	9.8		40	9/22/11 13:53	TPH
Chloromethane	ND	2.0		ND	4.1		40	9/22/11 13:53	TPH
Cyclohexane	ND	2.0		ND	6.9		40	9/22/11 13:53	TPH
Dibromochloromethane	ND	2.0		ND	17		40	9/22/11 13:53	TPH
1,2-Dibromoethane (EDB)	ND	2.0		ND	15		40	9/22/11 13:53	TPH
1,2-Dichlorobenzene	ND	2.0		ND	12		40	9/22/11 13:53	TPH
1,3-Dichlorobenzene	ND	2.0		ND	12		40	9/22/11 13:53	TPH
1,4-Dichlorobenzene	ND	2.0		ND	12		40	9/22/11 13:53	TPH
Dichlorodifluoromethane (Freon 12)	ND	2.0		ND	9.9		40	9/22/11 13:53	TPH
1,1-Dichloroethane	11	2.0		44	8.1		40	9/22/11 13:53	TPH
1,2-Dichloroethane	ND	2.0		ND	8.1		40	9/22/11 13:53	TPH
1,1-Dichloroethylene	3.6	2.0		14	7.9		40	9/22/11 13:53	TPH
cis-1,2-Dichloroethylene	8.8	2.0		35	7.9		40	9/22/11 13:53	TPH
trans-1,2-Dichloroethylene	ND	2.0		ND	7.9		40	9/22/11 13:53	TPH
1,2-Dichloropropane	ND	2.0		ND	9.2		40	9/22/11 13:53	TPH
cis-1,3-Dichloropropene	ND	2.0		ND	9.1		40	9/22/11 13:53	TPH
trans-1,3-Dichloropropene	ND	2.0		ND	9.1		40	9/22/11 13:53	TPH
1,4-Dioxane	ND	2.0		ND	7.2		40	9/22/11 13:53	TPH
Ethanol	ND	80		ND	150		40	9/22/11 13:53	TPH
Ethyl Acetate	ND	2.0		ND	7.2		40	9/22/11 13:53	TPH
Ethylbenzene	ND	2.0		ND	8.7		40	9/22/11 13:53	TPH
4-Ethyltoluene	ND	2.0		ND	9.8		40	9/22/11 13:53	TPH
Heptane	ND	2.0		ND	8.2		40	9/22/11 13:53	TPH
Hexachlorobutadiene	ND	2.0		ND	21		40	9/22/11 13:53	TPH
Hexane	ND	80		ND	280		40	9/22/11 13:53	TPH
2-Hexanone (MBK)	ND	2.0		ND	8.2		40	9/22/11 13:53	TPH

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: EW-5-091511
Sample ID: 11I0571-11

Sample Matrix: Soil Gas

Sampled: 9/15/2011 10:53

Sample Description/Location:

Sub Description/Location:

Canister ID: 1192

Canister Size: 6 liter

Flow Controller ID: 4072

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-02

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Isopropanol	ND	80		ND	200		40	9/22/11 13:53	TPH
Methyl tert-Butyl Ether (MTBE)	ND	2.0		ND	7.2		40	9/22/11 13:53	TPH
Methylene Chloride	ND	20		ND	69		40	9/22/11 13:53	TPH
Methyl methacrylate	ND	2.0		ND	8.2		40	9/22/11 13:53	TPH
4-Methyl-2-pentanone (MIBK)	ND	2.0		ND	8.2		40	9/22/11 13:53	TPH
Propene	ND	80		ND	140		40	9/22/11 13:53	TPH
Styrene	ND	2.0		ND	8.5		40	9/22/11 13:53	TPH
1,1,1,2-Tetrachloroethane	ND	3.6		ND	25		40	9/22/11 13:53	TPH
1,1,2,2-Tetrachloroethane	ND	2.0		ND	14		40	9/22/11 13:53	TPH
Tetrachloroethylene	ND	2.0		ND	14		40	9/22/11 13:53	TPH
Tetrahydrofuran	14000	4.0		41000	12		80	9/22/11 15:45	TPH
Toluene	ND	2.0		ND	7.5		40	9/22/11 13:53	TPH
1,2,4-Trichlorobenzene	ND	4.0		ND	30		40	9/22/11 13:53	TPH
1,1,1-Trichloroethane	80	2.0		430	11		40	9/22/11 13:53	TPH
1,1,2-Trichloroethane	ND	2.0		ND	11		40	9/22/11 13:53	TPH
Trichloroethylene	180	2.0		940	11		40	9/22/11 13:53	TPH
Trichlorofluoromethane (Freon 11)	ND	2.0		ND	11		40	9/22/11 13:53	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	2.0		ND	15		40	9/22/11 13:53	TPH
1,2,4-Trimethylbenzene	ND	2.0		ND	9.8		40	9/22/11 13:53	TPH
1,3,5-Trimethylbenzene	ND	2.0		ND	9.8		40	9/22/11 13:53	TPH
Vinyl Acetate	ND	2.0		ND	7.0		40	9/22/11 13:53	TPH
Vinyl Chloride	2.4	2.0		6.2	5.1		40	9/22/11 13:53	TPH
m&p-Xylene	ND	4.0		ND	17		40	9/22/11 13:53	TPH
o-Xylene	ND	2.0		ND	8.7		40	9/22/11 13:53	TPH

Surrogates % Recovery % REC Limits

4-Bromofluorobenzene (1)	104	70-130	9/22/11 15:45
4-Bromofluorobenzene (1)	102	70-130	9/22/11 13:53
4-Bromofluorobenzene (2)	95.4	70-130	9/22/11 15:45
4-Bromofluorobenzene (2)	97.1	70-130	9/22/11 13:53

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: EW-COMBINED-091511
Sample ID: 11I0571-12

Sample Matrix: Soil Gas

Sampled: 9/15/2011 12:39

Sample Description/Location:

Sub Description/Location:

Canister ID: 1233

Canister Size: 6 liter

Flow Controller ID: 4086

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-02

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Acetone	ND	8.0		ND	19		4	9/22/11 17:03	TPH
Benzene	0.24	0.20		0.77	0.64		4	9/22/11 17:03	TPH
Benzyl chloride	ND	0.20		ND	1.0		4	9/22/11 17:03	TPH
Bromodichloromethane	ND	0.20		ND	1.3		4	9/22/11 17:03	TPH
Bromoform	ND	0.20		ND	2.1		4	9/22/11 17:03	TPH
Bromomethane	ND	0.20		ND	0.78		4	9/22/11 17:03	TPH
1,3-Butadiene	ND	0.20		ND	0.44		4	9/22/11 17:03	TPH
2-Butanone (MEK)	ND	8.0		ND	24		4	9/22/11 17:03	TPH
Carbon Disulfide	ND	2.0		ND	6.2		4	9/22/11 17:03	TPH
Carbon Tetrachloride	ND	0.20		ND	1.3		4	9/22/11 17:03	TPH
Chlorobenzene	ND	0.20		ND	0.92		4	9/22/11 17:03	TPH
Chloroethane	2.5	0.20		6.7	0.53		4	9/22/11 17:03	TPH
Chloroform	1.6	0.20		7.6	0.98		4	9/22/11 17:03	TPH
Chloromethane	ND	0.20		ND	0.41		4	9/22/11 17:03	TPH
Cyclohexane	ND	0.20		ND	0.69		4	9/22/11 17:03	TPH
Dibromochloromethane	ND	0.20		ND	1.7		4	9/22/11 17:03	TPH
1,2-Dibromoethane (EDB)	ND	0.20		ND	1.5		4	9/22/11 17:03	TPH
1,2-Dichlorobenzene	ND	0.20		ND	1.2		4	9/22/11 17:03	TPH
1,3-Dichlorobenzene	ND	0.20		ND	1.2		4	9/22/11 17:03	TPH
1,4-Dichlorobenzene	ND	0.20		ND	1.2		4	9/22/11 17:03	TPH
Dichlorodifluoromethane (Freon 12)	0.60	0.20		2.9	0.99		4	9/22/11 17:03	TPH
1,1-Dichloroethane	49	0.20		200	0.81		4	9/22/11 17:03	TPH
1,2-Dichloroethane	ND	0.20		ND	0.81		4	9/22/11 17:03	TPH
1,1-Dichloroethylene	11	0.20		44	0.79		4	9/22/11 17:03	TPH
cis-1,2-Dichloroethylene	40	0.20		160	0.79		4	9/22/11 17:03	TPH
trans-1,2-Dichloroethylene	0.87	0.20		3.5	0.79		4	9/22/11 17:03	TPH
1,2-Dichloropropane	ND	0.20		ND	0.92		4	9/22/11 17:03	TPH
cis-1,3-Dichloropropene	ND	0.20		ND	0.91		4	9/22/11 17:03	TPH
trans-1,3-Dichloropropene	ND	0.20		ND	0.91		4	9/22/11 17:03	TPH
1,4-Dioxane	ND	0.20		ND	0.72		4	9/22/11 17:03	TPH
Ethanol	ND	8.0		ND	15		4	9/22/11 17:03	TPH
Ethyl Acetate	ND	0.20		ND	0.72		4	9/22/11 17:03	TPH
Ethylbenzene	ND	0.20		ND	0.87		4	9/22/11 17:03	TPH
4-Ethyltoluene	ND	0.20		ND	0.98		4	9/22/11 17:03	TPH
Heptane	ND	0.20		ND	0.82		4	9/22/11 17:03	TPH
Hexachlorobutadiene	ND	0.20		ND	2.1		4	9/22/11 17:03	TPH
Hexane	ND	8.0		ND	28		4	9/22/11 17:03	TPH
2-Hexanone (MBK)	ND	0.20		ND	0.82		4	9/22/11 17:03	TPH

ANALYTICAL RESULTS

Project Location: Providence RI, Gorham

Date Received: 9/15/2011

Field Sample #: EW-COMBINED-091511
Sample ID: 11I0571-12

Sample Matrix: Soil Gas

Sampled: 9/15/2011 12:39

Sample Description/Location:

Sub Description/Location:

Canister ID: 1233

Canister Size: 6 liter

Flow Controller ID: 4086

Sample Type: 30 min

Work Order: 11I0571

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Sample Flags: RL-02

Analyte	ppbv			ug/m3			Dilution	Date/Time Analyzed	Analyst
	Results	RL	Flag	Results	RL				
Isopropanol	ND	8.0		ND	20		4	9/22/11 17:03	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.20		ND	0.72		4	9/22/11 17:03	TPH
Methylene Chloride	ND	2.0		ND	6.9		4	9/22/11 17:03	TPH
Methyl methacrylate	ND	0.20		ND	0.82		4	9/22/11 17:03	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.20		ND	0.82		4	9/22/11 17:03	TPH
Propene	ND	8.0		ND	14		4	9/22/11 17:03	TPH
Styrene	ND	0.20		ND	0.85		4	9/22/11 17:03	TPH
1,1,1,2-Tetrachloroethane	ND	0.36		ND	2.5		4	9/22/11 17:03	TPH
1,1,2,2-Tetrachloroethane	ND	0.20		ND	1.4		4	9/22/11 17:03	TPH
Tetrachloroethylene	65	0.20		440	1.4		4	9/22/11 17:03	TPH
Tetrahydrofuran	7.1	0.20		21	0.59		4	9/22/11 17:03	TPH
Toluene	ND	0.20		ND	0.75		4	9/22/11 17:03	TPH
1,2,4-Trichlorobenzene	ND	0.40		ND	3.0		4	9/22/11 17:03	TPH
1,1,1-Trichloroethane	430	2.0		2400	11		40	9/22/11 14:31	TPH
1,1,2-Trichloroethane	ND	0.20		ND	1.1		4	9/22/11 17:03	TPH
Trichloroethylene	350	2.0		1900	11		40	9/22/11 14:31	TPH
Trichlorofluoromethane (Freon 11)	110	0.20		610	1.1		4	9/22/11 17:03	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.20		ND	1.5		4	9/22/11 17:03	TPH
1,2,4-Trimethylbenzene	ND	0.20		ND	0.98		4	9/22/11 17:03	TPH
1,3,5-Trimethylbenzene	ND	0.20		ND	0.98		4	9/22/11 17:03	TPH
Vinyl Acetate	ND	0.20		ND	0.70		4	9/22/11 17:03	TPH
Vinyl Chloride	ND	0.20		ND	0.51		4	9/22/11 17:03	TPH
m&p-Xylene	ND	0.40		ND	1.7		4	9/22/11 17:03	TPH
o-Xylene	ND	0.20		ND	0.87		4	9/22/11 17:03	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	102	70-130	9/22/11 14:31
4-Bromofluorobenzene (1)	102	70-130	9/22/11 17:03
4-Bromofluorobenzene (2)	96.1	70-130	9/22/11 14:31
4-Bromofluorobenzene (2)	95.3	70-130	9/22/11 17:03

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
11I0571-01 [IA-1-091511]	B037894	1.5	1	N/A	1000	400	600	09/21/11
11I0571-02 [IA-2-091511]	B037894	1.5	1	N/A	1000	400	600	09/21/11
11I0571-03 [IA-3-091511]	B037894	1.5	1	N/A	1000	400	600	09/21/11
11I0571-04 [IA-4-091511]	B037894	1.5	1	N/A	1000	400	600	09/21/11
11I0571-05 [IA-5-091511]	B037894	1.5	1	N/A	1000	400	600	09/21/11
11I0571-06 [IA-6-091511]	B037894	1.5	1	N/A	1000	400	600	09/21/11
11I0571-07 [IA-7-091511]	B037894	1.5	1	N/A	1000	400	600	09/21/11
11I0571-08 [AA-1-091511]	B037894	1.5	1	N/A	1000	400	600	09/21/11
11I0571-09 [EW-6-091511]	B037894	2	1	N/A	1000	400	20	09/21/11
11I0571-09RE1 [EW-6-091511]	B037894	2	1	N/A	1000	400	10	09/21/11
11I0571-10 [EW-7-091511]	B037894	2	1	N/A	1000	400	200	09/21/11
11I0571-10RE1 [EW-7-091511]	B037894	2	1	N/A	1000	400	20	09/21/11
11I0571-11 [EW-5-091511]	B037894	2	1	N/A	1000	400	20	09/21/11
11I0571-11RE1 [EW-5-091511]	B037894	2	1	N/A	1000	400	10	09/21/11
11I0571-12 [EW-COMBINED-091511]	B037894	2	1	N/A	1000	400	200	09/21/11
11I0571-12RE1 [EW-COMBINED-091511]	B037894	2	1	N/A	1000	400	20	09/21/11

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Flag
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Batch B037894 - TO-15 Prep

Blank (B037894-BLK1)	Prepared & Analyzed: 09/21/11										
Acetone	ND	1.0									
Benzene	ND	0.025									
Benzyl chloride	ND	0.025									
Bromodichloromethane	ND	0.025									
Bromoform	ND	0.025									
Bromomethane	ND	0.025									
1,3-Butadiene	ND	0.025									
2-Butanone (MEK)	ND	1.0									
Carbon Disulfide	ND	0.25									
Carbon Tetrachloride	ND	0.025									
Chlorobenzene	ND	0.025									
Chloroethane	ND	0.025									
Chloroform	ND	0.025									
Chloromethane	ND	0.025									
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									
1,4-Dioxane	ND	0.025									
Ethanol	ND	1.0									
Ethyl Acetate	ND	0.025									
Ethylbenzene	ND	0.025									
4-Ethyltoluene	ND	0.025									
Heptane	ND	0.025									
Hexachlorobutadiene	ND	0.025									
Hexane	ND	1.0									
2-Hexanone (MBK)	ND	0.025									
Isopropanol	ND	1.0									
Methyl tert-Butyl Ether (MTBE)	ND	0.025									
Methylene Chloride	ND	0.25									
Methyl methacrylate	ND	0.025									
4-Methyl-2-pentanone (MIBK)	ND	0.025									
Propene	ND	1.0									
Styrene	ND	0.025									
1,1,1,2-Tetrachloroethane	ND	0.046									

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	Limits	RPD RPD	RPD Limit	Flag
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Batch B037894 - TO-15 Prep

Blank (B037894-BLK1)	Prepared & Analyzed: 09/21/11						
1,1,2,2-Tetrachloroethane	ND	0.025					
Tetrachloroethylene	ND	0.025					
Tetrahydrofuran	ND	0.025					
Toluene	ND	0.025					
1,2,4-Trichlorobenzene	ND	0.025					
1,1,1-Trichloroethane	ND	0.025					
1,1,2-Trichloroethane	ND	0.025					
Trichloroethylene	ND	0.025					
Trichlorofluoromethane (Freon 11)	ND	0.025					
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.025					
1,2,4-Trimethylbenzene	ND	0.025					
1,3,5-Trimethylbenzene	ND	0.025					
Vinyl Acetate	ND	0.025					
Vinyl Chloride	ND	0.025					
m&p-Xylene	ND	0.050					
o-Xylene	ND	0.025					
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	8.07		8.00		101	70-130	
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	7.71		8.00		96.4	70-130	

LCS (B037894-BS1)	Prepared & Analyzed: 09/21/11						
Acetone	5.83		5.00		117	50-150	
Benzene	3.86		5.00		77.1	70-130	
Benzyl chloride	5.96		5.00		119	70-130	
Bromodichloromethane	4.75		5.00		94.9	70-130	
Bromoform	6.19		5.00		124	70-130	V-06
Bromomethane	5.30		5.00		106	70-130	
1,3-Butadiene	5.30		5.00		106	70-130	
2-Butanone (MEK)	4.46		5.00		89.2	70-130	
Carbon Disulfide	4.16		5.00		83.1	70-130	
Carbon Tetrachloride	5.64		5.00		113	70-130	
Chlorobenzene	4.48		5.00		89.6	70-130	
Chloroethane	5.44		5.00		109	70-130	
Chloroform	4.69		5.00		93.9	70-130	
Chloromethane	4.99		5.00		99.8	70-130	
Cyclohexane	4.18		5.00		83.6	50-150	
Dibromochloromethane	5.40		5.00		108	70-130	
1,2-Dibromoethane (EDB)	4.40		5.00		87.9	70-130	
1,2-Dichlorobenzene	5.29		5.00		106	70-130	
1,3-Dichlorobenzene	5.35		5.00		107	70-130	
1,4-Dichlorobenzene	5.26		5.00		105	70-130	
Dichlorodifluoromethane (Freon 12)	5.66		5.00		113	70-130	
1,1-Dichloroethane	4.40		5.00		88.1	70-130	
1,2-Dichloroethane	5.00		5.00		100	70-130	
1,1-Dichloroethylene	4.51		5.00		90.3	70-130	
cis-1,2-Dichloroethylene	4.47		5.00		89.3	70-130	
trans-1,2-Dichloroethylene	4.47		5.00		89.3	70-130	

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	Limits	RPD RPD	Limit	Flag
Batch B037894 - TO-15 Prep											
LCS (B037894-BS1)											
Prepared & Analyzed: 09/21/11											
1,2-Dichloropropane	3.97		5.00		79.3	70-130					
cis-1,3-Dichloropropene	4.70		5.00		94.0	70-130					
trans-1,3-Dichloropropene	4.42		5.00		88.4	70-130					
1,4-Dioxane	3.90		5.00		78.1	70-130					
Ethanol	4.22		5.00		84.4	50-150					
Ethyl Acetate	4.00		5.00		80.0	50-150					
Ethylbenzene	4.74		5.00		94.7	70-130					
4-Ethyltoluene	5.16		5.00		103	50-150					
Heptane	4.41		5.00		88.3	50-150					
Hexachlorobutadiene	6.10		5.00		122	70-130					
Hexane	5.27		5.00		105	70-130					
2-Hexanone (MBK)	4.02		5.00		80.4	50-150					
Isopropanol	4.24		5.00		84.7	50-150					
Methyl tert-Butyl Ether (MTBE)	4.67		5.00		93.3	70-130					
Methylene Chloride	4.46		5.00		89.2	70-130					
Methyl methacrylate	4.32		5.00		86.4	70-130					
4-Methyl-2-pentanone (MIBK)	4.16		5.00		83.1	70-130					
Propene	5.19		5.00		104	50-150					
Styrene	4.84		5.00		96.7	70-130					
1,1,1,2-Tetrachloroethane	0.729		0.910		80.1	50-150					
1,1,2,2-Tetrachloroethane	4.46		5.00		89.1	70-130					
Tetrachloroethylene	4.70		5.00		94.0	70-130					
Tetrahydrofuran	4.53		5.00		90.6	50-150					
Toluene	4.42		5.00		88.4	70-130					
1,2,4-Trichlorobenzene	6.14		5.00		123	70-130					
1,1,1-Trichloroethane	4.72		5.00		94.4	70-130					
1,1,2-Trichloroethane	4.26		5.00		85.2	70-130					
Trichloroethylene	4.26		5.00		85.2	70-130					
Trichlorofluoromethane (Freon 11)	5.98		5.00		120	70-130					
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.75		5.00		95.0	70-130					
1,2,4-Trimethylbenzene	5.19		5.00		104	70-130					
1,3,5-Trimethylbenzene	5.18		5.00		104	70-130					
Vinyl Acetate	4.59		5.00		91.9	70-130					
Vinyl Chloride	5.10		5.00		102	70-130					
m&p-Xylene	10.0		10.0		100	70-130					
o-Xylene	4.89		5.00		97.9	70-130					
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	8.32		8.00		104	70-130					
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	7.70		8.00		96.3	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	RPD Limits	RPD RPD	RPD Limit	Flag
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Batch B037894 - TO-15 Prep

Duplicate (B037894-DUP1)	Source: 1110571-01				Prepared: 09/21/11 Analyzed: 09/22/11						
Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	RPD Limits	RPD RPD	RPD Limit	Flag
Acetone	7.8	2.0	18	4.8		7.6			1.90	25	
Benzene	0.10	0.050	0.33	0.16		0.099			2.99	25	
Benzyl chloride	ND	0.050	ND	0.26		ND				25	
Bromodichloromethane	ND	0.050	ND	0.34		ND				25	
Bromoform	ND	0.050	ND	0.52		ND				25	
Bromomethane	ND	0.050	ND	0.19		ND				25	
1,3-Butadiene	ND	0.050	ND	0.11		ND				25	
2-Butanone (MEK)	1.0	2.0	3.0	5.9		1.0			2.52	25	
Carbon Disulfide	ND	0.50	ND	1.6		ND				25	
Carbon Tetrachloride	0.081	0.050	0.51	0.31		0.091			11.6	25	
Chlorobenzene	ND	0.050	ND	0.23		ND				25	
Chloroethane	ND	0.050	ND	0.13		ND				25	
Chloroform	0.018	0.050	0.088	0.24		0.018			0.00	25	
Chloromethane	0.60	0.050	1.2	0.10		0.62			2.80	25	
Cyclohexane	ND	0.050	ND	0.17		ND				25	
Dibromochloromethane	ND	0.050	ND	0.43		ND				25	
1,2-Dibromoethane (EDB)	ND	0.050	ND	0.38		ND				25	
1,2-Dichlorobenzene	ND	0.050	ND	0.30		ND				25	
1,3-Dichlorobenzene	ND	0.050	ND	0.30		ND				25	
1,4-Dichlorobenzene	ND	0.050	ND	0.30		ND				25	
Dichlorodifluoromethane (Freon 12)	0.33	0.050	1.6	0.25		0.40			17.9	25	
1,1-Dichloroethane	ND	0.050	ND	0.20		ND				25	
1,2-Dichloroethane	ND	0.050	ND	0.20		ND				25	
1,1-Dichloroethylene	ND	0.050	ND	0.20		ND				25	
cis-1,2-Dichloroethylene	ND	0.050	ND	0.20		ND				25	
trans-1,2-Dichloroethylene	ND	0.050	ND	0.20		ND				25	
1,2-Dichloropropane	ND	0.050	ND	0.23		ND				25	
cis-1,3-Dichloropropene	ND	0.050	ND	0.23		ND				25	
trans-1,3-Dichloropropene	ND	0.050	ND	0.23		ND				25	
1,4-Dioxane	ND	0.050	ND	0.18		ND				25	
Ethanol	3.3	2.0	6.3	3.8		3.4			1.87	25	
Ethyl Acetate	ND	0.050	ND	0.18		ND				25	
Ethylbenzene	0.036	0.050	0.16	0.22		0.037			2.74	25	
4-Ethyltoluene	ND	0.050	ND	0.25		ND				25	
Heptane	0.034	0.050	0.14	0.20		0.031			9.23	25	
Hexachlorobutadiene	ND	0.050	ND	0.53		ND				25	
Hexane	0.11	2.0	0.39	7.0		0.12			6.11	25	
2-Hexanone (MBK)	0.16	0.050	0.66	0.20		0.15			6.41	25	
Isopropanol	1.0	2.0	2.5	4.9		0.92			8.11	25	
Methyl tert-Butyl Ether (MTBE)	ND	0.050	ND	0.18		ND				25	
Methylene Chloride	0.22	0.50	0.78	1.7		0.25			11.3	25	
Methyl methacrylate	ND	0.050	ND	0.20		ND				25	
4-Methyl-2-pentanone (MIBK)	0.074	0.050	0.30	0.20		0.056			27.7	25	
Propene	ND	2.0	ND	3.4		ND				25	
Styrene	0.012	0.050	0.051	0.21		ND				25	
1,1,1,2-Tetrachloroethane	ND	0.091	ND	0.62		ND				25	

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	RPD Limits	RPD RPD	RPD Limit	Flag
Batch B037894 - TO-15 Prep											
Duplicate (B037894-DUP1)											
Source: 1110571-01 Prepared: 09/21/11 Analyzed: 09/22/11											
1,1,2,2-Tetrachloroethane	ND	0.050	ND	0.34		ND				25	
Tetrachloroethylene	0.070	0.050	0.47	0.34		0.069			1.44	25	
Tetrahydrofuran	ND	0.050	ND	0.15		ND				25	
Toluene	0.25	0.050	0.96	0.19		0.25			2.79	25	
1,2,4-Trichlorobenzene	ND	0.050	ND	0.37		ND				25	
1,1,1-Trichloroethane	ND	0.050	ND	0.27		ND				25	
1,1,2-Trichloroethane	ND	0.050	ND	0.27		ND				25	
Trichloroethylene	ND	0.050	ND	0.27		ND				25	
Trichlorofluoromethane (Freon 11)	0.32	0.050	1.8	0.28		0.32			0.629	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.079	0.050	0.61	0.38		0.077			2.56	25	
1,2,4-Trimethylbenzene	0.043	0.050	0.21	0.25		0.040			7.23	25	
1,3,5-Trimethylbenzene	0.016	0.050	0.079	0.25		0.014			13.3	25	
Vinyl Acetate	ND	0.050	ND	0.18		ND				25	
Vinyl Chloride	ND	0.050	ND	0.13		ND				25	
m&p-Xylene	0.12	0.10	0.53	0.43		0.12			2.51	25	
o-Xylene	0.048	0.050	0.21	0.22		0.046			4.26	25	
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	7.82				8.00		97.8	70-130			
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	7.41				8.00		92.6	70-130			

FLAG/QUALIFIER SUMMARY

- * QC result is outside of established limits.
 - † Wide recovery limits established for difficult compound.
 - ‡ Wide RPD limits established for difficult compound.
 - # Data exceeded client recommended or regulatory level
- Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
- RL-02 Elevated reporting limit due to high concentration of non-target compounds. Requested detection limit not met.
- V-06 Continuing calibration did not meet method specifications and was biased on the high side for this compound.
Increased uncertainty is associated with the reported value which is likely to be biased on the high side.

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Acetone	AIHA
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
Dibromochloromethane	AIHA
1,2-Dibromoethane (EDB)	AIHA,NJ
1,2-Dichlorobenzene	AIHA,FL,NJ,NY
1,3-Dichlorobenzene	AIHA,NJ
1,4-Dichlorobenzene	AIHA,FL,NJ,NY
Dichlorodifluoromethane (Freon 12)	AIHA
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,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
1,4-Dioxane	AIHA,NJ
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 (MBK)	AIHA
Isopropanol	AIHA,NY
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

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA TO-15 in Air	
Tetrahydrofuran	AIHA
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
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	AIHA,NJ,NY
1,2,4-Trimethylbenzene	AIHA,NJ
1,3,5-Trimethylbenzene	AIHA,NJ
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	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2012
CT	Connecticut Department of Public Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2012
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2012
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2012
FL	Florida Department of Health	E871027 NELAP	06/30/2012
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2012
WA	State of Washington Department of Ecology	C2065	02/23/2012
ME	State of Maine	2011028	06/9/2013



**AIR SAMPLE CHAIN OF CUSTODY
RECORD**

39 SPRUCE ST
EAST LONGMEADOW, MA 01028

Page 1 of 2

www.contestlabs.com

Telephone: (81) 245-6605

Fax: 413-525-6405

Email: info@contestlabs.com

Project # 36500 8011

1110571

Page 37 of 39

Company Name: Mack / AMEC
Address: 107 Audubon Rd.
Wellesfield, MA
Kelly Chatterton

Attention:

Project Location:

Sampled By: Mark Maguire

Proposal Provided? (For Billing purposes)

yes _____ proposal date

Date Sampled	ONLY USE WHEN USING PUMPS				
	Start	Stop	Total	Flow Rate	Volume
Date	Date	Minutes	M³/Min. or L/T Min.	Liters or M³	Matrix Code*
9/15/11	9/15/11	30	0.2	6	IA
0932	1002	30	0.2	6	IA
9/15/11	9/15/11	30	0.2	6	IA
0931	1001	30	0.2	6	IA
9/15/11	9/15/11	30	0.2	6	IA
0933	1003	30	0.2	6	IA
9/15/11	9/15/11	30	0.2	6	IA
1130	1150	30	0.2	6	IA
9/15/11	9/15/11	30	0.2	6	IA
1138	1138	30	0.2	6	IA
9/15/11	9/15/11	30	0.2	6	AMB
1205	1235	30	0.2	6	AMB

TO-15 (low level)		Summa Canister ID		Flow Controller ID
29	-6	6	6	1823
29	-6	6	6	1068
39	-8	6	6	1841
39	-8	6	6	4071
30	-6	6	6	1616
30	-6	6	6	4091
30	-6	6	6	1633
30	-6	6	6	4105
30	-6	6	6	1504
30	-6	6	6	4081
30	-6	6	6	1063
30	-6	6	6	4073

TO-15 (low level)		Summa Canister ID		Flow Controller ID
29	-6	6	6	1823
29	-6	6	6	1068
39	-8	6	6	1841
39	-8	6	6	4071
30	-6	6	6	1616
30	-6	6	6	4091
30	-6	6	6	1633
30	-6	6	6	4105
30	-6	6	6	1504
30	-6	6	6	4081
30	-6	6	6	1063
30	-6	6	6	4073

TO-15 (low level)		Summa Canister ID		Flow Controller ID
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30	-6	6	6	1633
30	-6	6	6	4105
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TO-15 (low level)		Summa Canister ID		Flow Controller ID
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39	-8	6	6	4071
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30	-6	6	6	1633
30	-6	6	6	4105
30	-6	6	6	1504
30	-6	6	6	4081
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TO-15 (low level)		Summa Canister ID		Flow Controller ID
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30	-6	6	6	1633
30	-6	6	6	4105
30	-6	6	6	1504
30	-6	6	6	4081
30	-6	6	6	1063
30	-6	6	6	4073

TO-15 (low level)		Summa Canister ID		Flow Controller ID
29	-6	6	6	1823
29	-6	6	6	1068
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39	-8	6	6	4071
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30	-6	6	6	1633
30	-6	6	6	4105
30	-6	6	6	1504
30	-6	6	6	4081
30	-6	6	6	1063
30	-6	6	6	4073

TO-15 (low level)		Summa Canister ID		Flow Controller ID
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30	-6	6	6	1633
30	-6	6	6	4105
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30	-6	6	6	4073

TO-15 (low level)		Summa Canister ID		Flow Controller ID
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30	-6	6	6	1633
30	-6	6	6	4105
30	-6	6	6	1504
30	-6	6	6	4081
30	-6	6	6	1063
30	-6	6	6	4073

TO-15 (low level)		Summa Canister ID		Flow Controller ID
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29	-6	6	6	1068
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39	-8	6	6	4071
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30	-6	6	6	1633
30	-6	6	6	4105
30	-6	6	6	1504
30	-6	6	6	4081
30	-6	6	6	1063
30	-6	6	6	4073

TO-15 (low level)		Summa Canister ID		Flow Controller ID
29	-6	6	6	1823
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39	-8	6	6	1841
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30	-6	6	6	1616
30	-6	6	6	4091
30	-6	6	6	1633
30	-6	6	6	4105
30	-6	6	6	1504
30	-6	6	6	4081
30	-6	6	6	1063
30	-6	6	6	4073

TO-15 (low level)		Summa Canister ID		Flow Controller ID
29	-6	6	6	1823
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30	-6	6	6	4105
30	-6	6	6	1504
30	-6	6	6	4081
30	-6	6	6	1063
30	-6	6	6	4073

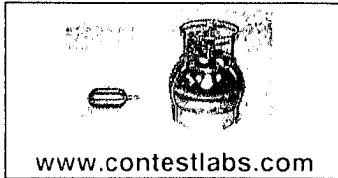
TO-15 (low level)		Summa Canister ID		Flow Controller ID
29	-6	6	6	1823
29	-6	6	6	1068
39	-8	6	6	1841
39	-8	6	6	4071
30	-6	6	6	1616
30	-6	6	6	4091
30	-6	6	6	1633
30	-6	6	6	4105
30	-6	6	6	1504
30	-6	6		



Phone: 413-525-2332 **AIR SAMPLE CHAIN OF CUSTODY**
Fax: 413-525-6405 **RECORD**

39 SPRUCE ST
EAST LONGMEADOW, MA 01021

Page 2 of 2



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	12	30 min
	Restrictors		
Extras	Tubing		
	Other		

Unused Summas: _____

Unused Regulators: _____

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:	4072	4071	4086	1855	1233	1633
	4073	4105	4083	1118	1063	1823
	4091	4084	4080	1255	1504	1841
	4068	4075	4085	1192	1221	1616

APPENDIX B

Analytical Laboratory Detection Limits



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

Analyte:

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



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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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APH COMPOUNDS

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



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EXTRA COMPOUNDS

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

OTHER COMPOUNDS

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