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October 26, 2018

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  
September 2018 Semi-Annual Monitoring  
Retail Complex, Active Sub-Slab Depressurization System  
Former Gorham Manufacturing Facility  
333 Adelaide Avenue, Providence, Rhode Island  
Wood Project No. 3651180075**

Dear Mr. Martella:

This letter report presents the results of semi-annual compliance sampling and analysis conducted by Wood Environment and Infrastructure Solutions, Inc. (formerly Amec Foster Wheeler) at the retail complex located at the Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island (Site). The reporting period is from March 2018 through September 2018 and includes one semi-annual compliance sampling event conducted on September 12, 2018.

The sampling, analysis and reporting are being conducted consistent with the Rhode Island Department of Environmental Management (RIDEM) 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 (**Figure 1**).

The small retail spaces consist of the eastern, central, and western retail spaces (**Figure 1**). The mitigation systems in the central and western 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 the small retail spaces. The eastern small retail space extraction well is located along the wall of the large retail space (EW-5) and is part of the ASD system described above.



## **Current Monitoring Results**

The following provides a discussion of results from sampling conducted on September 12, 2018. The sampling was performed consistent with the requirements of the Orders of Approval. This is the fifth semi-annual monitoring event since the change from quarterly monitoring after February 2016, based on the historical indoor air data and performance of the existing vapor mitigation system.

The laboratory analytical report (18I0590) for all analyses is provided in **Appendix A**, and the laboratory's detection limits are provided in **Appendix B**.

Consistent with previous reports, analytical results of the most recent 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.

## **Outdoor Reference Sample**

One outdoor reference air sample (AA-1) was located north of the property, upwind of the retail building. The results for the outdoor reference sample are provided in **Table 1** (two most recent sampling events). All historic outdoor reference sample results are provided in **Appendix C**.

## **Small Retail Spaces**

The September 2018 sampling event included an indoor air sample from each of the three small retail spaces (locations IA-5, IA-6, and IA-7) and one air sample collected from each of the three vapor extraction wells (EW-5, EW-6, and EW-7). The sub-slab vacuum monitoring (pressure differential measurements) was conducted at locations VMW-5, VMW-6, and VMW-7 on September 12, 2018 in conjunction with the semi-annual air sampling program. The sampling locations are shown in **Figure 1**.

Analytical results for the small retail spaces are summarized in **Table 2a** (indoor air, two most recent sampling events), and **Table 2b** (extraction wells, two most recent sampling events). For reference, all analytical results for the small retail spaces from initiation of sampling in 2009, including a baseline event prior to system start-up in February 2009, and all subsequent sampling events are presented in **Appendix D1** (indoor air, small retail) and **Appendix D2** (extraction wells, small retail). The vacuum monitoring results for the small retail spaces are presented in **Table 3**.

The following conclusions are based on Site observations and the September 2018 analytical results:

- Indoor air sample results for the September 12, 2018 semi-annual sampling event in the small retail spaces (sample locations IA-5 through IA-7) were in compliance with action levels except for 1,2-Dichloroethane (1,2-DCA). The concentration of 1,2-DCA ( $0.34 \text{ ug/m}^3$ ) in sample IA-7 slightly exceeded the TAC ( $0.31 \text{ ug/m}^3$ ) for the first time since monitoring began. 1,2-DCA was not present in the nearby extraction well sample (EW-7-091218) nor in the outdoor reference sample (AA-1-091218) at the samples' respective detection limits of  $0.81 \text{ ug/m}^3$  and  $0.14 \text{ ug/m}^3$ . Based on the absence of previous exceedances and general absence of 1,2-DCA in current sub-slab (i.e., extraction well) samples, the source of the 1,2-DCA is likely from interior sources such as cleaning or other common maintenance products.
- The eastern small retail space (indoor air sample location IA-5) was intermittently occupied as storage/staging area for the consignment shop this sampling event.
- The center small retail space (sample location IA-6) was occupied as a consignment shop during this sampling event.

- The western small retail space (sample location IA-7) was intermittently occupied as a church hall.
- The mitigation systems are functioning as designed.

## Large Retail Space

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) and from the manifold where air from the four vapor extraction wells is combined (EW-Combined). In addition, one sample of exhaust from the carbon treatment system (Post Carbon) was collected. The sub-slab vacuum monitoring (pressure differential measurements) was conducted on September 12, 2018 at locations VMW-1 through VMW-4 in conjunction with the air sampling program. The sampling locations are shown in **Figure 1**.

Analytical results for the large retail spaces are summarized in **Table 4a** (indoor air, two most recent sampling events), and **Table 4b** (extraction wells and post-carbon treatment, two most recent sampling events). For reference, all analytical results for the large retail spaces from initiation of sampling in 2009, including a baseline event prior to system start-up in February 2009, and all subsequent sampling events are presented in **Appendix E1** (indoor air, large space) and **Appendix E2** (extraction wells, large space). The vacuum monitoring results for the large retail spaces are presented in **Table 5**.

The following conclusions are based on Site observations and a review of analytical results:

- The September 2018 indoor air sample results for the large retail space (sample locations IA-1 through IA-4) are in compliance with the TAC action levels. The mitigation system is functioning as designed and is achieving desired results with respect to indoor air quality in the large retail space.
- The large retail space has been subdivided into two spaces. The eastern section was occupied by a health fitness club which opened in January of 2013. As of August 27th, 2018, the health fitness club moved their operations and vacated the leased space. The space was empty during the performance sampling on September 12, 2018. Prior to sampling on September 12, 2018, the HVAC was continuing to operate before and during sampling to ensure proper ventilation. This space includes indoor air sample locations IA-2 and IA-4 and sub-slab vacuum monitoring well VMW-2.
- The western side of the large retail space remains vacant and includes indoor air sample locations IA-1 and IA-3, vapor extraction well EW-5 and sub-slab vacuum monitoring locations VMW-1, VMW-3, and VMW-4.
- A sample (Post Carbon-091218) was collected from the exhaust air of the treatment system. The concentration of total VOCs was 2,799 ug/m<sup>3</sup>, higher than the total VOC concentration of 761 ug/m<sup>3</sup> in the previous sampling round (December 2014). Plans are underway to replace/exchange the carbon from the two carbon vessels during the next reporting period.

## ASD System Monitoring/Maintenance

The ASD system performance is monitored monthly by Clean Harbors Environmental Services. There was one system shutdown during the reporting period briefly on July 2nd. The system shut-down was mostly likely a power interruption and the system was back on line within hours. Vacuum monitoring conducted at the time of the September 12th, 2018 indoor air monitoring event indicated that the desired negative pressure condition existed at the various sub-slab monitoring points.

## Next Reporting Period

The next Semi-Annual Report will cover the monitoring period from October 2018 through March 2019. The report will be prepared and submitted to the Rhode Island Department of Environmental Management in April 2019.

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

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.



Mark Maggiore  
Environmental Scientist



Herb Colby, PG  
Senior Project Manager

- Enclosures:
- Table 1. Outdoor Air Reference Sampling
  - Table 2a. Summary of Analytical Results – Indoor Air Sampling for Small Retail Spaces
  - Table 2b. Summary of Analytical Results – Extraction Wells (Small Retail)
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- Appendix A. Laboratory Report
  - Appendix B. Analytical Laboratory Detection Limits
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cc: Robert Azar, Deputy Director - Providence Planning & Development  
G. Simpson, Textron, Inc. (Electronic)

Textron, Inc.  
Former Gorham Manufacturing Facility, Providence, RI  
Retail Complex, Active Sub-Slab Depressurization System  
October 2018 Semi-Annual Air Monitoring Report  
October 2018  
Project No.: 3651180075

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# Tables

**Table 1.**  
**Summary of Analytical Results - Outdoor Air Reference Sampling**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

			Area: Outdoor Air Reference Locati	
			Location: AA-1	
			Sample ID: AA-1-022818	AA-1-091218
			Sample Date: 2/28/2018	9/12/2018
Analyte	Units	CT IACTIND 2003		
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.12 J	0.18
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U
1,3-Butadiene	ug/m3	NA	0.078 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U
2-Butanone	ug/m3	500	1.8 J	1.2 J
2-Hexanone	ug/m3	NA	0.43	0.14 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.072 J	0.14 U
Acetone	ug/m3	500	24	6.2
Benzene	ug/m3	3.3	0.47	0.39
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U
Bromoform	ug/m3	7.3	0.36 U	0.36 U
Bromomethane	ug/m3	NA	0.14 U	0.14 U
Carbon Disulfide	ug/m3	NA	1.1 U	1.1 U
Carbon Tetrachloride	ug/m3	0.54	0.39	0.49
Chlorobenzene	ug/m3	200	0.16 U	0.16 U
Chloroethane	ug/m3	500	0.093 U	0.093 U
Chloroform	ug/m3	0.5	0.086 J	0.11 J
Chloromethane	ug/m3	80	1.2	0.93
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	1.7	2.1
Ethanol	ug/m3	NA	6.7	2.1 J
Ethyl Acetate	ug/m3	NA	0.17	0.25 U
Ethylbenzene	ug/m3	290	0.17	0.18
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U
Hexane	ug/m3	NA	0.31 J	0.47 J
Isopropyl alcohol	ug/m3	NA	0.55 J	0.46 J
m,p-Xylene	ug/m3	NA	0.56	0.48
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U
Methylene Chloride	ug/m3	17	0.39 J	0.28 J
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U
n-Heptane	ug/m3	NA	0.18	0.31
o-Xylene	ug/m3	NA	0.21	0.2
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U
Styrene	ug/m3	290	0.15 U	0.15 U
Tetrachloroethene	ug/m3	5	0.24 U	0.24 U
Tetrahydrofuran	ug/m3	NA	0.1 U	0.1 U
Toluene	ug/m3	500	0.77	1.1
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.058 J
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U
Trichloroethene	ug/m3	1	0.19 U	0.19 U
Trichlorofluoromethane	ug/m3	500	1.2	1.2
Trichlorotrifluoroethane	ug/m3	NA	0.48 J	0.53 J
Vinyl Acetate	ug/m3	NA	0.99 J	0.72 J
Vinyl Chloride	ug/m3	1.9	0.09 U	0.09 U

Notes:  
 NA - not available  
 U - Not detected, value is the detection limit  
 B - Compounds detected in method blank as well as field sample  
 J - Indicates compound was detected at an estimated value.  
 D - Result from diluted analyses  
 ug/m3 - micrograms per cubic meter  
 Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 10/24/2018  
 Checked By: HWC, 10/24/2018

**Table 2a.**  
**Summary of Analytical Results - Indoor Air Sampling for Small Retail Space**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

Area:			Eastern Small Retail Space	Small Center Retail Space	Western Small Retail Space			
Location:			IA-5	IA-6	IA-7			
Sample ID:			IA-5-022818	IA-5-091218	IA-6-022818	IA-6-091218	IA-7-022818	IA-7-091218
Sample Date:			2/28/2018	9/12/2018	2/28/2018	9/12/2018	2/28/2018	9/12/2018
Analyte	Units	CT IACTIND 2003						
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.17 U	0.3	0.17 U	0.33	0.17 U	0.29
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.057 J	0.08 J	0.06 J	0.097 J	0.062 J	0.34
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.13 J	0.16 U	0.13 J	0.16 U	0.097 J
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,3-Butadiene	ug/m3	NA	0.078 U	0.057 J	0.078 U	0.064 J	0.078 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.28	0.21 U	0.27	0.21 U	0.21 U
2-Butanone	ug/m3	500	1.2 J	1.9 J	0.91 J	2.5 J	1.9 J	1.3 J
2-Hexanone	ug/m3	NA	0.26	0.14 U	0.16	0.14 U	0.37	0.14 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.078 J	0.14 U	0.14 U	0.14 U	0.1 J	0.14 U
Acetone	ug/m3	500	10	18	7.8	29	14	23
Benzene	ug/m3	3.3	0.57	0.44	0.64	0.49	0.53	0.5
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Bromomethane	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Carbon Disulfide	ug/m3	NA	0.063 J	0.19 J	1.1 U	0.32 J	1.1 U	1.1 U
Carbon Tetrachloride	ug/m3	0.54	0.39	0.49	0.38	0.5	0.37	0.5
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Chloroethane	ug/m3	500	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.076 J
Chloroform	ug/m3	0.5	0.11 J	0.36	0.1 J	0.45	0.13 J	0.23
Chloromethane	ug/m3	80	1.2	1.2	1.2	1.3	1.3	1.9
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.23	0.12 U	0.12 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	1.7	2.1	1.7	2.2	1.7	2.1
Ethanol	ug/m3	NA	19	33	29	59	46	28
Ethyl Acetate	ug/m3	NA	0.16	0.7	0.13	0.74	0.17	0.35
Ethylbenzene	ug/m3	290	0.098 J	0.47	0.11 J	0.42	0.14 J	0.37
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Hexane	ug/m3	NA	0.33 J	0.77 J	0.35 J	1.4 J	0.29 J	0.78 J
Isopropyl alcohol	ug/m3	NA	2.3 J	26	6.4	35	3.8	92 D
m,p-Xylene	ug/m3	NA	0.27 J	1.1	0.27 J	1	0.3 J	1.1
Methyl methacrylate	ug/m3	NA	0.15	0.1 J	0.14 U	0.14 U	0.14 U	0.14 U
Methylene Chloride	ug/m3	17	0.43 J	0.35 J	0.45 J	1 J	0.46 J	0.39 J
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
n-Heptane	ug/m3	NA	0.18	0.69	0.22	0.88	0.17	0.44
o-Xylene	ug/m3	NA	0.12 J	0.4	0.12 J	0.41	0.12 J	0.38
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Styrene	ug/m3	290	0.15 U	0.48	0.15 U	0.68	0.13 J	0.42
Tetrachloroethene	ug/m3	5	0.17 J	0.62	0.2 J	1.2	0.24 U	0.6
Tetrahydrofuran	ug/m3	NA	0.1 U	0.17	0.1 U	0.1 U	0.1 U	0.1 U
Toluene	ug/m3	500	0.83	3	0.95	3.7	0.95	2.6
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.13 J	0.14 U	0.14 U	0.14 U	0.083 J
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	ug/m3	1	0.19 U	0.15 J	0.19 U	0.24	0.19 U	0.18 J
Trichlorofluoromethane	ug/m3	500	1.1	1.2	1.2	1.2	1.2	1.2
Trichlorotrifluoroethane	ug/m3	NA	0.48 J	0.53 J	0.48 J	0.54 J	0.49 J	0.54 J
Vinyl Acetate	ug/m3	NA	2.5 U	1.5 J	2.5 U	3	2.5 U	1.2 J
Vinyl Chloride	ug/m3	1.9	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U

Notes:

NA - not available  
U - Not detected, value is the detection limit  
B - Compounds detected in method blank as well as field sample  
J - Indicates compound was detected at an estimated value.  
D - Result from diluted analyses  
ug/m3 - micrograms per cubic meter  
Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 10/24/2018

Checked By: HWC, 10/24/2018

**Table 2b.**  
**Summary of Analytical Results - Extraction Wells**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

Area:			Extraction Well - Eastern Small	Extraction Well - Center Small	Extraction Well - Western Small			
Location:			EW-5	EW-6	EW-7			
Sample ID:			EW-5-022818	EW-5-091218	EW-6-022818	EW-6-091218	EW-7-022818	EW-7-091218
Sample Date:			2/28/2018	9/12/2018	2/28/2018	9/12/2018	2/28/2018	9/12/2018
Analyte	Units	CT IACTIND 2003						
1,1,1,2-Tetrachloroethane	ug/m3	1.1	12 UD	2.5 UD	2.5 UD	2.5 UD	2.5 UD	2.5 UD
1,1,1-Trichloroethane	ug/m3	500	17 D	49 D	2.6 D	27 D	20 D	7.9 D
1,1,2,2-Tetrachloroethane	ug/m3	0.14	6.9 UD	1.4 UD	1.4 UD	1.4 UD	1.4 UD	1.4 UD
1,1,2-Trichloroethane	ug/m3	12	5.5 UD	1.1 UD	1.1 UD	1.1 UD	1.1 UD	1.1 UD
1,1-Dichloroethane	ug/m3	430	2.3 JD	5.9 D	0.45 JD	4.1 D	2.2 D	1.3 D
1,1-Dichloroethene	ug/m3	20	4 UD	1.3 D	0.79 UD	0.79 UD	0.79 UD	0.79 UD
1,2,4-Trichlorobenzene	ug/m3	NA	7.4 UD	1.5 UD	1.5 UD	1.5 UD	1.5 UD	1.5 UD
1,2,4-Trimethylbenzene	ug/m3	52	4.9 UD	0.98 UD	0.98 UD	0.98 UD	0.98 UD	0.98 UD
1,2-Dibromoethane (EDB)	ug/m3	0.038	7.7 UD	1.5 UD	1.5 UD	1.5 UD	1.5 UD	1.5 UD
1,2-Dichlorobenzene	ug/m3	410	6 UD	1.2 UD	1.2 UD	1.2 UD	1.2 UD	1.2 UD
1,2-Dichloroethane	ug/m3	0.31	4 UD	0.81 UD	0.81 UD	0.81 UD	0.81 UD	0.81 UD
1,2-Dichloropropane	ug/m3	0.42	4.6 UD	0.92 UD	0.92 UD	0.92 UD	0.92 UD	0.92 UD
1,3,5-Trimethylbenzene	ug/m3	52	4.9 UD	0.98 UD	0.98 UD	0.98 UD	0.98 UD	0.98 UD
1,3-Butadiene	ug/m3	NA	2.2 UD	0.42 JD	0.44 UD	0.44 UD	0.44 UD	0.42 JD
1,3-Dichlorobenzene	ug/m3	410	6 UD	1.2 UD	1.2 UD	1.2 UD	1.2 UD	1.2 UD
1,4-Dichlorobenzene	ug/m3	24	6 UD	1.2 UD	1.2 UD	1.2 UD	1.2 UD	1.2 UD
2-Butanone	ug/m3	500	<b>750 D</b>	<b>5500 D</b>	57 D	160 D	17 JD	21 JD
2-Hexanone	ug/m3	NA	4.1 UD	0.82 UD	0.82 UD	0.82 UD	0.82 UD	0.82 UD
4-Ethyltoluene	ug/m3	NA	4.9 UD	0.98 UD	0.98 UD	0.98 UD	0.98 UD	0.98 UD
4-Methyl-2-pentanone	ug/m3	200	4.1 UD	0.82 UD	0.82 UD	0.82 UD	0.82 UD	0.82 UD
Acetone	ug/m3	500	320 D	<b>710 D</b>	17 JD	42 D	10 JD	23 D
Benzene	ug/m3	3.3	2 JD	3.1 D	0.58 JD	0.91 D	0.74 D	1.6 D
Benzyl chloride	ug/m3	NA	5.2 UD	1 UD	1 UD	1 UD	1 UD	1 UD
Bromodichloromethane	ug/m3	0.46	6.7 UD	1.2 JD	1.3 UD	0.62 JD	1.3 UD	1 JD
Bromoform	ug/m3	7.3	10 UD	2.1 UD	2.1 UD	2.1 UD	2.1 UD	2.1 UD
Bromomethane	ug/m3	NA	3.9 UD	0.78 UD	0.78 UD	0.78 UD	0.78 UD	0.78 UD
Carbon Disulfide	ug/m3	NA	62 D	200 D	2 JD	160 D	17 D	47 D
Carbon Tetrachloride	ug/m3	0.54	6.3 UD	0.45 JD	1.3 UD	0.45 JD	1.3 UD	0.48 JD
Chlorobenzene	ug/m3	200	4.6 UD	0.92 UD	0.92 UD	0.92 UD	0.92 UD	0.92 UD
Chloroethane	ug/m3	500	2.6 UD	1.2 D	0.53 UD	0.53 UD	0.53 UD	0.53 UD
Chloroform	ug/m3	0.5	4.9 UD	0.84 JD	0.98 UD	0.74 JD	<b>1.5 D</b>	<b>1.4 D</b>
Chloromethane	ug/m3	80	4.1 UD	0.83 UD	1.2 D	0.83 UD	0.83 UD	0.83 UD
cis-1,2-Dichloroethene	ug/m3	100	4 UD	2.3 D	0.79 UD	0.4 JD	1.3 D	1.1 D
cis-1,3-Dichloropropene	ug/m3	NA	4.5 UD	0.91 UD	0.91 UD	0.91 UD	0.91 UD	0.91 UD
Cyclohexane	ug/m3	NA	3.4 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD
Dibromochloromethane	ug/m3	NA	8.5 UD	1.7 UD	1.7 UD	1.7 UD	1.7 UD	1.7 UD
Dichlorodifluoromethane	ug/m3	500	4.9 UD	2.1 D	2.2 D	0.99 UD	0.99 UD	2.2 D
Ethanol	ug/m3	NA	35 JD	11 JD	21 D	9.5 JD	8.6 JD	19 D
Ethyl Acetate	ug/m3	NA	3.6 UD	2.6 D	0.72 UD	1.4 UD	0.72 UD	0.63 JD
Ethylbenzene	ug/m3	290	4.3 UD	0.87 UD	0.87 UD	0.87 UD	0.87 UD	0.87 UD
Hexachlorobutadiene	ug/m3	NA	11 UD	2.1 UD	2.1 UD	2.1 UD	2.1 UD	2.1 UD
Hexane	ug/m3	NA	140 UD	28 UD	28 UD	28 UD	28 UD	28 UD
Isopropyl alcohol	ug/m3	NA	5.1 JD	6.2 JD	5.9 JD	20 UD	3.9 JD	47 D
m,p-Xylene	ug/m3	NA	8.7 UD	1.7 UD	1.7 UD	1.7 UD	1.7 UD	1.7 UD
Methyl methacrylate	ug/m3	NA	4.1 UD	0.82 UD	0.82 UD	0.82 UD	0.82 UD	0.82 UD
Methylene Chloride	ug/m3	17	35 UD	6.9 UD	6.9 UD	6.9 UD	6.9 UD	6.9 UD
Methyl-t-butyl ether	ug/m3	190	3.6 UD	0.72 UD	0.72 UD	0.72 UD	0.72 UD	0.72 UD
n-Heptane	ug/m3	NA	4.1 UD	0.82 UD	0.82 UD	0.82 UD	0.82 UD	0.82 UD
o-Xylene	ug/m3	NA	4.3 UD	0.87 UD	0.87 UD	0.87 UD	0.87 UD	0.87 UD
Propylene (Propene)	ug/m3	NA	4.3 JD	14 UD	14 UD	14 UD	14 UD	14 UD
Styrene	ug/m3	290	4.3 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	0.78 JD
Tetrachloroethene	ug/m3	5	6.8 UD	1.4 UD	1.4 UD	4.6 D	<b>95 D</b>	<b>62 D</b>
Tetrahydrofuran	ug/m3	NA	1800 D	4200 D	27 D	4400 D	880 D	1100 D
Toluene	ug/m3	500	3.8 UD	1.5 D	1.1 D	2.5 D	0.99 D	2.1 D
trans-1,2-Dichloroethene	ug/m3	200	4 UD	0.79 UD	0.79 UD	0.79 UD	2.6 D	1.7 D
trans-1,3-Dichloropropene	ug/m3	NA	4.5 UD	0.91 UD	0.91 UD	0.91 UD	0.91 UD	0.91 UD
Trichloroethene	ug/m3	1	<b>44 D</b>	<b>140 D</b>	<b>5.1 D</b>	<b>64 D</b>	<b>170 D</b>	<b>120 D</b>
Trichlorofluoromethane	ug/m3	500	22 UD	3.2 JD	3.5 JD	3.8 JD	370 D	120 D
Trichlorotrifluoroethane	ug/m3	NA	31 UD	6.1 UD	6.1 UD	6.1 UD	6.1 UD	6.1 UD
Vinyl Acetate	ug/m3	NA	70 UD	14 UD	0.77 JD	14 UD	14 UD	14 UD
Vinyl Chloride	ug/m3	1.9	2.6 UD	0.51 UD	0.51 UD	0.51 UD	0.51 UD	0.51 UD

Notes:  
 NA - not available  
 U - Not detected, value is the detection limit  
 B - Compounds detected in method blank as well as field sample  
 J - Indicates compound was detected at an estimated value.  
 D - Result from diluted analyses  
 ug/m3 - micrograms per cubic meter  
 Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios.

Prepared By: AKN, 10/24/2018

Checked By: HWC, 10/24/2018

**Table 3  
Vacuum Monitoring Results - Small Retail Spaces  
Former Gorham Manufacturing Site  
Providence, Rhode Island**

Date	Pressure Differential (inches of water)		
	VMW-5	VMW-6	VMW-7
2/3/2009	-0.25	-0.17	0.00
2/18/2009	-0.212	-0.155	-0.011
2/26/2009	-0.230	-0.120	-0.025
3/6/2009	-0.200	-0.086	-0.012
4/14/2009	-0.108	-0.054	-0.014
5/15/2009	-0.081	-0.073	-0.016
6/11/2009	-0.090	-0.076	-0.098
9/17/2009	-0.110	-0.102	+0.074
12/29/2009**	-0.011	-0.010	-0.061
3/26/2010	-0.245	-0.142	-0.018
7/1/2010	-0.542	-0.114	-0.176
9/16/2010	-0.247	-0.874	-0.013
12/7/2010	-0.044	-0.028	+0.022
2/17/2011	-0.212	-0.599	-0.337
6/2/2011	-0.277	-0.236	-0.138**
9/15/2011	-0.234	-0.212	-0.010
12/8/2011	-0.609	-0.115	-0.009
3/8/2012	-0.003	-0.246	-0.114
6/14/2012	-0.237	-0.103	-0.132
9/13/2012	-0.243	-0.119	-0.210
1/3/2013	-0.150	-0.060	-0.052
3/15/2013	-0.228	-0.354	-0.002
6/7/2013	-0.226	-0.123	-0.011
9/6/2013	-0.232	-0.829	-0.007
10/3/2013	NM	NM	-0.006
12/13/2013	-0.215	-0.002	-0.002
3/7/2014	-0.177	-0.002	-0.002
6/13/2014	-0.185	-0.010	-0.011
9/12/2014	-0.258	-0.256	-0.014
12/19/2014	-0.222	-0.100	-0.001
3/27/2015	-0.301	-0.097	-0.036
6/11/2015	-0.23***	-0.1***	NM***
9/16/2015	-0.246	-0.050	-0.013
12/18/2015	-0.378	-0.177	-0.005
2/18/2016	-0.228	-0.987	-0.009
8/5/2016	-0.243	-0.095	-0.088
2/13/2017	-0.0195	-0.08	-0.107
9/6/2017	-0.242	-0.045	-0.003
2/28/2018	-0.227	-0.100	-0.010
9/12/2018	-0.237	-0.058	-0.006

\*\* ASD system offline.

NM = Not Measured

\*\*\* Due to Digital Manometer reading high range only at the time of measurement, readings are in tenths of inches of water. VMW-7 was not measured due to the low range of the vacuum.

Prepared by/Date: MAM 10/05/18

Checked by/Date: HWC 10/24/18

**Table 4a.**  
**Summary of Analytical Results - Indoor Air Sampling for Large Retail Space**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

Area:			Large Retail Space							
Location:			IA-1		IA-2		IA-3		IA-4	
Sample ID:			IA-1-022818	IA-1-091218	IA-2-022818	IA-2-091218	IA-3-022818	IA-3-091218	IA-4-022818	IA-4-091218
Sample Date:			2/28/2018	9/12/2018	2/28/2018	9/12/2018	2/28/2018	9/12/2018	2/28/2018	9/12/2018
Analyte	Units	CT IACTIND 2003								
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.19 U	0.1 J	0.19 U	0.19 U	0.19 U	0.14 J	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.17 U	0.31	0.42	0.17 U	0.17 U	0.17 U	0.36	0.21
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.06 J	0.14 U	0.062 J	0.14 U	0.14 U	0.057 J	0.14 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.11 J	0.17 U	0.17 U	0.17 U	0.32	0.17 U	0.17 U
1,3-Butadiene	ug/m3	NA	0.078 U	0.078 U	0.078 U	0.07 J	0.078 U	0.078 U	0.078 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dichlorobenzene	ug/m3	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
2-Butanone	ug/m3	500	1.4 J	2 J	2.4 J	1.5 J	1.2 J	2 J	2.1 J	1.6 J
2-Hexanone	ug/m3	NA	0.44	0.14 U	0.72	0.14 U	0.28	0.14 U	0.69	0.14 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.11 J	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.083 J	0.14 U	0.73	1.6	0.086 J	0.47	0.6	1.7
Acetone	ug/m3	500	9.8	12	43	10	7.9	12	36	11
Benzene	ug/m3	3.3	0.48	0.47	0.57	0.48	0.51	0.51	0.56	0.46
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Bromomethane	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Carbon Disulfide	ug/m3	NA	1.1 U	1.1 U	0.16 J	0.29 J	1.1 U	1.1 U	0.14 J	0.28 J
Carbon Tetrachloride	ug/m3	0.54	0.39	0.5	0.4	0.47	0.4	0.51	0.41	0.49
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Chloroethane	ug/m3	500	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U
Chloroform	ug/m3	0.5	0.14 J	0.16 J	2.4	0.21	0.14 J	0.18	1.9	0.21
Chloromethane	ug/m3	80	1.1	1.1	1.3	1.2	1.2	2.3	1.3	1.1
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.48	0.14 U	0.14 U	0.14 U	0.63	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.3	0.12 U	0.12 U	0.12 U	0.26	0.12 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	2.2	1.5	2.2	1.9	2.3	2.2	2.4	2.2
Ethanol	ug/m3	NA	94 D	6.8	990 D	11	94 D	11	550 D	11
Ethyl Acetate	ug/m3	NA	0.1 J	0.25 U	0.39	0.25 U	0.15	0.25 U	0.41	0.25 U
Ethylbenzene	ug/m3	290	0.15 U	0.29	0.15 J	0.23	0.088 J	0.34	0.15 J	0.26
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Hexane	ug/m3	NA	0.3 J	0.62 J	0.4 J	0.67 J	0.28 J	0.68 J	0.36 J	0.71 J
Isopropyl alcohol	ug/m3	NA	2 J	5.3	49	1.8 J	2.1 J	8	27	2 J
m,p-Xylene	ug/m3	NA	0.24 J	1	0.41	0.72	0.26 J	1.1	0.43	0.78
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.086 J
Methylene Chloride	ug/m3	17	0.38 J	0.33 J	0.47 J	0.3 J	0.43 J	0.36 J	0.45 J	0.31 J
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
n-Heptane	ug/m3	NA	0.16	0.35	0.43	0.35	0.13 J	0.38	0.34	0.41
o-Xylene	ug/m3	NA	0.11 J	0.38	0.17	0.27	0.11 J	0.43	0.18	0.3
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Styrene	ug/m3	290	0.15 U	0.15 J	0.13 J	0.25	0.15 U	0.16	0.17	0.28
Tetrachloroethene	ug/m3	5	0.15 J	0.26	1.7	0.3	0.16 J	0.3	2.1	0.31
Tetrahydrofuran	ug/m3	NA	0.1 U	0.17	0.12	0.1 U	0.1 U	0.1 U	0.085 J	0.1 U
Toluene	ug/m3	500	0.53	1.4	1.1	1.5	0.57	1.7	1	1.7
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.083 J	0.14 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	ug/m3	1	0.19 U	0.18 J	0.49	0.19 U	0.19 U	0.18 J	0.64	0.19 U
Trichlorofluoromethane	ug/m3	500	1.1	1.3	1.1	1.3	1.1	1.2	1.1	1.3
Trichlorotrifluoroethane	ug/m3	NA	0.49 J	0.53 J	0.5 J	0.54 J	0.48 J	1.1 U	0.5 J	0.53 J
Vinyl Acetate	ug/m3	NA	2.5 U	1.2 J	2.3 J	0.88 J	2.5 U	1.4 J	1.7 J	0.88 J
Vinyl Chloride	ug/m3	1.9	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U

Notes:  
 NA - not available  
 U - Not detected, value is the detection limit  
 B - Compounds detected in method blank as well as field sample  
 J - Indicates compound was detected at an estimated value.  
 D - Result from diluted analyses  
 ug/m3 - micrograms per cubic meter  
 Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 10/24/2018  
 Checked By: HWC, 10/24/2018

**Table 4b.**  
**Summary of Analytical Results - Extraction Well and Post-Treatment Sampling for Large Retail Space**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

Area:			Extraction Well - Large Retail	Post Treatment - Large Retail		
Location:			EW-Combined		PostCarbon	
Sample ID:			EW-Combined-022818	EW-Combined-091218	Post-Carbon-121914	Post Carbon-091218
Sample Date:			2/28/2018	9/12/2018	12/19/2014	9/12/2018
Analyte	Units	CT IACTIND 2003				
1,1,1,2-Tetrachloroethane	ug/m3	1.1	2.5 UD	2.5 UD	1.2 UD	2.5 UD
1,1,1-Trichloroethane	ug/m3	500	150 D	<b>690 D</b>	<b>380 D</b>	<b>740 D</b>
1,1,2,2-Tetrachloroethane	ug/m3	0.14	1.4 UD	1.4 UD	0.69 UD	1.4 UD
1,1,2-Trichloroethane	ug/m3	12	1.1 UD	1.1 UD	0.55 UD	1.1 UD
1,1-Dichloroethane	ug/m3	430	19 D	73 D	21 D	80 D
1,1-Dichloroethene	ug/m3	20	10 D	<b>27 D</b>	<b>3.8 D</b>	<b>30 D</b>
1,2,4-Trichlorobenzene	ug/m3	NA	1.5 UD	1.5 UD	0.74 UD	1.5 UD
1,2,4-Trimethylbenzene	ug/m3	52	0.98 UD	0.98 UD	0.49 UD	0.98 UD
1,2-Dibromoethane (EDB)	ug/m3	0.038	1.5 UD	1.5 UD	0.77 UD	1.5 UD
1,2-Dichlorobenzene	ug/m3	410	1.2 UD	1.2 UD	0.6 UD	1.2 UD
1,2-Dichloroethane	ug/m3	0.31	0.81 UD	0.81 UD	0.4 UD	0.81 UD
1,2-Dichloropropane	ug/m3	0.42	0.92 UD	0.92 UD	0.46 UD	0.92 UD
1,3,5-Trimethylbenzene	ug/m3	52	0.98 UD	0.98 UD	0.49 UD	0.98 UD
1,3-Butadiene	ug/m3	NA	0.44 UD	0.44 UD	0.22 UD	0.44 UD
1,3-Dichlorobenzene	ug/m3	410	1.2 UD	1.2 UD	0.6 UD	1.2 UD
1,4-Dichlorobenzene	ug/m3	24	1.2 UD	1.2 UD	0.6 UD	1.2 UD
2-Butanone	ug/m3	500	1.3 JD	1.9 JD	2.5 JD	0.52 JD
2-Hexanone	ug/m3	NA	0.82 UD	0.82 UD	0.41 UD	0.82 UD
4-Ethyltoluene	ug/m3	NA	0.98 UD	0.98 UD	0.49 UD	0.98 UD
4-Methyl-2-pentanone	ug/m3	200	0.82 UD	0.82 UD	0.41 UD	0.82 UD
Acetone	ug/m3	500	19 UD	19 UD	21 D	19 UD
Benzene	ug/m3	3.3	0.4 JD	0.49 JD	0.33 D	0.55 JD
Benzyl chloride	ug/m3	NA	1 UD	1 UD	0.52 UD	1 UD
Bromodichloromethane	ug/m3	0.46	1.3 UD	1.3 UD	0.67 UD	1.3 UD
Bromoform	ug/m3	7.3	2.1 UD	2.1 UD	1 UD	2.1 UD
Bromomethane	ug/m3	NA	0.78 UD	0.78 UD	0.39 UD	0.78 UD
Carbon Disulfide	ug/m3	NA	6.2 UD	6.2 UD	3.1 UD	6.2 UD
Carbon Tetrachloride	ug/m3	0.54	1.3 UD	<b>0.58 JD</b>	<b>0.35 JD</b>	1.3 UD
Chlorobenzene	ug/m3	200	0.92 UD	0.92 UD	0.46 UD	0.92 UD
Chloroethane	ug/m3	500	0.53 UD	0.53 UD	0.26 UD	0.53 UD
Chloroform	ug/m3	0.5	<b>1.9 D</b>	<b>5.1 D</b>	<b>1.2 D</b>	<b>6.5 D</b>
Chloromethane	ug/m3	80	0.83 UD	0.83 UD	0.41 UD	0.83 UD
cis-1,2-Dichloroethene	ug/m3	100	9.5 D	42 D	8.7 D	54 D
cis-1,3-Dichloropropene	ug/m3	NA	0.91 UD	0.91 UD	0.45 UD	0.91 UD
Cyclohexane	ug/m3	NA	0.69 UD	0.69 UD	0.34 UD	0.69 UD
Dibromochloromethane	ug/m3	NA	1.7 UD	1.7 UD	0.85 UD	1.7 UD
Dichlorodifluoromethane	ug/m3	500	2.3 D	2.2 D	2 D	2.2 D
Ethanol	ug/m3	NA	12 JD	14 JD	4.7 JD	15 UD
Ethyl Acetate	ug/m3	NA	0.72 UD	1.4 UD	0.36 UD	1.4 UD
Ethylbenzene	ug/m3	290	0.87 UD	0.87 UD	0.43 UD	0.87 UD
Hexachlorobutadiene	ug/m3	NA	2.1 UD	2.1 UD	1.1 UD	2.1 UD
Hexane	ug/m3	NA	28 UD	28 UD	<b>0.74 JD</b>	28 UD
Isopropyl alcohol	ug/m3	NA	20 UD	20 UD	9.8 UD	20 UD
m,p-Xylene	ug/m3	NA	1.7 UD	1.7 UD	0.87 UD	1.7 UD
Methyl methacrylate	ug/m3	NA	0.82 UD	0.82 UD	0.41 UD	0.82 UD
Methylene Chloride	ug/m3	17	6.9 UD	6.9 UD	<b>0.55 JD</b>	6.9 UD
Methyl-t-butyl ether	ug/m3	190	0.72 UD	0.72 UD	0.36 UD	0.72 UD
n-Heptane	ug/m3	NA	0.82 UD	0.82 UD	0.41 UD	0.82 UD
o-Xylene	ug/m3	NA	0.87 UD	0.87 UD	0.43 UD	0.87 UD
Propylene (Propene)	ug/m3	NA	1.5 JD	14 UD	2.1 JD	14 UD
Styrene	ug/m3	290	0.85 UD	0.85 UD	0.43 UD	0.85 UD
Tetrachloroethene	ug/m3	5	<b>66 D</b>	<b>220 D</b>	<b>19 D</b>	3 D
Tetrahydrofuran	ug/m3	NA	0.48 JD	0.53 JD	0.35 D	0.59 UD
Toluene	ug/m3	500	0.72 JD	1.1 D	0.28 JD	0.39 JD
trans-1,2-Dichloroethene	ug/m3	200	0.79 UD	0.79 UD	0.18 JD	1.2 D
trans-1,3-Dichloropropene	ug/m3	NA	0.91 UD	0.91 UD	0.45 UD	0.91 UD
Trichloroethene	ug/m3	1	<b>160 D</b>	<b>800 D</b>	<b>250 D</b>	<b>1600 D</b>
Trichlorofluoromethane	ug/m3	500	67 D	280 D	42 D	280 D
Trichlorotrifluoroethane	ug/m3	NA	6.1 UD	0.64 JD	0.74 JD	0.64 JD
Vinyl Acetate	ug/m3	NA	14 UD	14 UD	0.8 JD	0.49 JD
Vinyl Chloride	ug/m3	1.9	0.51 UD	0.51 UD	0.26 UD	0.51 UD

Notes:  
 NA - not available  
 U - Not detected, value is the detection limit  
 B - Compounds detected in method blank as well as field sample  
 J - Indicates compound was detected at an estimated value.  
 D - Result from diluted analyses  
 ug/m3 - micrograms per cubic meter  
 Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 10/24/2018

Checked By: HWC, 10/24/2018

**Table 5  
Vacuum Monitoring Results - Large Retail Space  
Former Gorham Manufacturing Site  
Providence, Rhode Island**

Date	Pressure Differential (inches of water)			
	VMW-1	VMW-2	VMW-3	VMW-4
2/3/2009	-0.20	-0.62	-0.15	-0.12
2/18/2009	-0.509	-0.738	-0.650	-0.253
2/26/2009	-0.511	-0.710	-0.665	-0.273
3/6/2009	-0.507	-0.610	-0.715	-0.251
3/6/2009*	-0.120	-0.195	-0.230	-0.028
3/31/2009	-0.148	-0.221	-0.244	-0.072
4/14/2009	-0.140	-0.210	-0.215	-0.081
5/15/2009	-0.133	-0.193	-0.208	-0.087
9/17/2009	-0.132	-0.172	-0.209	-0.087
9/24/2009	-0.146	-0.189	-0.254	-0.094
10/1/2009	-0.181	-0.232	-0.233	-0.097
10/8/2009	-0.197	-0.212	-0.255	-0.087
12/29/2009**	-0.021	-0.020	-0.160	-0.023
1/28/2010	-0.947	-0.642	-0.709	-0.237
2/5/2010	-0.497	-0.714	-0.510	-0.258
2/12/2010	-0.509	-0.706	-0.537	-0.261
2/19/2010	-0.526	-0.733	-0.667	-0.242
3/26/2010	-0.636	-0.860	-0.671	-0.331
4/30/2010	-0.519	-0.713	-0.378	-0.287
5/28/2010	-0.546	-0.727	+1.371	-0.279
7/1/2010	-0.505	-0.678	+1.568	-0.272
9/16/2010	-0.496	-0.654	+0.980	-0.272
12/7/2010	-0.126	-0.202	-0.155	-0.052
2/17/2011	-0.491	-0.683	-0.737	-0.263
6/2/2011	-0.561	-0.767	-0.393	-0.290
9/15/2011	-0.517	-0.710	+1.071	-0.260
12/8/2011	-0.609	-0.826	+1.502	-0.313
3/8/2012	-0.422	-0.680	+0.329	-0.288
6/14/2012	-0.372	-0.767	+2.389	-0.280
9/13/2012	-0.543	-1.021	-0.665	-0.283
1/3/2013	-0.495	-0.628	-1.141	-0.674
3/15/2013	-0.539	-0.636	-0.754	-0.254
6/7/2013	-0.121	-0.681	-0.787	-0.223
9/6/2013	-0.421	-0.743	-0.766	-0.265
12/13/2013	-0.435	-0.580	-0.031	-0.190
3/7/2014	-0.311	-0.541	-0.741	-0.157
6/13/2014	-0.538	-0.627	-0.010	-0.058
9/12/2014	-0.549	-0.528	-0.295	-0.002
12/19/2014	-0.492	-0.427	-0.002	-0.143
3/27/2015	-0.433	-0.655	-0.011	-0.108
6/11/2015	-0.49***	-0.66***	-0.5***	-0.15***
9/16/2015	-0.535	-0.409	-0.611	-0.123
12/18/2015	-0.436	-0.495	-0.692	-0.181
2/20/2016	-0.49	-0.592	-0.804	-0.0225
8/5/2016	-0.542	-0.503	-0.746	-0.165
2/13/2017	-0.39	-0.602	-0.494	-0.206
9/6/2017	-0.593	-0.649	-0.031	-0.290
2/28/2018	-0.489	-0.677	-0.779	-0.241
9/12/2018	-0.512	-0.723	-0.477	-0.071

\* vacuum reduced at extraction wells

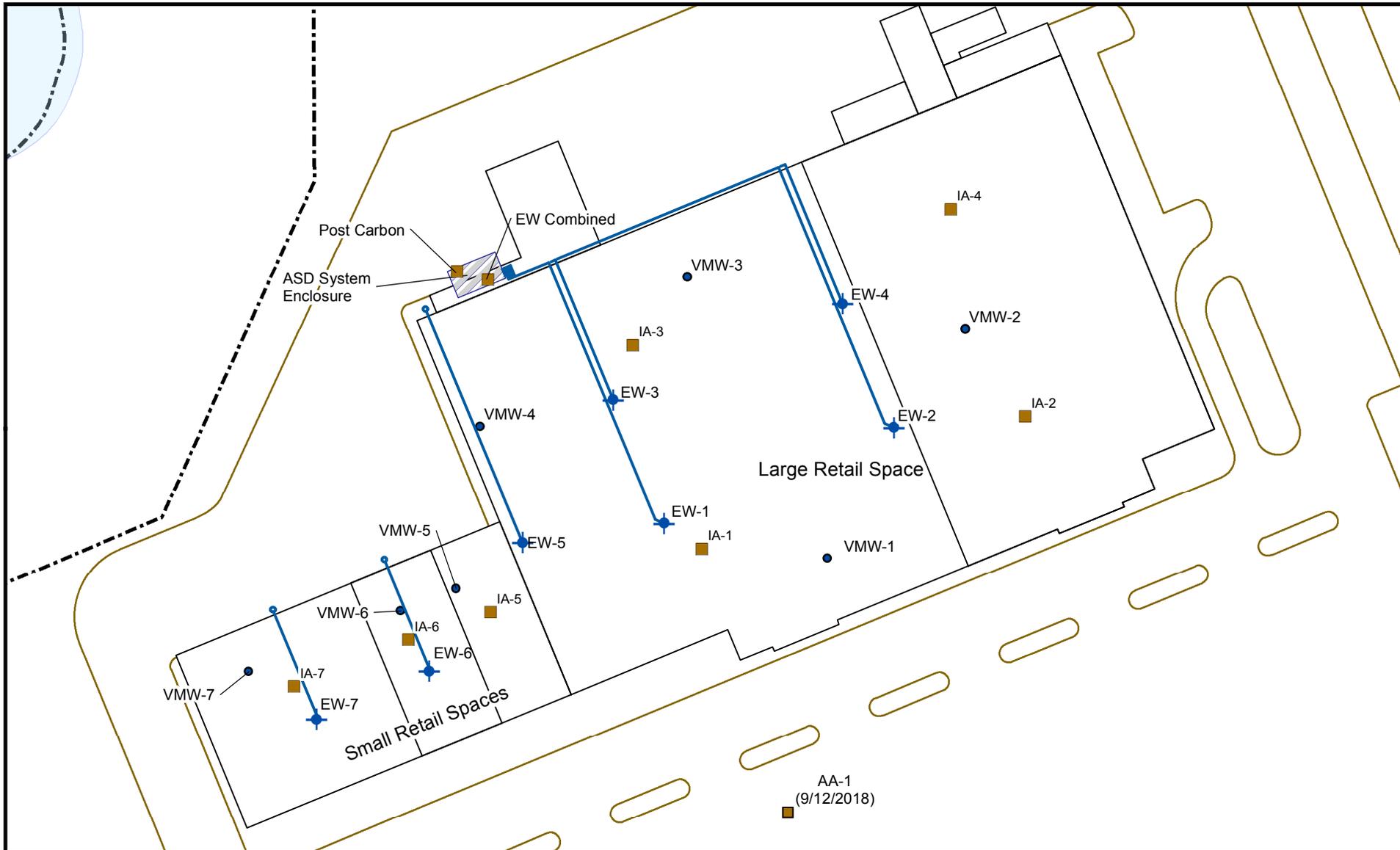
\*\* ASD system offline

\*\*\* Due to Digital Manometer reading high range only at the time of measurement, readings are in tenths of inches of water.

Prepared by/Date: MAM 10/05/18

Checked by/Date: HWC 10/24/18

# Figures



All locations are approximate

N  
 0 30 60 Feet  
 Prepared/Date: EFG 10/26/18 Checked/Date: HWC 10/26/18

- Legend**
- Air Sample Location
  - Vacuum Monitoring Well
  - Extraction Well/Sample Location
  - Extraction Well Piping
  - Current Building
  - Pavement Outline
  - Effluent Location

Figure 1  
 Vapor Mitigation  
 Sample Locations  
 Former Gorham Manufacturing Facility  
 333 Adelaide Avenue  
 Providence, Rhode Island

# **Appendix A**

Laboratory Report

September 24, 2018

Herb Colby  
AMEC E&I, Inc.  
271 Mill Road, 3rd Floor  
Chelmsford, MA 01824

Project Location: Textron Gorham - Providence, RI  
Client Job Number:  
Project Number: 365170068  
Laboratory Work Order Number: 1810590

Enclosed are results of analyses for samples received by the laboratory on September 13, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kerry K. McGee  
Project Manager



QA Officer  
Katherine Allen



Laboratory Manager  
Daren Damboragian

AMEC E&I, Inc.  
 271 Mill Road, 3rd Floor  
 Chelmsford, MA 01824  
 ATTN: Herb Colby

REPORT DATE: 9/24/2018

PURCHASE ORDER NUMBER: C012206368

PROJECT NUMBER: 365170068

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18I0590

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

PROJECT LOCATION: Textron Gorham - Providence, RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
IA-1-091218	18I0590-01	Indoor air		EPA TO-15	
IA-2-091218	18I0590-02	Indoor air		EPA TO-15	
IA-3-091218	18I0590-03	Indoor air		EPA TO-15	
IA-4-091218	18I0590-04	Indoor air		EPA TO-15	
IA-5-091218	18I0590-05	Indoor air		EPA TO-15	
IA-6-091218	18I0590-06	Indoor air		EPA TO-15	
IA-7-091218	18I0590-07	Indoor air		EPA TO-15	
EW-5-091218	18I0590-08	Sub Slab		EPA TO-15	
EW-6-091218	18I0590-09	Sub Slab		EPA TO-15	
EW-7-091218	18I0590-10	Sub Slab		EPA TO-15	
EW-Combined-091218	18I0590-11	Sub Slab		EPA TO-15	
Post Carbon-091218	18I0590-12	Air		EPA TO-15	
AA-1-091218	18I0590-13	Ambient Air		EPA TO-15	

**CASE NARRATIVE SUMMARY**

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

**EPA TO-15**

**Qualifications:**

---

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

**Analyte & Samples(s) Qualified:**

**1,1,1,2-Tetrachloroethane, Ethanol**

18I0590-01[IA-1-091218], 18I0590-02[IA-2-091218], 18I0590-03[IA-3-091218], 18I0590-04[IA-4-091218], 18I0590-05[IA-5-091218], 18I0590-06[IA-6-091218], 18I0590-07[IA-7-091218], 18I0590-08[EW-5-091218], 18I0590-09[EW-6-091218], 18I0590-10[EW-7-091218], 18I0590-11[EW-Combined-091218], 18I0590-12[Post Carbon-091218], 18I0590-13[AA-1-091218], B212758-BLK1, B212758-BS1

---

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

**Analyte & Samples(s) Qualified:**

**Carbon Disulfide**

18I0590-08[EW-5-091218], 18I0590-09[EW-6-091218], 18I0590-10[EW-7-091218], B212758-BS1

---

Continuing calibration did not meet method specifications and was biased on the low side for this compound.

**Analyte & Samples(s) Qualified:**

**1,2,4-Trichlorobenzene, Acetone, Bromomethane, Chloromethane, Cyclohexane, Vinyl Acetate**

18I0590-01[IA-1-091218], 18I0590-02[IA-2-091218], 18I0590-03[IA-3-091218], 18I0590-04[IA-4-091218], 18I0590-05[IA-5-091218], 18I0590-06[IA-6-091218], 18I0590-07[IA-7-091218], 18I0590-08[EW-5-091218], 18I0590-09[EW-6-091218], 18I0590-10[EW-7-091218], 18I0590-11[EW-Combined-091218], 18I0590-12[Post Carbon-091218], 18I0590-13[AA-1-091218], B212758-BLK1, B212758-BS1, S027389-CCV1, 18I0590-08RE1[EW-5-091218]

---

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

**Analyte & Samples(s) Qualified:**

**Carbon Disulfide**

B212758-BS1, S027389-CCV1

---

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.



Tod E. Kopycinski  
Laboratory Director

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: IA-1-091218**  
**Sample ID: 1810590-01**  
 Sample Matrix: Indoor air  
 Sampled: 9/12/2018 09:54

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1959  
 Canister Size: 6 liter  
 Flow Controller ID: 4294  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -28  
 Final Vacuum(in Hg): -5  
 Receipt Vacuum(in Hg): -6.3  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	5.2	1.4	0.49	V-05	12	3.3	1.2	0.702	9/17/18 17:52	BRF	
Benzene	0.15	0.035	0.014		0.47	0.11	0.046	0.702	9/17/18 17:52	BRF	
Benzyl chloride	ND	0.035	0.0077		ND	0.18	0.040	0.702	9/17/18 17:52	BRF	
Bromodichloromethane	ND	0.035	0.013		ND	0.24	0.087	0.702	9/17/18 17:52	BRF	
Bromoform	ND	0.035	0.016		ND	0.36	0.16	0.702	9/17/18 17:52	BRF	
Bromomethane	ND	0.035	0.024	V-05	ND	0.14	0.094	0.702	9/17/18 17:52	BRF	
1,3-Butadiene	ND	0.035	0.022		ND	0.078	0.049	0.702	9/17/18 17:52	BRF	
2-Butanone (MEK)	0.67	1.4	0.026	J	2.0	4.1	0.077	0.702	9/17/18 17:52	BRF	
Carbon Disulfide	ND	0.35	0.012		ND	1.1	0.038	0.702	9/17/18 17:52	BRF	
Carbon Tetrachloride	0.079	0.035	0.010		0.50	0.22	0.065	0.702	9/17/18 17:52	BRF	
Chlorobenzene	ND	0.035	0.017		ND	0.16	0.079	0.702	9/17/18 17:52	BRF	
Chloroethane	ND	0.035	0.021		ND	0.093	0.056	0.702	9/17/18 17:52	BRF	
Chloroform	0.032	0.035	0.013	J	0.16	0.17	0.064	0.702	9/17/18 17:52	BRF	
Chloromethane	0.56	0.070	0.024	V-05	1.1	0.14	0.049	0.702	9/17/18 17:52	BRF	
Cyclohexane	ND	0.035	0.025	V-05	ND	0.12	0.086	0.702	9/17/18 17:52	BRF	
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.099	0.702	9/17/18 17:52	BRF	
1,2-Dibromoethane (EDB)	ND	0.035	0.014		ND	0.27	0.11	0.702	9/17/18 17:52	BRF	
1,2-Dichlorobenzene	ND	0.035	0.017		ND	0.21	0.10	0.702	9/17/18 17:52	BRF	
1,3-Dichlorobenzene	ND	0.035	0.018		ND	0.21	0.11	0.702	9/17/18 17:52	BRF	
1,4-Dichlorobenzene	ND	0.035	0.021		ND	0.21	0.13	0.702	9/17/18 17:52	BRF	
Dichlorodifluoromethane (Freon 12)	0.30	0.035	0.015		1.5	0.17	0.075	0.702	9/17/18 17:52	BRF	
1,1-Dichloroethane	ND	0.035	0.010		ND	0.14	0.041	0.702	9/17/18 17:52	BRF	
1,2-Dichloroethane	ND	0.035	0.013		ND	0.14	0.054	0.702	9/17/18 17:52	BRF	
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.055	0.702	9/17/18 17:52	BRF	
cis-1,2-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.057	0.702	9/17/18 17:52	BRF	
trans-1,2-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.055	0.702	9/17/18 17:52	BRF	
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.057	0.702	9/17/18 17:52	BRF	
cis-1,3-Dichloropropene	ND	0.035	0.012		ND	0.16	0.056	0.702	9/17/18 17:52	BRF	
trans-1,3-Dichloropropene	ND	0.035	0.013		ND	0.16	0.058	0.702	9/17/18 17:52	BRF	
Ethanol	3.6	1.4	0.63	L-03	6.8	2.6	1.2	0.702	9/17/18 17:52	BRF	
Ethyl Acetate	ND	0.070	0.026		ND	0.25	0.094	0.702	9/17/18 17:52	BRF	
Ethylbenzene	0.067	0.035	0.020		0.29	0.15	0.088	0.702	9/17/18 17:52	BRF	
4-Ethyltoluene	ND	0.035	0.021		ND	0.17	0.11	0.702	9/17/18 17:52	BRF	
Heptane	0.086	0.035	0.021		0.35	0.14	0.085	0.702	9/17/18 17:52	BRF	
Hexachlorobutadiene	ND	0.035	0.016		ND	0.37	0.17	0.702	9/17/18 17:52	BRF	
Hexane	0.18	1.4	0.062	J	0.62	4.9	0.22	0.702	9/17/18 17:52	BRF	
2-Hexanone (MBK)	ND	0.035	0.021		ND	0.14	0.085	0.702	9/17/18 17:52	BRF	
Isopropanol	2.2	1.4	0.043		5.3	3.4	0.11	0.702	9/17/18 17:52	BRF	
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.018		ND	0.13	0.063	0.702	9/17/18 17:52	BRF	
Methylene Chloride	0.095	0.35	0.043	J	0.33	1.2	0.15	0.702	9/17/18 17:52	BRF	
Methyl methacrylate	ND	0.035	0.020		ND	0.14	0.082	0.702	9/17/18 17:52	BRF	
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.017		ND	0.14	0.069	0.702	9/17/18 17:52	BRF	
Propene	ND	1.4	0.035		ND	2.4	0.060	0.702	9/17/18 17:52	BRF	
Styrene	0.034	0.035	0.022	J	0.15	0.15	0.092	0.702	9/17/18 17:52	BRF	
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	L-03	ND	0.44	0.16	0.702	9/17/18 17:52	BRF	
1,1,2,2-Tetrachloroethane	ND	0.035	0.016		ND	0.24	0.11	0.702	9/17/18 17:52	BRF	
Tetrachloroethylene	0.039	0.035	0.020		0.26	0.24	0.13	0.702	9/17/18 17:52	BRF	

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: IA-1-091218**  
**Sample ID: 1810590-01**  
 Sample Matrix: Indoor air  
 Sampled: 9/12/2018 09:54

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1959  
 Canister Size: 6 liter  
 Flow Controller ID: 4294  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -28  
 Final Vacuum(in Hg): -5  
 Receipt Vacuum(in Hg): -6.3  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrahydrofuran	0.058	0.035	0.022		0.17	0.10	0.064	0.702	9/17/18 17:52	BRF	
Toluene	0.38	0.035	0.018		1.4	0.13	0.068	0.702	9/17/18 17:52	BRF	
1,2,4-Trichlorobenzene	ND	0.035	0.024	V-05	ND	0.26	0.18	0.702	9/17/18 17:52	BRF	
1,1,1-Trichloroethane	ND	0.035	0.013		ND	0.19	0.072	0.702	9/17/18 17:52	BRF	
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.079	0.702	9/17/18 17:52	BRF	
Trichloroethylene	0.034	0.035	0.014	J	0.18	0.19	0.076	0.702	9/17/18 17:52	BRF	
Trichlorofluoromethane (Freon 11)	0.23	0.14	0.020		1.3	0.79	0.11	0.702	9/17/18 17:52	BRF	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.069	0.14	0.014	J	0.53	1.1	0.11	0.702	9/17/18 17:52	BRF	
1,2,4-Trimethylbenzene	0.064	0.035	0.022		0.31	0.17	0.11	0.702	9/17/18 17:52	BRF	
1,3,5-Trimethylbenzene	0.023	0.035	0.022	J	0.11	0.17	0.11	0.702	9/17/18 17:52	BRF	
Vinyl Acetate	0.33	0.70	0.017	V-05, J	1.2	2.5	0.059	0.702	9/17/18 17:52	BRF	
Vinyl Chloride	ND	0.035	0.022		ND	0.090	0.057	0.702	9/17/18 17:52	BRF	
m&p-Xylene	0.23	0.070	0.040		1.0	0.30	0.18	0.702	9/17/18 17:52	BRF	
o-Xylene	0.088	0.035	0.022		0.38	0.15	0.095	0.702	9/17/18 17:52	BRF	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	95.4	70-130	9/17/18 17:52
4-Bromofluorobenzene (2)	110	70-130	9/17/18 17:52

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: IA-2-091218**  
**Sample ID: 1810590-02**  
 Sample Matrix: Indoor air  
 Sampled: 9/12/2018 09:43

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1927  
 Canister Size: 6 liter  
 Flow Controller ID: 4201  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -28  
 Final Vacuum(in Hg): -3  
 Receipt Vacuum(in Hg): -4.2  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	4.4	1.4	0.49	V-05	10	3.3	1.2	0.702	9/17/18 18:52	BRF	
Benzene	0.15	0.035	0.014		0.48	0.11	0.046	0.702	9/17/18 18:52	BRF	
Benzyl chloride	ND	0.035	0.0077		ND	0.18	0.040	0.702	9/17/18 18:52	BRF	
Bromodichloromethane	ND	0.035	0.013		ND	0.24	0.087	0.702	9/17/18 18:52	BRF	
Bromoform	ND	0.035	0.016		ND	0.36	0.16	0.702	9/17/18 18:52	BRF	
Bromomethane	ND	0.035	0.024	V-05	ND	0.14	0.094	0.702	9/17/18 18:52	BRF	
1,3-Butadiene	0.032	0.035	0.022	J	0.070	0.078	0.049	0.702	9/17/18 18:52	BRF	
2-Butanone (MEK)	0.49	1.4	0.026	J	1.5	4.1	0.077	0.702	9/17/18 18:52	BRF	
Carbon Disulfide	0.093	0.35	0.012	J	0.29	1.1	0.038	0.702	9/17/18 18:52	BRF	
Carbon Tetrachloride	0.075	0.035	0.010		0.47	0.22	0.065	0.702	9/17/18 18:52	BRF	
Chlorobenzene	ND	0.035	0.017		ND	0.16	0.079	0.702	9/17/18 18:52	BRF	
Chloroethane	ND	0.035	0.021		ND	0.093	0.056	0.702	9/17/18 18:52	BRF	
Chloroform	0.043	0.035	0.013		0.21	0.17	0.064	0.702	9/17/18 18:52	BRF	
Chloromethane	0.59	0.070	0.024	V-05	1.2	0.14	0.049	0.702	9/17/18 18:52	BRF	
Cyclohexane	ND	0.035	0.025	V-05	ND	0.12	0.086	0.702	9/17/18 18:52	BRF	
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.099	0.702	9/17/18 18:52	BRF	
1,2-Dibromoethane (EDB)	ND	0.035	0.014		ND	0.27	0.11	0.702	9/17/18 18:52	BRF	
1,2-Dichlorobenzene	ND	0.035	0.017		ND	0.21	0.10	0.702	9/17/18 18:52	BRF	
1,3-Dichlorobenzene	ND	0.035	0.018		ND	0.21	0.11	0.702	9/17/18 18:52	BRF	
1,4-Dichlorobenzene	ND	0.035	0.021		ND	0.21	0.13	0.702	9/17/18 18:52	BRF	
Dichlorodifluoromethane (Freon 12)	0.39	0.035	0.015		1.9	0.17	0.075	0.702	9/17/18 18:52	BRF	
1,1-Dichloroethane	ND	0.035	0.010		ND	0.14	0.041	0.702	9/17/18 18:52	BRF	
1,2-Dichloroethane	ND	0.035	0.013		ND	0.14	0.054	0.702	9/17/18 18:52	BRF	
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.055	0.702	9/17/18 18:52	BRF	
cis-1,2-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.057	0.702	9/17/18 18:52	BRF	
trans-1,2-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.055	0.702	9/17/18 18:52	BRF	
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.057	0.702	9/17/18 18:52	BRF	
cis-1,3-Dichloropropene	ND	0.035	0.012		ND	0.16	0.056	0.702	9/17/18 18:52	BRF	
trans-1,3-Dichloropropene	ND	0.035	0.013		ND	0.16	0.058	0.702	9/17/18 18:52	BRF	
Ethanol	5.6	1.4	0.63	L-03	11	2.6	1.2	0.702	9/17/18 18:52	BRF	
Ethyl Acetate	ND	0.070	0.026		ND	0.25	0.094	0.702	9/17/18 18:52	BRF	
Ethylbenzene	0.053	0.035	0.020		0.23	0.15	0.088	0.702	9/17/18 18:52	BRF	
4-Ethyltoluene	ND	0.035	0.021		ND	0.17	0.11	0.702	9/17/18 18:52	BRF	
Heptane	0.086	0.035	0.021		0.35	0.14	0.085	0.702	9/17/18 18:52	BRF	
Hexachlorobutadiene	ND	0.035	0.016		ND	0.37	0.17	0.702	9/17/18 18:52	BRF	
Hexane	0.19	1.4	0.062	J	0.67	4.9	0.22	0.702	9/17/18 18:52	BRF	
2-Hexanone (MBK)	ND	0.035	0.021		ND	0.14	0.085	0.702	9/17/18 18:52	BRF	
Isopropanol	0.74	1.4	0.043	J	1.8	3.4	0.11	0.702	9/17/18 18:52	BRF	
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.018		ND	0.13	0.063	0.702	9/17/18 18:52	BRF	
Methylene Chloride	0.087	0.35	0.043	J	0.30	1.2	0.15	0.702	9/17/18 18:52	BRF	
Methyl methacrylate	ND	0.035	0.020		ND	0.14	0.082	0.702	9/17/18 18:52	BRF	
4-Methyl-2-pentanone (MIBK)	0.40	0.035	0.017		1.6	0.14	0.069	0.702	9/17/18 18:52	BRF	
Propene	ND	1.4	0.035		ND	2.4	0.060	0.702	9/17/18 18:52	BRF	
Styrene	0.058	0.035	0.022		0.25	0.15	0.092	0.702	9/17/18 18:52	BRF	
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	L-03	ND	0.44	0.16	0.702	9/17/18 18:52	BRF	
1,1,2,2-Tetrachloroethane	ND	0.035	0.016		ND	0.24	0.11	0.702	9/17/18 18:52	BRF	
Tetrachloroethylene	0.044	0.035	0.020		0.30	0.24	0.13	0.702	9/17/18 18:52	BRF	

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: IA-2-091218**  
**Sample ID: 1810590-02**  
 Sample Matrix: Indoor air  
 Sampled: 9/12/2018 09:43

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1927  
 Canister Size: 6 liter  
 Flow Controller ID: 4201  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -28  
 Final Vacuum(in Hg): -3  
 Receipt Vacuum(in Hg): -4.2  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	Results	ppbv		Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
		RL	MDL		Results	RL	MDL		Analyzed		
Tetrahydrofuran	ND	0.035	0.022		ND	0.10	0.064	0.702	9/17/18 18:52	BRF	
Toluene	0.41	0.035	0.018		1.5	0.13	0.068	0.702	9/17/18 18:52	BRF	
1,2,4-Trichlorobenzene	ND	0.035	0.024	V-05	ND	0.26	0.18	0.702	9/17/18 18:52	BRF	
1,1,1-Trichloroethane	ND	0.035	0.013		ND	0.19	0.072	0.702	9/17/18 18:52	BRF	
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.079	0.702	9/17/18 18:52	BRF	
Trichloroethylene	ND	0.035	0.014		ND	0.19	0.076	0.702	9/17/18 18:52	BRF	
Trichlorofluoromethane (Freon 11)	0.23	0.14	0.020		1.3	0.79	0.11	0.702	9/17/18 18:52	BRF	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.071	0.14	0.014	J	0.54	1.1	0.11	0.702	9/17/18 18:52	BRF	
1,2,4-Trimethylbenzene	ND	0.035	0.022		ND	0.17	0.11	0.702	9/17/18 18:52	BRF	
1,3,5-Trimethylbenzene	ND	0.035	0.022		ND	0.17	0.11	0.702	9/17/18 18:52	BRF	
Vinyl Acetate	0.25	0.70	0.017	V-05, J	0.88	2.5	0.059	0.702	9/17/18 18:52	BRF	
Vinyl Chloride	ND	0.035	0.022		ND	0.090	0.057	0.702	9/17/18 18:52	BRF	
m&p-Xylene	0.16	0.070	0.040		0.72	0.30	0.18	0.702	9/17/18 18:52	BRF	
o-Xylene	0.063	0.035	0.022		0.27	0.15	0.095	0.702	9/17/18 18:52	BRF	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.9	70-130	9/17/18 18:52
4-Bromofluorobenzene (2)	109	70-130	9/17/18 18:52

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: IA-3-091218**  
**Sample ID: 1810590-03**  
 Sample Matrix: Indoor air  
 Sampled: 9/12/2018 09:55

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1946  
 Canister Size: 6 liter  
 Flow Controller ID: 4295  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -27  
 Final Vacuum(in Hg): -4  
 Receipt Vacuum(in Hg): -6.5  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	5.2	1.4	0.49	V-05	12	3.3	1.2	0.702	9/17/18 19:51	BRF	
Benzene	0.16	0.035	0.014		0.51	0.11	0.046	0.702	9/17/18 19:51	BRF	
Benzyl chloride	ND	0.035	0.0077		ND	0.18	0.040	0.702	9/17/18 19:51	BRF	
Bromodichloromethane	ND	0.035	0.013		ND	0.24	0.087	0.702	9/17/18 19:51	BRF	
Bromoform	ND	0.035	0.016		ND	0.36	0.16	0.702	9/17/18 19:51	BRF	
Bromomethane	ND	0.035	0.024	V-05	ND	0.14	0.094	0.702	9/17/18 19:51	BRF	
1,3-Butadiene	ND	0.035	0.022		ND	0.078	0.049	0.702	9/17/18 19:51	BRF	
2-Butanone (MEK)	0.68	1.4	0.026	J	2.0	4.1	0.077	0.702	9/17/18 19:51	BRF	
Carbon Disulfide	ND	0.35	0.012		ND	1.1	0.038	0.702	9/17/18 19:51	BRF	
Carbon Tetrachloride	0.081	0.035	0.010		0.51	0.22	0.065	0.702	9/17/18 19:51	BRF	
Chlorobenzene	ND	0.035	0.017		ND	0.16	0.079	0.702	9/17/18 19:51	BRF	
Chloroethane	ND	0.035	0.021		ND	0.093	0.056	0.702	9/17/18 19:51	BRF	
Chloroform	0.036	0.035	0.013		0.18	0.17	0.064	0.702	9/17/18 19:51	BRF	
Chloromethane	1.1	0.070	0.024	V-05	2.3	0.14	0.049	0.702	9/17/18 19:51	BRF	
Cyclohexane	ND	0.035	0.025	V-05	ND	0.12	0.086	0.702	9/17/18 19:51	BRF	
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.099	0.702	9/17/18 19:51	BRF	
1,2-Dibromoethane (EDB)	ND	0.035	0.014		ND	0.27	0.11	0.702	9/17/18 19:51	BRF	
1,2-Dichlorobenzene	ND	0.035	0.017		ND	0.21	0.10	0.702	9/17/18 19:51	BRF	
1,3-Dichlorobenzene	ND	0.035	0.018		ND	0.21	0.11	0.702	9/17/18 19:51	BRF	
1,4-Dichlorobenzene	ND	0.035	0.021		ND	0.21	0.13	0.702	9/17/18 19:51	BRF	
Dichlorodifluoromethane (Freon 12)	0.44	0.035	0.015		2.2	0.17	0.075	0.702	9/17/18 19:51	BRF	
1,1-Dichloroethane	ND	0.035	0.010		ND	0.14	0.041	0.702	9/17/18 19:51	BRF	
1,2-Dichloroethane	0.014	0.035	0.013	J	0.057	0.14	0.054	0.702	9/17/18 19:51	BRF	
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.055	0.702	9/17/18 19:51	BRF	
cis-1,2-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.057	0.702	9/17/18 19:51	BRF	
trans-1,2-Dichloroethylene	0.021	0.035	0.014	J	0.083	0.14	0.055	0.702	9/17/18 19:51	BRF	
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.057	0.702	9/17/18 19:51	BRF	
cis-1,3-Dichloropropene	ND	0.035	0.012		ND	0.16	0.056	0.702	9/17/18 19:51	BRF	
trans-1,3-Dichloropropene	ND	0.035	0.013		ND	0.16	0.058	0.702	9/17/18 19:51	BRF	
Ethanol	5.7	1.4	0.63	L-03	11	2.6	1.2	0.702	9/17/18 19:51	BRF	
Ethyl Acetate	ND	0.070	0.026		ND	0.25	0.094	0.702	9/17/18 19:51	BRF	
Ethylbenzene	0.077	0.035	0.020		0.34	0.15	0.088	0.702	9/17/18 19:51	BRF	
4-Ethyltoluene	0.022	0.035	0.021	J	0.11	0.17	0.11	0.702	9/17/18 19:51	BRF	
Heptane	0.092	0.035	0.021		0.38	0.14	0.085	0.702	9/17/18 19:51	BRF	
Hexachlorobutadiene	ND	0.035	0.016		ND	0.37	0.17	0.702	9/17/18 19:51	BRF	
Hexane	0.19	1.4	0.062	J	0.68	4.9	0.22	0.702	9/17/18 19:51	BRF	
2-Hexanone (MBK)	ND	0.035	0.021		ND	0.14	0.085	0.702	9/17/18 19:51	BRF	
Isopropanol	3.3	1.4	0.043		8.0	3.4	0.11	0.702	9/17/18 19:51	BRF	
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.018		ND	0.13	0.063	0.702	9/17/18 19:51	BRF	
Methylene Chloride	0.10	0.35	0.043	J	0.36	1.2	0.15	0.702	9/17/18 19:51	BRF	
Methyl methacrylate	ND	0.035	0.020		ND	0.14	0.082	0.702	9/17/18 19:51	BRF	
4-Methyl-2-pentanone (MIBK)	0.11	0.035	0.017		0.47	0.14	0.069	0.702	9/17/18 19:51	BRF	
Propene	ND	1.4	0.035		ND	2.4	0.060	0.702	9/17/18 19:51	BRF	
Styrene	0.037	0.035	0.022		0.16	0.15	0.092	0.702	9/17/18 19:51	BRF	
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	L-03	ND	0.44	0.16	0.702	9/17/18 19:51	BRF	
1,1,2,2-Tetrachloroethane	ND	0.035	0.016		ND	0.24	0.11	0.702	9/17/18 19:51	BRF	
Tetrachloroethylene	0.044	0.035	0.020		0.30	0.24	0.13	0.702	9/17/18 19:51	BRF	

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: IA-3-091218**  
**Sample ID: 1810590-03**  
 Sample Matrix: Indoor air  
 Sampled: 9/12/2018 09:55

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1946  
 Canister Size: 6 liter  
 Flow Controller ID: 4295  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -27  
 Final Vacuum(in Hg): -4  
 Receipt Vacuum(in Hg): -6.5  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrahydrofuran	ND	0.035	0.022		ND	0.10	0.064	0.702	9/17/18 19:51	BRF	
Toluene	0.45	0.035	0.018		1.7	0.13	0.068	0.702	9/17/18 19:51	BRF	
1,2,4-Trichlorobenzene	ND	0.035	0.024	V-05	ND	0.26	0.18	0.702	9/17/18 19:51	BRF	
1,1,1-Trichloroethane	ND	0.035	0.013		ND	0.19	0.072	0.702	9/17/18 19:51	BRF	
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.079	0.702	9/17/18 19:51	BRF	
Trichloroethylene	0.034	0.035	0.014	J	0.18	0.19	0.076	0.702	9/17/18 19:51	BRF	
Trichlorofluoromethane (Freon 11)	0.22	0.14	0.020		1.2	0.79	0.11	0.702	9/17/18 19:51	BRF	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14	0.014		ND	1.1	0.11	0.702	9/17/18 19:51	BRF	
1,2,4-Trimethylbenzene	ND	0.035	0.022		ND	0.17	0.11	0.702	9/17/18 19:51	BRF	
1,3,5-Trimethylbenzene	0.066	0.035	0.022		0.32	0.17	0.11	0.702	9/17/18 19:51	BRF	
Vinyl Acetate	0.39	0.70	0.017	V-05, J	1.4	2.5	0.059	0.702	9/17/18 19:51	BRF	
Vinyl Chloride	ND	0.035	0.022		ND	0.090	0.057	0.702	9/17/18 19:51	BRF	
m&p-Xylene	0.26	0.070	0.040		1.1	0.30	0.18	0.702	9/17/18 19:51	BRF	
o-Xylene	0.098	0.035	0.022		0.43	0.15	0.095	0.702	9/17/18 19:51	BRF	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	94.6	70-130	9/17/18 19:51
4-Bromofluorobenzene (2)	109	70-130	9/17/18 19:51

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: IA-4-091218**  
**Sample ID: 1810590-04**  
 Sample Matrix: Indoor air  
 Sampled: 9/12/2018 09:45

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1955  
 Canister Size: 6 liter  
 Flow Controller ID: 4069  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -29  
 Final Vacuum(in Hg): -5  
 Receipt Vacuum(in Hg): -5.5  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	4.5	1.4	0.49	V-05	11	3.3	1.2	0.702	9/17/18 20:51	BRF	
Benzene	0.14	0.035	0.014		0.46	0.11	0.046	0.702	9/17/18 20:51	BRF	
Benzyl chloride	ND	0.035	0.0077		ND	0.18	0.040	0.702	9/17/18 20:51	BRF	
Bromodichloromethane	ND	0.035	0.013		ND	0.24	0.087	0.702	9/17/18 20:51	BRF	
Bromoform	ND	0.035	0.016		ND	0.36	0.16	0.702	9/17/18 20:51	BRF	
Bromomethane	ND	0.035	0.024	V-05	ND	0.14	0.094	0.702	9/17/18 20:51	BRF	
1,3-Butadiene	ND	0.035	0.022		ND	0.078	0.049	0.702	9/17/18 20:51	BRF	
2-Butanone (MEK)	0.53	1.4	0.026	J	1.6	4.1	0.077	0.702	9/17/18 20:51	BRF	
Carbon Disulfide	0.090	0.35	0.012	J	0.28	1.1	0.038	0.702	9/17/18 20:51	BRF	
Carbon Tetrachloride	0.079	0.035	0.010		0.49	0.22	0.065	0.702	9/17/18 20:51	BRF	
Chlorobenzene	ND	0.035	0.017		ND	0.16	0.079	0.702	9/17/18 20:51	BRF	
Chloroethane	ND	0.035	0.021		ND	0.093	0.056	0.702	9/17/18 20:51	BRF	
Chloroform	0.042	0.035	0.013		0.21	0.17	0.064	0.702	9/17/18 20:51	BRF	
Chloromethane	0.54	0.070	0.024	V-05	1.1	0.14	0.049	0.702	9/17/18 20:51	BRF	
Cyclohexane	ND	0.035	0.025	V-05	ND	0.12	0.086	0.702	9/17/18 20:51	BRF	
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.099	0.702	9/17/18 20:51	BRF	
1,2-Dibromoethane (EDB)	ND	0.035	0.014		ND	0.27	0.11	0.702	9/17/18 20:51	BRF	
1,2-Dichlorobenzene	ND	0.035	0.017		ND	0.21	0.10	0.702	9/17/18 20:51	BRF	
1,3-Dichlorobenzene	ND	0.035	0.018		ND	0.21	0.11	0.702	9/17/18 20:51	BRF	
1,4-Dichlorobenzene	ND	0.035	0.021		ND	0.21	0.13	0.702	9/17/18 20:51	BRF	
Dichlorodifluoromethane (Freon 12)	0.44	0.035	0.015		2.2	0.17	0.075	0.702	9/17/18 20:51	BRF	
1,1-Dichloroethane	ND	0.035	0.010		ND	0.14	0.041	0.702	9/17/18 20:51	BRF	
1,2-Dichloroethane	ND	0.035	0.013		ND	0.14	0.054	0.702	9/17/18 20:51	BRF	
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.055	0.702	9/17/18 20:51	BRF	
cis-1,2-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.057	0.702	9/17/18 20:51	BRF	
trans-1,2-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.055	0.702	9/17/18 20:51	BRF	
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.057	0.702	9/17/18 20:51	BRF	
cis-1,3-Dichloropropene	ND	0.035	0.012		ND	0.16	0.056	0.702	9/17/18 20:51	BRF	
trans-1,3-Dichloropropene	ND	0.035	0.013		ND	0.16	0.058	0.702	9/17/18 20:51	BRF	
Ethanol	6.1	1.4	0.63	L-03	11	2.6	1.2	0.702	9/17/18 20:51	BRF	
Ethyl Acetate	ND	0.070	0.026		ND	0.25	0.094	0.702	9/17/18 20:51	BRF	
Ethylbenzene	0.060	0.035	0.020		0.26	0.15	0.088	0.702	9/17/18 20:51	BRF	
4-Ethyltoluene	ND	0.035	0.021		ND	0.17	0.11	0.702	9/17/18 20:51	BRF	
Heptane	0.10	0.035	0.021		0.41	0.14	0.085	0.702	9/17/18 20:51	BRF	
Hexachlorobutadiene	ND	0.035	0.016		ND	0.37	0.17	0.702	9/17/18 20:51	BRF	
Hexane	0.20	1.4	0.062	J	0.71	4.9	0.22	0.702	9/17/18 20:51	BRF	
2-Hexanone (MBK)	ND	0.035	0.021		ND	0.14	0.085	0.702	9/17/18 20:51	BRF	
Isopropanol	0.82	1.4	0.043	J	2.0	3.4	0.11	0.702	9/17/18 20:51	BRF	
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.018		ND	0.13	0.063	0.702	9/17/18 20:51	BRF	
Methylene Chloride	0.089	0.35	0.043	J	0.31	1.2	0.15	0.702	9/17/18 20:51	BRF	
Methyl methacrylate	0.021	0.035	0.020	J	0.086	0.14	0.082	0.702	9/17/18 20:51	BRF	
4-Methyl-2-pentanone (MIBK)	0.42	0.035	0.017		1.7	0.14	0.069	0.702	9/17/18 20:51	BRF	
Propene	ND	1.4	0.035		ND	2.4	0.060	0.702	9/17/18 20:51	BRF	
Styrene	0.065	0.035	0.022		0.28	0.15	0.092	0.702	9/17/18 20:51	BRF	
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	L-03	ND	0.44	0.16	0.702	9/17/18 20:51	BRF	
1,1,2,2-Tetrachloroethane	ND	0.035	0.016		ND	0.24	0.11	0.702	9/17/18 20:51	BRF	
Tetrachloroethylene	0.046	0.035	0.020		0.31	0.24	0.13	0.702	9/17/18 20:51	BRF	

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
 Field Sample #: IA-4-091218  
 Sample ID: 1810590-04  
 Sample Matrix: Indoor air  
 Sampled: 9/12/2018 09:45

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1955  
 Canister Size: 6 liter  
 Flow Controller ID: 4069  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -29  
 Final Vacuum(in Hg): -5  
 Receipt Vacuum(in Hg): -5.5  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrahydrofuran	ND	0.035	0.022		ND	0.10	0.064	0.702	9/17/18 20:51	BRF	
Toluene	0.44	0.035	0.018		1.7	0.13	0.068	0.702	9/17/18 20:51	BRF	
1,2,4-Trichlorobenzene	ND	0.035	0.024	V-05	ND	0.26	0.18	0.702	9/17/18 20:51	BRF	
1,1,1-Trichloroethane	ND	0.035	0.013		ND	0.19	0.072	0.702	9/17/18 20:51	BRF	
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.079	0.702	9/17/18 20:51	BRF	
Trichloroethylene	ND	0.035	0.014		ND	0.19	0.076	0.702	9/17/18 20:51	BRF	
Trichlorofluoromethane (Freon 11)	0.23	0.14	0.020		1.3	0.79	0.11	0.702	9/17/18 20:51	BRF	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.069	0.14	0.014	J	0.53	1.1	0.11	0.702	9/17/18 20:51	BRF	
1,2,4-Trimethylbenzene	0.044	0.035	0.022		0.21	0.17	0.11	0.702	9/17/18 20:51	BRF	
1,3,5-Trimethylbenzene	ND	0.035	0.022		ND	0.17	0.11	0.702	9/17/18 20:51	BRF	
Vinyl Acetate	0.25	0.70	0.017	V-05, J	0.88	2.5	0.059	0.702	9/17/18 20:51	BRF	
Vinyl Chloride	ND	0.035	0.022		ND	0.090	0.057	0.702	9/17/18 20:51	BRF	
m&p-Xylene	0.18	0.070	0.040		0.78	0.30	0.18	0.702	9/17/18 20:51	BRF	
o-Xylene	0.069	0.035	0.022		0.30	0.15	0.095	0.702	9/17/18 20:51	BRF	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	94.2	70-130	9/17/18 20:51
4-Bromofluorobenzene (2)	109	70-130	9/17/18 20:51

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: IA-5-091218**  
**Sample ID: 1810590-05**  
 Sample Matrix: Indoor air  
 Sampled: 9/12/2018 08:55

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1457  
 Canister Size: 6 liter  
 Flow Controller ID: 4181  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -30  
 Final Vacuum(in Hg): -6  
 Receipt Vacuum(in Hg): -6.3  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	7.5	1.4	0.49	V-05	18	3.3	1.2	0.702	9/17/18 21:50	BRF	
Benzene	0.14	0.035	0.014		0.44	0.11	0.046	0.702	9/17/18 21:50	BRF	
Benzyl chloride	ND	0.035	0.0077		ND	0.18	0.040	0.702	9/17/18 21:50	BRF	
Bromodichloromethane	ND	0.035	0.013		ND	0.24	0.087	0.702	9/17/18 21:50	BRF	
Bromoform	ND	0.035	0.016		ND	0.36	0.16	0.702	9/17/18 21:50	BRF	
Bromomethane	ND	0.035	0.024	V-05	ND	0.14	0.094	0.702	9/17/18 21:50	BRF	
1,3-Butadiene	0.026	0.035	0.022	J	0.057	0.078	0.049	0.702	9/17/18 21:50	BRF	
2-Butanone (MEK)	0.63	1.4	0.026	J	1.9	4.1	0.077	0.702	9/17/18 21:50	BRF	
Carbon Disulfide	0.061	0.35	0.012	J	0.19	1.1	0.038	0.702	9/17/18 21:50	BRF	
Carbon Tetrachloride	0.078	0.035	0.010		0.49	0.22	0.065	0.702	9/17/18 21:50	BRF	
Chlorobenzene	ND	0.035	0.017		ND	0.16	0.079	0.702	9/17/18 21:50	BRF	
Chloroethane	ND	0.035	0.021		ND	0.093	0.056	0.702	9/17/18 21:50	BRF	
Chloroform	0.074	0.035	0.013		0.36	0.17	0.064	0.702	9/17/18 21:50	BRF	
Chloromethane	0.57	0.070	0.024	V-05	1.2	0.14	0.049	0.702	9/17/18 21:50	BRF	
Cyclohexane	ND	0.035	0.025	V-05	ND	0.12	0.086	0.702	9/17/18 21:50	BRF	
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.099	0.702	9/17/18 21:50	BRF	
1,2-Dibromoethane (EDB)	ND	0.035	0.014		ND	0.27	0.11	0.702	9/17/18 21:50	BRF	
1,2-Dichlorobenzene	ND	0.035	0.017		ND	0.21	0.10	0.702	9/17/18 21:50	BRF	
1,3-Dichlorobenzene	ND	0.035	0.018		ND	0.21	0.11	0.702	9/17/18 21:50	BRF	
1,4-Dichlorobenzene	0.047	0.035	0.021		0.28	0.21	0.13	0.702	9/17/18 21:50	BRF	
Dichlorodifluoromethane (Freon 12)	0.43	0.035	0.015		2.1	0.17	0.075	0.702	9/17/18 21:50	BRF	
1,1-Dichloroethane	ND	0.035	0.010		ND	0.14	0.041	0.702	9/17/18 21:50	BRF	
1,2-Dichloroethane	0.020	0.035	0.013	J	0.080	0.14	0.054	0.702	9/17/18 21:50	BRF	
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.055	0.702	9/17/18 21:50	BRF	
cis-1,2-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.057	0.702	9/17/18 21:50	BRF	
trans-1,2-Dichloroethylene	0.032	0.035	0.014	J	0.13	0.14	0.055	0.702	9/17/18 21:50	BRF	
1,2-Dichloropropane	0.028	0.035	0.012	J	0.13	0.16	0.057	0.702	9/17/18 21:50	BRF	
cis-1,3-Dichloropropene	ND	0.035	0.012		ND	0.16	0.056	0.702	9/17/18 21:50	BRF	
trans-1,3-Dichloropropene	ND	0.035	0.013		ND	0.16	0.058	0.702	9/17/18 21:50	BRF	
Ethanol	17	1.4	0.63	L-03	33	2.6	1.2	0.702	9/17/18 21:50	BRF	
Ethyl Acetate	0.19	0.070	0.026		0.70	0.25	0.094	0.702	9/17/18 21:50	BRF	
Ethylbenzene	0.11	0.035	0.020		0.47	0.15	0.088	0.702	9/17/18 21:50	BRF	
4-Ethyltoluene	ND	0.035	0.021		ND	0.17	0.11	0.702	9/17/18 21:50	BRF	
Heptane	0.17	0.035	0.021		0.69	0.14	0.085	0.702	9/17/18 21:50	BRF	
Hexachlorobutadiene	ND	0.035	0.016		ND	0.37	0.17	0.702	9/17/18 21:50	BRF	
Hexane	0.22	1.4	0.062	J	0.77	4.9	0.22	0.702	9/17/18 21:50	BRF	
2-Hexanone (MBK)	ND	0.035	0.021		ND	0.14	0.085	0.702	9/17/18 21:50	BRF	
Isopropanol	10	1.4	0.043		26	3.4	0.11	0.702	9/17/18 21:50	BRF	
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.018		ND	0.13	0.063	0.702	9/17/18 21:50	BRF	
Methylene Chloride	0.10	0.35	0.043	J	0.35	1.2	0.15	0.702	9/17/18 21:50	BRF	
Methyl methacrylate	0.025	0.035	0.020	J	0.10	0.14	0.082	0.702	9/17/18 21:50	BRF	
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.017		ND	0.14	0.069	0.702	9/17/18 21:50	BRF	
Propene	ND	1.4	0.035		ND	2.4	0.060	0.702	9/17/18 21:50	BRF	
Styrene	0.11	0.035	0.022		0.48	0.15	0.092	0.702	9/17/18 21:50	BRF	
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	L-03	ND	0.44	0.16	0.702	9/17/18 21:50	BRF	
1,1,2,2-Tetrachloroethane	ND	0.035	0.016		ND	0.24	0.11	0.702	9/17/18 21:50	BRF	
Tetrachloroethylene	0.092	0.035	0.020		0.62	0.24	0.13	0.702	9/17/18 21:50	BRF	

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: IA-5-091218**  
**Sample ID: 1810590-05**  
 Sample Matrix: Indoor air  
 Sampled: 9/12/2018 08:55

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1457  
 Canister Size: 6 liter  
 Flow Controller ID: 4181  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -30  
 Final Vacuum(in Hg): -6  
 Receipt Vacuum(in Hg): -6.3  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrahydrofuran	0.058	0.035	0.022		0.17	0.10	0.064	0.702	9/17/18 21:50	BRF	
Toluene	0.79	0.035	0.018		3.0	0.13	0.068	0.702	9/17/18 21:50	BRF	
1,2,4-Trichlorobenzene	ND	0.035	0.024	V-05	ND	0.26	0.18	0.702	9/17/18 21:50	BRF	
1,1,1-Trichloroethane	ND	0.035	0.013		ND	0.19	0.072	0.702	9/17/18 21:50	BRF	
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.079	0.702	9/17/18 21:50	BRF	
Trichloroethylene	0.028	0.035	0.014	J	0.15	0.19	0.076	0.702	9/17/18 21:50	BRF	
Trichlorofluoromethane (Freon 11)	0.22	0.14	0.020		1.2	0.79	0.11	0.702	9/17/18 21:50	BRF	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.069	0.14	0.014	J	0.53	1.1	0.11	0.702	9/17/18 21:50	BRF	
1,2,4-Trimethylbenzene	0.062	0.035	0.022		0.30	0.17	0.11	0.702	9/17/18 21:50	BRF	
1,3,5-Trimethylbenzene	ND	0.035	0.022		ND	0.17	0.11	0.702	9/17/18 21:50	BRF	
Vinyl Acetate	0.43	0.70	0.017	V-05, J	1.5	2.5	0.059	0.702	9/17/18 21:50	BRF	
Vinyl Chloride	ND	0.035	0.022		ND	0.090	0.057	0.702	9/17/18 21:50	BRF	
m&p-Xylene	0.25	0.070	0.040		1.1	0.30	0.18	0.702	9/17/18 21:50	BRF	
o-Xylene	0.092	0.035	0.022		0.40	0.15	0.095	0.702	9/17/18 21:50	BRF	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	95.0	70-130	9/17/18 21:50
4-Bromofluorobenzene (2)	110	70-130	9/17/18 21:50

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: IA-6-091218**  
**Sample ID: 1810590-06**  
 Sample Matrix: Indoor air  
 Sampled: 9/12/2018 08:53

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1091  
 Canister Size: 6 liter  
 Flow Controller ID: 4309  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -29  
 Final Vacuum(in Hg): -5  
 Receipt Vacuum(in Hg): -4.8  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	12	1.4	0.49	V-05	29	3.3	1.2	0.702	9/17/18 22:49	BRF	
Benzene	0.15	0.035	0.014		0.49	0.11	0.046	0.702	9/17/18 22:49	BRF	
Benzyl chloride	ND	0.035	0.0077		ND	0.18	0.040	0.702	9/17/18 22:49	BRF	
Bromodichloromethane	ND	0.035	0.013		ND	0.24	0.087	0.702	9/17/18 22:49	BRF	
Bromoform	ND	0.035	0.016		ND	0.36	0.16	0.702	9/17/18 22:49	BRF	
Bromomethane	ND	0.035	0.024	V-05	ND	0.14	0.094	0.702	9/17/18 22:49	BRF	
1,3-Butadiene	0.029	0.035	0.022	J	0.064	0.078	0.049	0.702	9/17/18 22:49	BRF	
2-Butanone (MEK)	0.86	1.4	0.026	J	2.5	4.1	0.077	0.702	9/17/18 22:49	BRF	
Carbon Disulfide	0.10	0.35	0.012	J	0.32	1.1	0.038	0.702	9/17/18 22:49	BRF	
Carbon Tetrachloride	0.079	0.035	0.010		0.50	0.22	0.065	0.702	9/17/18 22:49	BRF	
Chlorobenzene	ND	0.035	0.017		ND	0.16	0.079	0.702	9/17/18 22:49	BRF	
Chloroethane	ND	0.035	0.021		ND	0.093	0.056	0.702	9/17/18 22:49	BRF	
Chloroform	0.093	0.035	0.013		0.45	0.17	0.064	0.702	9/17/18 22:49	BRF	
Chloromethane	0.62	0.070	0.024	V-05	1.3	0.14	0.049	0.702	9/17/18 22:49	BRF	
Cyclohexane	ND	0.035	0.025	V-05	ND	0.12	0.086	0.702	9/17/18 22:49	BRF	
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.099	0.702	9/17/18 22:49	BRF	
1,2-Dibromoethane (EDB)	ND	0.035	0.014		ND	0.27	0.11	0.702	9/17/18 22:49	BRF	
1,2-Dichlorobenzene	ND	0.035	0.017		ND	0.21	0.10	0.702	9/17/18 22:49	BRF	
1,3-Dichlorobenzene	ND	0.035	0.018		ND	0.21	0.11	0.702	9/17/18 22:49	BRF	
1,4-Dichlorobenzene	0.044	0.035	0.021		0.27	0.21	0.13	0.702	9/17/18 22:49	BRF	
Dichlorodifluoromethane (Freon 12)	0.44	0.035	0.015		2.2	0.17	0.075	0.702	9/17/18 22:49	BRF	
1,1-Dichloroethane	ND	0.035	0.010		ND	0.14	0.041	0.702	9/17/18 22:49	BRF	
1,2-Dichloroethane	0.024	0.035	0.013	J	0.097	0.14	0.054	0.702	9/17/18 22:49	BRF	
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.055	0.702	9/17/18 22:49	BRF	
cis-1,2-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.057	0.702	9/17/18 22:49	BRF	
trans-1,2-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.055	0.702	9/17/18 22:49	BRF	
1,2-Dichloropropane	0.028	0.035	0.012	J	0.13	0.16	0.057	0.702	9/17/18 22:49	BRF	
cis-1,3-Dichloropropene	ND	0.035	0.012		ND	0.16	0.056	0.702	9/17/18 22:49	BRF	
trans-1,3-Dichloropropene	ND	0.035	0.013		ND	0.16	0.058	0.702	9/17/18 22:49	BRF	
Ethanol	32	1.4	0.63	L-03	59	2.6	1.2	0.702	9/17/18 22:49	BRF	
Ethyl Acetate	0.21	0.070	0.026		0.74	0.25	0.094	0.702	9/17/18 22:49	BRF	
Ethylbenzene	0.096	0.035	0.020		0.42	0.15	0.088	0.702	9/17/18 22:49	BRF	
4-Ethyltoluene	ND	0.035	0.021		ND	0.17	0.11	0.702	9/17/18 22:49	BRF	
Heptane	0.21	0.035	0.021		0.88	0.14	0.085	0.702	9/17/18 22:49	BRF	
Hexachlorobutadiene	ND	0.035	0.016		ND	0.37	0.17	0.702	9/17/18 22:49	BRF	
Hexane	0.38	1.4	0.062	J	1.4	4.9	0.22	0.702	9/17/18 22:49	BRF	
2-Hexanone (MBK)	ND	0.035	0.021		ND	0.14	0.085	0.702	9/17/18 22:49	BRF	
Isopropanol	14	1.4	0.043		35	3.4	0.11	0.702	9/17/18 22:49	BRF	
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.018		ND	0.13	0.063	0.702	9/17/18 22:49	BRF	
Methylene Chloride	0.30	0.35	0.043	J	1.0	1.2	0.15	0.702	9/17/18 22:49	BRF	
Methyl methacrylate	ND	0.035	0.020		ND	0.14	0.082	0.702	9/17/18 22:49	BRF	
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.017		ND	0.14	0.069	0.702	9/17/18 22:49	BRF	
Propene	ND	1.4	0.035		ND	2.4	0.060	0.702	9/17/18 22:49	BRF	
Styrene	0.16	0.035	0.022		0.68	0.15	0.092	0.702	9/17/18 22:49	BRF	
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	L-03	ND	0.44	0.16	0.702	9/17/18 22:49	BRF	
1,1,2,2-Tetrachloroethane	ND	0.035	0.016		ND	0.24	0.11	0.702	9/17/18 22:49	BRF	
Tetrachloroethylene	0.17	0.035	0.020		1.2	0.24	0.13	0.702	9/17/18 22:49	BRF	

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: IA-6-091218**  
**Sample ID: 1810590-06**  
 Sample Matrix: Indoor air  
 Sampled: 9/12/2018 08:53

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1091  
 Canister Size: 6 liter  
 Flow Controller ID: 4309  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -29  
 Final Vacuum(in Hg): -5  
 Receipt Vacuum(in Hg): -4.8  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrahydrofuran	ND	0.035	0.022		ND	0.10	0.064	0.702	9/17/18 22:49	BRF	
Toluene	0.99	0.035	0.018		3.7	0.13	0.068	0.702	9/17/18 22:49	BRF	
1,2,4-Trichlorobenzene	ND	0.035	0.024	V-05	ND	0.26	0.18	0.702	9/17/18 22:49	BRF	
1,1,1-Trichloroethane	ND	0.035	0.013		ND	0.19	0.072	0.702	9/17/18 22:49	BRF	
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.079	0.702	9/17/18 22:49	BRF	
Trichloroethylene	0.044	0.035	0.014		0.24	0.19	0.076	0.702	9/17/18 22:49	BRF	
Trichlorofluoromethane (Freon 11)	0.22	0.14	0.020		1.2	0.79	0.11	0.702	9/17/18 22:49	BRF	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.071	0.14	0.014	J	0.54	1.1	0.11	0.702	9/17/18 22:49	BRF	
1,2,4-Trimethylbenzene	0.068	0.035	0.022		0.33	0.17	0.11	0.702	9/17/18 22:49	BRF	
1,3,5-Trimethylbenzene	ND	0.035	0.022		ND	0.17	0.11	0.702	9/17/18 22:49	BRF	
Vinyl Acetate	0.85	0.70	0.017	V-05	3.0	2.5	0.059	0.702	9/17/18 22:49	BRF	
Vinyl Chloride	ND	0.035	0.022		ND	0.090	0.057	0.702	9/17/18 22:49	BRF	
m&p-Xylene	0.24	0.070	0.040		1.0	0.30	0.18	0.702	9/17/18 22:49	BRF	
o-Xylene	0.095	0.035	0.022		0.41	0.15	0.095	0.702	9/17/18 22:49	BRF	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.8	70-130	9/17/18 22:49
4-Bromofluorobenzene (2)	108	70-130	9/17/18 22:49

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: IA-7-091218**  
**Sample ID: 1810590-07**  
 Sample Matrix: Indoor air  
 Sampled: 9/12/2018 08:34

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1934  
 Canister Size: 6 liter  
 Flow Controller ID: 4314  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -30  
 Final Vacuum(in Hg): -5  
 Receipt Vacuum(in Hg): -5.3  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	9.7	1.4	0.49	V-05	23	3.3	1.2	0.702	9/17/18 23:48	BRF	
Benzene	0.16	0.035	0.014		0.50	0.11	0.046	0.702	9/17/18 23:48	BRF	
Benzyl chloride	ND	0.035	0.0077		ND	0.18	0.040	0.702	9/17/18 23:48	BRF	
Bromodichloromethane	ND	0.035	0.013		ND	0.24	0.087	0.702	9/17/18 23:48	BRF	
Bromoform	ND	0.035	0.016		ND	0.36	0.16	0.702	9/17/18 23:48	BRF	
Bromomethane	ND	0.035	0.024	V-05	ND	0.14	0.094	0.702	9/17/18 23:48	BRF	
1,3-Butadiene	ND	0.035	0.022		ND	0.078	0.049	0.702	9/17/18 23:48	BRF	
2-Butanone (MEK)	0.44	1.4	0.026	J	1.3	4.1	0.077	0.702	9/17/18 23:48	BRF	
Carbon Disulfide	ND	0.35	0.012		ND	1.1	0.038	0.702	9/17/18 23:48	BRF	
Carbon Tetrachloride	0.079	0.035	0.010		0.50	0.22	0.065	0.702	9/17/18 23:48	BRF	
Chlorobenzene	ND	0.035	0.017		ND	0.16	0.079	0.702	9/17/18 23:48	BRF	
Chloroethane	0.029	0.035	0.021	J	0.076	0.093	0.056	0.702	9/17/18 23:48	BRF	
Chloroform	0.048	0.035	0.013		0.23	0.17	0.064	0.702	9/17/18 23:48	BRF	
Chloromethane	0.94	0.070	0.024	V-05	1.9	0.14	0.049	0.702	9/17/18 23:48	BRF	
Cyclohexane	ND	0.035	0.025	V-05	ND	0.12	0.086	0.702	9/17/18 23:48	BRF	
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.099	0.702	9/17/18 23:48	BRF	
1,2-Dibromoethane (EDB)	ND	0.035	0.014		ND	0.27	0.11	0.702	9/17/18 23:48	BRF	
1,2-Dichlorobenzene	ND	0.035	0.017		ND	0.21	0.10	0.702	9/17/18 23:48	BRF	
1,3-Dichlorobenzene	ND	0.035	0.018		ND	0.21	0.11	0.702	9/17/18 23:48	BRF	
1,4-Dichlorobenzene	ND	0.035	0.021		ND	0.21	0.13	0.702	9/17/18 23:48	BRF	
Dichlorodifluoromethane (Freon 12)	0.43	0.035	0.015		2.1	0.17	0.075	0.702	9/17/18 23:48	BRF	
1,1-Dichloroethane	ND	0.035	0.010		ND	0.14	0.041	0.702	9/17/18 23:48	BRF	
1,2-Dichloroethane	0.084	0.035	0.013		0.34	0.14	0.054	0.702	9/17/18 23:48	BRF	
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.055	0.702	9/17/18 23:48	BRF	
cis-1,2-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.057	0.702	9/17/18 23:48	BRF	
trans-1,2-Dichloroethylene	0.021	0.035	0.014	J	0.083	0.14	0.055	0.702	9/17/18 23:48	BRF	
1,2-Dichloropropane	0.021	0.035	0.012	J	0.097	0.16	0.057	0.702	9/17/18 23:48	BRF	
cis-1,3-Dichloropropene	ND	0.035	0.012		ND	0.16	0.056	0.702	9/17/18 23:48	BRF	
trans-1,3-Dichloropropene	ND	0.035	0.013		ND	0.16	0.058	0.702	9/17/18 23:48	BRF	
Ethanol	15	1.4	0.63	L-03	28	2.6	1.2	0.702	9/17/18 23:48	BRF	
Ethyl Acetate	0.096	0.070	0.026		0.35	0.25	0.094	0.702	9/17/18 23:48	BRF	
Ethylbenzene	0.086	0.035	0.020		0.37	0.15	0.088	0.702	9/17/18 23:48	BRF	
4-Ethyltoluene	ND	0.035	0.021		ND	0.17	0.11	0.702	9/17/18 23:48	BRF	
Heptane	0.11	0.035	0.021		0.44	0.14	0.085	0.702	9/17/18 23:48	BRF	
Hexachlorobutadiene	ND	0.035	0.016		ND	0.37	0.17	0.702	9/17/18 23:48	BRF	
Hexane	0.22	1.4	0.062	J	0.78	4.9	0.22	0.702	9/17/18 23:48	BRF	
2-Hexanone (MBK)	ND	0.035	0.021		ND	0.14	0.085	0.702	9/17/18 23:48	BRF	
Isopropanol	37	20	0.61		92	49	1.5	10	9/19/18 22:18	BRF	
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.018		ND	0.13	0.063	0.702	9/17/18 23:48	BRF	
Methylene Chloride	0.11	0.35	0.043	J	0.39	1.2	0.15	0.702	9/17/18 23:48	BRF	
Methyl methacrylate	ND	0.035	0.020		ND	0.14	0.082	0.702	9/17/18 23:48	BRF	
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.017		ND	0.14	0.069	0.702	9/17/18 23:48	BRF	
Propene	ND	1.4	0.035		ND	2.4	0.060	0.702	9/17/18 23:48	BRF	
Styrene	0.10	0.035	0.022		0.42	0.15	0.092	0.702	9/17/18 23:48	BRF	
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	L-03	ND	0.44	0.16	0.702	9/17/18 23:48	BRF	
1,1,2,2-Tetrachloroethane	ND	0.035	0.016		ND	0.24	0.11	0.702	9/17/18 23:48	BRF	
Tetrachloroethylene	0.088	0.035	0.020		0.60	0.24	0.13	0.702	9/17/18 23:48	BRF	

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: IA-7-091218**  
**Sample ID: 1810590-07**  
 Sample Matrix: Indoor air  
 Sampled: 9/12/2018 08:34

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1934  
 Canister Size: 6 liter  
 Flow Controller ID: 4314  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -30  
 Final Vacuum(in Hg): -5  
 Receipt Vacuum(in Hg): -5.3  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrahydrofuran	ND	0.035	0.022		ND	0.10	0.064	0.702	9/17/18 23:48	BRF	
Toluene	0.70	0.035	0.018		2.6	0.13	0.068	0.702	9/17/18 23:48	BRF	
1,2,4-Trichlorobenzene	ND	0.035	0.024	V-05	ND	0.26	0.18	0.702	9/17/18 23:48	BRF	
1,1,1-Trichloroethane	ND	0.035	0.013		ND	0.19	0.072	0.702	9/17/18 23:48	BRF	
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.079	0.702	9/17/18 23:48	BRF	
Trichloroethylene	0.034	0.035	0.014	J	0.18	0.19	0.076	0.702	9/17/18 23:48	BRF	
Trichlorofluoromethane (Freon 11)	0.22	0.14	0.020		1.2	0.79	0.11	0.702	9/17/18 23:48	BRF	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.070	0.14	0.014	J	0.54	1.1	0.11	0.702	9/17/18 23:48	BRF	
1,2,4-Trimethylbenzene	0.060	0.035	0.022		0.29	0.17	0.11	0.702	9/17/18 23:48	BRF	
1,3,5-Trimethylbenzene	ND	0.035	0.022		ND	0.17	0.11	0.702	9/17/18 23:48	BRF	
Vinyl Acetate	0.35	0.70	0.017	V-05, J	1.2	2.5	0.059	0.702	9/17/18 23:48	BRF	
Vinyl Chloride	ND	0.035	0.022		ND	0.090	0.057	0.702	9/17/18 23:48	BRF	
m&p-Xylene	0.25	0.070	0.040		1.1	0.30	0.18	0.702	9/17/18 23:48	BRF	
o-Xylene	0.088	0.035	0.022		0.38	0.15	0.095	0.702	9/17/18 23:48	BRF	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	94.2	70-130	9/17/18 23:48
4-Bromofluorobenzene (1)	91.6	70-130	9/19/18 22:18
4-Bromofluorobenzene (2)	109	70-130	9/17/18 23:48

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: EW-5-091218**  
**Sample ID: 1810590-08**  
 Sample Matrix: Sub Slab  
 Sampled: 9/12/2018 10:26

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1861  
 Canister Size: 6 liter  
 Flow Controller ID: 4180  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -30  
 Final Vacuum(in Hg): -6  
 Receipt Vacuum(in Hg): -6.7  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	300	80	28	V-05	710	190	66	40	9/18/18	2:18	BRF
Benzene	0.97	0.20	0.082		3.1	0.64	0.26	4	9/18/18	1:34	BRF
Benzyl chloride	ND	0.20	0.044		ND	1.0	0.23	4	9/18/18	1:34	BRF
Bromodichloromethane	0.18	0.20	0.074	J	1.2	1.3	0.49	4	9/18/18	1:34	BRF
Bromoform	ND	0.20	0.090		ND	2.1	0.93	4	9/18/18	1:34	BRF
Bromomethane	ND	0.20	0.14	V-05	ND	0.78	0.53	4	9/18/18	1:34	BRF
1,3-Butadiene	0.19	0.20	0.13	J	0.42	0.44	0.28	4	9/18/18	1:34	BRF
2-Butanone (MEK)	1900	80	1.5		5500	240	4.4	40	9/18/18	2:18	BRF
Carbon Disulfide	64	2.0	0.069	L-05	200	6.2	0.21	4	9/18/18	1:34	BRF
Carbon Tetrachloride	0.072	0.20	0.059	J	0.45	1.3	0.37	4	9/18/18	1:34	BRF
Chlorobenzene	ND	0.20	0.098		ND	0.92	0.45	4	9/18/18	1:34	BRF
Chloroethane	0.46	0.20	0.12		1.2	0.53	0.32	4	9/18/18	1:34	BRF
Chloroform	0.17	0.20	0.074	J	0.84	0.98	0.36	4	9/18/18	1:34	BRF
Chloromethane	ND	0.40	0.14	V-05	ND	0.83	0.28	4	9/18/18	1:34	BRF
Cyclohexane	ND	0.20	0.14	V-05	ND	0.69	0.49	4	9/18/18	1:34	BRF
Dibromochloromethane	ND	0.20	0.066		ND	1.7	0.57	4	9/18/18	1:34	BRF
1,2-Dibromoethane (EDB)	ND	0.20	0.078		ND	1.5	0.60	4	9/18/18	1:34	BRF
1,2-Dichlorobenzene	ND	0.20	0.096		ND	1.2	0.58	4	9/18/18	1:34	BRF
1,3-Dichlorobenzene	ND	0.20	0.10		ND	1.2	0.62	4	9/18/18	1:34	BRF
1,4-Dichlorobenzene	ND	0.20	0.12		ND	1.2	0.73	4	9/18/18	1:34	BRF
Dichlorodifluoromethane (Freon 12)	0.43	0.20	0.087		2.1	0.99	0.43	4	9/18/18	1:34	BRF
1,1-Dichloroethane	1.5	0.20	0.058		5.9	0.81	0.23	4	9/18/18	1:34	BRF
1,2-Dichloroethane	ND	0.20	0.076		ND	0.81	0.31	4	9/18/18	1:34	BRF
1,1-Dichloroethylene	0.33	0.20	0.079		1.3	0.79	0.31	4	9/18/18	1:34	BRF
cis-1,2-Dichloroethylene	0.59	0.20	0.082		2.3	0.79	0.32	4	9/18/18	1:34	BRF
trans-1,2-Dichloroethylene	ND	0.20	0.080		ND	0.79	0.32	4	9/18/18	1:34	BRF
1,2-Dichloropropane	ND	0.20	0.071		ND	0.92	0.33	4	9/18/18	1:34	BRF
cis-1,3-Dichloropropene	ND	0.20	0.070		ND	0.91	0.32	4	9/18/18	1:34	BRF
trans-1,3-Dichloropropene	ND	0.20	0.073		ND	0.91	0.33	4	9/18/18	1:34	BRF
Ethanol	6.0	8.0	3.6	L-03, J	11	15	6.7	4	9/18/18	1:34	BRF
Ethyl Acetate	0.72	0.40	0.15		2.6	1.4	0.54	4	9/18/18	1:34	BRF
Ethylbenzene	ND	0.20	0.12		ND	0.87	0.50	4	9/18/18	1:34	BRF
4-Ethyltoluene	ND	0.20	0.12		ND	0.98	0.60	4	9/18/18	1:34	BRF
Heptane	ND	0.20	0.12		ND	0.82	0.48	4	9/18/18	1:34	BRF
Hexachlorobutadiene	ND	0.20	0.092		ND	2.1	0.98	4	9/18/18	1:34	BRF
Hexane	ND	8.0	0.35		ND	28	1.2	4	9/18/18	1:34	BRF
2-Hexanone (MBK)	ND	0.20	0.12		ND	0.82	0.48	4	9/18/18	1:34	BRF
Isopropanol	2.5	8.0	0.25	J	6.2	20	0.60	4	9/18/18	1:34	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.20	0.10		ND	0.72	0.36	4	9/18/18	1:34	BRF
Methylene Chloride	ND	2.0	0.24		ND	6.9	0.84	4	9/18/18	1:34	BRF
Methyl methacrylate	ND	0.20	0.11		ND	0.82	0.47	4	9/18/18	1:34	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.20	0.096		ND	0.82	0.39	4	9/18/18	1:34	BRF
Propene	ND	8.0	0.20		ND	14	0.34	4	9/18/18	1:34	BRF
Styrene	ND	0.20	0.12		ND	0.85	0.53	4	9/18/18	1:34	BRF
1,1,1,2-Tetrachloroethane	ND	0.36	0.13	L-03	ND	2.5	0.91	4	9/18/18	1:34	BRF
1,1,2,2-Tetrachloroethane	ND	0.20	0.089		ND	1.4	0.61	4	9/18/18	1:34	BRF
Tetrachloroethylene	ND	0.20	0.11		ND	1.4	0.75	4	9/18/18	1:34	BRF

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: EW-5-091218**  
**Sample ID: 1810590-08**  
 Sample Matrix: Sub Slab  
 Sampled: 9/12/2018 10:26

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1861  
 Canister Size: 6 liter  
 Flow Controller ID: 4180  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -30  
 Final Vacuum(in Hg): -6  
 Receipt Vacuum(in Hg): -6.7  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrahydrofuran	1400	2.0	1.2		4200	5.9	3.6	40	9/18/18	2:18	BRF
Toluene	0.40	0.20	0.10		1.5	0.75	0.39	4	9/18/18	1:34	BRF
1,2,4-Trichlorobenzene	ND	0.20	0.14	V-05	ND	1.5	1.0	4	9/18/18	1:34	BRF
1,1,1-Trichloroethane	9.0	0.20	0.075		49	1.1	0.41	4	9/18/18	1:34	BRF
1,1,2-Trichloroethane	ND	0.20	0.082		ND	1.1	0.45	4	9/18/18	1:34	BRF
Trichloroethylene	26	0.20	0.081		140	1.1	0.43	4	9/18/18	1:34	BRF
Trichlorofluoromethane (Freon 11)	0.56	0.80	0.12	J	3.2	4.5	0.65	4	9/18/18	1:34	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80	0.079		ND	6.1	0.60	4	9/18/18	1:34	BRF
1,2,4-Trimethylbenzene	ND	0.20	0.13		ND	0.98	0.63	4	9/18/18	1:34	BRF
1,3,5-Trimethylbenzene	ND	0.20	0.13		ND	0.98	0.62	4	9/18/18	1:34	BRF
Vinyl Acetate	ND	4.0	0.095	V-05	ND	14	0.34	4	9/18/18	1:34	BRF
Vinyl Chloride	ND	0.20	0.13		ND	0.51	0.32	4	9/18/18	1:34	BRF
m&p-Xylene	ND	0.40	0.23		ND	1.7	1.00	4	9/18/18	1:34	BRF
o-Xylene	ND	0.20	0.12		ND	0.87	0.54	4	9/18/18	1:34	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	92.7	70-130	9/18/18 1:34
4-Bromofluorobenzene (1)	91.6	70-130	9/18/18 2:18
4-Bromofluorobenzene (2)	107	70-130	9/18/18 1:34

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: EW-6-091218**  
**Sample ID: 1810590-09**  
 Sample Matrix: Sub Slab  
 Sampled: 9/12/2018 08:57

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1309  
 Canister Size: 6 liter  
 Flow Controller ID: 4308  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -29  
 Final Vacuum(in Hg): -4  
 Receipt Vacuum(in Hg): -4.6  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	18	8.0	2.8	V-05	42	19	6.6	4	9/18/18	3:04	BRF
Benzene	0.28	0.20	0.082		0.91	0.64	0.26	4	9/18/18	3:04	BRF
Benzyl chloride	ND	0.20	0.044		ND	1.0	0.23	4	9/18/18	3:04	BRF
Bromodichloromethane	0.092	0.20	0.074	J	0.62	1.3	0.49	4	9/18/18	3:04	BRF
Bromoform	ND	0.20	0.090		ND	2.1	0.93	4	9/18/18	3:04	BRF
Bromomethane	ND	0.20	0.14	V-05	ND	0.78	0.53	4	9/18/18	3:04	BRF
1,3-Butadiene	ND	0.20	0.13		ND	0.44	0.28	4	9/18/18	3:04	BRF
2-Butanone (MEK)	54	8.0	0.15		160	24	0.44	4	9/18/18	3:04	BRF
Carbon Disulfide	53	2.0	0.069	L-05	160	6.2	0.21	4	9/18/18	3:04	BRF
Carbon Tetrachloride	0.072	0.20	0.059	J	0.45	1.3	0.37	4	9/18/18	3:04	BRF
Chlorobenzene	ND	0.20	0.098		ND	0.92	0.45	4	9/18/18	3:04	BRF
Chloroethane	ND	0.20	0.12		ND	0.53	0.32	4	9/18/18	3:04	BRF
Chloroform	0.15	0.20	0.074	J	0.74	0.98	0.36	4	9/18/18	3:04	BRF
Chloromethane	ND	0.40	0.14	V-05	ND	0.83	0.28	4	9/18/18	3:04	BRF
Cyclohexane	ND	0.20	0.14	V-05	ND	0.69	0.49	4	9/18/18	3:04	BRF
Dibromochloromethane	ND	0.20	0.066		ND	1.7	0.57	4	9/18/18	3:04	BRF
1,2-Dibromoethane (EDB)	ND	0.20	0.078		ND	1.5	0.60	4	9/18/18	3:04	BRF
1,2-Dichlorobenzene	ND	0.20	0.096		ND	1.2	0.58	4	9/18/18	3:04	BRF
1,3-Dichlorobenzene	ND	0.20	0.10		ND	1.2	0.62	4	9/18/18	3:04	BRF
1,4-Dichlorobenzene	ND	0.20	0.12		ND	1.2	0.73	4	9/18/18	3:04	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.20	0.087		ND	0.99	0.43	4	9/18/18	3:04	BRF
1,1-Dichloroethane	1.0	0.20	0.058		4.1	0.81	0.23	4	9/18/18	3:04	BRF
1,2-Dichloroethane	ND	0.20	0.076		ND	0.81	0.31	4	9/18/18	3:04	BRF
1,1-Dichloroethylene	ND	0.20	0.079		ND	0.79	0.31	4	9/18/18	3:04	BRF
cis-1,2-Dichloroethylene	0.10	0.20	0.082	J	0.40	0.79	0.32	4	9/18/18	3:04	BRF
trans-1,2-Dichloroethylene	ND	0.20	0.080		ND	0.79	0.32	4	9/18/18	3:04	BRF
1,2-Dichloropropane	ND	0.20	0.071		ND	0.92	0.33	4	9/18/18	3:04	BRF
cis-1,3-Dichloropropene	ND	0.20	0.070		ND	0.91	0.32	4	9/18/18	3:04	BRF
trans-1,3-Dichloropropene	ND	0.20	0.073		ND	0.91	0.33	4	9/18/18	3:04	BRF
Ethanol	5.0	8.0	3.6	L-03, J	9.5	15	6.7	4	9/18/18	3:04	BRF
Ethyl Acetate	ND	0.40	0.15		ND	1.4	0.54	4	9/18/18	3:04	BRF
Ethylbenzene	ND	0.20	0.12		ND	0.87	0.50	4	9/18/18	3:04	BRF
4-Ethyltoluene	ND	0.20	0.12		ND	0.98	0.60	4	9/18/18	3:04	BRF
Heptane	ND	0.20	0.12		ND	0.82	0.48	4	9/18/18	3:04	BRF
Hexachlorobutadiene	ND	0.20	0.092		ND	2.1	0.98	4	9/18/18	3:04	BRF
Hexane	ND	8.0	0.35		ND	28	1.2	4	9/18/18	3:04	BRF
2-Hexanone (MBK)	ND	0.20	0.12		ND	0.82	0.48	4	9/18/18	3:04	BRF
Isopropanol	ND	8.0	0.25		ND	20	0.60	4	9/18/18	3:04	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.20	0.10		ND	0.72	0.36	4	9/18/18	3:04	BRF
Methylene Chloride	ND	2.0	0.24		ND	6.9	0.84	4	9/18/18	3:04	BRF
Methyl methacrylate	ND	0.20	0.11		ND	0.82	0.47	4	9/18/18	3:04	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.20	0.096		ND	0.82	0.39	4	9/18/18	3:04	BRF
Propene	ND	8.0	0.20		ND	14	0.34	4	9/18/18	3:04	BRF
Styrene	ND	0.20	0.12		ND	0.85	0.53	4	9/18/18	3:04	BRF
1,1,1,2-Tetrachloroethane	ND	0.36	0.13	L-03	ND	2.5	0.91	4	9/18/18	3:04	BRF
1,1,2,2-Tetrachloroethane	ND	0.20	0.089		ND	1.4	0.61	4	9/18/18	3:04	BRF
Tetrachloroethylene	0.68	0.20	0.11		4.6	1.4	0.75	4	9/18/18	3:04	BRF

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: EW-6-091218**  
**Sample ID: 1810590-09**  
 Sample Matrix: Sub Slab  
 Sampled: 9/12/2018 08:57

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1309  
 Canister Size: 6 liter  
 Flow Controller ID: 4308  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -29  
 Final Vacuum(in Hg): -4  
 Receipt Vacuum(in Hg): -4.6  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrahydrofuran	1500	2.0	1.2		4400	5.9	3.6	40	9/18/18	3:50	BRF
Toluene	0.68	0.20	0.10		2.5	0.75	0.39	4	9/18/18	3:04	BRF
1,2,4-Trichlorobenzene	ND	0.20	0.14	V-05	ND	1.5	1.0	4	9/18/18	3:04	BRF
1,1,1-Trichloroethane	4.9	0.20	0.075		27	1.1	0.41	4	9/18/18	3:04	BRF
1,1,2-Trichloroethane	ND	0.20	0.082		ND	1.1	0.45	4	9/18/18	3:04	BRF
Trichloroethylene	12	0.20	0.081		64	1.1	0.43	4	9/18/18	3:04	BRF
Trichlorofluoromethane (Freon 11)	0.68	0.80	0.12	J	3.8	4.5	0.65	4	9/18/18	3:04	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80	0.079		ND	6.1	0.60	4	9/18/18	3:04	BRF
1,2,4-Trimethylbenzene	ND	0.20	0.13		ND	0.98	0.63	4	9/18/18	3:04	BRF
1,3,5-Trimethylbenzene	ND	0.20	0.13		ND	0.98	0.62	4	9/18/18	3:04	BRF
Vinyl Acetate	ND	4.0	0.095	V-05	ND	14	0.34	4	9/18/18	3:04	BRF
Vinyl Chloride	ND	0.20	0.13		ND	0.51	0.32	4	9/18/18	3:04	BRF
m&p-Xylene	ND	0.40	0.23		ND	1.7	1.00	4	9/18/18	3:04	BRF
o-Xylene	ND	0.20	0.12		ND	0.87	0.54	4	9/18/18	3:04	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	92.9	70-130	9/18/18 3:50
4-Bromofluorobenzene (1)	92.6	70-130	9/18/18 3:04
4-Bromofluorobenzene (2)	107	70-130	9/18/18 3:04

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: EW-7-091218**  
**Sample ID: 1810590-10**  
 Sample Matrix: Sub Slab  
 Sampled: 9/12/2018 08:42

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1928  
 Canister Size: 6 liter  
 Flow Controller ID: 4315  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -29  
 Final Vacuum(in Hg): -5  
 Receipt Vacuum(in Hg): -6.8  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	9.8	8.0	2.8	V-05	23	19	6.6	4	9/18/18	4:37	BRF
Benzene	0.50	0.20	0.082		1.6	0.64	0.26	4	9/18/18	4:37	BRF
Benzyl chloride	ND	0.20	0.044		ND	1.0	0.23	4	9/18/18	4:37	BRF
Bromodichloromethane	0.16	0.20	0.074	J	1.0	1.3	0.49	4	9/18/18	4:37	BRF
Bromoform	ND	0.20	0.090		ND	2.1	0.93	4	9/18/18	4:37	BRF
Bromomethane	ND	0.20	0.14	V-05	ND	0.78	0.53	4	9/18/18	4:37	BRF
1,3-Butadiene	0.19	0.20	0.13	J	0.42	0.44	0.28	4	9/18/18	4:37	BRF
2-Butanone (MEK)	7.2	8.0	0.15	J	21	24	0.44	4	9/18/18	4:37	BRF
Carbon Disulfide	15	2.0	0.069	L-05	47	6.2	0.21	4	9/18/18	4:37	BRF
Carbon Tetrachloride	0.076	0.20	0.059	J	0.48	1.3	0.37	4	9/18/18	4:37	BRF
Chlorobenzene	ND	0.20	0.098		ND	0.92	0.45	4	9/18/18	4:37	BRF
Chloroethane	ND	0.20	0.12		ND	0.53	0.32	4	9/18/18	4:37	BRF
Chloroform	0.30	0.20	0.074		1.4	0.98	0.36	4	9/18/18	4:37	BRF
Chloromethane	ND	0.40	0.14	V-05	ND	0.83	0.28	4	9/18/18	4:37	BRF
Cyclohexane	ND	0.20	0.14	V-05	ND	0.69	0.49	4	9/18/18	4:37	BRF
Dibromochloromethane	ND	0.20	0.066		ND	1.7	0.57	4	9/18/18	4:37	BRF
1,2-Dibromoethane (EDB)	ND	0.20	0.078		ND	1.5	0.60	4	9/18/18	4:37	BRF
1,2-Dichlorobenzene	ND	0.20	0.096		ND	1.2	0.58	4	9/18/18	4:37	BRF
1,3-Dichlorobenzene	ND	0.20	0.10		ND	1.2	0.62	4	9/18/18	4:37	BRF
1,4-Dichlorobenzene	ND	0.20	0.12		ND	1.2	0.73	4	9/18/18	4:37	BRF
Dichlorodifluoromethane (Freon 12)	0.44	0.20	0.087		2.2	0.99	0.43	4	9/18/18	4:37	BRF
1,1-Dichloroethane	0.33	0.20	0.058		1.3	0.81	0.23	4	9/18/18	4:37	BRF
1,2-Dichloroethane	ND	0.20	0.076		ND	0.81	0.31	4	9/18/18	4:37	BRF
1,1-Dichloroethylene	ND	0.20	0.079		ND	0.79	0.31	4	9/18/18	4:37	BRF
cis-1,2-Dichloroethylene	0.27	0.20	0.082		1.1	0.79	0.32	4	9/18/18	4:37	BRF
trans-1,2-Dichloroethylene	0.42	0.20	0.080		1.7	0.79	0.32	4	9/18/18	4:37	BRF
1,2-Dichloropropane	ND	0.20	0.071		ND	0.92	0.33	4	9/18/18	4:37	BRF
cis-1,3-Dichloropropene	ND	0.20	0.070		ND	0.91	0.32	4	9/18/18	4:37	BRF
trans-1,3-Dichloropropene	ND	0.20	0.073		ND	0.91	0.33	4	9/18/18	4:37	BRF
Ethanol	9.9	8.0	3.6	L-03	19	15	6.7	4	9/18/18	4:37	BRF
Ethyl Acetate	0.18	0.40	0.15	J	0.63	1.4	0.54	4	9/18/18	4:37	BRF
Ethylbenzene	ND	0.20	0.12		ND	0.87	0.50	4	9/18/18	4:37	BRF
4-Ethyltoluene	ND	0.20	0.12		ND	0.98	0.60	4	9/18/18	4:37	BRF
Heptane	ND	0.20	0.12		ND	0.82	0.48	4	9/18/18	4:37	BRF
Hexachlorobutadiene	ND	0.20	0.092		ND	2.1	0.98	4	9/18/18	4:37	BRF
Hexane	ND	8.0	0.35		ND	28	1.2	4	9/18/18	4:37	BRF
2-Hexanone (MBK)	ND	0.20	0.12		ND	0.82	0.48	4	9/18/18	4:37	BRF
Isopropanol	19	8.0	0.25		47	20	0.60	4	9/18/18	4:37	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.20	0.10		ND	0.72	0.36	4	9/18/18	4:37	BRF
Methylene Chloride	ND	2.0	0.24		ND	6.9	0.84	4	9/18/18	4:37	BRF
Methyl methacrylate	ND	0.20	0.11		ND	0.82	0.47	4	9/18/18	4:37	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.20	0.096		ND	0.82	0.39	4	9/18/18	4:37	BRF
Propene	ND	8.0	0.20		ND	14	0.34	4	9/18/18	4:37	BRF
Styrene	0.18	0.20	0.12	J	0.78	0.85	0.53	4	9/18/18	4:37	BRF
1,1,1,2-Tetrachloroethane	ND	0.36	0.13	L-03	ND	2.5	0.91	4	9/18/18	4:37	BRF
1,1,2,2-Tetrachloroethane	ND	0.20	0.089		ND	1.4	0.61	4	9/18/18	4:37	BRF
Tetrachloroethylene	9.1	0.20	0.11		62	1.4	0.75	4	9/18/18	4:37	BRF

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: EW-7-091218**  
**Sample ID: 1810590-10**  
 Sample Matrix: Sub Slab  
 Sampled: 9/12/2018 08:42

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1928  
 Canister Size: 6 liter  
 Flow Controller ID: 4315  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -29  
 Final Vacuum(in Hg): -5  
 Receipt Vacuum(in Hg): -6.8  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrahydrofuran	370	2.0	1.2		1100	5.9	3.6	40	9/19/18 23:48	BRF	
Toluene	0.56	0.20	0.10		2.1	0.75	0.39	4	9/18/18 4:37	BRF	
1,2,4-Trichlorobenzene	ND	0.20	0.14	V-05	ND	1.5	1.0	4	9/18/18 4:37	BRF	
1,1,1-Trichloroethane	1.5	0.20	0.075		7.9	1.1	0.41	4	9/18/18 4:37	BRF	
1,1,2-Trichloroethane	ND	0.20	0.082		ND	1.1	0.45	4	9/18/18 4:37	BRF	
Trichloroethylene	22	0.20	0.081		120	1.1	0.43	4	9/18/18 4:37	BRF	
Trichlorofluoromethane (Freon 11)	21	0.80	0.12		120	4.5	0.65	4	9/18/18 4:37	BRF	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.80	0.079		ND	6.1	0.60	4	9/18/18 4:37	BRF	
1,2,4-Trimethylbenzene	ND	0.20	0.13		ND	0.98	0.63	4	9/18/18 4:37	BRF	
1,3,5-Trimethylbenzene	ND	0.20	0.13		ND	0.98	0.62	4	9/18/18 4:37	BRF	
Vinyl Acetate	ND	4.0	0.095	V-05	ND	14	0.34	4	9/18/18 4:37	BRF	
Vinyl Chloride	ND	0.20	0.13		ND	0.51	0.32	4	9/18/18 4:37	BRF	
m&p-Xylene	ND	0.40	0.23		ND	1.7	1.00	4	9/18/18 4:37	BRF	
o-Xylene	ND	0.20	0.12		ND	0.87	0.54	4	9/18/18 4:37	BRF	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.5	70-130	9/18/18 4:37
4-Bromofluorobenzene (1)	91.3	70-130	9/19/18 23:48
4-Bromofluorobenzene (2)	108	70-130	9/18/18 4:37

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: EW-Combined-091218**  
**Sample ID: 1810590-11**  
 Sample Matrix: Sub Slab  
 Sampled: 9/12/2018 07:48

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1930  
 Canister Size: 6 liter  
 Flow Controller ID: 4283  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -28  
 Final Vacuum(in Hg): -4  
 Receipt Vacuum(in Hg): -5.4  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	ND	8.0	2.8	V-05	ND	19	6.6	4	9/18/18	6:10	BRF
Benzene	0.15	0.20	0.082	J	0.49	0.64	0.26	4	9/18/18	6:10	BRF
Benzyl chloride	ND	0.20	0.044		ND	1.0	0.23	4	9/18/18	6:10	BRF
Bromodichloromethane	ND	0.20	0.074		ND	1.3	0.49	4	9/18/18	6:10	BRF
Bromoform	ND	0.20	0.090		ND	2.1	0.93	4	9/18/18	6:10	BRF
Bromomethane	ND	0.20	0.14	V-05	ND	0.78	0.53	4	9/18/18	6:10	BRF
1,3-Butadiene	ND	0.20	0.13		ND	0.44	0.28	4	9/18/18	6:10	BRF
2-Butanone (MEK)	0.64	8.0	0.15	J	1.9	24	0.44	4	9/18/18	6:10	BRF
Carbon Disulfide	ND	2.0	0.069		ND	6.2	0.21	4	9/18/18	6:10	BRF
Carbon Tetrachloride	0.092	0.20	0.059	J	0.58	1.3	0.37	4	9/18/18	6:10	BRF
Chlorobenzene	ND	0.20	0.098		ND	0.92	0.45	4	9/18/18	6:10	BRF
Chloroethane	ND	0.20	0.12		ND	0.53	0.32	4	9/18/18	6:10	BRF
Chloroform	1.1	0.20	0.074		5.1	0.98	0.36	4	9/18/18	6:10	BRF
Chloromethane	ND	0.40	0.14	V-05	ND	0.83	0.28	4	9/18/18	6:10	BRF
Cyclohexane	ND	0.20	0.14	V-05	ND	0.69	0.49	4	9/18/18	6:10	BRF
Dibromochloromethane	ND	0.20	0.066		ND	1.7	0.57	4	9/18/18	6:10	BRF
1,2-Dibromoethane (EDB)	ND	0.20	0.078		ND	1.5	0.60	4	9/18/18	6:10	BRF
1,2-Dichlorobenzene	ND	0.20	0.096		ND	1.2	0.58	4	9/18/18	6:10	BRF
1,3-Dichlorobenzene	ND	0.20	0.10		ND	1.2	0.62	4	9/18/18	6:10	BRF
1,4-Dichlorobenzene	ND	0.20	0.12		ND	1.2	0.73	4	9/18/18	6:10	BRF
Dichlorodifluoromethane (Freon 12)	0.44	0.20	0.087		2.2	0.99	0.43	4	9/18/18	6:10	BRF
1,1-Dichloroethane	18	0.20	0.058		73	0.81	0.23	4	9/18/18	6:10	BRF
1,2-Dichloroethane	ND	0.20	0.076		ND	0.81	0.31	4	9/18/18	6:10	BRF
1,1-Dichloroethylene	6.9	0.20	0.079		27	0.79	0.31	4	9/18/18	6:10	BRF
cis-1,2-Dichloroethylene	11	0.20	0.082		42	0.79	0.32	4	9/18/18	6:10	BRF
trans-1,2-Dichloroethylene	ND	0.20	0.080		ND	0.79	0.32	4	9/18/18	6:10	BRF
1,2-Dichloropropane	ND	0.20	0.071		ND	0.92	0.33	4	9/18/18	6:10	BRF
cis-1,3-Dichloropropene	ND	0.20	0.070		ND	0.91	0.32	4	9/18/18	6:10	BRF
trans-1,3-Dichloropropene	ND	0.20	0.073		ND	0.91	0.33	4	9/18/18	6:10	BRF
Ethanol	7.3	8.0	3.6	L-03, J	14	15	6.7	4	9/18/18	6:10	BRF
Ethyl Acetate	ND	0.40	0.15		ND	1.4	0.54	4	9/18/18	6:10	BRF
Ethylbenzene	ND	0.20	0.12		ND	0.87	0.50	4	9/18/18	6:10	BRF
4-Ethyltoluene	ND	0.20	0.12		ND	0.98	0.60	4	9/18/18	6:10	BRF
Heptane	ND	0.20	0.12		ND	0.82	0.48	4	9/18/18	6:10	BRF
Hexachlorobutadiene	ND	0.20	0.092		ND	2.1	0.98	4	9/18/18	6:10	BRF
Hexane	ND	8.0	0.35		ND	28	1.2	4	9/18/18	6:10	BRF
2-Hexanone (MBK)	ND	0.20	0.12		ND	0.82	0.48	4	9/18/18	6:10	BRF
Isopropanol	ND	8.0	0.25		ND	20	0.60	4	9/18/18	6:10	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.20	0.10		ND	0.72	0.36	4	9/18/18	6:10	BRF
Methylene Chloride	ND	2.0	0.24		ND	6.9	0.84	4	9/18/18	6:10	BRF
Methyl methacrylate	ND	0.20	0.11		ND	0.82	0.47	4	9/18/18	6:10	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.20	0.096		ND	0.82	0.39	4	9/18/18	6:10	BRF
Propene	ND	8.0	0.20		ND	14	0.34	4	9/18/18	6:10	BRF
Styrene	ND	0.20	0.12		ND	0.85	0.53	4	9/18/18	6:10	BRF
1,1,1,2-Tetrachloroethane	ND	0.36	0.13	L-03	ND	2.5	0.91	4	9/18/18	6:10	BRF
1,1,2,2-Tetrachloroethane	ND	0.20	0.089		ND	1.4	0.61	4	9/18/18	6:10	BRF
Tetrachloroethylene	32	0.20	0.11		220	1.4	0.75	4	9/18/18	6:10	BRF

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: EW-Combined-091218**  
**Sample ID: 1810590-11**  
 Sample Matrix: Sub Slab  
 Sampled: 9/12/2018 07:48

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1930  
 Canister Size: 6 liter  
 Flow Controller ID: 4283  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -28  
 Final Vacuum(in Hg): -4  
 Receipt Vacuum(in Hg): -5.4  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrahydrofuran	0.18	0.20	0.12	J	0.53	0.59	0.36	4	9/18/18 6:10	BRF	
Toluene	0.29	0.20	0.10		1.1	0.75	0.39	4	9/18/18 6:10	BRF	
1,2,4-Trichlorobenzene	ND	0.20	0.14	V-05	ND	1.5	1.0	4	9/18/18 6:10	BRF	
1,1,1-Trichloroethane	130	0.20	0.075		690	1.1	0.41	4	9/18/18 6:10	BRF	
1,1,2-Trichloroethane	ND	0.20	0.082		ND	1.1	0.45	4	9/18/18 6:10	BRF	
Trichloroethylene	150	0.20	0.081		800	1.1	0.43	4	9/18/18 6:10	BRF	
Trichlorofluoromethane (Freon 11)	50	0.80	0.12		280	4.5	0.65	4	9/18/18 6:10	BRF	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.084	0.80	0.079	J	0.64	6.1	0.60	4	9/18/18 6:10	BRF	
1,2,4-Trimethylbenzene	ND	0.20	0.13		ND	0.98	0.63	4	9/18/18 6:10	BRF	
1,3,5-Trimethylbenzene	ND	0.20	0.13		ND	0.98	0.62	4	9/18/18 6:10	BRF	
Vinyl Acetate	ND	4.0	0.095	V-05	ND	14	0.34	4	9/18/18 6:10	BRF	
Vinyl Chloride	ND	0.20	0.13		ND	0.51	0.32	4	9/18/18 6:10	BRF	
m&p-Xylene	ND	0.40	0.23		ND	1.7	1.00	4	9/18/18 6:10	BRF	
o-Xylene	ND	0.20	0.12		ND	0.87	0.54	4	9/18/18 6:10	BRF	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.4	70-130	9/18/18 6:10
4-Bromofluorobenzene (2)	108	70-130	9/18/18 6:10

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: Post Carbon-091218**  
**Sample ID: 1810590-12**  
 Sample Matrix: Air  
 Sampled: 9/12/2018 11:07

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1831  
 Canister Size: 6 liter  
 Flow Controller ID: 4074  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -30  
 Final Vacuum(in Hg): -5  
 Receipt Vacuum(in Hg): -5.7  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	ND	8.0	2.8	V-05	ND	19	6.6	4	9/18/18	6:57	BRF
Benzene	0.17	0.20	0.082	J	0.55	0.64	0.26	4	9/18/18	6:57	BRF
Benzyl chloride	ND	0.20	0.044		ND	1.0	0.23	4	9/18/18	6:57	BRF
Bromodichloromethane	ND	0.20	0.074		ND	1.3	0.49	4	9/18/18	6:57	BRF
Bromoform	ND	0.20	0.090		ND	2.1	0.93	4	9/18/18	6:57	BRF
Bromomethane	ND	0.20	0.14	V-05	ND	0.78	0.53	4	9/18/18	6:57	BRF
1,3-Butadiene	ND	0.20	0.13		ND	0.44	0.28	4	9/18/18	6:57	BRF
2-Butanone (MEK)	0.18	8.0	0.15	J	0.52	24	0.44	4	9/18/18	6:57	BRF
Carbon Disulfide	ND	2.0	0.069		ND	6.2	0.21	4	9/18/18	6:57	BRF
Carbon Tetrachloride	ND	0.20	0.059		ND	1.3	0.37	4	9/18/18	6:57	BRF
Chlorobenzene	ND	0.20	0.098		ND	0.92	0.45	4	9/18/18	6:57	BRF
Chloroethane	ND	0.20	0.12		ND	0.53	0.32	4	9/18/18	6:57	BRF
Chloroform	1.3	0.20	0.074		6.5	0.98	0.36	4	9/18/18	6:57	BRF
Chloromethane	ND	0.40	0.14	V-05	ND	0.83	0.28	4	9/18/18	6:57	BRF
Cyclohexane	ND	0.20	0.14	V-05	ND	0.69	0.49	4	9/18/18	6:57	BRF
Dibromochloromethane	ND	0.20	0.066		ND	1.7	0.57	4	9/18/18	6:57	BRF
1,2-Dibromoethane (EDB)	ND	0.20	0.078		ND	1.5	0.60	4	9/18/18	6:57	BRF
1,2-Dichlorobenzene	ND	0.20	0.096		ND	1.2	0.58	4	9/18/18	6:57	BRF
1,3-Dichlorobenzene	ND	0.20	0.10		ND	1.2	0.62	4	9/18/18	6:57	BRF
1,4-Dichlorobenzene	ND	0.20	0.12		ND	1.2	0.73	4	9/18/18	6:57	BRF
Dichlorodifluoromethane (Freon 12)	0.44	0.20	0.087		2.2	0.99	0.43	4	9/18/18	6:57	BRF
1,1-Dichloroethane	20	0.20	0.058		80	0.81	0.23	4	9/18/18	6:57	BRF
1,2-Dichloroethane	ND	0.20	0.076		ND	0.81	0.31	4	9/18/18	6:57	BRF
1,1-Dichloroethylene	7.5	0.20	0.079		30	0.79	0.31	4	9/18/18	6:57	BRF
cis-1,2-Dichloroethylene	14	0.20	0.082		54	0.79	0.32	4	9/18/18	6:57	BRF
trans-1,2-Dichloroethylene	0.31	0.20	0.080		1.2	0.79	0.32	4	9/18/18	6:57	BRF
1,2-Dichloropropane	ND	0.20	0.071		ND	0.92	0.33	4	9/18/18	6:57	BRF
cis-1,3-Dichloropropene	ND	0.20	0.070		ND	0.91	0.32	4	9/18/18	6:57	BRF
trans-1,3-Dichloropropene	ND	0.20	0.073		ND	0.91	0.33	4	9/18/18	6:57	BRF
Ethanol	ND	8.0	3.6	L-03	ND	15	6.7	4	9/18/18	6:57	BRF
Ethyl Acetate	ND	0.40	0.15		ND	1.4	0.54	4	9/18/18	6:57	BRF
Ethylbenzene	ND	0.20	0.12		ND	0.87	0.50	4	9/18/18	6:57	BRF
4-Ethyltoluene	ND	0.20	0.12		ND	0.98	0.60	4	9/18/18	6:57	BRF
Heptane	ND	0.20	0.12		ND	0.82	0.48	4	9/18/18	6:57	BRF
Hexachlorobutadiene	ND	0.20	0.092		ND	2.1	0.98	4	9/18/18	6:57	BRF
Hexane	ND	8.0	0.35		ND	28	1.2	4	9/18/18	6:57	BRF
2-Hexanone (MBK)	ND	0.20	0.12		ND	0.82	0.48	4	9/18/18	6:57	BRF
Isopropanol	ND	8.0	0.25		ND	20	0.60	4	9/18/18	6:57	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.20	0.10		ND	0.72	0.36	4	9/18/18	6:57	BRF
Methylene Chloride	ND	2.0	0.24		ND	6.9	0.84	4	9/18/18	6:57	BRF
Methyl methacrylate	ND	0.20	0.11		ND	0.82	0.47	4	9/18/18	6:57	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.20	0.096		ND	0.82	0.39	4	9/18/18	6:57	BRF
Propene	ND	8.0	0.20		ND	14	0.34	4	9/18/18	6:57	BRF
Styrene	ND	0.20	0.12		ND	0.85	0.53	4	9/18/18	6:57	BRF
1,1,1,2-Tetrachloroethane	ND	0.36	0.13	L-03	ND	2.5	0.91	4	9/18/18	6:57	BRF
1,1,2,2-Tetrachloroethane	ND	0.20	0.089		ND	1.4	0.61	4	9/18/18	6:57	BRF
Tetrachloroethylene	0.44	0.20	0.11		3.0	1.4	0.75	4	9/18/18	6:57	BRF

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: Post Carbon-091218**  
**Sample ID: 1810590-12**  
 Sample Matrix: Air  
 Sampled: 9/12/2018 11:07

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1831  
 Canister Size: 6 liter  
 Flow Controller ID: 4074  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -30  
 Final Vacuum(in Hg): -5  
 Receipt Vacuum(in Hg): -5.7  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrahydrofuran	ND	0.20	0.12		ND	0.59	0.36	4	9/18/18	6:57	BRF
Toluene	0.10	0.20	0.10	J	0.39	0.75	0.39	4	9/18/18	6:57	BRF
1,2,4-Trichlorobenzene	ND	0.20	0.14	V-05	ND	1.5	1.0	4	9/18/18	6:57	BRF
1,1,1-Trichloroethane	140	0.20	0.075		740	1.1	0.41	4	9/18/18	6:57	BRF
1,1,2-Trichloroethane	ND	0.20	0.082		ND	1.1	0.45	4	9/18/18	6:57	BRF
Trichloroethylene	290	1.0	0.40		1600	5.4	2.2	20	9/20/18	0:34	BRF
Trichlorofluoromethane (Freon 11)	49	0.80	0.12		280	4.5	0.65	4	9/18/18	6:57	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.084	0.80	0.079	J	0.64	6.1	0.60	4	9/18/18	6:57	BRF
1,2,4-Trimethylbenzene	ND	0.20	0.13		ND	0.98	0.63	4	9/18/18	6:57	BRF
1,3,5-Trimethylbenzene	ND	0.20	0.13		ND	0.98	0.62	4	9/18/18	6:57	BRF
Vinyl Acetate	0.14	4.0	0.095	V-05, J	0.49	14	0.34	4	9/18/18	6:57	BRF
Vinyl Chloride	ND	0.20	0.13		ND	0.51	0.32	4	9/18/18	6:57	BRF
m&p-Xylene	ND	0.40	0.23		ND	1.7	1.00	4	9/18/18	6:57	BRF
o-Xylene	ND	0.20	0.12		ND	0.87	0.54	4	9/18/18	6:57	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.3	70-130	9/18/18 6:57
4-Bromofluorobenzene (1)	92.1	70-130	9/20/18 0:34
4-Bromofluorobenzene (2)	108	70-130	9/18/18 6:57

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: AA-1-091218**  
**Sample ID: 1810590-13**  
 Sample Matrix: Ambient Air  
 Sampled: 9/12/2018 09:49

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1944  
 Canister Size: 6 liter  
 Flow Controller ID: 4074  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -29  
 Final Vacuum(in Hg): -7  
 Receipt Vacuum(in Hg): -6  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	2.6	1.4	0.49	V-05	6.2	3.3	1.2	0.702	9/18/18	0:48	BRF
Benzene	0.12	0.035	0.014		0.39	0.11	0.046	0.702	9/18/18	0:48	BRF
Benzyl chloride	ND	0.035	0.0077		ND	0.18	0.040	0.702	9/18/18	0:48	BRF
Bromodichloromethane	ND	0.035	0.013		ND	0.24	0.087	0.702	9/18/18	0:48	BRF
Bromoform	ND	0.035	0.016		ND	0.36	0.16	0.702	9/18/18	0:48	BRF
Bromomethane	ND	0.035	0.024	V-05	ND	0.14	0.094	0.702	9/18/18	0:48	BRF
1,3-Butadiene	ND	0.035	0.022		ND	0.078	0.049	0.702	9/18/18	0:48	BRF
2-Butanone (MEK)	0.40	1.4	0.026	J	1.2	4.1	0.077	0.702	9/18/18	0:48	BRF
Carbon Disulfide	ND	0.35	0.012		ND	1.1	0.038	0.702	9/18/18	0:48	BRF
Carbon Tetrachloride	0.078	0.035	0.010		0.49	0.22	0.065	0.702	9/18/18	0:48	BRF
Chlorobenzene	ND	0.035	0.017		ND	0.16	0.079	0.702	9/18/18	0:48	BRF
Chloroethane	ND	0.035	0.021		ND	0.093	0.056	0.702	9/18/18	0:48	BRF
Chloroform	0.023	0.035	0.013	J	0.11	0.17	0.064	0.702	9/18/18	0:48	BRF
Chloromethane	0.45	0.070	0.024	V-05	0.93	0.14	0.049	0.702	9/18/18	0:48	BRF
Cyclohexane	ND	0.035	0.025	V-05	ND	0.12	0.086	0.702	9/18/18	0:48	BRF
Dibromochloromethane	ND	0.035	0.012		ND	0.30	0.099	0.702	9/18/18	0:48	BRF
1,2-Dibromoethane (EDB)	ND	0.035	0.014		ND	0.27	0.11	0.702	9/18/18	0:48	BRF
1,2-Dichlorobenzene	ND	0.035	0.017		ND	0.21	0.10	0.702	9/18/18	0:48	BRF
1,3-Dichlorobenzene	ND	0.035	0.018		ND	0.21	0.11	0.702	9/18/18	0:48	BRF
1,4-Dichlorobenzene	ND	0.035	0.021		ND	0.21	0.13	0.702	9/18/18	0:48	BRF
Dichlorodifluoromethane (Freon 12)	0.42	0.035	0.015		2.1	0.17	0.075	0.702	9/18/18	0:48	BRF
1,1-Dichloroethane	ND	0.035	0.010		ND	0.14	0.041	0.702	9/18/18	0:48	BRF
1,2-Dichloroethane	ND	0.035	0.013		ND	0.14	0.054	0.702	9/18/18	0:48	BRF
1,1-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.055	0.702	9/18/18	0:48	BRF
cis-1,2-Dichloroethylene	ND	0.035	0.014		ND	0.14	0.057	0.702	9/18/18	0:48	BRF
trans-1,2-Dichloroethylene	0.015	0.035	0.014	J	0.058	0.14	0.055	0.702	9/18/18	0:48	BRF
1,2-Dichloropropane	ND	0.035	0.012		ND	0.16	0.057	0.702	9/18/18	0:48	BRF
cis-1,3-Dichloropropene	ND	0.035	0.012		ND	0.16	0.056	0.702	9/18/18	0:48	BRF
trans-1,3-Dichloropropene	ND	0.035	0.013		ND	0.16	0.058	0.702	9/18/18	0:48	BRF
Ethanol	1.1	1.4	0.63	L-03, J	2.1	2.6	1.2	0.702	9/18/18	0:48	BRF
Ethyl Acetate	ND	0.070	0.026		ND	0.25	0.094	0.702	9/18/18	0:48	BRF
Ethylbenzene	0.041	0.035	0.020		0.18	0.15	0.088	0.702	9/18/18	0:48	BRF
4-Ethyltoluene	ND	0.035	0.021		ND	0.17	0.11	0.702	9/18/18	0:48	BRF
Heptane	0.076	0.035	0.021		0.31	0.14	0.085	0.702	9/18/18	0:48	BRF
Hexachlorobutadiene	ND	0.035	0.016		ND	0.37	0.17	0.702	9/18/18	0:48	BRF
Hexane	0.13	1.4	0.062	J	0.47	4.9	0.22	0.702	9/18/18	0:48	BRF
2-Hexanone (MBK)	ND	0.035	0.021		ND	0.14	0.085	0.702	9/18/18	0:48	BRF
Isopropanol	0.19	1.4	0.043	J	0.46	3.4	0.11	0.702	9/18/18	0:48	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.035	0.018		ND	0.13	0.063	0.702	9/18/18	0:48	BRF
Methylene Chloride	0.079	0.35	0.043	J	0.28	1.2	0.15	0.702	9/18/18	0:48	BRF
Methyl methacrylate	ND	0.035	0.020		ND	0.14	0.082	0.702	9/18/18	0:48	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.035	0.017		ND	0.14	0.069	0.702	9/18/18	0:48	BRF
Propene	ND	1.4	0.035		ND	2.4	0.060	0.702	9/18/18	0:48	BRF
Styrene	ND	0.035	0.022		ND	0.15	0.092	0.702	9/18/18	0:48	BRF
1,1,1,2-Tetrachloroethane	ND	0.064	0.023	L-03	ND	0.44	0.16	0.702	9/18/18	0:48	BRF
1,1,2,2-Tetrachloroethane	ND	0.035	0.016		ND	0.24	0.11	0.702	9/18/18	0:48	BRF
Tetrachloroethylene	ND	0.035	0.020		ND	0.24	0.13	0.702	9/18/18	0:48	BRF

**ANALYTICAL RESULTS**

Project Location: Textron Gorham - Providence, RI  
 Date Received: 9/13/2018  
**Field Sample #: AA-1-091218**  
**Sample ID: 1810590-13**  
 Sample Matrix: Ambient Air  
 Sampled: 9/12/2018 09:49

Sample Description/Location:  
 Sub Description/Location:  
 Canister ID: 1944  
 Canister Size: 6 liter  
 Flow Controller ID: 4074  
 Sample Type: 30 min

**Work Order: 1810590**  
 Initial Vacuum(in Hg): -29  
 Final Vacuum(in Hg): -7  
 Receipt Vacuum(in Hg): -6  
 Flow Controller Type: Fixed-Orifice  
 Flow Controller Calibration  
 RPD Pre and Post-Sampling:

**EPA TO-15**

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrahydrofuran	ND	0.035	0.022		ND	0.10	0.064	0.702	9/18/18	0:48	BRF
Toluene	0.30	0.035	0.018		1.1	0.13	0.068	0.702	9/18/18	0:48	BRF
1,2,4-Trichlorobenzene	ND	0.035	0.024	V-05	ND	0.26	0.18	0.702	9/18/18	0:48	BRF
1,1,1-Trichloroethane	ND	0.035	0.013		ND	0.19	0.072	0.702	9/18/18	0:48	BRF
1,1,2-Trichloroethane	ND	0.035	0.014		ND	0.19	0.079	0.702	9/18/18	0:48	BRF
Trichloroethylene	ND	0.035	0.014		ND	0.19	0.076	0.702	9/18/18	0:48	BRF
Trichlorofluoromethane (Freon 11)	0.22	0.14	0.020		1.2	0.79	0.11	0.702	9/18/18	0:48	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.069	0.14	0.014	J	0.53	1.1	0.11	0.702	9/18/18	0:48	BRF
1,2,4-Trimethylbenzene	0.036	0.035	0.022		0.18	0.17	0.11	0.702	9/18/18	0:48	BRF
1,3,5-Trimethylbenzene	ND	0.035	0.022		ND	0.17	0.11	0.702	9/18/18	0:48	BRF
Vinyl Acetate	0.20	0.70	0.017	V-05, J	0.72	2.5	0.059	0.702	9/18/18	0:48	BRF
Vinyl Chloride	ND	0.035	0.022		ND	0.090	0.057	0.702	9/18/18	0:48	BRF
m&p-Xylene	0.11	0.070	0.040		0.48	0.30	0.18	0.702	9/18/18	0:48	BRF
o-Xylene	0.046	0.035	0.022		0.20	0.15	0.095	0.702	9/18/18	0:48	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.3	70-130	9/18/18 0:48
4-Bromofluorobenzene (2)	108	70-130	9/18/18 0:48

**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
18I0590-01 [IA-1-091218]	B212758	1.5	1	N/A	1000	400	855	09/17/18
18I0590-02 [IA-2-091218]	B212758	1.5	1	N/A	1000	400	855	09/17/18
18I0590-03 [IA-3-091218]	B212758	1.5	1	N/A	1000	400	855	09/17/18
18I0590-04 [IA-4-091218]	B212758	1.5	1	N/A	1000	400	855	09/17/18
18I0590-05 [IA-5-091218]	B212758	1.5	1	N/A	1000	400	855	09/17/18
18I0590-06 [IA-6-091218]	B212758	1.5	1	N/A	1000	400	855	09/17/18
18I0590-07 [IA-7-091218]	B212758	1.5	1	N/A	1000	400	855	09/17/18
18I0590-08 [EW-5-091218]	B212758	1.5	1	N/A	1000	400	150	09/17/18
18I0590-08RE1 [EW-5-091218]	B212758	1.5	1	N/A	1000	400	15	09/17/18
18I0590-09 [EW-6-091218]	B212758	1.5	1	N/A	1000	400	150	09/17/18
18I0590-09RE1 [EW-6-091218]	B212758	1.5	1	N/A	1000	400	15	09/17/18
18I0590-10 [EW-7-091218]	B212758	1.5	1	N/A	1000	400	150	09/17/18
18I0590-11 [EW-Combined-091218]	B212758	1.5	1	N/A	1000	400	150	09/17/18
18I0590-12 [Post Carbon-091218]	B212758	1.5	1	N/A	1000	400	150	09/17/18
18I0590-13 [AA-1-091218]	B212758	1.5	1	N/A	1000	400	855	09/17/18

**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
18I0590-07RE1 [IA-7-091218]	B212935	1.5	1	N/A	1000	400	60	09/19/18
18I0590-10RE1 [EW-7-091218]	B212935	1.5	1	N/A	1000	400	15	09/19/18
18I0590-12RE1 [Post Carbon-091218]	B212935	1.5	1	N/A	1000	400	30	09/19/18

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	
<b>Batch B212758 - TO-15 Prep</b>									
<b>Blank (B212758-BLK1)</b>					Prepared & Analyzed: 09/17/18				
Acetone	ND	1.4							V-05
Benzene	ND	0.035							
Benzyl chloride	ND	0.035							
Bromodichloromethane	ND	0.035							
Bromoform	ND	0.035							
Bromomethane	ND	0.035							V-05
1,3-Butadiene	ND	0.035							
2-Butanone (MEK)	ND	1.4							
Carbon Disulfide	ND	0.35							
Carbon Tetrachloride	ND	0.035							
Chlorobenzene	ND	0.035							
Chloroethane	ND	0.035							
Chloroform	ND	0.035							
Chloromethane	ND	0.070							V-05
Cyclohexane	ND	0.035							V-05
Dibromochloromethane	ND	0.035							
1,2-Dibromoethane (EDB)	ND	0.035							
1,2-Dichlorobenzene	ND	0.035							
1,3-Dichlorobenzene	ND	0.035							
1,4-Dichlorobenzene	ND	0.035							
Dichlorodifluoromethane (Freon 12)	ND	0.035							
1,1-Dichloroethane	ND	0.035							
1,2-Dichloroethane	ND	0.035							
1,1-Dichloroethylene	ND	0.035							
cis-1,2-Dichloroethylene	ND	0.035							
trans-1,2-Dichloroethylene	ND	0.035							
1,2-Dichloropropane	ND	0.035							
cis-1,3-Dichloropropene	ND	0.035							
trans-1,3-Dichloropropene	ND	0.035							
Ethanol	ND	1.4							L-03
Ethyl Acetate	ND	0.070							
Ethylbenzene	ND	0.035							
4-Ethyltoluene	ND	0.035							
Heptane	ND	0.035							
Hexachlorobutadiene	ND	0.035							
Hexane	ND	1.4							
2-Hexanone (MBK)	ND	0.035							
Isopropanol	ND	1.4							
Methyl tert-Butyl Ether (MTBE)	ND	0.035							
Methylene Chloride	ND	0.35							
Methyl methacrylate	ND	0.035							
4-Methyl-2-pentanone (MIBK)	ND	0.035							
Propene	ND	1.4							
Styrene	ND	0.035							
1,1,1,2-Tetrachloroethane	ND	0.064							L-03
1,1,2,2-Tetrachloroethane	ND	0.035							

**QUALITY CONTROL**

**Air Toxics by EPA Compendium Methods - Quality Control**

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit	
<b>Batch B212758 - TO-15 Prep</b>										
<b>Blank (B212758-BLK1)</b>					Prepared & Analyzed: 09/17/18					
Tetrachloroethylene	ND	0.035								
Tetrahydrofuran	ND	0.035								
Toluene	ND	0.035								
1,2,4-Trichlorobenzene	ND	0.035								V-05
1,1,1-Trichloroethane	ND	0.035								
1,1,2-Trichloroethane	ND	0.035								
Trichloroethylene	ND	0.035								
Trichlorofluoromethane (Freon 11)	ND	0.14								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.14								
1,2,4-Trimethylbenzene	ND	0.035								
1,3,5-Trimethylbenzene	ND	0.035								
Vinyl Acetate	ND	0.70								V-05
Vinyl Chloride	ND	0.035								
m&p-Xylene	ND	0.070								
o-Xylene	ND	0.035								
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>7.41</i>				<i>8.00</i>		<i>92.6</i>	<i>70-130</i>		
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	<i>8.56</i>				<i>8.00</i>		<i>107</i>	<i>70-130</i>		
<b>LCS (B212758-BS1)</b>					Prepared & Analyzed: 09/17/18					
Acetone	4.58				5.00		91.5	70-130		V-05
Benzene	5.30				5.00		106	70-130		
Benzyl chloride	5.42				5.00		108	70-130		
Bromodichloromethane	5.18				5.00		104	70-130		
Bromoform	4.75				5.00		95.1	70-130		
Bromomethane	4.36				5.00		87.3	70-130		V-05
1,3-Butadiene	4.73				5.00		94.6	70-130		
2-Butanone (MEK)	4.62				5.00		92.3	70-130		
Carbon Disulfide	7.08				5.00		142 *	70-130		L-05, V-35
Carbon Tetrachloride	4.97				5.00		99.5	70-130		
Chlorobenzene	5.03				5.00		101	70-130		
Chloroethane	4.80				5.00		96.0	70-130		
Chloroform	5.00				5.00		100	70-130		
Chloromethane	4.24				5.00		84.7	70-130		V-05
Cyclohexane	4.49				5.00		89.8	70-130		V-05
Dibromochloromethane	4.83				5.00		96.6	70-130		
1,2-Dibromoethane (EDB)	5.01				5.00		100	70-130		
1,2-Dichlorobenzene	5.14				5.00		103	70-130		
1,3-Dichlorobenzene	5.20				5.00		104	70-130		
1,4-Dichlorobenzene	5.16				5.00		103	70-130		
Dichlorodifluoromethane (Freon 12)	4.42				5.00		88.5	70-130		
1,1-Dichloroethane	5.46				5.00		109	70-130		
1,2-Dichloroethane	4.96				5.00		99.2	70-130		
1,1-Dichloroethylene	5.25				5.00		105	70-130		
cis-1,2-Dichloroethylene	5.13				5.00		103	70-130		
trans-1,2-Dichloroethylene	5.39				5.00		108	70-130		
1,2-Dichloropropane	5.61				5.00		112	70-130		

QUALITY CONTROL

Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
<b>Batch B212758 - TO-15 Prep</b>											
<b>LCS (B212758-BS1)</b>					Prepared & Analyzed: 09/17/18						
cis-1,3-Dichloropropene	5.31				5.00		106	70-130			
trans-1,3-Dichloropropene	5.28				5.00		106	70-130			
Ethanol	3.24				5.00		<b>64.9</b> *	70-130			L-03
Ethyl Acetate	5.40				5.00		108	70-130			
Ethylbenzene	5.14				5.00		103	70-130			
4-Ethyltoluene	5.23				5.00		105	70-130			
Heptane	5.80				5.00		116	70-130			
Hexachlorobutadiene	4.43				5.00		88.6	70-130			
Hexane	5.20				5.00		104	70-130			
2-Hexanone (MBK)	5.33				5.00		107	70-130			
Isopropanol	4.34				5.00		86.9	70-130			
Methyl tert-Butyl Ether (MTBE)	4.99				5.00		99.8	70-130			
Methylene Chloride	4.55				5.00		91.0	70-130			
Methyl methacrylate	5.73				5.00		115	70-130			
4-Methyl-2-pentanone (MIBK)	5.44				5.00		109	70-130			
Propene	4.56				5.00		91.2	70-130			
Styrene	5.23				5.00		105	70-130			
1,1,1,2-Tetrachloroethane	0.623				0.910		<b>68.5</b> *	70-130			L-03
1,1,2,2-Tetrachloroethane	5.48				5.00		110	70-130			
Tetrachloroethylene	4.81				5.00		96.3	70-130			
Tetrahydrofuran	4.97				5.00		99.4	70-130			
Toluene	5.25				5.00		105	70-130			
1,2,4-Trichlorobenzene	4.12				5.00		82.4	70-130			V-05
1,1,1-Trichloroethane	4.67				5.00		93.4	70-130			
1,1,2-Trichloroethane	5.39				5.00		108	70-130			
Trichloroethylene	5.27				5.00		105	70-130			
Trichlorofluoromethane (Freon 11)	4.76				5.00		95.1	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5.05				5.00		101	70-130			
1,2,4-Trimethylbenzene	5.20				5.00		104	70-130			
1,3,5-Trimethylbenzene	5.27				5.00		105	70-130			
Vinyl Acetate	4.00				5.00		79.9	70-130			V-05
Vinyl Chloride	4.88				5.00		97.7	70-130			
m&p-Xylene	10.6				10.0		106	70-130			
o-Xylene	5.42				5.00		108	70-130			
Surrogate: 4-Bromofluorobenzene (1)	7.72				8.00		96.5	70-130			
Surrogate: 4-Bromofluorobenzene (2)	8.31				8.00		104	70-130			

**QUALITY CONTROL**

**Air Toxics by EPA Compendium Methods - Quality Control**

Analyte	ppbv		ug/m3		Spike Level ppbv	Source Result	%REC Limits	RPD	RPD Limit	Flag/Qual
	Results	RL	Results	RL						
<b>Batch B212935 - TO-15 Prep</b>										
<b>Blank (B212935-BLK1)</b>					Prepared & Analyzed: 09/19/18					
Isopropanol	ND	1.4								
Tetrahydrofuran	ND	0.035								
Trichloroethylene	ND	0.035								
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	7.32				8.00		91.5	70-130		
<b>LCS (B212935-BS1)</b>					Prepared & Analyzed: 09/19/18					
Isopropanol	4.00				5.00		80.0	70-130		
Tetrahydrofuran	4.62				5.00		92.5	70-130		
Trichloroethylene	4.98				5.00		99.6	70-130		
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	7.58				8.00		94.7	70-130		
<b>Duplicate (B212935-DUP1)</b>			<b>Source: 1810590-07RE1</b>		Prepared & Analyzed: 09/19/18					
Isopropanol	36	20	89	49		37			3.01	25
Tetrahydrofuran	ND	0.50	ND	1.5		ND				25
Trichloroethylene	ND	0.50	ND	2.7		ND				25
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	7.38				8.00		92.2	70-130		

**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
RL	Reporting Limit
MDL	Method Detection Limit
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
LCS Dup	Duplicate Laboratory Control Sample
MS	Matrix Spike Sample
MS Dup	Duplicate Matrix Spike Sample
REC	Recovery
QC	Quality Control
ppbv	Parts per billion volume
EPA	United States Environmental Protection Agency
% REC	Percent Recovery
ND	Not Detected
N/A	Not Applicable
DL	Detection Limit
NC	Not Calculated
LFB/LCS	Lab Fortified Blank/Lab Control Sample
ORP	Oxidation-Reduction Potential
wet	Not dry weight corrected
% wt	Percent weight
Kg	Kilogram
g	Gram
mg	Milligram
µg	Microgram
ng	Nanogram
L	Liter
mL	Milliliter
µL	Microliter
m <sup>3</sup>	Cubic Meter
EPH	Extractable Petroleum Hydrocarbons
VPH	Volatile Petroleum Hydrocarbons
APH	Air Petroleum Hydrocarbons
FID	Flame Ionization Detector
PID	Photo Ionization Detector
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-03	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-05	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the high side.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound.
V-35	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

**ANALYST**

PEB Paula E. Blakeborough  
KKM Kerry K. McGee  
KDM Karly D. Monette  
BRF Brittany R. Fisk

**CERTIFICATIONS**

**Certified Analyses included in this Report**

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

**CERTIFICATIONS**

**Certified Analyses included in this Report**

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

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2019
CT	Connecticut Department of Public Health	PH-0567	09/30/2019
NY	New York State Department of Health	10899 NELAP	04/1/2019
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2019
RI	Rhode Island Department of Health	LAO00112	12/30/2018
NC	North Carolina Div. of Water Quality	652	12/31/2018
NJ	New Jersey DEP	MA007 NELAP	06/30/2019
FL	Florida Department of Health	E871027 NELAP	06/30/2019
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2019
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2018
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2019
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2019
NC-DW	North Carolina Department of Health	25703	07/31/2019



ANALYSIS REQUESTED

Requested Turnaround Time:  7-Day  10-Day

Due Date: \_\_\_\_\_

Rush Approval Required:  1-Day  3-Day

2-Day  4-Day

Data Delivery:  PDF  EXCEL

Other: \_\_\_\_\_

CLP Like Data Pkg Required:

Email To: PENSE, KINGSAMPLE.COM

Fax To #: \_\_\_\_\_

Company Name: WALD F&E

Address: 271 Mill Rd. Chelmsford, MA 01824

Phone: 978-692-9090

Project Name: Textura Garden

Project Location: Providence, RI

Project Number: 3651-68

Project Manager: Hech Gidv

Con-Test Quote Name/Number: \_\_\_\_\_

Invoice Recipient: \_\_\_\_\_

Sampled By: Mark Maggiora 335-927-3797

Lab Use	Client Use	Collection Data		Duration	Flow Rate	Matrix	Volume	Pressure			Summa Can ID	Flow Controller ID
		Beginning Date/Time	Ending Date/Time					Total Minutes Sampled	Initial Pressure	Final Pressure		
01	IA-1-091218	9-12-18 9:24	9-12-18 9:54	30	200	IA	6	-28.5	-30.6	-28.5	1959	41294
02	IA-2-091218	9-12-18 9:13	9-12-18 9:43	30	200	IA	6	-29.3	-30.2	-29.3	1927	4201
03	IA-3-091218	9-12-18 9:25	9-12-18 9:55	30	200	IA	6	-27.4	-30.5	-27.4	1946	4205
04	IA-4-091218	9-12-18 9:15	9-12-18 9:45	30	200	IA	6	-24.5	-30.5	-24.5	1955	4069
05	IA-5-091218	9-12-18 9:25	9-12-18 9:55	30	200	IA	6	-30.6	-30.3	-30.6	1457	4181
06	IA-6-091218	9-12-18 9:23	9-12-18 9:53	30	200	IA	6	-21.5	-30.5	-21.5	1091	4309
07	IA-7-091218	9-12-18 9:04	9-12-18 9:34	30	200	IA	6	-30.5	-30.3	-30.5	1934	4314
08	EW-5-091218	9-12-18 9:56	9-12-18 10:26	30	200	SS	6	-30.6	-30.6	-30.6	1861	4180
09	EW-6-091218	9-12-18 9:27	9-12-18 9:57	30	200	SS	6	-29.4	-30.4	-29.4	1309	4308

Comments: \_\_\_\_\_

Please use the following codes to indicate possible sample concentration within the Conc Code column above:  
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Matrix Codes:  
SG = SOIL GAS  
IA = INDOOR AIR  
AMB = AMBIENT  
SS = SUB SLAB  
D = DUP  
BL = BLANK  
O = Other

Special Requirements:  
MA MCP Required   
MCP Certification Form Required   
CT RCP Required   
RCP Certification Form Required

Other: \_\_\_\_\_

Project Entity:  Government  Municipality  MMRA  WRTA  Other  Chromatogram  Soxhlet  Federal  21 J  School  AIHA-LAP, LLC  City  Brownfield  MBTA  Non Soxhlet

Received by: (signature) Paul Date/Time: 9-13-18 11:38

Received by: (signature) Paul Date/Time: 9-13-18 11:30

Received by: (signature) Paul Date/Time: 9-13-18 18:20

Received by: (signature) Paul Date/Time: 9-13-18 18:20

Received by: (signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received by: (signature) \_\_\_\_\_ Date/Time: \_\_\_\_\_

con-test ANALYTICAL LABORATORY www.contestlabs.com

MA and APLA APPLICABLE

Company Name: Wash E + F  
 Address: 271 Mill Rd Chelmsford MA  
 Phone: 978-612-9090  
 Project Name: Textura Garden  
 Project Location: Prudence RI  
 Project Number: 365770068  
 Project Manager: Heidi Cabler  
 Con-Test Quote Name/Number:  
 Invoice Recipient:  
 Sampled By: MARK MASSARO

Lab Use	Client Use	Collection Data		Duration	Flow Rate	Matrix	Volume
		Beginning Date/Time	Ending Date/Time				
10	EW-7-091218	9-12-18 8:12	9-12-18 8:42	30	200	SS	6
11	EW-Combined-091218	9-12-18 7:18	9-12-18 7:48	30	200	SS	6
12	Post Carbon-091218	9-12-18 10:37	9-12-18 11:07	30	200	0	6
13	AA-1-091218	9-12-18 9:59	9-12-18 9:49	30	200	Amb	6

Requested Turnaround Time:  7-Day  10-Day

Due Date:

Rush Approval Required:  1-Day  3-Day  2-Day  4-Day

Data Delivery:  PDF  EXCEL

Other:

CLP Like Data Pkg Required:

Email To: Denise.K.N@contestlabs.com

Fax To #:

Initial Pressure	Final Pressure	Lab Receipt Pressure	" Hg
-29-7	-28-5	-29-5	29.5
-30-5	-28-5	-28-5	28.5
-29-7	-30-5	-30-5	30.5

Please use the following codes to indicate possible sample concentration within the Conc Code column above:  
 H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature) [Signature] Date/Time: 9-13-18 11:38

Received by: (signature) [Signature] Date/Time: 9-13-18 1:38

Relinquished by: (signature) [Signature] Date/Time: 9-13-18 18:20

Received by: (signature) [Signature] Date/Time: 9-13-18 18:20

Detection Limit Requirements	Special Requirements
MA	MA MCP Required <input type="checkbox"/>
CI	MCP Certification Form Required <input type="checkbox"/>
Other	CT RCP Required <input type="checkbox"/>
Other	RCP Certification Form Required <input type="checkbox"/>

Project Entity:  Government  Municipality  MWRA  Other  Chromatogram  Soxhlet

Federal  21 J  School  AHA-LAP, LLC  Non Soxhlet

City  Brownfield  MBTA

Matrix Codes:  
 SG = SOIL GAS  
 IA = INDOOR AIR  
 AMB = AMBIENT  
 SS = SUB SLAB  
 D = DUP  
 BL = BLANK  
 O = Other



Comments:

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples \_\_\_\_\_



**con-test**  
ANALYTICAL LABORATORY

Doc# 278 Rev 6 2017

Air Media Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client WOOD E+I

Received By PB Date 9.13.18 Time 18:20  
 How were the samples received? In Cooler \_\_\_\_\_ On Ice \_\_\_\_\_ No Ice \_\_\_\_\_  
 In Box T Ambient \_\_\_\_\_ Melted Ice \_\_\_\_\_  
 Were samples within Temperature Compliance? 2-6°C NA By Gun # \_\_\_\_\_ Actual Temp - \_\_\_\_\_  
 By Blank # \_\_\_\_\_ Actual Temp - \_\_\_\_\_  
 Was Custody Seal Intact? NA Were Samples Tampered with? NA  
 Was COC Relinquished? T Does Chain Agree With Samples? T  
 Are there any loose caps/valves on any samples? F  
 Is COC in ink/ Legible? T  
 Did COC Include all Client T Analysis T Sampler Name T  
 Pertinent Information? Project T ID's T Collection Dates/Times T  
 Are Sample Labels filled out and legible? T  
 Are there Rushes? F Who was notified? \_\_\_\_\_  
 Samples are received within holding time? T  
 Proper Media Used? T Individually Certified Cans? F  
 Are there Trip Blanks? F Is there enough Volume? T

Containers:	#	Size	Regulator	Duration	Accessories:		
Summa Cans	14	6 Lit	14	30 mm	Nut/Ferrule	4	IC Train
Tedlar Bags					Tubing	8	
TO-17 Tubes					T-Connector		Shipping Charges
Radiello					Syringe		
Pufs/TO-11s					Tedlar		

Can #'s	1959	1861			Reg #'s	4201	4171		
	1927	1309				4069	4180		
	1946	1928				4294	4181		
	1955	1930				4295	4314		
	1457	1831				4073	4315		
	1091	1944				4283	4308		
	1934	1869				4074	4309		
Unused Media					Pufs/TO-17's				
		1869	4171	-30					

Comments:

# **Appendix B**

Analytical Laboratory Detection Limits

## Analytical Method Information

Analyte	MDL	Reporting	Surrogate	Duplicate	Matrix Spike		Blank Spike / LCS	
		Limit	%R	RPD	%R	RPD	%R	RPD
<b>TO-15 ppbv low level in Air (EPA TO-15)</b>								
Preservation: NA								
Container: SUMMA Canister								
Amount Required:								
Hold Time: 30 days								
Acetone	0.69	2.0 ppbv		25				70 - 130
Benzene	0.026	0.050 ppbv		25				70 - 130
Benzyl chloride	0.0097	0.050 ppbv		25				70 - 130
Bromodichloromethane	0.011	0.050 ppbv		25				70 - 130
Bromoform	0.0096	0.050 ppbv		25				70 - 130
Bromomethane	0.034	0.050 ppbv		25				70 - 130
1,3-Butadiene	0.026	0.050 ppbv		25				70 - 130
2-Butanone (MEK)	0.037	2.0 ppbv		25				70 - 130
Carbon Disulfide	0.017	0.50 ppbv		25				70 - 130
Carbon Tetrachloride	0.012	0.050 ppbv		25				70 - 130
Chlorobenzene	0.017	0.050 ppbv		25				70 - 130
Chloroethane	0.019	0.050 ppbv		25				70 - 130
Chloroform	0.012	0.050 ppbv		25				70 - 130
Chloromethane	0.022	0.10 ppbv		25				70 - 130
Cyclohexane	0.029	0.050 ppbv		25				70 - 130
Dibromochloromethane	0.013	0.050 ppbv		25				70 - 130
1,2-Dibromoethane (EDB)	0.011	0.050 ppbv		25				70 - 130
1,2-Dichlorobenzene	0.013	0.050 ppbv		25				70 - 130
1,3-Dichlorobenzene	0.011	0.050 ppbv		25				70 - 130
1,4-Dichlorobenzene	0.013	0.050 ppbv		25				70 - 130
Dichlorodifluoromethane (Freon 12)	0.022	0.050 ppbv		25				70 - 130
1,1-Dichloroethane	0.014	0.050 ppbv		25				70 - 130
1,2-Dichloroethane	0.014	0.050 ppbv		25				70 - 130
1,1-Dichloroethylene	0.012	0.050 ppbv		25				70 - 130
cis-1,2-Dichloroethylene	0.019	0.050 ppbv		25				70 - 130
trans-1,2-Dichloroethylene	0.013	0.050 ppbv		25				70 - 130
1,2-Dichloropropane	0.017	0.050 ppbv		25				70 - 130
cis-1,3-Dichloropropene	0.013	0.050 ppbv		25				70 - 130
trans-1,3-Dichloropropene	0.013	0.050 ppbv		25				70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Fr	0.012	0.050 ppbv		25				70 - 130
1,4-Dioxane	0.32	0.50 ppbv		25				70 - 130
Ethanol	0.89	2.0 ppbv		25				70 - 130
Ethyl Acetate	0.037	0.050 ppbv		25				70 - 130
Ethylbenzene	0.014	0.050 ppbv		25				70 - 130
4-Ethyltoluene	0.011	0.050 ppbv		25				70 - 130
Heptane	0.016	0.050 ppbv		25				70 - 130
Hexachlorobutadiene	0.019	0.050 ppbv		25				70 - 130
Hexane	0.088	2.0 ppbv		25				70 - 130
2-Hexanone (MBK)	0.013	0.050 ppbv		25				70 - 130
Isopropanol	0.061	2.0 ppbv		25				70 - 130
Methyl tert-Butyl Ether (MTBE)	0.015	0.050 ppbv		25				70 - 130
Methylene Chloride	0.061	0.50 ppbv		25				70 - 130
4-Methyl-2-pentanone (MIBK)	0.012	0.050 ppbv		25				70 - 130
Naphthalene	0.027	0.050 ppbv		25				70 - 130
Propene	0.15	2.0 ppbv		25				70 - 130
Styrene	0.0097	0.050 ppbv		25				70 - 130

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike		Blank Spike / LCS	
					%R	RPD	%R	RPD
1,1,2,2-Tetrachloroethane	0.012	0.050 ppbv		25			70 - 130	
Tetrachloroethylene	0.014	0.050 ppbv		25			70 - 130	
Tetrahydrofuran	0.021	0.050 ppbv		25			70 - 130	
Toluene	0.016	0.050 ppbv		25			70 - 130	
1,2,4-Trichlorobenzene	0.019	0.050 ppbv		25			70 - 130	
1,1,1-Trichloroethane	0.0090	0.050 ppbv		25			70 - 130	
1,1,2-Trichloroethane	0.015	0.050 ppbv		25			70 - 130	
Trichloroethylene	0.015	0.050 ppbv		25			70 - 130	
Trichlorofluoromethane (Freon 11)	0.017	0.050 ppbv		25			70 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.014	0.050 ppbv		25			70 - 130	
1,2,4-Trimethylbenzene	0.012	0.050 ppbv		25			70 - 130	
1,3,5-Trimethylbenzene	0.010	0.050 ppbv		25			70 - 130	
Vinyl Acetate	0.025	1.0 ppbv		25			70 - 130	
Vinyl Chloride	0.021	0.050 ppbv		25			70 - 130	
m&p-Xylene	0.025	0.10 ppbv		25			70 - 130	
o-Xylene	0.014	0.050 ppbv		25			70 - 130	
surr: 4-Bromofluorobenzene (1)			70 - 130					
Bromochloromethane (1)								
1,4-Difluorobenzene (1)								
Chlorobenzene-d5 (1)								

# **Appendix C**

Outdoor Reference Sample Results

**Appendix C**  
**Summary of Analytical Results - Outdoor Air Reference Sampling**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

Area:			Outdoor Air Reference Location																						
Location:			AA-1																						
Sample ID:			AA-1	AA-1-020309	AA-1-021109	AA-1-021809	AA-1-022609	AA-1-030609	AA-1-033109	AA-1-041409	AA-1-042409	AA-1-051509	AA-1-061109	AA-1-091709	AA-1-092409	AA-1-100109	AA-1-100809	AA-1-122909	AA-1-012810	AA-1-020510	AA-1-021210	AA-1-021910	AA-1-032610	AA-1-043010	AA-1-052810
Sample Date:			1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	3/31/2009	4/14/2009	4/24/2009	5/15/2009	6/11/2009	9/17/2009	9/24/2009	10/1/2009	10/8/2009	12/29/2009	1/28/2010	2/5/2010	2/12/2010	2/19/2010	3/26/2010	4/30/2010	5/28/2010
Analyte	Units	CT IACTIND 2003																							
			1,1,1,2-Tetrachloroethane	ug/m3	1.1																				
1,1,1-Trichloroethane	ug/m3	500	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	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	ug/m3	0.14	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	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	ug/m3	12	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	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	ug/m3	430	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	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	ug/m3	20	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	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	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.28	0.52	1.8	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.29	0.3	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	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	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	ug/m3	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	0.3 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	ug/m3	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	0.2 U	0.2 U	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	ug/m3	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	0.23 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	ug/m3	NA	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	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	ug/m3	52	0.25 U	0.25 U	0.25 U	0.5	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	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	ug/m3	NA	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	0.23 U	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
1,3-Dichlorobenzene	ug/m3	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	0.3 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	ug/m3	24	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	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	ug/m3	NA																							
2-Butanone	ug/m3	500	0.58	1.2	2.4	3.2	1.6	0.67	1.7	0.11 U	1.6	1.6	1.1	1.7	0.84	1.2	1.2	2	0.81	1.6	1.6	0.88	1.5	1.4	2.4
2-Hexanone	ug/m3	NA	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	0.2 U	0.2 U	0.32	0.2 U	0.2 U	0.29	0.29	0.49
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 U	0.6	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	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	ug/m3	200	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	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	ug/m3	500	7.3	8	15	22	8.4	5.9	12	1.1	27	9.5	10	10	9.6	5.4	17	11	3.5	7.6	5	3.7	9.5	12	20
Benzene	ug/m3	3.3	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	0.42	0.79	0.68	0.63	0.41	0.69	0.35	0.19
Benzyl chloride	ug/m3	NA	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	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	ug/m3	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	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	ug/m3	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	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	ug/m3	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	0.19 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	ug/m3	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	0.16 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	ug/m3	0.54	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	0.39	0.42	0.39	0.31 U	0.43	0.49	0.47	0.52
Chlorobenzene	ug/m3	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	0.23 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	ug/m3	500	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	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	ug/m3	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	0.24 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	ug/m3	80	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	1.6	1.1	1.2	1.3	1.1	1.4	0.78	1.1
cis-1,2-Dichloroethene	ug/m3	100	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	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	ug/m3	NA	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	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	NA	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	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	ug/m3	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	0.43 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	ug/m3	500	2	2.2	2.6	2.7	2.6	2.6	2.8	2	2.5	2.7	2.1	2.5	2.1	2.2	2.1	2.3	2.4	2.5	2.9	1.8	2.1	2.1	2.5
Ethanol	ug/m3	NA	4	5.4	10	47	4.3	3.5	4.7	0.81	4.9	4.8	8.6	6.6	4.6	3.9	4.9	3.8	5.4	5.1	7.2	1.2	4.9	4	3.3
Ethyl acetate	ug/m3	NA	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	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
Ethylbenzene	ug/m3	290	0.22 U	0.25	0.52	2	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.24	0.22 U	0.23	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Hexachlorobutadiene	ug/m3	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	1.1 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U
Hexane	ug/m3	NA	1.5	0.75	1.1	2.9	0.38	2.8	2.2	0.13 U	0.56	0.37	0.59	0.48	1.4	0.45	4.5	0.62	0.36	0.53	0.91	0.24	0.23	1.1	0.51
Isopropyl alcohol	ug/m3	NA	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	0.54	0.56	2.7	1.5	0.8	0.73	0.69	1.6
m,p-Xylene	ug/m3	NA	0.43 U	0.72	1.4	6.4	0.44	0.43 U	0.43 U	0.31 U	0.43 U	0.49	0.73	0.62	0.59	0.43 U	0.43 U	0.43 U	0.43 U						

**Appendix C  
Summary of Analytical Results - Outdoor Air Reference Sampling  
Former Gorham Manufacturing Site  
Providence, Rhode Island**

Area:			Outdoor Air Reference Location																						
Location:			AA-1																						
Sample ID:	AA-1-070110	AA-1-091610	AA-1-120710	AA-1-021711	AA-1-060211	AA-1-091511	AA-1-120811	AA-1-030812	AA-1-061412	AA-1-091312	AA-1-010313	AA-1-031513	AA-1-060713	AA-1-090613	AA-1-100313	AA-1-121313	AA-1-030714	AA-1-061314	AA-1-091214	AA-1-121914	AA-01-032715	AA-1-061115	AA-1-091615		
Sample Date:	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	10/3/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015		
Analyte	Units	CT IACTIND 2003																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1						0.62 U					0.37 UD	0.37 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	
1,1,1-Trichloroethane	ug/m3	500	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.29 D	0.082 UD	0.1 JD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 UD	0.1 UD	0.21 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 UD	0.082 UD	0.16 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	
1,1-Dichloroethane	ug/m3	430	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.063 JD	0.061 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	
1,1-Dichloroethene	ug/m3	20	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 UD	0.059 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.62 D	0.45 UD	0.12 JD	0.52 UD	0.52 UD	0.26 UD	0.26 UD	0.26 UD	0.26 UD	0.26 UD	0.26 UD	0.26 UD	0.26 UD	0.26 UD	0.26 UD	0.26 UD	
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.94	0.25 U	1.1	0.25 U	0.25 U	0.16 D	0.15 UD	0.15 UD	0.26 D	0.17 UD	0.069 JD	0.21 D	0.17 UD	0.19 D	0.17 UD	0.17 UD	0.51 D	0.069 JD	0.17 UD	0.2	0.059 J	0.29
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 UD	0.12 UD	0.23 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.34 D	0.18 UD	0.18 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.066 JD	0.061 UD	0.046 JD	0.14 UD	0.14 UD	0.057 JD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.037 JD	0.14 UD	0.14 U	0.054 J	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.069 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.35 U	0.35 U																					
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.28	0.25 U	0.33	0.25 U	0.25 U	0.068 JD	0.15 UD	0.15 UD	0.16 JD	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.047 JD	0.17 UD	0.17 UD	0.18 D	0.098 UD	0.17 UD	0.062 J	0.17 U	0.076 J
1,3-Butadiene	ug/m3	NA	0.11 U	0.29	0.11 U	0.11 U	0.11 U	0.11 U	0.066 UD	0.066 UD	0.066 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.18
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.18 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.18 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	
1,4-Dioxane	ug/m3	NA						0.18 U																	
2-Butanone	ug/m3	500	2.3	2.7	0.37	1.8 B	2.9 U	5.9 J	0.35 JD	1.4 JD	1.1 JD	2 JD	4.1 JD	1.9 JD	3.9 JD	3.7 JD	0.94 JD	0.82 JD	1.4 JD	2.2 JD	1.1 JD	1.2 JD	0.96 J	2.1 J	1 J
2-Hexanone	ug/m3	NA	0.49	0.41	0.2 U	0.2 U	4.1 U	0.67	0.12 UD	0.34 D	0.14 D	0.27 D	0.14 UD	0.13 JD	0.49 D	0.32 D	0.14 UD	0.14 UD	0.26 D	0.34 D	0.16 D	0.14 UD	0.17	0.17	0.14 U
4-Ethyltoluene	ug/m3	NA	0.25 U	0.3	0.25 U	0.34	0.25 U	0.25 U	0.053 JD	0.15 UD	0.15 UD	0.093 JD	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.063 JD	0.17 UD	0.17 UD	0.18 D	0.098 UD	0.17 UD	0.079 J	0.17 U	0.093 J
4-Methyl-2-pentanone	ug/m3	200	0.2 U	2.8	0.2 U	0.2 U	0.2 U	0.2 J	0.12 UD	0.12 UD	0.23 D	0.1 JD	0.14 UD	0.083 JD	0.24 D	0.14 UD	0.14 UD	0.14 UD	0.2 D	0.036 JD	0.14 UD	0.092 J	0.14 U	0.14 U	
Acetone	ug/m3	500	13	14	5.7 B	19 B	8.7 B	20	4.9 D	9.4 D	10 D	12 BD	3.3 D	18 D	28 D	16 D	12 D	26 D	9.3 D	22 D	25 D	10 D	8.7	10	13
Benzene	ug/m3	3.3	0.16 U	1.2	0.28	2.3	0.16 U	0.19	0.4 D	0.29 D	0.2 D	0.68 D	0.11 D	1 D	0.31 D	0.7 D	0.95 D	0.43 D	1 D	0.94 D	0.2 D	0.58 D	0.67	0.41	0.82
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 UD	0.16 UD	0.16 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	
Bromodichloromethane	ug/m3	0.46	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 UD	0.1 UD	0.2 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.23 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.067 UD	0.24 UD	0.24 U	0.24 U
Bromoform	ug/m3	7.3	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 UD	0.31 UD	0.31 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.35 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.21 UD	0.36 UD	0.36 U	0.36 U
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 UD	0.12 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 U	0.14 U	0.14 U
Carbon disulfide	ug/m3	NA	0.16 U	0.16 U	0.38	0.16 U	0.16 U	1.6 U	0.058 JD	0.93 UD	0.11 JD	1.1 UD	1.1 UD	0.052 JD	1.1 UD	1.1 UD	1.1 UD	1.1 UD	1.1 UD	0.098 JD	1.1 UD	0.057 J	1.1 U	0.09 J	
Carbon tetrachloride	ug/m3	0.54	0.51	0.43	0.42	0.48	0.53	0.48	0.49 D	0.43 D	0.43 D	0.36 D	0.22 D	0.41 D	0.55 D	0.47 D	0.43 D	0.45 D	0.22 D	0.42 D	0.45 D	0.36 D	0.34	0.36	0.43
Chlorobenzene	ug/m3	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.14 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 U	0.16 U	0.16 U
Chloroethane	ug/m3	500	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 UD	0.079 UD	0.079 UD	0.093 UD	0.093 UD	0.093 UD	0.093 UD	0.089 UD	0.093 UD	0.093 UD	0.11 D	0.053 UD	0.093 UD	0.093 U	0.093 U	0.093 U	
Chloroform	ug/m3	0.5	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 J	0.094 JD	0.073 UD	0.067 JD	0.096 JD	0.17 UD	0.21 D	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.082 D	0.082 JD	0.065 J	0.11 J	0.18
Chloromethane	ug/m3	80	0.96	0.99	0.94	1	0.96	1.4	0.062 UD	1.1 D	1.5 D	1.1 D	0.072 D	1.6 D	1.4 D	1.1 D	0.96 D	1.1 D	1.3 D	1.4 D	0.64 D	0.96 D	1.1	1.2	1.1
cis-1,2-Dichloroethene	ug/m3	100	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 D	0.059 UD	0.12 UD	0.14 UD	0.14 UD	0.092 JD	0.14 UD	0.16 D	0.13 UD	0.14 UD	0.14 UD	0.14 UD	0.04 UD	0.14 UD	0.14 U	0.14 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.068 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.15 UD	0.16 UD	0.16 UD	0.16 UD	0.045 UD	0.16 UD	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/m3	NA	0.17 U	0.46	0.17 U	0.17 U	0.17 U	0.17 U	0.1 UD	0.1 UD	0.1 UD	0.12 UD	0.12 UD	0.12 UD	0.12 UD	0.12 UD	0.12 UD	0.12 UD	0.12 UD	0.31 D	0.069 UD	0.12 UD	0.12 U	0.12 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 UD	0.13 UD	0.26 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.29 UD	0.3 UD	0.3 UD	0.3 UD	0.085 UD	0.3 UD	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	2.4	2.9	1.9	3.1	1.9	1.7	2.5 D	2 D	2.4 D	2.8 D	0.17 D	1.7 D	3 D	2 D	1.7 D	2.7 D	1.4 D	2 D	2.1 D	1.4	2.3	1.7	
Ethanol	ug/m3	NA	4	14	2.3	12	2.7	5.8	1.5 JD	4.1 D	7.4 D	5.2 D	2.6 D	1.2 JD	6.1 D	6.7 D	6.7 D	5.4 D	9 D	17 D	2.9 D	2.7 D	2 J	4.8	12
Ethyl acetate	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.46 D	0.56 D	0.43 D	0.67 D	0.13 D	1.1 D	0.56 D	17 D	0.12 UD	0.13 UD	0.18 D	0.13 UD	0.17 D	0.13 UD	0.27	0.13 U	0.68
Ethylbenzene	ug/m3	290	0.82	1.4	0.22 U	1.1	0.22 U	0.22 J	0.31 D	0.13 UD	0.065 JD	0.19 D	0.15 UD	0.12 JD	0.16 D	0.15 UD	0.21 D	0.15 UD	0.16 D	0.44 D	0.047 JD	0.046 JD	0.19	0.1 J	0.37
Hexachlorobutadiene	ug/m3	NA	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 UD	0.32 UD	0.32 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.36 UD	0.37 UD	0.37 UD	0.37 UD	0.21 UD	0.37 UD	0.37 U	0.37 U	0.37 U
Hexane	ug/m3	NA	0.37	1.2	0.35 U	3.3	0.88	7 J	0.47 JD	0.54 JD	1.3 JD	0.67 JD	4.9 JD	1.3 JD	1.8 JD	2.3 JD	0.81 JD	0.32 JD	0.44 JD	1.2 JD	0.19 JD	0.39 JD	5.1	0.29 J	1 J
Isopropyl alcohol	ug/m3	NA	0.79	0.25 U	0.29	2.4	1.2 U	4.9 J	0.6 JD	0.88 JD	2.9 UD	0.58 JD	3.4 JD	0.52 JD	1.3 JD	6.2 D	3.3 UD	0.77 JD	0.92 JD	3.1 JD	0.61 JD	3.4 UD	0.65 J	0.44 J	2.7 J
m,p-Xylene	ug/m3																								

Appendix C  
Summary of Analytical Results - Outdoor Air Reference Sampling  
Former Gorham Manufacturing Site  
Providence, Rhode Island

Area:			Outdoor Air Reference Location						
Location:			AA-1						
Sample ID:			AA-1-121815	AA-1-021816	AA-1-080516	AA-1-021017	AA-1-090717	AA-1-022818	AA-1-091218
Sample Date:			12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018
Analyte	Units	CT IACTIND 2003							
1,1,1,2-Tetrachloroethane	ug/m3	1.1		0.44 U		0.44 U	0.44 U	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.31	0.17 U	0.17 U	0.17 U	0.17 U	0.12 J	0.18
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.25 U		0.25 U				
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,3-Butadiene	ug/m3	NA	0.23	0.078 U	0.078 U	0.078 U	0.9	0.078 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dioxane	ug/m3	NA	1.3 U		1.3 U				
2-Butanone	ug/m3	500	2 J	0.69 J	1.2 J	0.91 J	2.4 J	1.8 J	1.2 J
2-Hexanone	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.43	0.14 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.14 U	0.14 U	0.14 U	0.3	0.072 J	0.14 U
Acetone	ug/m3	500	18	6.3	11	3.1 J	16	24	6.2
Benzene	ug/m3	3.3	1.4	0.45	0.35	0.37	2.2	0.47	0.39
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Bromomethane	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Carbon tetrachloride	ug/m3	0.54	0.55	0.38	0.39	0.44	0.4	0.39	0.49
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Chloroethane	ug/m3	500	0.093 U	0.093 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U
Chloroform	ug/m3	0.5	0.31	0.17 U	0.17 U	0.17 U	0.17 U	0.086 J	0.11 J
Chloromethane	ug/m3	80	1.2	1	1.2	1.2	1.2	1.2	0.93
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/m3	NA	0.59	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	2.7	1.6	0.64	1	1.5	1.7	2.1
Ethanol	ug/m3	NA	7.3	2.5 J	5.5	2.5 J	2.2 J	6.7	2.1 J
Ethyl acetate	ug/m3	NA	0.14	0.42	6.5	2.3	0.25 U	0.17	0.25 U
Ethylbenzene	ug/m3	290	0.46	0.15 U	0.16	0.15 U	0.67	0.17	0.18
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Hexane	ug/m3	NA	0.64 J	0.28 J	7.7	0.69 J	0.4 J	0.31 J	0.47 J
Isopropyl alcohol	ug/m3	NA	0.68 J	3.4 U	0.88 J	0.76 J	0.52 J	0.55 J	0.46 J
m,p-Xylene	ug/m3	NA	2	0.27 J	0.46	0.35	2.4	0.56	0.48
Methyl methacrylate	ug/m3	NA		0.14 U		0.14 U	0.14 U	0.14 U	0.14 U
Methylene chloride	ug/m3	17	0.54 J	0.43 J	3.5	1 J	0.26 J	0.39 J	0.28 J
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Naphthalene	ug/m3	NA	0.18 U		0.18 U				
n-Heptane	ug/m3	NA	0.49	0.14 U	0.24	0.14 U	0.47	0.18	0.31
o-Xylene	ug/m3	NA	0.59	0.15 U	0.17	0.12 J	0.67	0.21	0.2
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	0.63 J	2.4 U	2.4 U	2.4 U
Styrene	ug/m3	290	0.15 U	0.15 U	0.15 U	0.15 U	0.46	0.15 U	0.15 U
Tetrachloroethene	ug/m3	5	0.61	0.24 U	0.41	0.24 U	0.24 U	0.24 U	0.24 U
Tetrahydrofuran	ug/m3	NA	0.1 U	0.1 U	0.1 U	0.1 U	0.21 U	0.1 U	0.1 U
Toluene	ug/m3	500	3.2	0.75	1.1	2.4	2.2	0.77	1.1
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.058 J
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	ug/m3	1	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichlorofluoromethane	ug/m3	500	1.7	1.1	1.4	1.3	1.1	1.2	1.2
Trichlorotrifluoroethane	ug/m3	NA	0.6 J	0.51 J	0.47 J	0.55 J	0.46 J	0.48 J	0.53 J
Vinyl acetate	ug/m3	NA	2.5 U	2.5 U	1.6 J	2.5 U	2.5 U	0.99 J	0.72 J
Vinyl chloride	ug/m3	1.9	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U

Notes:  
NA - not available  
U - Not detected, value is the detection limit  
B - Compounds detected in method blank as well as field sample  
J - Indicates compound was detected at an estimated value.  
D - Result from diluted analyses  
ug/m3 - micrograms per cubic meter  
Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 10/24/2018  
Checked By: HWC, 10/24/2018

# **Appendix D1**

Summary of All Analytical Results –  
Indoor Air Samples for Small Retail Space

**Appendix D1**  
**Summary of Analytical Results - Indoor Air Sampling for Small Retail Space**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

Area:		Eastern Small Retail Space																								
Location:		IA-5																								
Sample ID:		IA-5	IA-5-020309	IA-5-021109	IA-5-021809	IA-5-022609	IA-5-030609	IA-5-041409	IA-5-051509	IA-5-061109	IA-5-091709	IA-5-122909	IA-5-032610	IA-5-070110	IA-5-091610	IA-5-120810	IA-5-021711	IA-5-060211	IA-5-091511	IA-5-120811	IA-5-030812	IA-5-061412	IA-5-091312	IA-5-010313		
Sample Date:		1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	4/14/2009	5/15/2009	6/11/2009	9/17/2009	12/29/2009	3/26/2010	7/1/2010	9/16/2010	12/8/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013		
Analyte	Units	CT IACTIND 2003																								
1,1,1,2-Tetrachloroethane	ug/m3	1.1																								
1,1,1-Trichloroethane	ug/m3	500	48	0.92	0.27 U	0.27 U	0.27 U	0.27 U	0.98	0.27 U	0.27 U	0.27 U	0.38	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.62 U	0.37 UD	0.37 UD	0.44 UD	0.44 UD
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	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	ug/m3	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	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	ug/m3	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	0.2 U	0.2 U	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	ug/m3	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	0.2 U	0.2 U	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	ug/m3	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	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	22 D	0.45 UD	0.45 UD	0.52 UD	0.52 UD
1,2,4-Trimethylbenzene	ug/m3	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	0.73	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
1,2-Dibromoethane (EDB)	ug/m3	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	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	ug/m3	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	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	ug/m3	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	0.2 U	0.2 U	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	ug/m3	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	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	ug/m3	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	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	ug/m3	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	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	ug/m3	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	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	ug/m3	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	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	ug/m3	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	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	ug/m3	NA																								
2-Butanone	ug/m3	500	7.2	2.4	2.7	2.6	0.75	0.45	3.8	1.9	5.3	2.1	0.79	1.5	2.1	1.4	0.78	0.78 B	3.6	5.9 J	0.98 JD	2 JD	0.94 JD	2.3 JD	4.1 JD	
2-Hexanone	ug/m3	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	0.2 U	0.2 U	4.1 U	0.2 J	0.13 D	0.32 D	0.081 JD	0.17 D	0.14 D	
4-Ethyltoluene	ug/m3	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	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	ug/m3	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	1.1	0.2 U	0.2 U	0.31	0.2 U	0.13 D	0.18 D	0.34 D	0.22 D	0.14 UD	0.14 UD	
Acetone	ug/m3	500	32	11	21	20	9.5	6.5	14	14	46	16	15	11	18	17	6.4 B	9.5 B	24 B	15	6.6 D	11 D	13 D	13 BD	3.3 D	
Benzene	ug/m3	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	0.26	1.1	0.33	0.29	0.38 D	0.34 D	0.2 D	0.53 D	0.11 D	
Benzyl chloride	ug/m3	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	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	ug/m3	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	0.33 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
Bromoform	ug/m3	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	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.23	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	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	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	ug/m3	0.54	0.33	0.44	0.5	0.55	0.47	0.61	0.44	0.64	0.46	0.39	0.41	0.48	0.53	0.44	0.54	0.6	0.59	0.48	0.49 D	0.46 D	0.42 D	0.38 D	0.22 D	
Chlorobenzene	ug/m3	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	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	ug/m3	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	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	ug/m3	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	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	ug/m3	80	1.1	1	1.5	1.4	1.1	1.1	1.1	1	1.4	1	2	1.2	1	1	0.76	0.96	1.1	1.3	1 D	1.1 D	1.4 D	1.2 D	0.072 D	0.072 D
cis-1,2-Dichloroethene	ug/m3	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	0.2 U	0.2 U	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	ug/m3	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	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	0.17 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	ug/m3	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	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	ug/m3	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	2.3	3.1	1.7	2	2.6 D	2 D	2.9 D	2.8 D	0.17 D	0.17 D
Ethanol	ug/m3	NA	590	12	23	140	85	32	41	180	500	62	51	25	58	150	2.4	14	7.7	7.9	5.4 D	14 D	43 D	11 D	2.6 D	2.6 D
Ethyl acetate	ug/m3	NA	0.75	0.37 U	0.18 U	0.18 U	0.37 U	0.18 U	0.26 U	0.18 U	0.31	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	ug/m3	290	0.22 U	0.25	0.33	0.43	0.43	0.22 U	0.22 U	0.24	0.22 U	0.3	0.23	0.22 U	0.44	0.91	0.22 U	0.3	0.36	0.22 J	1.2 D	0.13 UD	0.16 D	0.31 D	0.15 JD	0.15 JD
Hexachlorobutadiene	ug/m3	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	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Hexane	ug/m3	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	0.3	1.3	1.7	7 J	0.36 JD	0.48 JD	0.57 JD	1.2 JD	4.9 JD	4.9 JD
Isopropyl alcohol	ug/m3	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	0.12 U	1.7	1.2 U	6.4	2.9 UD	2.9 UD	2.9 UD	3.3 JD	3.4 JD	3.4 JD
m,p-X																										

**Appendix D1  
Summary of Analytical Results - Indoor Air Sampling for Small Retail Space  
Former Gorham Manufacturing Site  
Providence, Rhode Island**

Area:			Eastern Small Retail Space																	Small Center Retail Space					
Location:			IA-5																	IA-6					
Sample ID:	IA-5-031513	IA-5-060713	IA-5-090613	IA-5-121313	IA-5-030714	IA-5-061314	IA-5-091214	IA-5-121914	IA-05-032715	IA-5-061115	IA-5-091615	IA-5-121815	IA-5-021816	IA-5-080516	IA-5-021017	IA-5-090717	IA-5-022818	IA-5-091218	IA-6	IA-6-020309	IA-6-021109	IA-6-021809	IA-6-022609		
Sample Date:	3/15/2013	6/7/2013	9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009		
Analyte	Units	CT IACTIND 2003																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.25 UD	0.44 UD	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U		
1,1,1-Trichloroethane	ug/m3	500	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.079 D	0.19 UD	0.042 J	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		
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.069 UD	0.24 UD	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		
1,1,2-Trichloroethane	ug/m3	12	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.11 UD	0.19 UD	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		
1,1-Dichloroethane	ug/m3	430	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.04 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U		
1,1-Dichloroethene	ug/m3	20	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.04 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U		
1,2,4-Trichlorobenzene	ug/m3	NA	0.52 UD	0.26 UD	0.26 UD	0.26 UD	0.26 UD	0.26 UD	0.15 UD	0.26 UD	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		
1,2,4-Trimethylbenzene	ug/m3	52	0.072 JD	0.21 D	0.27 D	0.17 UD	0.69 D	0.23 D	0.19 D	0.17 UD	0.13 J	0.12 J	0.23	0.2	0.17 U	0.27	0.17 U	0.19	0.17 U	0.3	0.75	0.32	0.29	1.5	0.25 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.077 UD	0.27 UD	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	
1,2-Dichlorobenzene	ug/m3	410	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.12 UD	0.21 UD	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	
1,2-Dichloroethane	ug/m3	0.31	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.04 D	0.14 UD	0.045 J	0.065 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.057 J	0.08 J	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	ug/m3	0.42	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.046 UD	0.16 UD	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
1,2-Dichlorotetrafluoroethane	ug/m3	NA											0.25 U	0.25 U						0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	
1,3,5-Trimethylbenzene	ug/m3	52	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.19 D	0.17 UD	0.057 JD	0.17 UD	0.038 J	0.038 J	0.066 J	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	
1,3-Butadiene	ug/m3	NA	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.58 D	0.078 UD	0.044 UD	0.078 UD	0.078 U	0.078 U	0.19	0.14	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.057 J	0.11 U	0.11 U	0.11 U
1,3-Dichlorobenzene	ug/m3	410	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.12 UD	0.21 UD	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	
1,4-Dichlorobenzene	ug/m3	24	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.12 UD	0.21 UD	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	
1,4-Dioxane	ug/m3	NA											1.3 U	1.3 U											
2-Butanone	ug/m3	500	1.3 JD	3.2 JD	2.4 JD	2.2 JD	1.8 JD	3.7 JD	2.1 JD	0.8 JD	2.1 J	1.4 J	1.6 J	1.8 J	0.86 J	1.3 J	0.67 J	2.9 J	1.2 J	1.9 J	120	10	3.2	2.9	2.4
2-Hexanone	ug/m3	NA	0.16 D	0.48 D	0.44 D	0.14 UD	0.32 D	0.52 D	0.29 D	0.14 UD	0.43	0.16	0.14 U	0.14 U	0.15	0.31	0.14 U	0.57	0.26	0.14 U	0.2 U	0.42	0.37	0.34	0.2 U
4-Ethyltoluene	ug/m3	NA	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.22 D	0.17 UD	0.09 JD	0.17 UD	0.17 U	0.041 J	0.079 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.47	0.25 U
4-Methyl-2-pentanone	ug/m3	200	0.14 UD	0.19 D	0.14 UD	0.14 UD	0.24 D	0.35 D	0.17 D	0.14 UD	0.19	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.37	0.078 J	0.14 U	0.2 U	0.2 U	0.2 U	0.36	0.2 U
Acetone	ug/m3	500	9.7 D	24 D	19 D	40 D	12 D	25 D	14 D	10 D	14	12	18	23	7.1	18	5.4	24	10	18	44	14	14	25	11
Benzene	ug/m3	3.3	0.8 D	0.27 D	0.68 D	0.55 D	2.9 D	0.55 D	0.25 D	0.4 D	0.54	0.33	0.76	0.93	0.45	0.29	0.45	0.53	0.57	0.44	1	0.6	0.98	4.1	0.41
Benzyl chloride	ug/m3	NA	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.052 UD	0.18 UD	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	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.46	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.067 UD	0.24 UD	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	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	ug/m3	7.3	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.21 UD	0.36 UD	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	ug/m3	NA	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.078 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	NA	1.1 UD	1.1 UD	0.13 JD	1.1 UD	1.1 UD	1.1 UD	0.041 JD	1.1 UD	1.1 U	0.096 J	0.098 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.063 J	0.19 J	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	ug/m3	0.54	0.37 D	0.59 D	0.47 D	0.5 D	0.43 D	0.45 D	0.45 D	0.36 D	0.35	0.37	0.44	0.47	0.33	0.42	0.43	0.41	0.39	0.49	0.39	0.42	0.52	0.59	0.47
Chlorobenzene	ug/m3	200	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.046 UD	0.16 UD	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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	500	0.093 UD	0.093 UD	0.093 UD	0.093 UD	0.093 UD	0.093 UD	0.053 UD	0.093 UD	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.5	0.069 JD	0.17 UD	0.17 D	0.17 UD	0.17 UD	0.17 UD	0.12 D	0.099 JD	0.062 J	0.14 J	0.19	0.17	0.17 U	0.19	0.17	0.84	0.11 J	0.36	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	ug/m3	80	1.2 D	1.5 D	1.2 D	1.3 D	1.3 D	1.2 D	0.67 D	0.81 D	0.97	1.3	1.1	1.3	0.91	1.1	1.2	2.4	1.2	1.2	1.3	0.9	1.4	1.5	1
cis-1,2-Dichloroethene	ug/m3	100	0.14 UD	0.14 UD	0.18 D	0.14 UD	0.14 UD	0.14 UD	0.04 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.4	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.045 UD	0.16 UD	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	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	NA	0.12 UD	0.12 UD	0.12 UD	0.12 UD	0.4 D	0.12 UD	0.069 UD	0.12 UD	0.12 U	0.12 U	0.18	0.39	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.25	0.91	0.17 U
Dibromochloromethane	ug/m3	NA	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.085 UD	0.3 UD	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	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	ug/m3	500	1.6 D	3.4 D	1.9 D	2.5 D	1.3 D	2.2 D	2 D	1.9 D	1.3	2	1.7	2.4	2.5	0.54	1.1	1.3	1.7	2.1	2	2.1	2.6	2.8	2.6
Ethanol	ug/m3	NA	1.9 JD	12 D	15 D	4.5 D	18 D	20 D	160 D	7.7 D	12	25	13	6.8	3.4	38	3.3	130	19	33	41	23	12	40	13
Ethyl acetate	ug/m3	NA	0.13 UD	1.5 D	0.29 D	0.83 D	0.17 D	0.43 D	0.56 D	0.29 D	5	0.17	0.61	0.46	0.47	0.64	0.13 U	0.4	0.16	0.7	0.37 U	0.37 U	0.18 U	0.22	0.37 U
Ethylbenzene	ug/m3	290	0.091 JD	0.15 UD	0.26 D	0.15 UD	0.65 D	0.3 D	0.13 D	0.12 JD	0.17	0.12 J	0.34	0.44	0.26	0.2	0.15 U	0.43	0.098 J	0.47	0.29	0.25	0.33	1.6	0.22 U
Hexachlorobutadiene	ug/m3	NA	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.21 UD	0.37 UD	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	NA	1.1 JD	1.4 JD	0.75 JD	0.46 JD	1.4 JD	0.56 JD	0.33 JD	0.3 JD	5.1	0.42 J	0.92 J	0.48 J	0.34 J	0.82 J	4.9 U	0.43 J	0.33 J	0.77 J	1.2	0.78	0.7	2.6	0.33
Isopropyl alcohol	ug/m3	NA	3.4 UD	3.4 UD	3.4 UD	3.4 UD	2.4 JD	6.5 D	180 D	0.47 JD	2.6 J	9.4	5.3	3.4 U	0.68 J	5.7	0.81 J	6.2	2.3 J	26	4.7	6.6	3.2	4.9	1.7
m,p-Xylene	ug/m3	NA	0.24 JD	0.49 D	0.81 D	0.3 D	1.9 D	1 D	0.3 D	0.54 D	0.5	0.36	1	2.1	0.2 J	0.55	0.15 J	1.1	0.27 J	1.1	0.82	0.72	0.84	4.9	0.43 U
Methyl methacrylate	ug/m3	NA	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.082 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.1											



**Appendix D1**  
**Summary of Analytical Results - Indoor Air Sampling for Small Retail Space**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

Area:			Small Center Retail Space													Western Small Retail Space											
Location:			IA-6													IA-7											
Sample ID:			IA-6-061314	IA-6-091214	IA-6-121914	IA-06-032715	IA-6-061115	IA-6-091615	IA-6-121815	IA-6-021816	IA-6-080516	IA-6-021017	IA-6-090717	IA-6-022818	IA-6-091218	IA-7	IA-7-020309	IA-7-021109	IA-7-021809	IA-7-022609	IA-7-030609	IA-7-041409	IA-7-051509	IA-7-061109	IA-7-091709		
Sample Date:			6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	4/14/2009	5/15/2009	6/11/2009	9/17/2009		
Analyte	Units	CT IACTIND 2003																									
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 UD	0.25 UD	0.44 UD	0.44 U	0.44 U	0.44 U		0.44 U		0.44 U	0.44 U	0.44 U													
1,1,1-Trichloroethane	ug/m3	500	0.19 UD	0.12 D	0.19 UD	0.19 U	0.19 U	0.14 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U													
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 UD	0.069 UD	0.24 UD	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 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	ug/m3	12	0.19 UD	0.11 UD	0.19 UD	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	0.27 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	ug/m3	430	0.14 UD	0.04 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	1.3	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		
1,1-Dichloroethene	ug/m3	20	0.14 UD	0.04 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.52	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		
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 UD	0.15 UD	0.26 UD	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	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U		
1,2,4-Trimethylbenzene	ug/m3	52	0.21 D	0.29 D	0.17 UD	0.13 J	0.13 J	0.066 J	0.17 U	0.17 U	0.31	0.17 U	0.15 J	0.17 U	0.33	0.25 U	0.34	0.34	0.99	0.25 U	0.25 U	0.18 U	0.25 U	0.29	0.39		
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 UD	0.077 UD	0.27 UD	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	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U		
1,2-Dichlorobenzene	ug/m3	410	0.21 UD	0.12 UD	0.21 UD	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	0.3 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		
1,2-Dichloroethane	ug/m3	0.31	0.14 UD	0.039 JD	0.14 UD	0.14 U	0.054 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.06 J	0.097 J	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	ug/m3	0.42	0.16 UD	0.046 UD	0.16 UD	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	0.13 J	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	ug/m3	NA							0.25 U		0.25 U				0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U		
1,3,5-Trimethylbenzene	ug/m3	52	0.17 UD	0.071 JD	0.17 UD	0.038 J	0.052 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U		
1,3-Butadiene	ug/m3	NA	0.078 UD	0.044 UD	0.078 UD	0.061 J	0.078 U	0.14	0.12	0.078 U	0.078 U	0.078 U	0.078 U	0.078 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	0.11 U	0.23 U		
1,3-Dichlorobenzene	ug/m3	410	0.21 UD	0.12 UD	0.21 UD	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	0.3 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		
1,4-Dichlorobenzene	ug/m3	24	0.21 UD	0.12 UD	0.21 UD	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	0.27	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		
1,4-Dioxane	ug/m3	NA							1.3 U		1.3 U																
2-Butanone	ug/m3	500	3.1 JD	0.66 JD	0.81 JD	1 J	1.2 J	1.1 J	0.73 J	0.51 J	1.8 J	0.65 J	3.7 J	0.91 J	2.5 J	70	6.5	3.9	5.2	2.2	1.3	1.3	2.3	7.3	2.2		
2-Hexanone	ug/m3	NA	0.41 D	0.043 JD	0.14 UD	0.18	0.12 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.22	0.16	0.14 U	0.2 U	0.29	0.2 U	0.91	0.2 U	0.14 U	0.53	1.5	0.53		
4-Ethyltoluene	ug/m3	NA	0.17 UD	0.073 JD	0.17 UD	0.045 J	0.055 J	0.059 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.27	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U		
4-Methyl-2-pentanone	ug/m3	200	0.24 D	0.092 D	0.14 UD	0.12 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.37	0.14 U	0.14 U	0.2 U	0.42	0.2 U	0.2 U	0.14 U	0.22	0.79	0.24	0.24		
Acetone	ug/m3	500	26 D	9.2 D	8.2 D	9.2	11	17	9.3	5	21	7	38	7.8	29	29	12	13	32	7.8	6.6	6.5	10	31	22		
Benzene	ug/m3	3.3	0.67 D	0.26 D	0.37 D	0.53	0.23	0.56	1.1	0.39	0.41	0.61	0.5	0.64	0.49	0.95	0.75	1.1	3.2	0.67	0.73	0.42	0.35	0.52	0.43		
Benzyl chloride	ug/m3	NA	0.18 UD	0.052 UD	0.18 UD	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	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U		
Bromodichloromethane	ug/m3	0.46	0.24 UD	0.067 UD	0.24 UD	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	0.33 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		
Bromoform	ug/m3	7.3	0.36 UD	0.21 UD	0.36 UD	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U		
Bromomethane	ug/m3	NA	0.14 UD	0.078 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 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	ug/m3	NA	0.23 JD	0.057 JD	1.1 UD	0.039 J	0.083 J	0.16 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.32 J	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.26	0.16 U	0.16 U	0.26		
Carbon tetrachloride	ug/m3	0.54	0.43 D	0.42 D	0.33 D	0.31	0.37	0.41	0.54	0.35	0.42	0.44	0.41	0.38	0.5	0.32	0.44	0.52	0.56	0.48	0.6	0.43	0.65	0.43	0.42		
Chlorobenzene	ug/m3	200	0.16 UD	0.046 UD	0.16 UD	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	0.23 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	ug/m3	500	0.2 D	0.053 UD	0.093 UD	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.19 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U		
Chloroform	ug/m3	0.5	0.25 D	0.11 D	0.082 JD	0.069 J	0.15 J	0.18	0.17 U	0.17 U	0.17 U	0.17 U	0.2	0.1 J	0.45	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	ug/m3	80	1.9 D	1 D	0.88 D	0.95	1.2	1.1	1.3	1	1.2	1.2	1.3	1.2	1.3	1.7	0.98	1.4	1.5	1	1.2	1.1	0.93	1.8	1.2		
cis-1,2-Dichloroethene	ug/m3	100	0.14 UD	0.04 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.29	0.2 U	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		
cis-1,3-Dichloropropene	ug/m3	NA	0.16 UD	0.045 UD	0.16 UD	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	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U		
Cyclohexane	ug/m3	NA	0.16 D	0.069 UD	0.12 UD	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.23	0.12 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		
Dibromochloromethane	ug/m3	NA	0.3 UD	0.085 UD	0.3 UD	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	0.43 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	ug/m3	500	2.1 D	2.1 D	1.9 D	1.4	2.6	1.7	2.3	1.5	0.55	0.99	1.4	1.7	2.2	2.1	2.2	2.6	2.7	2.6	2.6	2	2.4	2.7	2.3		
Ethanol	ug/m3	NA	38 D	160 D	9.4 D	17	29	31	8.5	3.6	15	6.5	21	29	59	7.3	16	11	26	7.9	8.4	7.1	11	14	11		
Ethyl acetate	ug/m3	NA	0.34 D	1.7 D	0.13 UD	0.3	0.13 U	0.51	1.6	0.13 U	40	30	1.9	0.13	0.74	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		
Ethylbenzene	ug/m3	290	0.2 D	0.18 D	0.088 JD	0.18	0.13 J	0.22	0.26	0.15 U	0.26	0.15 U	0.27	0.11 J	0.42												

**Appendix D1**  
**Summary of Analytical Results - Indoor Air Sampling for Small Retail Space**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

Area:		Western Small Retail Space																							
Location:		IA-7																							
Sample ID:		IA-7-122909	IA-7-032610	IA-7-070110	IA-7-091610	IA-7-120710	IA-7-021711	IA-7-060211	IA-7-091511	IA-7-120811	IA-7-030812	IA-7-061412	IA-7-091312	IA-7-010313	IA-7-031513	IA-7-060713	IA-7-090613	IA-7-100313	IA-7-121313	IA-7-030714	IA-7-061314	IA-7-091214	IA-7-121914	IA-07-032715	
Sample Date:		12/29/2009	3/26/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	10/3/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	
Analyte	Units	CT IACTIND 2003																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1							0.62 U		0.37 UD	0.37 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.42 UD	0.44 UD	0.44 UD	0.44 UD	0.25 UD	0.44 UD	0.44 U	
1,1,1-Trichloroethane	ug/m3	500	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.069 JD	0.082 UD	0.088 JD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.18 UD	0.19 UD	0.19 UD	0.055 UD	0.19 UD	0.19 U	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 UD	0.1 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.23 UD	0.24 UD	0.24 UD	0.24 UD	0.069 UD	0.24 UD	0.24 U	
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 UD	0.082 UD	0.16 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.18 UD	0.19 UD	0.19 UD	0.11 UD	0.19 UD	0.19 U	
1,1-Dichloroethane	ug/m3	430	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 UD	0.061 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.04 UD	0.14 UD	0.14 U	
1,1-Dichloroethene	ug/m3	20	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 UD	0.059 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.13 UD	0.14 UD	0.14 UD	0.04 UD	0.14 UD	0.14 U	
1,2,4-Trichlorobenzene	ug/m3	NA	0.75 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 UD	0.45 UD	0.17 JD	0.52 UD	0.52 UD	0.52 UD	0.26 UD	0.26 UD	0.25 UD	0.26 UD	0.26 UD	0.15 UD	0.26 UD	0.26 U	
1,2,4-Trimethylbenzene	ug/m3	52	0.38 U	0.35	0.36	0.36	0.25 U	0.25 U	0.56	0.41	0.32 D	0.36 D	0.21 D	0.46 D	0.17 UD	0.1 JD	0.58 D	0.4 D	0.7 D	0.25 D	0.38 D	0.31 D	0.37 D	0.33	
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.25 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 UD	0.12 UD	0.23 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.26 UD	0.26 UD	0.27 UD	0.27 UD	0.077 UD	0.27 UD	0.27 U	
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.18 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.2 UD	0.21 UD	0.21 UD	0.12 UD	0.21 UD	0.21 U	
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.07 JD	0.061 UD	0.051 JD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.11 JD	0.14 UD	0.14 UD	0.15 D	0.14 UD	0.065 J	
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.23 U	0.3	0.23 U	0.23 U	0.23 U	0.63	0.23 J	0.14 UD	0.069 UD	0.14 UD	0.094 JD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.085 D	0.16 UD	0.16 U		
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.35 U	0.35 U	0.35 U	0.35 U																			
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.1 JD	0.15 D	0.083 JD	0.26 D	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.23 D	0.17 UD	0.17 UD	0.17 UD	0.057 JD	0.17 UD	0.083 J
1,3-Butadiene	ug/m3	NA	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 UD	0.066 UD	0.066 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.075 UD	0.078 UD	0.078 UD	0.044 UD	0.078 UD	0.078 U	
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.18 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.06 JD	0.21 UD	0.21 U	
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.065 JD	0.063 JD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.086 JD	0.21 UD	0.21 UD	0.21 UD	0.12 UD	0.21 UD	0.16 J
1,4-Dioxane	ug/m3	NA								0.18 U															
2-Butanone	ug/m3	500	0.49	2.1	4.3	1.8	0.42	1.7 B	4.7	5.9 J	2.1 JD	0.97 JD	1.1 JD	2.8 JD	4.1 JD	1.9 JD	1.7 JD	1.6 JD	3.8 JD	0.69 JD	1.5 JD	3 JD	2.2 JD	0.75 JD	1.4 J
2-Hexanone	ug/m3	NA	0.2 U	0.2 U	0.82	0.55	0.2 U	0.2 U	1.4 J	0.73	0.12 UD	0.081 JD	0.23 D	0.41 D	0.14 D	0.35 D	0.14 UD	0.15 D	1.1 D	0.14 UD	0.37 D	0.35 D	0.41 D	0.14 UD	0.43
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.074 JD	0.097 JD	0.065 JD	0.16 JD	0.17 UD	0.17 UD	0.17 UD	0.2 D	0.17 UD	0.17 UD	0.17 UD	0.065 JD	0.17 UD	0.09 J	
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.43	0.61	0.2 U	0.2 U	0.53	0.36	0.15 D	0.13 D	1.4 D	0.29 D	0.14 D	0.21 D	0.2 D	0.44 D	0.14 UD	0.14 UD	0.34 D	0.18 D	0.14 UD	0.18	
Acetone	ug/m3	500	31	12	41	27	12 B	15 B	48 B	38	17 D	13 D	18 D	24 BD	3.3 D	15 D	49 D	46 D	46 D	20 D	15 D	30 D	41 D	12 D	16
Benzene	ug/m3	3.3	0.52	0.53	0.27	0.56	0.45	1.1	0.41	0.34	0.44 D	0.36 D	0.2 D	0.49 D	0.11 D	0.87 D	0.32 D	0.43 D	1.8 D	0.54 D	1.9 D	0.57 D	0.36 D	0.4 D	0.57
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 UD	0.16 UD	0.16 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.052 UD	0.18 UD	0.18 U	
Bromodichloromethane	ug/m3	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 UD	0.1 UD	0.2 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.23 UD	0.24 UD	0.24 UD	0.067 UD	0.24 UD	0.24 U	
Bromoform	ug/m3	7.3	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 UD	0.31 UD	0.31 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.35 UD	0.36 UD	0.36 UD	0.21 UD	0.36 UD	0.36 U	
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 UD	0.12 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.056 JD	0.14 UD	0.14 U	
Carbon disulfide	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.27	1.6 J	0.93 UD	0.93 UD	0.09 JD	1.1 UD	1.1 UD	0.16 JD	0.6 JD	0.14 JD	1.1 UD	1.1 UD	0.15 JD	0.11 JD	1.1 UD	0.042 J	
Carbon tetrachloride	ug/m3	0.54	0.44	0.43	0.5	0.47	0.45	0.56	0.69	0.5	0.45 D	0.46 D	0.43 D	0.38 D	0.22 D	0.39 D	0.55 D	0.46 D	0.45 D	0.49 D	0.42 D	0.45 D	0.46 D	0.33 D	0.34
Chlorobenzene	ug/m3	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.14 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.046 UD	0.16 UD	0.16 U	
Chloroethane	ug/m3	500	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 UD	0.079 UD	0.079 UD	0.093 UD	0.093 UD	0.093 UD	0.093 UD	0.093 UD	0.089 UD	0.093 UD	0.093 UD	0.053 UD	0.093 UD	0.093 U	
Chloroform	ug/m3	0.5	0.24 U	0.24 U	0.24 U	0.38	0.24 U	0.24 U	0.24 U	0.34	0.12 JD	0.073 UD	0.13 JD	0.2 D	0.17 UD	0.082 JD	0.21 D	0.47 D	0.17 D	0.24 D	0.17 UD	0.18 D	0.12 D	0.096 JD	0.079 J
Chloromethane	ug/m3	80	2.1	1.2	1.3	1.4	0.99	1	1.6	1.6	1.3 D	1.6 D	1.2 D	1.3 D	1.5 D	1.3 D	1.2 D	1.2 D	1.4 D	1.4 D	1.4 D	0.76 D	0.86 D	1	
cis-1,2-Dichloroethene	ug/m3	100	0.27 UD	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.064 JD	0.059 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.13 UD	0.14 UD	0.14 UD	0.04 UD	0.14 UD	0.14 U	
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.068 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.045 UD	0.16 UD	0.16 U	
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.1 UD	0.1 UD	0.23 D	0.12 UD	0.12 UD	0.12 UD	0.12 UD	0.12 UD	0.3 D	0.12 UD	0.12 UD	0.069 UD	0.12 UD	0.12 U	
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 UD	0.13 UD	0.26 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.29 UD	0.3 UD	0.3 UD	0.3 UD	0.085 UD	0.3 UD	0.3 U	
Dichlorodifluoromethane	ug/m3	500	2.1	1.8	2.7	1.7	2	3.1	2.5	1.8	2.8 D	2.1 D	2.7 D	2.9 D	1.7 D	3.1 D	2.1 D	1.5 D	2.7 D	1.5 D	2.1 D	2.2 D	1.8 D	1.3	
Ethanol	ug/m3	NA	10	13	39	240	13	14	28	76	60 D	70 D	110 D	60 D	2.6 D	11 D	45 D	21 D	40 D	25 D	50 D	79 D	96 D	39 D	110
Ethyl acetate	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.7	0.21	1.8 D	0.94 D	0.39 D	0.57 D	0.13 D	0.13 UD	5.5 D	1.3 D	1.9 D	0.34 D	0.56 D	0.41 D	0.37 D	0.13 UD	0.64
Ethylbenzene	ug/m3	290	0.68	0.32	0.45	0.45	0.22 U	0.22 U	0.68	0.45	0.24 D	0.12 JD	0.24 D	0.45 D	0.15 D	0.14 JD	0.36 D	0.48 D	0.62 D	0.15 UD	0.43 D	0.35 D	0.2 D	0.085 JD	0.58
Hexachlorobutadiene	ug/m3	NA	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 UD	0.32 UD	0.32 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.36 UD	0.37 UD	0.37 UD	0.21 UD	0.37 UD	0.37 U	
Hexane	ug/m3	NA	0.25	0.33	0.7	0.64	0.5	1.3	0.58	7 J	3.9 JD	0.8 JD	0.67 JD	0.97 JD	4.9 JD	0.87 JD	2.9 JD	1.3 JD	0.97 JD	0.39 JD	1.1 JD	0.9 JD	0.37 JD	0.35 JD	4.9 J
Isopropyl alcohol	ug/m3	NA	1.9	18	5.8	28	2.8	11	1.2 U	77	2.9 UD	2.9 UD	48 D	22 D	3.4 JD	3.4 UD	3.4 UD	3.4 UD	6 D	40 D	1.9 JD	11 D	2 UD	1.4 JD	30
m,p-Xylene	ug/m3	NA	2.8	0.82	1.2	1.2	0.43 U	0.43 J	1.5	1.1	0.72 D	0.3 D	0.54 D	1.4 D	0.3 D	0.4 D	1.1 D	1.2 D	1.8 D	0.25 JD	1.2 D	1.1 D	0.54 D	0.29 JD	0.67
Methyl methacrylate	ug/m3	NA					0.2 U	0.2 U	0.2 U	0.2 U	0.12 UD	0.12 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.082 UD	0.14 UD	0.14 U	
Methylene chloride	ug/m3	17	2.9	0.7 U	1.3	0.6	1.3	2.5	1.1	1.7															

Appendix D1  
 Summary of Analytical Results - Indoor Air Sampling for Small Retail Space  
 Former Gorham Manufacturing Site  
 Providence, Rhode Island

Area:		Western Small Retail Space									
Location:		IA-7									
Sample ID:		IA-7-061115	IA-7-091615	IA-7-121815	IA-7-021816	IA-7-080516	IA-7-021017	IA-7-090717	IA-7-022818	IA-7-091218	
Sample Date:		6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	
Analyte	Units	CT IACTIND 2003									
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U		0.44 U		0.44 U	0.44 U	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.054 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	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
1,1,2-Trichloroethane	ug/m3	12	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
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	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
1,2,4-Trimethylbenzene	ug/m3	52	0.21	0.15 J	0.28	0.17 U	0.23	0.17 U	0.21	0.17 U	0.29
1,2-Dibromoethane (EDB)	ug/m3	0.038	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
1,2-Dichlorobenzene	ug/m3	410	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
1,2-Dichloroethane	ug/m3	0.31	0.19	0.18	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.062 J	0.34
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 J	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.097 J
1,2-Dichlorotetrafluoroethane	ug/m3	NA			0.25 U		0.25 U				
1,3,5-Trimethylbenzene	ug/m3	52	0.083 J	0.048 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,3-Butadiene	ug/m3	NA	0.078 U	0.078 U	0.14	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	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
1,4-Dichlorobenzene	ug/m3	24	0.15 J	0.055 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dioxane	ug/m3	NA			1.3 U		1.3 U				
2-Butanone	ug/m3	500	1.7 J	1.7 J	2 J	0.59 J	1.9 J	0.81 J	2.4 J	1.9 J	1.3 J
2-Hexanone	ug/m3	NA	0.17	0.14 U	0.28	0.14 U	0.36	0.14 U	0.43	0.37	0.14 U
4-Ethyltoluene	ug/m3	NA	0.069 J	0.055 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.15	0.14 U	0.18	0.14 U	0.14 U	0.14 U	0.28	0.1 J	0.14 U
Acetone	ug/m3	500	24	39	15	9.1	33	7.5	37	14	23
Benzene	ug/m3	3.3	0.27	0.91	0.97	0.43	0.27	0.47	0.47	0.53	0.5
Benzyl chloride	ug/m3	NA	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
Bromodichloromethane	ug/m3	0.46	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
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Bromomethane	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Carbon disulfide	ug/m3	NA	0.1 J	0.15 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Carbon tetrachloride	ug/m3	0.54	0.36	0.39	0.51	0.37	0.45	0.42	0.4	0.37	0.5
Chlorobenzene	ug/m3	200	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
Chloroethane	ug/m3	500	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.076 J
Chloroform	ug/m3	0.5	0.19	0.23	0.17 U	0.17 U	0.2	0.15 J	0.31	0.13 J	0.23
Chloromethane	ug/m3	80	1.3	1.3	1.4	1	1.4	1.2	1.5	1.3	1.9
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.086 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.46	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Dibromochloromethane	ug/m3	NA	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
Dichlorodifluoromethane	ug/m3	500	1.9	1.8	2.3	1.6	0.57	0.88	1.4	1.7	2.1
Ethanol	ug/m3	NA	110	440 E	33	13	23	15	95	46	28
Ethyl acetate	ug/m3	NA	0.39	1.1	0.31	0.32	1.4	3.5	1.7	0.17	0.35
Ethylbenzene	ug/m3	290	0.19	0.3	0.25	0.15 U	0.31	0.15 U	0.29	0.14 J	0.37
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Hexane	ug/m3	NA	0.36 J	0.67 J	0.52 J	0.28 J	1.9 J	0.36 J	0.65 J	0.29 J	0.78 J
Isopropyl alcohol	ug/m3	NA	11	30	3.4 U	4.8	3.4 U	8.5	3.4 U	3.8	92 D
m,p-Xylene	ug/m3	NA	0.48	0.64	0.84	0.27 J	0.93	0.16 J	0.82	0.3 J	1.1
Methyl methacrylate	ug/m3	NA		0.14 U		0.14 U		0.14 U	0.14 U	0.14 U	0.14 U
Methylene chloride	ug/m3	17	0.58 J	0.54 J	1.2 J	0.4 J	1.1 J	0.49 J	0.59 J	0.46 J	0.39 J
Methyl-t-butyl ether	ug/m3	190	0.063 J	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Naphthalene	ug/m3	NA			0.18 U		0.21				
n-Heptane	ug/m3	NA	0.14 J	0.25	0.28	0.14 U	0.29	0.14 U	0.29	0.17	0.44
o-Xylene	ug/m3	NA	0.19	0.23	0.3	0.15 U	0.34	0.15 U	0.29	0.12 J	0.38
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	0.78 J	2.4 U	2.4 U	2.4 U
Styrene	ug/m3	290	0.29	0.27	0.18	0.15 U	0.41	0.15 U	0.59	0.13 J	0.42
Tetrachloroethene	ug/m3	5	0.25	0.23 J	0.36	0.24 U	0.38	0.24 U	0.34	0.24 U	0.6
Tetrahydrofuran	ug/m3	NA	0.15	0.11	0.1 U	0.1 U	0.1 U	0.1 U	0.21 U	0.1 U	0.1 U
Toluene	ug/m3	500	1	2.1	1.6	0.59	1.8	0.51	1.8	0.95	2.6
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.083 J
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	ug/m3	1	0.19 U	0.31	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 J
Trichlorofluoromethane	ug/m3	500	1.5	1.3	1.7	1.1	1.1	1.4	1.2	1.2	1.2
Trichlorotrifluoroethane	ug/m3	NA	0.65 J	0.59 J	0.6 J	0.46 J	0.48 J	0.58 J	0.46 J	0.49 J	0.54 J
Vinyl acetate	ug/m3	NA	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.6 J	2.5 U	1.2 J
Vinyl chloride	ug/m3	1.9	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U

Notes:  
 NA - not available  
 U - Not detected, value is the detection limit  
 B - Compounds detected in method blank as well as field sample  
 J - Indicates compound was detected at an estimated value.  
 D - Result from diluted analyses  
 ug/m3 - micrograms per cubic meter  
 Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 10/24/2018

Checked By: HWC, 10/24/2018

## **Appendix D2**

Summary of All Analytical Results –  
Extraction Well Samples for Small Retail Space

**Appendix D2  
Summary of Analytical Results - Extraction Wells  
Former Gorham Manufacturing Site  
Providence, Rhode Island**

Area:			Extraction Well - Center Small Retail Space																					
Location:			EW-6																					
Sample ID:			EW-6-020309	EW-6-021109	EW-6-021809	EW-6-022609	EW-6-030609	EW-6-041409	EW-6-051509	EW-6-061109	EW-6-091709	EW-6-122909	EW-6-070110	EW-6-091610	EW-6-120710	EW-6-021711	EW-6-060211	EW-6-091511	EW-6-120811	EW-6-030812	EW-6-061412	EW-6-091312	EW-6-010313	
Sample Date:			2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	4/14/2009	5/15/2009	6/11/2009	9/17/2009	12/29/2009	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	
Analyte	Units	CT IACTIND 2003																						
1,1,1,2-Tetrachloroethane	ug/m3	1.1																25 UD			1.2 UD	1.2 UD	1.2 UD	1.2 UD
1,1,1-Trichloroethane	ug/m3	500	<b>69000</b>	<b>32000</b>	<b>21000</b>	<b>16000</b>	<b>16000</b>	<b>5600</b>	<b>8200</b>	<b>5700</b>	<b>5400</b>	<b>1100</b>	430	390	130 D	0.55 UD	80 D	230 D	33 D	0.27 UD	75 D	0.55 UD	0.55 UD	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	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	3.4 U	6.8 U	0.69 UD	0.69 UD	6.9 UD	14 UD	3.4 UD	0.34 UD	0.69 UD	0.69 UD	
1,1,2-Trichloroethane	ug/m3	12	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	2.7 U	5.4 U	0.55 UD	0.55 UD	5.5 UD	11 UD	2.7 UD	0.27 UD	0.55 UD	0.55 UD	
1,1-Dichloroethane	ug/m3	430	<b>5200</b>	<b>2500</b>	<b>2100</b>	<b>2200</b>	<b>1600</b>	<b>780</b>	<b>1200</b>	<b>1100</b>	<b>930</b>	<b>580</b>	47	38	21 D	0.4 UD	12 D	27 D	6.4 D	0.2 UD	9.6 D	0.4 UD	0.4 UD	
1,1-Dichloroethene	ug/m3	20	<b>850</b>	<b>210</b>	<b>100</b>	<b>110</b>	<b>55</b>	<b>74</b>	<b>87</b>	<b>83</b>	<b>80</b>	6.4	3.5	4 U	0.4 UD	0.4 UD	4 UD	7.9 UD	2 UD	0.2 UD	<b>0.84 D</b>	0.4 UD		
1,2,4-Trichlorobenzene	ug/m3	NA	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 UD	30 UD	7.4 UD	1.5 UD	1.5 UD	1.5 UD		
1,2,4-Trimethylbenzene	ug/m3	52	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 UD	9.8 UD	2.5 UD	0.49 UD	<b>0.26 JD</b>	<b>0.6 D</b>		
1,2-Dibromoethane (EDB)	ug/m3	0.038	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 UD	15 UD	3.8 UD	0.38 UD	0.77 UD	0.77 UD		
1,2-Dichlorobenzene	ug/m3	410	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 UD	12 UD	3 UD	0.6 UD	0.6 UD	0.6 UD		
1,2-Dichloroethane	ug/m3	0.31	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 UD	8.1 UD	2 UD	0.2 UD	0.4 UD	0.4 UD		
1,2-Dichloropropane	ug/m3	0.42	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 UD	9.2 UD	2.3 UD	0.23 UD	0.46 UD	0.46 UD		
1,2-Dichlorotetrafluoroethane	ug/m3	NA	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	ug/m3	52	5 U	5 U	5 U	<b>7.3</b>	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 UD	9.8 UD	2.5 UD	0.49 UD	0.49 UD	0.49 UD		
1,3-Butadiene	ug/m3	NA	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	22 U	1.1 U	1.1 U	1.1 U	2.3 U	1.1 U	2.2 U	0.22 UD	0.22 UD	2.2 UD	4.4 UD	1.1 UD	0.22 UD	0.22 UD	0.22 UD		
1,3-Dichlorobenzene	ug/m3	410	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 UD	12 UD	3 UD	0.6 UD	0.6 UD	0.6 UD		
1,4-Dichlorobenzene	ug/m3	24	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 UD	12 UD	3 UD	0.6 UD	0.6 UD	0.6 UD		
1,4-Dioxane	ug/m3	NA																7.2 UD						
2-Butanone	ug/m3	500	120	280	300	130	97	160	37	65	8.7	23	<b>1800</b>	110	20 D	1.9 BD	59 UD	240 JD	13 JD	2.1 JD	200 D	3.7 JD		
2-Hexanone	ug/m3	NA	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 UD	8.2 UD	2 UD	0.41 UD	0.7 D	0.52 D		
4-Ethyltoluene	ug/m3	NA	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 UD	9.8 UD	2.5 UD	0.49 UD	0.49 UD	0.49 UD		
4-Methyl-2-pentanone	ug/m3	200	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 UD	8.2 UD	2 UD	0.41 UD	<b>0.35 JD</b>	0.41 UD		
Acetone	ug/m3	500	<b>580</b>	64	81	33	22	410	16	20	4.8 U	27	490	70	15 BD	15 BD	48 UD	190 JD	21 JD	9.9 D	36 D	25 BD		
Benzene	ug/m3	3.3	<b>5.2</b>	<b>5.2</b>	<b>4.1</b>	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 UD	6.4 JD	1.6 UD	0.31 JD	1.2 D	0.77 D		
Benzyl chloride	ug/m3	NA	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 UD	10 UD	2.6 UD	0.52 UD	0.52 UD	0.52 UD		
Bromodichloromethane	ug/m3	0.46	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 UD	13 UD	3.4 UD	0.34 UD	0.67 UD	0.67 UD		
Bromoform	ug/m3	7.3	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 UD	21 UD	5.2 UD	1 UD	1 UD	1 UD		
Bromomethane	ug/m3	NA	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 UD	7.8 UD	1.9 UD	0.39 UD	0.39 UD	0.39 UD		
Carbon disulfide	ug/m3	NA	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 JD	7.1 JD	3.1 UD	29 D		
Carbon tetrachloride	ug/m3	0.54	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 UD	3.1 UD	0.39 D	0.34 JD	0.4 JD		
Chlorobenzene	ug/m3	200	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 UD	9.2 UD	2.3 UD	0.46 UD	0.46 UD	0.46 UD		
Chloroethane	ug/m3	500	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 UD	1.3 UD	0.26 UD	1.4 D	0.26 UD		
Chloroform	ug/m3	0.5	<b>42</b>	<b>24</b>	<b>19</b>	<b>29</b>	<b>21</b>	<b>50</b>	<b>14</b>	<b>12</b>	<b>12</b>	<b>7.2</b>	<b>3.7</b>	4.8 U	<b>2.4 D</b>	0.49 UD	4.9 UD	9.8 UD	1 JD	0.36 D	<b>0.92 D</b>	0.21 JD		
Chloromethane	ug/m3	80	2 U	2 U	2 U	2 U	2 U	34	1 U	1 U	1 U	1 U	1 U	38	0.21 UD	1 D	16 D	45 D	2.9 D	1.5 D	7.8 D	1.3 D		
cis-1,2-Dichloroethene	ug/m3	100	<b>700</b>	<b>360</b>	<b>220</b>	<b>250</b>	<b>150</b>	<b>120</b>	<b>190</b>	<b>170</b>	<b>130</b>	36	11	7.9	2.3 D	0.4 UD	4 UD	7.9 JD	0.83 JD	0.2 UD	2.8 D	0.4 UD		
cis-1,3-Dichloropropene	ug/m3	NA	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 UD	2.3 UD	0.23 UD	0.45 UD	0.45 UD		
Cyclohexane	ug/m3	NA	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 UD	1.7 UD	0.34 UD	0.34 UD	<b>0.49 D</b>		
Dibromochloromethane	ug/m3	NA	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 UD	4.3 UD	0.43 UD	0.85 UD	0.85 UD		
Dichlorodifluoromethane	ug/m3	500	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 UD	3 D	2.2 D	2.9 D	2.9 D		
Ethanol	ug/m3	NA	360	38	73	38	25	110	18	14	6.7	18	15	19 U	4.6 D	11 D	38 UD	150 JD	38 UD	29 D	5.8 JD	68 D		
Ethyl acetate	ug/m3	NA	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 UD	1.8 UD	0.52 D	1.2 D	24 D		
Ethylbenzene	ug/m3	290	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 JD	2.2 UD	0.43 UD	0.18 JD	0.66 D		
Hexachlorobutadiene	ug/m3	NA	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 UD	5.3 UD	1.1 UD	1.1 UD	1.1 UD		
Hexane	ug/m3	NA	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	3.6 U	0.36 UD	0.36 UD	3.6 UD	7.2 UD	1.8 UD	0.52 D	1.2 D	24 D		
Isopropyl alcohol	ug/m3	NA	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 JD	49 UD	1.3 JD	9.8 UD	7.6 JD		
m,p-Xylene	ug/m3	NA	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 JD	4.3 UD	0.87 UD	0.24 JD	1.9 D		
Methyl methacrylate	ug/m3	NA														0.41 UD	4.1 UD	8.2 UD	2 UD	0.41 UD	0.41 UD	0.41 UD		
Methylene chloride	ug/m3	17	7 U	7 U	7.5	7 U	7 U	<b>780</b>	12	15	7 U	<b>27</b>	10	7 U	1.3 D	2.8 D	6.9 UD	69 UD	3.6 JD	4.8 D	2.5 JD	14 BD		
Methyl-t-butyl ether	ug/m3	190	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	3.6 U	0.36 UD	0.36 UD	3.6 UD	7.2 UD	1.8 UD	0.36 UD	0.36 UD	0.13 JD		
Naphthalene	ug/m3	NA																						
n-Heptane	ug/m3	NA	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 UD	8.2 UD	2 UD	0.41 UD	0.41 UD	0.41 UD		
o-Xylene	ug/m3	NA	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 JD	2.2 UD	0.43 UD	0.16 JD	0.73 D		
Propylene (Propene)	ug/m3	NA	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 UD	3.8 JD	6.9 UD	2.8 JD	6.9 UD		
Styrene	ug/m3	290	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	42 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	4.2 U	0.43 UD	0.43 UD	4.3 UD	8.5 UD	2.1 UD	0.43 UD	0.2 JD	0.35 JD		
Tetrachloroethene	ug/m3	5	<b>330</b>	<b>290</b>	<b>130</b>	<b>290</b>																		

**Appendix D2**  
**Summary of Analytical Results - Extraction Wells**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

Area:			Extraction Well - Center Small Retail Space																Extraction Well - Eastern Small Retail Space				
Location:			EW-6																				
Sample ID:			EW-6-031513	EW-6-060713	EW-6-090613	EW-6-121313	EW-6-030714	EW-6-061314	EW-6-091214	EW-6-121914	EW-06-032715	EW-6-061115	EW-6-091615	EW-6-121815	EW-6-021816	EW-6-080516	EW-6-021017	EW-6-090717	EW-6-022818	EW-6-091218	EW-5-020309	EW-5-021109	EW-5-021809
Sample Date:			3/15/2013	6/7/2013	9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/3/2009	2/11/2009	2/18/2009
Analyte	Units	CT IACTIND 2003																					
1,1,1,2-Tetrachloroethane	ug/m3	1.1	1.2 UD	1.2 UD	0.44 UD	1.2 UD	1.2 UD	1.2 UD	2.5 UD	1.2 UD	1.2 U	1.2 U	2.5 U		2.5 U		1.2 U	2.5 U	2.5 UD	2.5 UD			
1,1,1-Trichloroethane	ug/m3	500	0.55 UD	4.3 D	71 D	18 D	13 D	26 D	58 D	19 D	14	13	5.9	27	10	180	4	3.9	2.6 D	27 D	190000	41000	17000
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.69 UD	0.69 UD	0.24 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 U	0.69 U	1.4 U	1.4 U	1.4 U	6.9 U	0.69 U	1.4 U	1.4 UD	1.4 UD	6.8 U	6.8 U	6.8 U
1,1,2-Trichloroethane	ug/m3	12	0.55 UD	0.55 UD	0.19 UD	0.55 UD	0.55 UD	0.55 UD	1.1 UD	0.55 UD	0.55 U	0.55 U	1.1 U	1.1 U	1.1 U	5.5 U	0.55 U	1.1 U	1.1 UD	1.1 UD	5.4 U	5.4 U	5.4 U
1,1-Dichloroethane	ug/m3	430	0.4 UD	0.78 D	13 D	2.7 D	2.2 D	4.7 D	8.2 D	3.5 D	2.8	2.5	1.1	3.1	1.7	24	0.88	0.58 J	0.45 JD	4.1 D	11000	1900	890
1,1-Dichloroethene	ug/m3	20	0.4 UD	0.4 UD	1.1 D	0.4 UD	0.4 UD	0.4 UD	0.52 D	0.4 UD	0.4 U	0.4 U	0.79 U	0.79 U	0.79 U	4 U	0.4 U	0.79 U	0.79 UD	0.79 UD	2500	290	130
1,2,4-Trichlorobenzene	ug/m3	NA	1.5 UD	0.74 UD	0.26 UD	0.74 UD	0.74 UD	0.74 UD	1.5 UD	0.74 UD	0.74 U	0.74 U	1.5 U	1.5 U	1.5 U	7.4 U	0.74 U	1.5 U	1.5 UD	1.5 UD	7.4 U	7.4 U	7.4 U
1,2,4-Trimethylbenzene	ug/m3	52	0.49 UD	0.49 UD	0.59 D	0.49 UD	0.49 UD	0.49 UD	0.98 UD	0.49 UD	0.2 J	0.24 J	0.98 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 UD	0.98 UD	5 U	5 U	5 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.77 UD	0.77 UD	0.27 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	0.77 U	0.77 U	1.5 U	1.5 U	1.5 U	7.7 U	1.5 U	1.5 U	1.5 UD	1.5 UD	7.6 U	7.6 U	7.6 U
1,2-Dichlorobenzene	ug/m3	410	0.6 UD	0.6 UD	0.21 UD	0.6 UD	0.6 UD	0.6 UD	1.2 UD	0.6 UD	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 UD	1.2 UD	6 U	6 U	6 U
1,2-Dichloroethane	ug/m3	0.31	0.4 UD	0.4 UD	0.14 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 U	0.4 U	0.81 U	0.81 U	0.81 U	4 U	0.4 U	0.81 U	0.81 UD	0.81 UD	4 U	4 U	4 U
1,2-Dichloropropane	ug/m3	0.42	0.46 UD	0.46 UD	0.16 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 U	0.46 U	0.92 U	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	0.92 UD	0.92 UD	4.6 U	4.6 U	4.6 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA											1.4 U		7 U						7 U	7 U	7 U
1,3,5-Trimethylbenzene	ug/m3	52	0.49 UD	0.49 UD	0.3 D	0.49 UD	0.49 UD	0.49 UD	0.98 UD	0.49 UD	0.49 U	0.49 U	0.98 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 UD	0.98 UD	5 U	5 U	5 U
1,3-Butadiene	ug/m3	NA	0.22 UD	0.22 UD	0.078 UD	0.22 UD	0.22 UD	0.22 UD	0.44 UD	0.22 UD	0.22 U	0.22 U	0.44 U	0.44 U	0.44 U	2.2 U	0.22 U	0.44 U	0.44 UD	0.44 UD	2.2 U	2.2 U	2.2 U
1,3-Dichlorobenzene	ug/m3	410	0.6 UD	0.6 UD	1.2 UD	0.6 UD	0.6 UD	0.6 UD	1.2 UD	0.6 UD	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 UD	1.2 UD	6 U	6 U	6 U
1,4-Dichlorobenzene	ug/m3	24	0.6 UD	0.6 UD	0.21 UD	0.6 UD	0.6 UD	0.6 UD	1.2 UD	0.6 UD	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 UD	1.2 UD	6 U	6 U	6 U
1,4-Dioxane	ug/m3	NA											7.2 U		36 U								
2-Butanone	ug/m3	500	1.9 JD	120 D	95 D	4 JD	4 JD	6.8 JD	11 JD	5.2 JD	11 J	13	7 J	2.2 J	6.1 J	79 J	3.1 J	120	57 D	160 D	6.3	89	75
2-Hexanone	ug/m3	NA	0.41 UD	0.41 UD	0.38 D	0.41 UD	0.41 UD	0.41 UD	0.82 UD	0.41 UD	0.32 J	0.18 J	0.82 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 UD	0.82 UD	4 U	4 U	4 U
4-Ethyltoluene	ug/m3	NA	0.49 UD	0.49 UD	0.17 UD	0.49 UD	0.49 UD	0.49 UD	0.98 UD	0.49 UD	0.49 U	0.12 J	0.98 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 UD	0.98 UD	5 U	5 U	5 U
4-Methyl-2-pentanone	ug/m3	200	0.41 UD	0.41 UD	0.14 UD	0.41 UD	0.41 UD	0.41 UD	0.82 UD	0.41 UD	0.41 J	0.13 J	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.82 U	0.82 UD	0.82 UD	4 U	4 U	4 U
Acetone	ug/m3	500	6.3 JD	42 D	35 D	17 D	16 D	27 D	36 D	35 D	39	35	44	17 J	33	210	25	26	17 JD	42 D	530	32	52
Benzene	ug/m3	3.3	0.4 D	0.32 UD	1.2 D	0.42 D	0.96 D	0.73 D	1.1 D	0.7 D	0.65	0.56	0.56 J	0.64 U	0.64 U	9.6	1.3	0.46 J	0.58 JD	0.91 D	13	12	6.2
Benzyl chloride	ug/m3	NA	0.52 UD	0.52 UD	0.18 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 U	0.52 U	1 U	1 U	1 U	5.2 U	0.52 U	1 U	1 UD	1 UD	5.2 U	5.2 U	5.2 U
Bromodichloromethane	ug/m3	0.46	0.67 UD	0.67 UD	0.24 UD	0.67 UD	0.67 UD	0.67 UD	0.67 UD	0.67 UD	0.67 U	0.67 U	1.3 U	1.3 U	1.3 U	6.7 U	0.67 U	1.3 U	1.3 UD	0.62 JD	6.6 U	6.6 U	6.6 U
Bromoform	ug/m3	7.3	1 UD	1 UD	0.36 UD	1 UD	1 UD	1 UD	2.1 UD	1 UD	1 U	1 U	2.1 U	2.1 U	2.1 U	10 U	1 U	2.1 U	2.1 UD	2.1 UD	11 U	11 U	11 U
Bromomethane	ug/m3	NA	0.39 UD	0.39 UD	0.14 D	0.39 UD	0.39 UD	0.39 UD	0.78 UD	0.39 UD	0.39 U	0.39 U	0.78 U	0.78 U	0.78 U	3.9 U	0.39 U	0.78 U	0.78 UD	0.78 UD	3.8 U	3.8 U	3.8 U
Carbon disulfide	ug/m3	NA	3.1 UD	0.35 JD	74 D	5.6 D	6.3 D	31 D	71 D	8 D	15	14	19	6.2 U	6 J	420	3.6	2.3 J	2 JD	160 D	3.2 U	3.2 U	3.2 U
Carbon tetrachloride	ug/m3	0.54	0.23 JD	0.63 UD	0.48 D	0.63 UD	0.63 UD	0.63 UD	0.63 UD	0.35 JD	0.3 J	0.36 J	0.4 J	1.3 U	1.3 U	6.3 U	0.63 U	1.3 U	1.3 UD	0.45 JD	6.2 U	6.2 U	6.2 U
Chlorobenzene	ug/m3	200	0.46 UD	0.46 UD	0.16 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 U	0.46 U	0.92 U	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	0.92 UD	0.92 UD	4.6 U	4.6 U	4.6 U
Chloroethane	ug/m3	500	0.26 UD	0.26 UD	1.7 D	0.26 UD	0.26 UD	0.67 D	1.1 D	0.26 UD	0.26 U	0.26 U	0.67 U	0.53 U	0.53 U	2.6 U	0.26 U	1.1 U	0.53 UD	0.53 UD	260	23	16
Chloroform	ug/m3	0.5	0.49 UD	0.49 UD	1.7 D	0.49 UD	0.49 UD	0.64 D	1 D	0.63 D	0.37 J	0.45 J	0.39 J	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 UD	0.74 JD	83	32	20
Chloromethane	ug/m3	80	1.2 D	1.3 D	35 D	3.4 D	1.8 D	3.3 D	4.4 D	1.4 D	2.4	3.6	3.3	1.2	1.4	38	1.4	3.5	1.2 D	0.83 UD	2 U	2 U	2 U
cis-1,2-Dichloroethene	ug/m3	100	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.71 D	1.1 D	0.21 JD	0.29 J	0.25 J	0.79 U	0.79 U	0.79 U	4 U	0.4 U	0.79 U	0.79 UD	0.4 JD	2900	710	400
cis-1,3-Dichloropropene	ug/m3	NA	0.45 UD	0.45 UD	0.16 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 U	0.45 U	0.91 U	0.91 U	0.91 U	4.5 U	0.45 U	0.91 U	0.91 UD	0.91 UD	4.4 U	4.4 U	4.4 U
Cyclohexane	ug/m3	NA	0.34 UD	0.34 UD	0.12 UD	0.34 UD	0.34 UD	0.34 UD	0.69 UD	0.34 UD	0.34 U	0.34 U	0.69 U	0.69 U	0.69 U	3.4 U	0.34 U	0.69 U	0.69 UD	0.69 UD	3.4 U	3.4 U	3.4 U
Dibromochloromethane	ug/m3	NA	0.85 UD	0.85 UD	0.3 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	0.85 U	0.85 U	1.7 U	1.7 U	1.7 U	8.5 U	0.85 U	1.7 U	1.7 UD	1.7 UD	8.6 U	8.6 U	8.6 U
Dichlorodifluoromethane	ug/m3	500	2.5 D	2.3 D	1.3 D	2.6 D	2.3 D	2 D	2.3 D	2.6 D	1.8	2.7	2.7	3.1	2.5	5.5	1.4	2.2	2.2 D	0.99 UD	5 U	5 U	5 U
Ethanol	ug/m3	NA	3.5 JD	13 D	14 D	4.3 JD	7.5 UD	6.9 JD	15 UD	3.5 JD	5.6 J	27	28	7.2 J	15 U	75 U	24	15	21 D	9.5 JD	320	36	46
Ethyl acetate	ug/m3	NA	0.36 UD	0.94 D	0.13 UD	0.36 UD	0.36 UD	0.36 UD	0.72 UD	0.36 UD	0.37	0.36 U	0.72 U	0.72 U	0.72 U	9.4	140	5.9	0.72 UD	1.4 UD	7.3 U	3.6 U	3.6 U
Ethylbenzene	ug/m3	290	0.43 UD	0.43 UD	0.38 D	0.43 UD	0.43 UD	0.43 UD	0.87 UD	0.43 UD	0.34 J	0.34 J	0.87 U	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	0.87 UD	0.87 UD	4.4 U	4.4 U	4.4 U
Hexachlorobutadiene	ug/m3	NA	1.1 UD	1.1 UD	0.37 UD	1.1 UD	1.1 UD	1.1 UD	2.1 UD	1.1 UD	1.1 U	1.1 U	2.1 U	2.1 U	2.1 U	11 U	1.1 U	2.1 U	2.1 UD	2.1 UD	22 U	22 U	22 U
Hexane	ug/m3	NA	0.6 JD	1.6 JD	0.89 JD	14 UD	14 UD	14 UD	28 UD	14 UD	7.3 J	14 U	28 U	28 U	16 J	5.3 J	28 U	28 UD	28 UD	5	3.6 U	3.6 U	3.6 U
Isopropyl alcohol	ug/m3	NA	9.8 UD	9.8 UD	3.4 UD	9.8 UD	9.8 UD	1.1 JD	5.9 JD	9.8 UD	1.8 J	5 J	4.4 J	20 U	20 U	11 J	4.5 J	4.4 J	5.9 JD	20 UD	190	5.1	4.6
m,p-Xylene	ug/m3	NA	0.87 UD	0.87 UD	0.76 D	0.87 UD	0.87 UD	0.52 JD	1.7 UD	0.87 UD	0.35 J	0.3 J	1.7 U	1.7 U	1.7 U	8.7 U	0.87 U	1.7 U	1.7 UD	1.7 UD	8.6 U	8.6 U	8.6 U
Methyl methacrylate	ug/m3	NA	0.41 UD	0.41 UD	0.14 UD	0.41 UD	0.41 UD	0.41 UD	0.82 UD	0.41 UD	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U		0.41 U	0.82 U	0.82 UD	0.82 UD			
Methylene chloride	ug/m3	17	1.4 JD	3.8 D	0.84 JD	0.99 JD	0.89 JD	1.2 JD	3.5 UD	0.43 J	3.5 U	1.6 JD	6.9 U	3.5 UD	6.9 U	24 J	4.4	1.2 J	6.9 UD	6.9 UD	7.8	7 U	9.6
Methyl-t-butyl ether	ug/m3	190	0.36 UD	0.36 UD	0.13 UD	0.36 UD	0.36 UD	0.36 UD	0.72 UD	0.36 UD	0.36 U	0.36 U	0.72 U	0.72 U	0.72 U	3.6 U	0.36 U	0.72 U	0.72 UD	0.72 UD	3.6 U	3.6 U	3.6 U
Naphthalene	ug/m3	NA											1 U		8.9								
n-Heptane	ug/m3	NA	0.41 UD	0.41 UD	0.45 D	0.41 UD	0.41 UD	0.41 UD	0.82 UD	0.41 UD	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 UD	0.82 UD	4 U	4 U	4 U
o-Xylene	ug/m3	NA	0.43 UD	0.43 UD	0.37 D	0.43 UD	0.43 UD	0.43 UD	0.87 UD	0.43 UD	0.16 J	0.43 U	0.87 U	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	0.87 UD	0.87 UD	4.4 U	4.4 U	4.4 U
Propylene (Propene)	ug/m3	NA	6.9 UD	6.9 UD	2.4 UD	6.9 UD	6.9 UD	1 JD	2.1 JD	0.84 JD	0.91 J	6.9 U	14 U	14 U									

**Appendix D2  
Summary of Analytical Results - Extraction Wells  
Former Gorham Manufacturing Site  
Providence, Rhode Island**

Area:		Extraction Well - Eastern Small Retail Space																						
Location:		EW-5																						
Sample ID:	EW-5-022609	EW-5-030609	EW-5-041409	EW-5-051509	EW-5-061109	EW-5-091709	EW-5-122909	EW-5-032610	EW-5-070110	EW-5-091610	EW-5-120710	EW-5-021711	EW-5-060211	EW-5-091511	EW-5-120811	EW-5-030812	EW-5-061412	EW-5-091312	EW-5-010313	EW-5-031513	EW-5-060713			
Sample Date:	2/26/2009	3/6/2009	4/14/2009	5/15/2009	6/11/2009	9/17/2009	12/29/2009	3/26/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013			
Analyte	Units	CT IACTIND 2003																						
1,1,1,2-Tetrachloroethane	ug/m3	1.1																						
1,1,1-Trichloroethane	ug/m3	500	7100	1800	2600	3100	1900	3500	920	540	550	460	210 D	400 D	340 D	430 D	130 D	81 D	100 D	190 D	0.55 UD	0.55 UD	59 D	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	6.8 U	1.7 U	68 U	3.4 U	3.4 U	3.4 U	3.4 U	6.8 U	3.4 U	6.8 U	1.4 UD	1.4 UD	6.9 UD	14 UD	3.4 UD	3.4 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	
1,1,2-Trichloroethane	ug/m3	12	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	2.7 UD	2.7 UD	0.55 UD	0.55 UD	0.55 UD	0.55 UD	0.55 UD	
1,1-Dichloroethane	ug/m3	430	770	190	360	450	430	230	100	50	53	42	29 D	34 D	33 D	44 D	16 D	11 D	12 D	21 D	0.4 UD	0.4 UD	6.4 D	
1,1-Dichloroethene	ug/m3	20	190	61	160	160	160	98	30	18	21	15	13 D	15 D	11 D	14 D	5 D	4.5 D	4.5 D	6.9 D	0.4 UD	0.4 UD	1.7 D	
1,2,4-Trichlorobenzene	ug/m3	NA	7.4 U	1.9 U	74 U	3.7 U	3.7 U	3.7 U	7.5 U	15 U	3.7 U	7.4 U	1.5 UD	1.5 UD	7.4 UD	30 UD	7.4 UD	15 UD	1.5 UD	1.5 UD	1.5 UD	1.5 UD	0.74 UD	
1,2,4-Trimethylbenzene	ug/m3	52	5 U	1.3 U	50 U	2.5 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	2.5 UD	4.9 UD	0.2 JD	0.63 D	0.49 UD	0.49 UD	0.49 UD	
1,2-Dibromoethane (EDB)	ug/m3	0.038	7.6 U	1.9 U	76 U	3.8 U	3.8 U	3.8 U	7.6 U	15 U	3.8 U	7.6 U	1.5 UD	1.5 UD	7.7 UD	15 UD	3.8 UD	3.8 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	
1,2-Dichlorobenzene	ug/m3	410	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	3 UD	6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	
1,2-Dichloroethane	ug/m3	0.31	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	2 UD	2 UD	0.17 JD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	
1,2-Dichloropropane	ug/m3	0.42	4.6 U	1.2 U	46 U	2.3 U	2.3 U	2.3 U	4.6 U	9.2 UD	2.3 U	4.6 U	0.92 UD	0.92 UD	4.6 UD	9.2 UD	2.3 UD	2.3 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	7 U	1.8 U	70 U	3.5 U	3.5 U	3.5 U	3.5 U	7 U	3.5 U	7 U												
1,3,5-Trimethylbenzene	ug/m3	52	5 U	1.3 U	50 U	2.5 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	2.5 UD	4.9 UD	0.49 UD	0.19 JD	0.49 UD	0.49 UD	0.49 UD	
1,3-Butadiene	ug/m3	NA	2.2 U	0.55 U	22 U	1.1 U	1.1 U	1.1 U	2.3 U	1.1 U	2.2 U	1.1 U	0.44 UD	0.44 UD	2.2 UD	4.4 UD	1.1 UD	2.2 UD	0.22 UD	0.22 UD	0.22 UD	0.22 UD	0.22 UD	
1,3-Dichlorobenzene	ug/m3	410	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	3 UD	6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	
1,4-Dichlorobenzene	ug/m3	24	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	3 UD	6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	
1,4-Dioxane	ug/m3	NA																						
2-Butanone	ug/m3	500	170	3700	64000	100000	230000	110000	7800	18000	28000	15000	4000 D	7200 BD	17000 D	13000 D	2700 D	1800 D	870 D	840 D	12 JD	1.7 JD	1900 D	
2-Hexanone	ug/m3	NA	4 U	1 U	40 U	2.7	2 U	2 U	2 U	4 U	2 U	4 U	0.82 UD	0.82 UD	82 UD	8.2 UD	2 UD	4.1 UD	0.43 D	0.41 UD	0.41 UD	0.41 UD	0.41 UD	
4-Ethyltoluene	ug/m3	NA	5 U	1.3 U	50 U	2.5 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	2.5 UD	4.9 UD	0.49 UD	0.18 JD	0.49 UD	0.49 UD	0.49 UD	
4-Methyl-2-pentanone	ug/m3	200	4 U	1 U	2 U	2 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	2 UD	4.1 UD	0.27 JD	0.34 JD	0.41 UD	0.41 UD	0.41 UD	
Acetone	ug/m3	500	29	460	5600	14000	6900	9200	1700	3200	6000	4500	2000 BD	1800 BD	2200 BD	3400 D	710 D	400 D	440 D	670 BD	9.5 D	8.5 JD	610 D	
Benzene	ug/m3	3.3	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 JD	2.8 D	2 JD	1.1 D	3.7 D	0.32 D	0.47 D	1 D	
Benzyl chloride	ug/m3	NA	5.2 U	1.3 U	52 U	2.6 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	2.6 UD	5.2 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	
Bromodichloromethane	ug/m3	0.46	6.6 U	1.7 U	66 U	3.3 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	3.4 UD	3.4 UD	0.67 UD	0.67 UD	0.67 UD	0.67 UD	0.67 UD	
Bromoform	ug/m3	7.3	11 U	2.6 U	110 U	5.1 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	5.2 UD	10 UD	1 UD	1 UD	1 UD	1 UD	1 UD	
Bromomethane	ug/m3	NA	3.8 U	0.95 U	38 U	1.9 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	1.9 UD	3.9 UD	0.39 UD	0.39 UD	0.39 UD	0.39 UD	0.39 UD	
Carbon disulfide	ug/m3	NA	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 JD	13 JD	11 JD	25 D	49 D	3.1 UD	3.1 UD	19 D	
Carbon tetrachloride	ug/m3	0.54	6.2 U	1.6 U	62 U	3.1 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	1.2 JD	3.1 UD	0.4 JD	0.38 JD	0.63 UD	0.39 JD	0.63 UD	
Chlorobenzene	ug/m3	200	4.6 U	1.2 U	46 U	2.3 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	2.3 UD	4.6 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	
Chloroethane	ug/m3	500	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 D	1.3 UD	2.6 UD	2.9 D	5.3 D	0.26 UD	0.26 UD	1.5 D	
Chloroform	ug/m3	0.5	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	1.1 JD	2.4 UD	0.98 D	1.1 D	0.49 UD	0.49 UD	0.59 D	
Chloromethane	ug/m3	80	2 U	0.5 U	20 U	1 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	1 UD	2.1 UD	0.21 UD	0.21 UD	0.21 D	1.1 D	0.41 UD	
cis-1,2-Dichloroethene	ug/m3	100	410	100	150	270	250	170	58	32	43	31	17 D	27 D	21 D	35 D	11 D	17 D	6.9 D	8.6 D	14 D	0.4 UD	0.4 UD	4.3 D
cis-1,3-Dichloropropene	ug/m3	NA	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.91 UD	0.91 UD	4.5 UD	9.1 UD	2.3 UD	2.3 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	
Cyclohexane	ug/m3	NA	3.4 U	0.85 U	34 U	1.7 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	1.7 UD	3.4 UD	0.34 UD	0.34 UD	0.34 UD	0.34 UD	0.34 UD	
Dibromochloromethane	ug/m3	NA	8.6 U	2.2 U	86 U	4.3 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	4.3 UD	4.3 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	
Dichlorodifluoromethane	ug/m3	500	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	2.8 D	4.9 UD	2.9 D	2.6 D	0.49 D	2.5 D	2.1 D	
Ethanol	ug/m3	NA	33	22	130	30	26	3.8 U	45	28	68	89	23 D	19 D	24 JD	150 JD	12 JD	290 D	14 D	100 D	7.5 D	3.5 JD	13 D	
Ethyl acetate	ug/m3	NA	7.3 U	0.9 U	73 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	3.6 U	0.87 UD	0.87 UD	3.6 UD	7.2 UD	3.6 UD	26 D	4.2 D	30 D	0.36 UD	1.2 D	2.6 D	
Ethylbenzene	ug/m3	290	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 UD	0.87 UD	4.3 UD	8.7 UD	2.2 UD	4.3 UD	0.12 JD	0.69 D	0.43 UD	0.43 UD	0.43 UD	
Hexachlorobutadiene	ug/m3	NA	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	4.2 JD	11 UD	1.1 UD	1.1 UD	1.1 UD	1.1 UD	1.1 UD	
Hexane	ug/m3	NA	3.6 U	2.3	36 U	3.3	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	3.6 U	1.4 UD	0.7 UD	3.5 UD	280 UD	70 UD	9.4 JD	4.3 JD	2 JD	14 JD	2.2 JD	14 UD	
Isopropyl alcohol	ug/m3	NA	5 U	4.6	290	24	57	35	2.5 U	20	54	59	11 D	13 D	25 UD	200 JD	49 UD	13 JD	9.8 UD	11 D	9.8 JD	9.8 UD	9.8 UD	
m,p-Xylene	ug/m3	NA	8.6 U	2.2 U	86 U	4.3 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	4.3 UD	5.4 JD	0.87 UD	1.9 D	0.87 JD	0.87 UD	0.87 UD	
Methyl methacrylate	ug/m3	NA																						
Methylene chloride	ug/m3	17	7 U	12	720	21	15	7 U	25	14 U	8.6	7 U	1.4 UD	2 D	6.9 UD	69 UD	4.2 JD	15 JD	11 D	2.5 JD	3.5 JD	6.9 D	1.1 JD	
Methyl-t-butyl ether	ug/m3	190	3.6 U	0.9 U	36 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	3.6 U	0.72 UD	0.72 UD	3.6 UD	7.2 UD	1.8 UD	3.6 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	
Naphthalene	ug/m3	NA																						
n-Heptane	ug/m3	NA	4 U	1 U	40 U	2 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	2 UD	4.1 UD	0.41 UD	0.52 D	0.41 UD	0.41 UD	0.41 UD	
o-Xylene	ug/m3	NA	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 UD	0.87 UD	4.3 UD	8.7 UD	2.2 UD	4.3 UD	0.14 JD	0.73 D	0.43 UD	0.43 UD	0.43 UD	
Propylene (Propene)	ug/m3	NA	3.5 U	0.45 U	35 U	0.9 U	0.9 U	0.9 U	0.9 U	3.5 U	0.9 U	3.5 U	1.4 UD	1.4 UD	17 UD	140 UD	4.1 JD	15 JD	6.9 UD	3.9 JD	6.9 UD	6.9 UD	6.9 UD	
Styrene	ug/m3	290	4.2 U	1.7	42 U	2.2	2.1 U	2.1 U	2.1 U	4.2 U	2.1 U	4.2 U	0.85 UD	0.85 UD	4.3 UD	8.5 UD	2.1 UD	4.3 UD	0.46 D	0.38 JD	0.43 UD	0.43 UD	0.43 UD	
Tetrachloroethene	ug/m3	5	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 JD	3.5 D	3.4 UD	0.92 D	2.1 D	0.68 UD	0.68 UD	0.71 D	
Tetrahydrofuran	ug/m3	NA	140	2200	42000	6																		

**Appendix D2  
Summary of Analytical Results - Extraction Wells  
Former Gorham Manufacturing Site  
Providence, Rhode Island**

Area:			Extraction Well - Eastern Small Retail Space														Extraction Well - Western Small Retail Space							
Location:			EW-5														EW-7							
Sample ID:			EW-5-090613	EW-5-121313	EW-5-030714	EW-5-061314	EW-5-091214	EW-5-121914	EW-05-032715	EW-5-061115	EW-5-091615	EW-5-121815	EW-5-021816	EW-5-080516	EW-5-021017	EW-5-090717	EW-5-022818	EW-5-091218	EW-7-020309	EW-7-021109	EW-7-021809	EW-7-022609	EW-7-030609	
Sample Date:			9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	
Analyte	Units	CT IACTIND 2003																						
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.39 JD	1.2 UD	1.2 UD	1.2 UD	2.5 UD	1.2 UD	1.2 U	1.2 U	2.5 U		2.5 U		1.2 U	2.5 U	12 UD	2.5 UD						
1,1,1-Trichloroethane	ug/m3	500	180 D	40 D	68 D	54 D	74 D	25 D	14	0.19 J	55	32	15	68	7.4	42	17 D	49 D	5600	8500	7800	8200	8100	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.32 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 U	0.69 U	3.4 U	1.4 U	1.4 U	6.9 U	0.69 U	1.4 U	6.9 UD	1.4 UD	6.8 U	1.4 U	1.7 U	1.7 U	1.7 U	
1,1,2-Trichloroethane	ug/m3	12	0.26 UD	0.55 UD	0.55 UD	0.55 UD	1.1 UD	0.55 UD	0.55 U	0.55 U	2.7 U	1.1 U	1.1 U	5.5 U	0.55 U	1.1 U	5.5 UD	1.1 UD	5.4 U	1.1 U	1.4 U	1.4 U	1.4 U	
1,1-Dichloroethane	ug/m3	430	20 D	4.8 D	7 D	7.4 D	9.3 D	4.2 D	2.9	0.4 U	6.9	4.4	2.8	7.5	1.8	6.2	2.3 JD	5.9 D	1700	1800	1600	2100	1700	
1,1-Dichloroethene	ug/m3	20	4.7 D	1.5 D	1.8 D	2.4 D	2.4 D	1 D	0.9	0.4 U	2.1	1.5 J	1.1	0.84	4 U	0.4	1.3	4 UD	0.84	14	15	8.5	9.4	6.6
1,2,4-Trichlorobenzene	ug/m3	NA	0.35 UD	0.74 UD	0.74 UD	0.74 UD	1.5 UD	0.74 UD	0.74 U	0.74 U	3.7 U	1.5 U	1.5 U	7.4 U	0.74 U	1.5 U	7.4 UD	1.5 UD	7.4 U	1.5 U	1.9 U	1.9 U	1.9 U	
1,2,4-Trimethylbenzene	ug/m3	52	0.37 D	0.49 UD	0.49 UD	0.49 UD	0.98 UD	0.49 UD	0.16 J	0.22 J	2.5 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	4.9 UD	0.98 UD	5 U	1 U	1.3 U	1.3 U	1.3 U	
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.36 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	0.77 U	0.77 U	3.8 U	1.5 U	1.5 U	7.7 U	0.77 U	1.5 U	7.7 UD	1.5 UD	7.6 U	1.6 U	1.9 U	1.9 U	1.9 U	
1,2-Dichlorobenzene	ug/m3	410	0.28 UD	0.6 UD	0.6 UD	0.6 UD	1.2 UD	0.6 UD	0.6 U	0.6 U	3 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	6 UD	1.2 UD	6 U	1.2 U	1.5 U	1.5 U	1.5 U	
1,2-Dichloroethane	ug/m3	0.31	0.19 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 U	0.4 U	2 U	0.81 U	0.81 U	4 U	0.4 U	0.81 U	4 UD	0.81 UD	4 U	0.8 U	1 U	1 U	1 U	
1,2-Dichloropropane	ug/m3	0.42	0.22 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 U	0.46 U	2.3 U	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	4.6 UD	0.92 UD	4.6 U	0.92 U	1.2 U	1.2 U	1.2 U	
1,2-Dichlorotetrafluoroethane	ug/m3	NA										1.4 U							7 U	1.4 U	1.8 U	1.8 U	1.8 U	
1,3,5-Trimethylbenzene	ug/m3	52	0.23 UD	0.49 UD	0.49 UD	0.49 UD	0.98 UD	0.49 UD	0.49 U	0.11 J	2.5 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	4.9 UD	0.98 UD	5 U	1 U	1.3 U	1.3 U	1.3 U	
1,3-Butadiene	ug/m3	NA	0.1 UD	0.22 UD	0.22 UD	0.22 UD	0.44 UD	0.22 UD	0.22 U	0.22 U	1.1 U	0.44 U	0.44 U	2.2 U	0.22 U	0.44 U	2.2 UD	0.42 JD	2.2 U	0.44 U	0.55 U	0.55 U	0.55 U	
1,3-Dichlorobenzene	ug/m3	410	0.28 UD	0.6 UD	0.6 UD	0.6 UD	1.2 UD	0.6 UD	0.6 U	0.6 U	3 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	6 UD	1.2 UD	6 U	1.2 U	1.5 U	1.5 U	1.5 U	
1,4-Dichlorobenzene	ug/m3	24	0.28 UD	0.6 UD	0.6 UD	0.6 UD	1.2 UD	0.6 UD	0.6 U	0.6 U	3 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	6 UD	1.2 UD	6 U	1.2 U	1.5 U	1.5 U	1.5 U	
1,4-Dioxane	ug/m3	NA										7.2 U												
2-Butanone	ug/m3	500	31000 D	680 D	1200 D	2100 D	3800 D	260 D	91	9.1 J	1700 E	410	130	4800	29	4500	750 D	5500 D	8.7	12	7.3	8.5	5.5	
2-Hexanone	ug/m3	NA	0.49 D	0.41 UD	0.53 D	0.41 UD	0.82 UD	0.41 UD	0.16 J	0.34 J	2 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	4.1 UD	0.82 UD	4 U	0.8 U	1 U	1 U	1 U	
4-Ethyltoluene	ug/m3	NA	0.23 UD	0.49 UD	0.49 UD	0.49 UD	0.98 UD	0.49 UD	0.49 U	0.49 U	2.5 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	4.9 UD	0.98 UD	5 U	1 U	1.3 U	1.3 U	1.3 U	
4-Methyl-2-pentanone	ug/m3	200	0.56 D	0.41 UD	0.41 UD	0.46 D	0.82 UD	0.41 UD	0.41 U	0.41 U	2 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	4.1 UD	0.82 UD	4 U	0.8 U	1 U	1 U	1 U	
Acetone	ug/m3	500	6800 D	210 D	380 D	610 D	500 D	98 D	49	21	550	120	58	570	11	700	320 D	710 D	580	38	58	30	24	
Benzene	ug/m3	3.3	7.1 D	2.4 D	3.8 D	3 D	2.7 D	3.4 D	3.1	0.35	2.9	5	2.8	4	0.38	2.7	2 JD	3.1 D	3.2 U	3.9	4.5	1.9	2.3	
Benzyl chloride	ug/m3	NA	0.24 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 U	0.52 U	2.6 U	1 U	1 U	5.2 U	0.52 U	1 U	5.2 UD	1 UD	5.2 U	1.1 U	1.3 U	1.3 U	1.3 U	
Bromodichloromethane	ug/m3	0.46	0.31 UD	0.67 UD	0.67 UD	0.67 UD	0.67 UD	0.67 UD	0.67 U	0.67 U	3.4 U	1.3 U	1.3 U	6.7 U	0.67 U	1.3 U	6.7 UD	1.2 JD	6.6 U	1.4 U	1.7 U	1.7 U	1.7 U	
Bromoform	ug/m3	7.3	0.48 UD	1 UD	1 UD	1 UD	2.1 UD	1 UD	1 U	1 U	5.2 U	2.1 U	2.1 U	10 U	1 U	2.1 U	10 UD	2.1 UD	11 U	2.1 U	2.6 U	2.6 U	2.6 U	
Bromomethane	ug/m3	NA	0.18 UD	0.39 UD	0.39 UD	0.39 UD	0.78 UD	0.39 UD	0.39 U	0.39 U	1.9 U	0.78 U	0.78 U	3.9 U	0.39 U	0.78 U	3.9 UD	0.78 UD	3.8 U	0.76 U	0.95 U	0.95 U	0.95 U	
Carbon disulfide	ug/m3	NA	77 D	8.9 D	26 D	35 D	46 D	13 D	7.4	0.98 J	56	19	6.1 J	100	1.2 J	120	62 D	200 D	5.7	3.4	2.7	3.7	3.3	
Carbon tetrachloride	ug/m3	0.54	0.47 D	0.63 UD	0.63 UD	0.63 UD	0.63 UD	0.33 JD	0.31 J	0.33 J	3.1 U	1.3 U	1.3 U	6.3 U	0.63 U	1.3 U	6.3 UD	0.45 JD	6.2 U	1.3 U	1.6 U	1.6 U	1.6 U	
Chlorobenzene	ug/m3	200	0.22 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 U	0.46 U	2.3 U	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	4.6 UD	0.92 UD	4.6 U	0.92 U	1.2 U	1.2 U	1.2 U	
Chloroethane	ug/m3	500	4 D	0.86 D	1.9 D	1.9 D	1.6 D	0.95 D	0.26 U	0.26 U	1.3 U	0.53 U	0.53 U	2.6 U	0.26 U	1.3 U	2.6 UD	1.2 D	170	150	88	41	33	
Chloroform	ug/m3	0.5	1.6 D	0.49 UD	0.59 D	0.76 D	0.82 D	0.53 D	0.18 J	0.17 J	0.63 J	0.98 U	0.98 U	4.9 U	0.49 U	1	4.9 UD	0.84 JD	4.8 U	1	1.2 U	1.3	1.2 U	
Chloromethane	ug/m3	80	0.19 UD	0.41 UD	0.41 UD	0.41 UD	61 D	0.41 UD	0.41 U	0.41 U	2.1 U	83	0.83 U	4.1 U	0.41 U	76	4.1 UD	0.83 UD	2 U	0.4 U	0.5 U	0.5 U	0.5 U	
cis-1,2-Dichloroethene	ug/m3	100	1.9 D	1.9 D	4.1 D	4.3 D	5 D	1.4 D	0.78	0.4 U	4	1.3	0.79 U	0.78	4 U	0.4 U	2.8	4 UD	2.3 D	1100	1300	1200	1700	1200
cis-1,3-Dichloropropene	ug/m3	NA	0.21 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 U	0.45 U	2.3 U	0.91 U	0.91 U	4.5 U	0.45 U	0.91 U	4.5 UD	0.91 UD	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	
Cyclohexane	ug/m3	NA	0.16 UD	0.34 UD	0.34 UD	0.34 UD	0.69 UD	0.34 UD	0.34 U	0.34 U	1.7 U	0.69 U	0.69 U	3.4 U	0.34 U	0.69 U	3.4 UD	0.69 UD	3.4 U	5.6	5	3.7	2.1	
Dibromochloromethane	ug/m3	NA	0.4 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	0.85 U	0.85 U	4.3 U	1.7 U	1.7 U	8.5 U	0.85 U	1.7 U	8.5 UD	1.7 UD	8.6 U	1.8 U	2.2 U	2.2 U	2.2 U	
Dichlorodifluoromethane	ug/m3	500	1.7 D	2.5 D	2.1 D	2 D	2.3 D	2.5 D	2	3.3	2.2 J	3.1	2.4	4.9 U	1.5	2.2	4.9 UD	2.1 D	5 U	2.5	3.2	770	2.6	
Ethanol	ug/m3	NA	3.5 UD	39 D	43 D	32 D	15 D	33 D	31	15	17 J	21	28	75 U	6.7 J	13 J	35 JD	11 JD	350	26	29	17	15	
Ethyl acetate	ug/m3	NA	0.17 UD	5.5 D	4.8 D	3.4 D	3.6 D	3.6 D	2.6	0.36 U	1.8 U	2.8	0.72 U	3.6 U	2.5	5.2	3.6 UD	2.6 D	7.3 U	0.72 U	0.9 U	1.9 U	0.9 U	
Ethylbenzene	ug/m3	290	0.41 D	0.43 UD	0.43 UD	0.43 UD	0.87 UD	0.43 UD	0.16 J	0.15 J	2.2 U	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	4.3 UD	0.87 UD	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	
Hexachlorobutadiene	ug/m3	NA	0.5 UD	1.1 UD	1.1 UD	1.1 UD	2.1 UD	1.1 UD	1.1 U	1.1 U	5.3 U	2.1 U	2.1 U	11 U	1.1 U	2.1 U	11 UD	2.1 UD	22 U	4.3 U	5.4 U	5.4 U	5.4 U	
Hexane	ug/m3	NA	6.6 UD	14 UD	14 UD	14 UD	28 UD	14 UD	7.4 J	1.4 J	70 U	28 U	28 U	140 U	1.4 J	28 U	140 UD	28 UD	10	10	7.6	5.5	3.1	
Isopropyl alcohol	ug/m3	NA	4.6 UD	2.9 JD	6 JD	11 D	8.4 JD	2 JD	9.8 J	9.8 J	49 U	3 J	20 U	6.2 JD	2 J	20 U	5.1 JD	6.2 JD	210	18	21	12	8.5	
m,p-Xylene	ug/m3	NA	1.2 D	0.87 UD	0.56 JD	0.81 JD	1.7 UD	0.24 JD	0.39 J	0.54 J	4.3 U	1.3 J	1.7 U	8.7 U	0.87 U	1.7 U	8.7 UD	1.7 UD	8.6 U	1.8 U	2.2 U	2.2 U	2.2 U	
Methyl methacrylate	ug/m3	NA	0.19 UD	0.41 UD	0.41 UD	0.41 UD	0.82 UD	0.41 UD	0.41 U	0.41 U	2 U		0.82 U	0.41 U	0.82 U	4.1 UD	0.82 UD							
Methylene chloride	ug/m3	17	3.4 D	1.1 JD	0.79 JD	0.99 JD	1.6 JD	3.5 UD	0.44 J	1.9 J	17 U	6.9 U	35 UD	35 U	1.3 J	6.9 U	35 UD	6.9 UD	9.3	2.6	8	1.8	1.8 U	
Methyl-t-butyl ether	ug/m3	190	0.17 UD	0.36 UD	0.36 UD	0.36 UD	0.72 UD	0.36 UD	0.36 U	0.36 U	1.8 U	0.72 U	0.72 U	3.6 U	0.36 U	0.72 U	3.6 UD	0.72 UD	3.6 U	3.5	2.9	4.9	3.1	
Naphthalene	ug/m3	NA										1 U												
n-Heptane	ug/m3	NA	0.19 UD	0.41 UD	0.41 UD	0.41 UD	0.82 UD	0.41 UD	0.41 U	0.41 U	2 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	4.1 UD	0.82 UD	4 U	1.4	1 U	1 U	1 U	
o-Xylene	ug/m3	NA	0.5 D	0.43 UD	0.43 UD	0.43 UD	0.87 UD	0.43 UD	0.15 J	0.25 J	2.2 U	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	4.3 UD	0.87 UD	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	
Propylene (Propene)	ug/m3	NA	2.3 JD	6.9 UD	6.9 UD	6.9 UD	14 UD	6.9 UD	6.9 U	6.9 U	34 U	14 U	14 U	69 U	6.9 U	14 U	4.3 JD	14 UD	3.5 U	160	110	0.87 U	0.45 U	
Styrene	ug/m3																							

**Appendix D2**  
**Summary of Analytical Results - Extraction Wells**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

Area:			Extraction Well - Western Small Retail Space																					
Location:			EW-7																					
Sample ID:			EW-7-041409	EW-7-051509	EW-7-061109	EW-7-091709	EW-7-122909	EW-7-032610	EW-7-070110	EW-7-091610	EW-7-120710	EW-7-021711	EW-7-060211	EW-7-091511	EW-7-120811	EW-7-030812	EW-7-061412	EW-7-091312	EW-7-010313	EW-7-031513	EW-7-060713	EW-7-090613	EW-7-100313	
Sample Date:			4/14/2009	5/15/2009	6/11/2009	9/17/2009	12/29/2009	3/26/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	10/3/2013	
Analyte	Units	CT IACTIND 2003																						
1,1,1,2-Tetrachloroethane	ug/m3	1.1																						
1,1,1-Trichloroethane	ug/m3	500	1600	3600	2600	1400	340	51	250	290	160 D	110 D	5.5 UD	110 D	66 D	11 D	47 D	95 D	0.55 UD	3.1 D	15 D	76 D	52 D	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	6.8 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	0.68 U	0.68 U	0.68 U	0.69 UD	0.69 UD	6.9 UD	1.4 UD	0.69 UD	3.4 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD
1,1,2-Trichloroethane	ug/m3	12	5.4 U	2.7 U	2.7 U	2.7 U	2.7 U	0.54 U	0.54 U	0.54 U	0.55 UD	0.55 UD	5.5 UD	1.1 UD	0.55 UD	2.7 UD	0.55 UD	0.55 UD	0.55 UD	0.55 UD	0.55 UD	0.55 UD	0.55 UD	
1,1-Dichloroethane	ug/m3	430	590	1000	1100	970	470	85	320	340	220 D	150 D	45 D	150 D	80 D	6.4 D	42 D	100 D	0.4 UD	2 D	7 D	51 D	25 D	
1,1-Dichloroethene	ug/m3	20	4 U	4.2	4.2	4.5	2 U	0.4 U	0.81	0.94	0.63 D	0.4 UD	4 UD	0.79 JD	0.13 JD	2 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	
1,2,4-Trichlorobenzene	ug/m3	NA	7.4 U	3.7 U	3.7 U	3.7 U	7.5 U	1.5 U	0.74 U	0.74 U	0.74 UD	0.74 UD	7.4 UD	3 UD	1.5 UD	15 UD	1.5 UD	1.5 UD	1.5 UD	1.5 UD	1.5 UD	0.74 UD	0.26 UD	
1,2,4-Trimethylbenzene	ug/m3	52	7 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5	0.5 U	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.98 JD	0.32 JD	4.9 UD	0.32 JD	0.97 D	0.49 D	0.3 JD	0.49 UD	0.5 D	0.77 D	
1,2-Dibromoethane (EDB)	ug/m3	0.038	5.6 U	3.8 U	3.8 U	3.8 U	3.8 U	0.77 U	0.76 U	0.76 U	0.77 UD	0.77 UD	7.7 UD	1.5 UD	0.77 UD	3.8 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	
1,2-Dichlorobenzene	ug/m3	410	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 UD	0.6 UD	6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	
1,2-Dichloroethane	ug/m3	0.31	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	0.4 UD	2 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	
1,2-Dichloropropane	ug/m3	0.42	4.6 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 UD	0.46 UD	4.6 UD	0.92 UD	0.46 UD	2.3 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	7 U	3.5 U	3.5 U	3.5 U	3.5 U	0.7 U	0.7 U	0.7 U														
1,3,5-Trimethylbenzene	ug/m3	52	5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.1	0.5 U	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.98 UD	0.49 UD	4.9 UD	0.49 UD	0.5 D	0.49 UD	0.49 UD	0.49 UD	0.49 UD	0.24 D	
1,3-Butadiene	ug/m3	NA	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	0.22 UD	2.2 UD	0.22 UD	0.22 UD	0.22 UD	0.22 UD	0.22 UD	0.22 UD	0.078 UD	
1,3-Dichlorobenzene	ug/m3	410	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 UD	0.6 UD	6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	
1,4-Dichlorobenzene	ug/m3	24	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 UD	0.6 UD	6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	
1,4-Dioxane	ug/m3	NA											0.72 UD											
2-Butanone	ug/m3	500	4.5	7.1	16	4.9	3.5	31	3.8	1.8	4.1 D	5.3 BD	59 UD	24 JD	6.2 JD	100 JD	14 D	3.6 JD	12 D	210 D	99 D	12 D	8.5 JD	
2-Hexanone	ug/m3	NA	4 U	2 U	2 U	2 U	2 U	0.4 U	1	0.4 U	0.41 UD	0.41 UD	82 UD	0.82 JD	0.14 JD	4.1 UD	0.28 JD	0.64 D	0.41 UD	0.39 JD	0.41 UD	0.51 D	0.41 UD	
4-Ethyltoluene	ug/m3	NA	5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.49 UD	0.49 UD	4.9 UD	0.98 UD	0.49 UD	4.9 UD	0.49 UD	0.21 JD	0.49 UD	0.49 UD	0.49 UD	0.17 UD	0.27 JD	
4-Methyl-2-pentanone	ug/m3	200	4 U	2 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	0.13 JD	4.1 UD	1.6 D	0.31 JD	0.41 D	0.41 UD	0.41 UD	0.14 UD	0.41 UD	
Acetone	ug/m3	500	15	24	24	7.9	49	26	25	12	42 BD	35 BD	48 UD	23 D	12 D	46 JD	31 D	17 BD	9.5 D	55 D	28 D	24 D	35 D	
Benzene	ug/m3	3.3	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 D	1.6 D	3.2 UD	1.5 D	1.2 D	0.32 D	0.54 D	0.61 D	1.9 D	1.9 D	
Benzyl chloride	ug/m3	NA	5.2 U	2.6 U	2.6 U	2.6 U	2.6 U	0.52 U	0.52 U	0.52 U	0.52 UD	0.52 UD	5.2 UD	1 UD	0.52 UD	5.2 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	
Bromodichloromethane	ug/m3	0.46	6.6 U	3.3 U	3.3 U	3.3 U	3.3 U	0.66 U	0.66 U	0.66 U	0.67 UD	0.67 UD	6.7 UD	1.3 UD	0.67 UD	3.4 UD	3.2 D	0.67 UD	0.67 UD	0.67 UD	0.67 UD	0.67 UD	0.67 UD	
Bromofrom	ug/m3	7.3	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 UD	1 UD	10 UD	1 UD	1 UD	1 UD	1 UD	1 UD	1 UD	0.36 UD	
Bromomethane	ug/m3	NA	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	0.38 U	0.38 U	0.38 U	0.39 UD	0.39 UD	3.9 UD	0.78 UD	0.39 UD	3.9 UD	0.39 UD	0.39 UD	0.39 UD	0.39 UD	0.39 UD	0.39 UD	0.39 UD	
Carbon disulfide	ug/m3	NA	3.2	2.7	2.7	2.1	1.6 U	1.5	0.93	0.9	0.78 D	0.31 UD	3.1 UD	6.2 JD	3.1 UD	31 UD	0.41 JD	3.1 UD	3.1 UD	0.57 JD	7.4 D	0.42 JD	3.1 UD	
Carbon tetrachloride	ug/m3	0.54	6.2 U	3.1 U	3.1 U	3.1 U	3.1 U	0.62 U	0.62 U	0.62 U	0.63 UD	0.63 UD	6.3 UD	1.3 UD	0.34 JD	3.1 UD	0.3 JD	0.33 JD	0.63 D	0.47 JD	0.63 UD	0.38 D	0.4 JD	
Chlorobenzene	ug/m3	200	4.6 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 UD	0.46 UD	4.6 UD	0.92 UD	0.46 UD	4.6 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	
Chloroethane	ug/m3	500	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 D	0.26 UD	2.6 UD	0.82 D	0.26 UD	0.26 UD	0.26 UD	0.26 UD	0.92 D	0.093 UD	
Chloroform	ug/m3	0.5	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 D	3.8 D	2.4 UD	3.1 D	4.1 D	0.49 UD	0.36 JD	2 D	6.6 D	2.7 D	
Chloromethane	ug/m3	80	2 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.21 UD	0.21 UD	2.1 UD	0.41 UD	0.21 UD	2.1 UD	0.21 UD	0.21 UD	0.21 D	0.21 UD	0.41 UD	0.14 UD	0.41 UD	
cis-1,2-Dichloroethene	ug/m3	100	520	1100	1200	1300	680	120	660	490	350 D	250 D	65 D	210 D	99 D	5.1 D	53 D	120 D	0.4 UD	1.4 D	5.1 D	54 D	24 D	
cis-1,3-Dichloropropene	ug/m3	NA	4.4 U	2.2 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	0.45 UD	2.3 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	
Cyclohexane	ug/m3	NA	3.4 U	1.7 U	1.7 U	1.7 U	1.7 U	0.34 U	0.34 U	0.34 U	0.41	0.34 UD	0.34 UD	3.4 UD	0.69 JD	0.34 UD	3.4 UD	0.34 UD	0.34 UD	0.34 UD	0.34 UD	0.12 UD	0.34 UD	
Dibromochloromethane	ug/m3	NA	8.6 U	4.3 U	4.3 U	4.3 U	4.3 U	0.86 U	0.86 U	0.86 U	0.85 UD	0.85 UD	8.5 UD	1.7 UD	0.85 UD	4.3 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	
Dichlorodifluoromethane	ug/m3	500	5 U	2.9	3.3	2.5 U	2.5 U	1.5	2.2	3.5	2.1 D	0.49 UD	4.9 UD	2.7 D	2.6 D	4.9 UD	3 D	0.49 UD	0.49 D	2.5 D	2 D	1.5 D	0.49 UD	
Ethanol	ug/m3	NA	3.8 U	19	18	12	18	37	31	1.9 U	1.9 UD	18 D	38 UD	22 D	23 D	160 D	31 D	140 D	75 D	27 D	22 D	14 D	30 D	
Ethyl acetate	ug/m3	NA	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	0.36 UD	11 D	0.63 D	0.36 UD	0.36 UD	3 D	3.6 D	0.13 UD	0.36 UD	
Ethylbenzene	ug/m3	290	4.4 U	2.2 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 JD	0.26 JD	4.3 UD	0.21 JD	0.47 D	0.43 D	0.13 JD	0.43 UD	0.44 D	0.56 D	
Hexachlorobutadiene	ug/m3	NA	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 UD	1.1 UD	11 UD	1.1 UD	1.1 UD	1.1 UD	1.1 UD	1.1 UD	1.1 UD	0.37 UD	
Hexane	ug/m3	NA	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 UD	14 UD	4 JD	0.55 JD	14 UD	14 JD	3.5 JD	0.78 JD	0.9 JD	0.9 JD	
Isopropyl alcohol	ug/m3	NA	5 U	12	17	2.5 U	2.5 U	80	2.2	17	2.6	2.8 D	0.25 UD	25 UD	30 D	9.8 UD	98 UD	14 D	9.8 UD	9.8 UD	9.8 UD	3.4 UD	17 D	
m,p-Xylene	ug/m3	NA	8.6 U	4.3 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 JD	0.82 JD	8.7 UD	0.45 JD	1.3 D	0.87 D	0.33 JD	0.5 JD	1 D	1.5 D	
Methyl methacrylate	ug/m3	NA											0.41 UD	4.1 UD	0.82 UD	0.41 UD	4.1 UD	0.41 UD	0.41 UD	0.41 UD	0.41 UD	0.14 UD	0.41 UD	
Methylene chloride	ug/m3	17	20	29	16	7 U	27	1.4 U	2.4	0.81	1.9 D	2.4 D	6.9 UD	6.9 JD	1.5 JD	33 JD	2.1 JD	5.4 BD	3.5 D	10 D	1.5 JD	1.7 D	1.7 JD	
Methyl-t-butyl ether	ug/m3	190	3.6 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 JD	0.36 UD	3.6 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	
Naphthalene	ug/m3	NA																						
n-Heptane	ug/m3	NA	4 U	2 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 JD	0.22 JD	4.1 UD	0.49 D	0.75 D	0.41 UD	0.41 UD	0.41 UD	0.59 D	1.1 D	
o-Xylene	ug/m3	NA	4.4 U	2.2 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 JD	0.38 JD	4.3 UD	0.18 JD	0.52 D	0.43 D	0.15 JD	0.43 UD	0.4 D	0.73 D	
Propylene (Propene)	ug/m3	NA	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 UD	6.9 UD	13 JD	6.9 UD	6.9 UD	6.9 UD	6.9 UD	6.9 UD	2.4 UD	6.9 UD	
Styrene	ug/m3	290	4.2 U	2.1 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 JD	0.49 D	4.3 UD	0.66 D							

**Appendix D2  
Summary of Analytical Results - Extraction Wells  
Former Gorham Manufacturing Site  
Providence, Rhode Island**

Area:			Extraction Well - Western Small Retail Space														
Location:			EW-7														
Sample ID:			EW-7-121313	EW-7-030714	EW-7-061314	EW-7-091214	EW-7-121914	EW-07-032715	EW-7-061115	EW-7-091615	EW-7-121815	EW-7-021816	EW-7-080516	EW-7-021017	EW-7-090717	EW-7-022818	EW-7-091218
Sample Date:			12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018
Analyte	Units	CT IACTIND 2003															
1,1,1,2-Tetrachloroethane	ug/m3	1.1	1.2 UD	1.2 UD	1.2 UD	2.5 UD	1.2 UD	1.2 U	1.2 U	2.5 U		2.5 U		1.2 U	2.5 U	2.5 UD	2.5 UD
1,1,1-Trichloroethane	ug/m3	500	41 D	30 D	15 D	52 D	6.1 D	25	14	63		1.1 U		30	1.2	20 D	7.9 D
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 U	0.69 U	1.4 U	1.4 U	1.4 U	6.9 U	0.69 U	1.4 U	1.4 UD	1.4 UD
1,1,2-Trichloroethane	ug/m3	12	0.55 UD	0.55 UD	0.55 UD	1.1 UD	0.55 UD	0.55 U	0.55 U	1.1 U	1.1 U	1.1 U	5.5 U	0.55 U	1.1 U	1.1 UD	1.1 UD
1,1-Dichloroethane	ug/m3	430	12 D	6.9 D	5.4 D	20 D	1.8 D	4.9	3.7	16		0.81 U		30	6.3	0.81 U	2.2 D
1,1-Dichloroethene	ug/m3	20	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 U	0.4 U	0.79 U	0.79 U	0.79 U	4 U	0.4 U	0.79 U	0.79 UD	0.79 UD
1,2,4-Trichlorobenzene	ug/m3	NA	0.74 UD	0.74 UD	0.74 UD	1.5 UD	0.74 UD	0.74 U	0.74 U	1.5 U	1.5 U	1.5 U	7.4 U	0.74 U	1.5 U	1.5 UD	1.5 UD
1,2,4-Trimethylbenzene	ug/m3	52	0.58 D	0.49 UD	0.49 UD	0.98 UD	0.49 UD	1.4	0.44 J	0.98 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 UD	0.98 UD
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.77 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	0.77 U	0.77 U	1.5 U	1.5 U	1.5 U	7.7 U	0.77 U	1.5 U	1.5 UD	1.5 UD
1,2-Dichlorobenzene	ug/m3	410	0.6 UD	0.6 UD	0.6 UD	1.2 UD	0.6 UD	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 UD	1.2 UD
1,2-Dichloroethane	ug/m3	0.31	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 U	0.16 J	0.81 U	0.81 U	0.81 U	4 U	0.4 U	0.81 U	0.81 UD	0.81 UD
1,2-Dichloropropane	ug/m3	0.42	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 U	0.46 U	0.92 U	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	0.92 UD	0.92 UD
1,2-Dichlorotetrafluoroethane	ug/m3	NA								1.4 U			7 U				
1,3,5-Trimethylbenzene	ug/m3	52	0.49 UD	0.49 UD	0.49 UD	0.98 UD	0.49 UD	0.69	0.23 J	0.98 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 UD	0.98 UD
1,3-Butadiene	ug/m3	NA	0.22 UD	0.22 UD	0.22 UD	0.44 UD	0.22 UD	0.22 U	0.22 U	0.44 U	0.44 U	0.44 U	2.2 U	0.22 U	0.44 U	0.44 UD	0.42 JD
1,3-Dichlorobenzene	ug/m3	410	0.6 UD	0.6 UD	0.6 UD	1.2 UD	0.6 UD	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 UD	1.2 UD
1,4-Dichlorobenzene	ug/m3	24	0.6 UD	0.6 UD	0.6 UD	1.2 UD	0.6 UD	0.6 U	0.17 J	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 UD	1.2 UD
1,4-Dioxane	ug/m3	NA								7.2 U			36 U				
2-Butanone	ug/m3	500	5.9 JD	3.8 JD	9.3 JD	7.2 JD	35 D	9.7 J	8.3 J	5 J	4.6 J	67	35 J	6 J	180	17 JD	21 JD
2-Hexanone	ug/m3	NA	0.41 UD	0.41 UD	0.49 D	0.82 UD	0.41 UD	1	0.38 J	0.82 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 UD	0.82 UD
4-Ethyltoluene	ug/m3	NA	0.49 UD	0.49 UD	0.49 UD	0.98 UD	0.49 UD	0.33 J	0.12 J	0.98 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 UD	0.98 UD
4-Methyl-2-pentanone	ug/m3	200	0.41 UD	0.41 UD	0.41 UD	0.82 UD	0.41 UD	0.46	0.41 U	0.82 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 UD	0.82 UD
Acetone	ug/m3	500	14 D	6.9 JD	19 D	18 JD	9.4 JD	13	7.4 J	8.2 J	19 U	29	81 J	25	51	10 JD	23 D
Benzene	ug/m3	3.3	0.86 D	1.3 D	1.1 D	0.59 JD	0.49 D	2.1	2.3	2.3	1.3	1.2	3.2 U	0.44	0.42 J	0.74 D	1.6 D
Benzyl chloride	ug/m3	NA	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 U	0.52 U	1 U	1 U	1 U	5.2 U	0.52 U	1 U	1 UD	1 UD
Bromodichloromethane	ug/m3	0.46	0.67 UD	0.67 UD	0.67 UD	0.67 UD	0.67 UD	0.67 U	0.67 U	1.3 U	3.9	1.3 U	6.7 U	0.67 U	1.3 U	1.3 UD	1 JD
Bromoform	ug/m3	7.3	1 UD	1 UD	1 UD	2.1 UD	1 UD	1 U	1 U	2.1 U	2.1 U	2.1 U	10 U	1 U	2.1 U	2.1 UD	2.1 UD
Bromomethane	ug/m3	NA	0.39 UD	0.39 UD	0.39 UD	0.78 UD	0.39 UD	0.39 U	0.39 U	0.78 U	0.78 U	0.78 U	3.9 U	0.39 U	0.78 U	0.78 UD	0.78 UD
Carbon disulfide	ug/m3	NA	4.6 D	7.4 D	12 D	6.2 UD	3.7 D	10	16	6.2 U	6.2 U	6.2 U	31 U	3.1 U	1.9 J	17 D	47 D
Carbon tetrachloride	ug/m3	0.54	0.63 UD	0.63 UD	0.63 UD	0.63 UD	0.36 JD	0.21 J	0.33 J	0.38 J	1.3 U	1.3 U	6.3 U	0.63 U	1.3 U	1.3 UD	0.48 JD
Chlorobenzene	ug/m3	200	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 U	0.46 U	0.92 U	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	0.92 UD	0.92 UD
Chloroethane	ug/m3	500	0.63 D	1.6 D	1.4 D	0.53 UD	0.26 UD	0.97	1.3	0.45 J	0.53 U	0.53 U	2.6 U	0.26 U	1.1 U	0.53 UD	0.53 UD
Chloroform	ug/m3	0.5	2.6 D	2 D	2.4 D	3.8 D	0.91 D	2.1	2.6	4.1	2.8	0.98 U	9.3	2.2	0.98 U	1.5 D	1.4 D
Chloromethane	ug/m3	80	0.41 UD	0.41 UD	0.41 UD	0.83 UD	0.41 UD	0.41 U	0.41 U	0.83 U	0.83 U	0.83 U	4.1 U	0.41 U	0.83 U	0.83 UD	0.83 UD
cis-1,2-Dichloroethene	ug/m3	100	6 D	5 D	4.7 D	18 D	0.99 D	3.1	2.5	9.1	18.7	0.79 U	19	2.7	0.79 U	1.3 D	1.1 D
cis-1,3-Dichloropropene	ug/m3	NA	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 U	0.45 U	0.91 U	0.91 U	0.91 U	4.5 U	0.45 U	0.91 U	0.91 UD	0.91 UD
Cyclohexane	ug/m3	NA	0.34 UD	0.34 UD	0.34 UD	0.69 UD	0.34 UD	0.34 U	0.34 U	0.69 U	0.69 U	0.69 U	3.4 U	0.34 U	0.69 U	0.69 UD	0.69 UD
Dibromochloromethane	ug/m3	NA	0.85 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	0.85 U	0.85 U	1.7 U	1.7 U	1.7 U	8.5 U	0.85 U	1.7 U	1.7 UD	1.7 UD
Dichlorodifluoromethane	ug/m3	500	2.4 D	2 D	1.9 D	2.5 D	2.6 D	1.5	2.3	2.9	3.2	2	6.9	1.1	2.2	0.99 UD	2.2 D
Ethanol	ug/m3	NA	12 D	13 D	32 D	18 D	11 D	7.5 U	42	93	14 J	18	49 J	13	65	8.6 JD	19 D
Ethyl acetate	ug/m3	NA	0.94 D	0.36 UD	0.36 UD	0.72 UD	1.7 D	29	0.36 U	0.72 U	0.72 U	0.72 U	3.6 U	0.36 U	0.74 J	0.72 UD	0.63 JD
Ethylbenzene	ug/m3	290	0.43 UD	0.43 UD	0.43 UD	0.87 UD	0.43 UD	1.2	0.23 J	0.87 U	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	0.87 UD	0.87 UD
Hexachlorobutadiene	ug/m3	NA	1.1 UD	1.1 UD	1.1 UD	2.1 UD	1.1 UD	1.1 U	1.1 U	2.1 U	2.1 U	2.1 U	11 U	1.1 U	2.1 U	2.1 UD	2.1 UD
Hexane	ug/m3	NA	14 UD	14 UD	14 UD	28 UD	14 UD	8.1 J	14 U	28 U	28 U	28 U	140 U	14 U	28 U	28 UD	28 UD
Isopropyl alcohol	ug/m3	NA	13 D	9.8 UD	1.8 JD	20 UD	4.8 JD	12	6.6 J	22	20 U	6.4 J	98 U	5.1 J	11 J	3.9 JD	47 D
m,p-Xylene	ug/m3	NA	0.87 UD	0.49 JD	0.9 D	1.7 UD	0.26 JD	0.68 J	0.5 J	1.7 U	1.7 U	1.7 U	8.7 U	0.87 U	1.7 U	1.7 UD	1.7 UD
Methyl methacrylate	ug/m3	NA	0.41 UD	0.41 UD	0.41 UD	0.82 UD	0.41 UD	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 UD	0.82 UD
Methylene chloride	ug/m3	17	1.1 JD	0.82 JD	0.85 JD	1.3 JD	3.5 UD	0.49 J	3.5 U	6.9 U	6.9 U	1.4 J	35 U	1.3 J	6.9 U	6.9 UD	6.9 UD
Methyl-t-butyl ether	ug/m3	190	0.36 UD	0.36 UD	0.36 UD	0.72 UD	0.36 UD	0.36 U	0.36 U	0.72 U	0.72 U	0.72 U	3.6 U	0.36 U	0.72 U	0.72 UD	0.72 UD
Naphthalene	ug/m3	NA								1 U			7.1				
n-Heptane	ug/m3	NA	0.41 UD	0.44 D	2.2 D	0.57 JD	4.4 D	0.43	0.15 J	0.82 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 UD	0.82 UD
o-Xylene	ug/m3	NA	0.43 UD	0.43 UD	0.43 UD	0.87 UD	0.43 UD	0.57	0.22 J	0.87 U	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	0.87 UD	0.87 UD
Propylene (Propene)	ug/m3	NA	6.9 UD	6.9 UD	1.1 JD	14 UD	6.9 UD	0.96 J	1.6 J	1.3 J	14 U	14 U	69 U	0.77 J	14 U	14 UD	14 UD
Styrene	ug/m3	290	0.43 UD	0.43 UD	0.45 D	0.85 UD	0.43 UD	0.34 J	0.46	0.85 U	0.85 U	0.85 U	4.3 U	0.43 U	0.85 U	0.85 UD	0.78 JD
Tetrachloroethene	ug/m3	5	140 D	81 D	110 D	370 D	18 D	81	89	390	170	2.7	1200	27	5	95 D	62 D
Tetrahydrofuran	ug/m3	NA	2100 D	1400 D	2100 D	4.6 D	350 D	660	720	3.5	5.8	38	31	2.5	130	880 D	1100 D
Toluene	ug/m3	500	1 D	1.2 D	1.4 D	0.59 JD	0.63 D	0.72	0.99	0.59 J	0.75 U	0.75 U	5.7	0.39	1.2	0.99 D	2.1 D
trans-1,2-Dichloroethene	ug/m3	200	13 D	9.2 D	7.7 D	28 D	1.9 D	6.7	4.9	7.7	7.7	0.79 U	46	9	0.79 U	2.6 D	1.7 D
trans-1,3-Dichloropropene	ug/m3	NA	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 U	0.45 U	0.91 U	0.91 U	0.91 U	4.5 U	0.45 U	0.91 U	0.91 UD	0.91 UD
Trichloroethene	ug/m3	1	280 D	210 D	190 D	440 D	46 D	180	170	610	380	6.2	1500	140	15	170 D	120 D
Trichlorofluoromethane	ug/m3	500	1100 D	690 D	300 D	1100 D	200 D	460	340	1300	850	23	2500	890	23	370 D	120 D
Trichlorotrifluoroethane	ug/m3	NA	0.9 D	0.77 UD	0.77 UD	1 JD	0.78 D	0.8 J	0.74 J	1.3 J	6.1 U	6.1 U	31 U	0.9 J	6.1 U	6.1 UD	6.1 UD
Vinyl acetate	ug/m3	NA	7 UD	7 UD	7 UD	1.2 JD	7 UD	7 U	7 U	14 U	14 U	14 U	8.8 J	7 U	14 U	14 UD	14 UD
Vinyl chloride	ug/m3	1.9	0.26 UD	1.5 D	1.8 D	0.26 UD	0.16 JD	0.82	1.4	0.51 U	0.51 U	0.51 U	2.6 U	0.26 U	0.51 U	0.51 UD	0.51 UD

Notes:  
 NA - not available  
 U - Not detected, value is the detection limit  
 B - Compounds detected in method blank as well as field sample  
 J - Indicates compound was detected at an estimated value.  
 D - Result from diluted analyses  
 ug/m3 - micrograms per cubic meter  
 Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios.

Prepared By: AKN, 10/24/2018  
 Checked By: HWC, 10/24/2018

# **Appendix E1**

Summary of All Analytical Results –  
Indoor Air Samples for Large Retail Space

Appendix E1  
 Summary of Analytical Results - Indoor Air Sampling for Large Retail Space  
 Former Gorham Manufacturing Site  
 Providence, Rhode Island

Area:			Large Retail Space																						
Location:	AIR-13	AIR-4	AIR-5	AIR-6	AIR-7	AIR-8	IA-1																		
Sample ID:	AIR-13	AIR-4	AIR-5 DUP	AIR-6	AIR-7	AIR-8	IA-1	IA-1-020309	IA-1-021109	IA-1-021809	IA-1-022609	IA-1-030609	IA-1-033109	IA-1-041409	IA-1-042409	IA-1-091709	IA-1-092409	IA-1-100109	IA-1-100809	IA-1-120209	IA-1-010810	IA-1-012810	IA-1-020510		
Sample Date:	9/12/2007	9/12/2007	9/12/2007	9/12/2007	9/12/2007	9/12/2007	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	3/31/2009	4/14/2009	4/24/2009	9/17/2009	9/24/2009	10/1/2009	10/8/2009	12/2/2009	1/8/2010	1/28/2010	2/5/2010		
Analyte	Units	CT IACTIND 2003																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.137 U	0.137 U	0.137 U	0.137 U	0.327 U	0.137 U																	
1,1,1-Trichloroethane	ug/m3	500	1.54	2.35	2.11	1.68	1.81	2.11	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	0.27 U	0.27 U	0.76
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.137 U	0.137 U	0.137 U	0.137 U	0.327 U	0.137 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	0.24 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/m3	12	0.109 U	0.109 U	0.109 U	0.109 U	0.26 U	0.109 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	0.19 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	ug/m3	430	0.182	0.321	0.233	0.224	0.218	0.235	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	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	ug/m3	20	0.104	0.098	0.091	0.08	0.189 U	0.086	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	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	ug/m3	NA					0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.176	0.236	0.265	0.212	0.234 U	0.22	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	0.37	0.25 U	0.26
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.154 U	0.154 U	0.154 U	0.154 U	0.366 U	0.154 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	0.38 U	0.27 U	0.38 U	0.38 U
1,2-Dichlorobenzene	ug/m3	410	0.12 U	0.12 U	0.12 U	0.12 U	0.287 U	0.12 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	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	ug/m3	0.31	0.0809 U	0.0809 U	0.0809 U	0.0809 U	0.193 U	0.0809 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	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	ug/m3	0.42	0.0924 U	0.0924 U	0.0924 U	0.0924 U	0.22 U	0.0924 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	0.17 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.349 U	0.349 U	0.349 U	0.349 U	0.834 U	0.349 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	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	ug/m3	52	0.0982 U	0.103	0.115	0.0982 U	0.234 U	0.0982 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	0.25 U	0.18	0.25 U	0.25 U	0.25 U
1,3-Butadiene	ug/m3	NA	0.0442 U	0.0442 U	0.0442 U	0.0442 U	0.106 U	0.0442 U	0.11 U	0.11 U	0.34	0.84	0.11 U	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17	0.23 U	0.23 U	0.23 U
1,3-Dichlorobenzene	ug/m3	410	0.12 U	0.12 U	0.12 U	0.12 U	0.287 U	0.12 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	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	ug/m3	24	0.12 U	0.12 U	0.12 U	0.12 U	0.287 U	0.12 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	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane	ug/m3	NA																							
2-Butanone	ug/m3	500	2.12	1.47 U	2.42	2.47	3.52 U	2.86	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	1.6	0.3 U	2.4
2-Hexanone	ug/m3	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	0.36	0.2 U	0.47
4-Ethyltoluene	ug/m3	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	0.18	0.25 U	0.25 U	0.25 U
4-Isopropyltoluene	ug/m3	370	2.74 U	2.74 U	2.74 U	2.74 U	6.55 U	2.74 U																	
4-Methyl-2-pentanone	ug/m3	200	2.05 U	2.05 U	2.05 U	2.05 U	4.88 U	2.05 U	0.2 U	0.2 U	0.43	0.3	0.2 U	0.2 U	0.14 U	0.52	0.21	0.35	0.32	0.2 U	0.34	0.2 U	0.2 U	0.2 U	0.2 U
Acetone	ug/m3	500	7.48	8.88	8.52	8.39	11.3 U	9.34	18	7.7	19	21	10	8.7	14	12	310	11	18	13	10	13	12	2	19
Acrylonitrile	ug/m3	NA	1.08 U	1.08 U	1.08 U	1.08 U	2.59 U	1.08 U																	
Benzene	ug/m3	3.3	0.46	0.663	0.731	0.621	0.746	0.707	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	1.2	0.16 U	0.98
Benzyl chloride	ug/m3	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	0.19 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.46	0.134 U	0.134 U	0.134 U	0.134 U	0.32 U	0.134 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	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U
Bromoform	ug/m3	7.3	0.206 U	0.206 U	0.206 U	0.206 U	0.493 U	0.206 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	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	ug/m3	NA	0.092	0.0776 U	0.086	0.0776 U	0.185 U	0.0776 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	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	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	0.16 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	ug/m3	0.54	0.412	0.414	0.522	0.402	0.408	0.505	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	0.43	0.31 U	0.4
Chlorobenzene	ug/m3	200	0.092 U	0.092 U	0.092 U	0.092 U	0.22 U	0.092 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	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	500	0.0527 U	0.0527 U	0.0527 U	0.0527 U	0.126 U	0.0527 U	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	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.5	0.335	0.163	0.225	0.173	0.233 U	0.204	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.47
Chloromethane	ug/m3	80	2.44 U	2.44 U	2.44 U	2.44 U	5.82 U	2.44	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	1.1	1.4	1.3
cis-1,2-Dichloroethene	ug/m3	100	2.35	1.21	1.38	1.01	0.787	1.26	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	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	ug/m3	NA	0.0907 U	0.0907 U	0.0907 U	0.0907 U	0.216 U	0.0907 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	0.16 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	NA							0.17 U	0.17 U	0.49	0.61	0.17 U	0.17 U	0.17 U	0.34	0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	0.28	0.17 U	0.17 U	0.17 U
Dibromochloromethane	ug/m3	NA	0.096 U	0.096 U	0.096 U	0.096 U	0.229 U	0.096 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	0.31 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	ug/m3	500	1.92	1.98	2.38	1.95	1.95	2.2	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	3.1	2.4	2.4
Ethanol	ug/m3	NA							5.7	8.3	14	20	9.8	7.5	18	5	39	6.2	7	6.5	8.8	10	8.4	7	29
Ethyl acetate	ug/m3	NA							0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.18 U	0.18 U	0.26 U	0.37 U	0.32	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	ug/m3	290	0.18	0.278	0.288	0.223	0.207 U	0.238	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	0.4	0.22 U	0.32
Hexachlorobutadiene	ug/m3	NA							1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.75 U	0.53 U	0.53 U	0.53 U
Hexane	ug/m3	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	0.74	0.18 U	0.82
Isopropyl alcohol	ug/m3	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	2.4	0.25 U	9.4
Isopropylbenzene	ug/m3	120	2.46 U	2.46 U	2.46 U	2.46 U	5.86 U	2.46 U																	
m,p-Xylene	ug/m3	NA	0.616	0.998	1.08	0.859	0.688	0.894	0.76	0.87	2.1	2.8	0.8	0.43 U	0.63	0.31 U	2.5	0.79	0.91</						

Appendix E1  
 Summary of Analytical Results - Indoor Air Sampling for Large Retail Space  
 Former Gorham Manufacturing Site  
 Providence, Rhode Island

Area:			Large Retail Space																						
Location:			IA-1																						
Sample ID:	IA-1-021210	IA-1-021910	IA-1-032610	IA-1-043010	IA-1-052810	IA-1-070110	IA-1-091610	IA-1-120710	IA-1-021711	IA-1-060211	IA-1-091511	IA-1-120811	IA-1-030812	IA-1-061412	IA-1-091312	IA-1-010313	IA-1-031513	IA-1-060713	IA-1-090613	IA-1-121313	IA-1-030714	IA-1-061314	IA-1-091214		
Sample Date:	2/12/2010	2/19/2010	3/26/2010	4/30/2010	5/28/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014		
Analyte	Units	CT IACTIND 2003																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1											0.62 U		0.37 UD	0.37 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.37 UD	
1,1,1-Trichloroethane	ug/m3	500	0.3	0.88	0.27 U	1.2	0.33	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.12 JD	0.082 UD	0.16 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.2 D	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 UD	0.1 UD	0.21 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.1 UD	
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 UD	0.082 UD	0.16 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.16 UD	
1,1-Dichloroethane	ug/m3	430	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 UD	0.061 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.061 UD	
1,1-Dichloroethene	ug/m3	20	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 UD	0.059 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.059 UD	
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 UD	0.45 UD	0.52 UD	0.52 UD	0.52 UD	0.26 UD	0.26 UD	0.26 UD	0.26 UD	0.22 UD		
1,2,4-Trimethylbenzene	ug/m3	52	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 J	0.1 JD	0.15 UD	0.16 D	0.55 D	0.17 UD	0.17 UD	0.21 D	0.32 D	0.17 UD	0.52 D	0.25 D	0.14 JD
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 UD	0.12 UD	0.23 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.12 UD	
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.18 UD	
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.056 JD	0.061 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.061 UD	
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.069 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.069 UD	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	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	ug/m3	52	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 J	0.044 JD	0.15 UD	0.059 JD	0.32 D	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.068 JD	
1,3-Butadiene	ug/m3	NA	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 UD	0.066 UD	0.066 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.066 UD	
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.18 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.18 UD		
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.18 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.18 UD		
1,4-Dioxane	ug/m3	NA												0.18 U											
2-Butanone	ug/m3	500	1.1	1.2	1.3	0.78	2.6	3.3	0.85	0.68	1.7 B	2.9 U	5.9 J	1.8 JD	1.2 JD	1.4 JD	3 JD	4.1 JD	0.64 JD	2.9 JD	2 JD	0.92 JD	1.6 JD	3.1 JD	2.8 JD
2-Hexanone	ug/m3	NA	0.2 U	0.27	0.27	0.2 U	0.67	0.75	0.2 U	0.2 U	0.2 U	4.1 U	0.62	0.22 D	0.26 D	0.12 UD	0.28 D	0.14 UD	0.14 UD	0.38 D	0.27 D	0.14 UD	0.3 D	0.45 D	0.25 D
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 UD	0.15 UD	0.071 JD	0.19 D	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.15 UD	
4-Isopropyltoluene	ug/m3	370																							
4-Methyl-2-pentanone	ug/m3	200	0.22	0.2 U	0.2 U	0.2 U	0.28	0.35	0.35	0.2 U	0.2 U	0.2 U	0.23	0.39 D	0.13 D	0.093 JD	0.26 D	0.14 UD	0.14 UD	0.24 D	0.52 D	0.14 UD	0.23 D	0.49 D	0.33 D
Acetone	ug/m3	500	7.3	8.5	7	6.5	18	18	11	12 B	15 B	11 B	18	8 D	6 D	12 D	16 BD	3.3 D	5 D	21 D	35 D	19 D	23 D	13 D	
Acrylonitrile	ug/m3	NA																							
Benzene	ug/m3	3.3	0.64	0.53	0.59	0.64	0.5	0.46	0.8	0.49	1.5	0.25	0.32	0.47 D	0.34 D	0.19 D	0.67 D	0.11 D	0.72 D	0.28 D	0.75 D	0.54 D	2.3 D	0.46 D	0.39 D
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 UD	0.16 UD	0.16 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.078 UD
Bromodichloromethane	ug/m3	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 UD	0.1 UD	0.2 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.1 UD
Bromoform	ug/m3	7.3	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	0.31 UD	0.31 UD	0.31 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.31 UD	
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 UD	0.12 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.12 UD	
Carbon disulfide	ug/m3	NA	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	1.6 U	0.93 UD	0.93 UD	0.93 UD	1.1 UD	1.1 UD	1.1 UD	1.1 UD	0.23 JD	0.2 JD	1.1 UD	0.11 JD	
Carbon tetrachloride	ug/m3	0.54	0.31 U	0.45	0.44	0.48	0.55	0.52	0.5	0.46	0.47	0.53	0.57	0.49 D	0.46 D	0.46 D	0.39 D	0.22 D	0.44 D	0.53 D	0.53 D	0.54 D	0.41 D	0.42 D	0.4 D
Chlorobenzene	ug/m3	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.14 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.069 UD	
Chloroethane	ug/m3	500	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 UD	0.079 UD	0.079 UD	0.093 UD	0.093 UD	0.093 UD	0.093 UD	0.093 UD	0.093 UD	0.093 UD	0.093 UD	0.079 UD
Chloroform	ug/m3	0.5	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 J	0.085 JD	0.073 UD	0.097 JD	0.19 D	0.17 UD	0.17 UD	0.17 UD	0.2 D	0.17 UD	0.13 JD	0.25 D	0.27 D
Chloromethane	ug/m3	80	1.3	1.2	1.3	0.79	1.2	1.2	1.1	0.97	1	0.92	1.3	0.93 D	1.3 D	1.6 D	1.3 D	0.072 D	1.1 D	1.4 D	1.2 D	1 D	1.3 D	1.3 D	0.76 D
cis-1,2-Dichloroethene	ug/m3	100	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	0.2 U	0.15 D	0.059 UD	0.12 UD	0.045 JD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.059 UD	
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.068 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.068 UD	
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.22	0.17 U	0.17 U	0.17 U	0.17 U	0.1 UD	0.1 UD	0.1 UD	0.27 D	0.12 UD	0.12 UD	0.12 UD	0.12 UD	0.12 UD	0.12 UD	0.1 UD	
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 UD	0.13 UD	0.26 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.13 UD	
Dichlorodifluoromethane	ug/m3	500	2.6	3	1.6	2.2	2.3	2.7	1.7	2	3.1	1.5	2	2.6 D	2.1 D	2.7 D	2.7 D	0.17 D	1.7 D	3.2 D	1.9 D	2.4 D	1.7 D	2.1 D	2.2 D
Ethanol	ug/m3	NA	19	43	4.6	4.4	6	6.5	9	2.7	9	2.8	6.4	2.2 JD	3.2 D	4.4 D	8.5 D	2.6 D	2 JD	26 D	23 D	12 D	22 D	80 D	34 D
Ethyl acetate	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 UD	0.092 D	0.26 D	0.57 D	0.13 D	0.21 D	0.33 D	0.13 UD	0.25 D	0.34 D	0.13 UD	0.46 D
Ethylbenzene	ug/m3	290	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 J	0.14 D	0.1 JD	0.11 JD	0.47 D	0.15 D	0.15 UD	0.19 D	0.35 D	0.15 UD	0.53 D	0.23 D	0.17 D
Hexachlorobutadiene	ug/m3	NA	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 UD	0.32 UD	0.32 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.32 UD	
Hexane	ug/m3	NA	1.3	0.45	0.2	1.1	0.8	0.46	0.61	0.35 U	1.9	0.43	7 J	0.39 JD	0.72 JD	0.55 JD	1.3 JD	4.9 JD	0.64 JD	0.79 JD	19 D	4.9 JD	1.2 JD	0.43 JD	0.55 JD
Isopropyl alcohol	ug/m3	NA	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 J	2.9 UD	0.64 JD	2.9 UD	1.9 JD	3.4 UD	0.36 JD	3.4 UD	3.4 UD	2.1 JD	1.9 JD	5.5 D	4 D
Isopropylbenzene	ug/m3	120																							

**Appendix E1**  
**Summary of Analytical Results - Indoor Air Sampling for Large Retail Space**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

Area:			Large Retail Space																						
Location:			IA-1										IA-2												
Sample ID:			IA-1-121914	IA-01-032715	IA-1-061115	IA-1-091615	IA-1-121815	IA-1-021816	IA-1-080516	IA-1-021017	IA-1-090717	IA-1-022818	IA-1-091218	IA-2	IA-2-020309	IA-2-021109	IA-2-021809	IA-2-022609	IA-2-041409	IA-2-042409	IA-2-091709	IA-2-092409	IA-2-100109	IA-2-100809	IA-2-012810
Sample Date:			12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	4/14/2009	4/24/2009	9/17/2009	9/24/2009	10/1/2009	10/8/2009	1/28/2010
Analyte	Units	CT IACTIND 2003																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 UD	0.44 U	0.44 U	0.44 U		0.44 U		0.44 U	0.44 U	0.44 U	0.44 U												
1,1,1-Trichloroethane	ug/m3	500	0.16 JD	0.05 J	0.19 U	0.28	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	9.9	0.63	1.1	1.1	0.44	1.4	2.1	0.27 U	0.27 U	0.27 U	0.27 U	0.44
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 UD	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/m3	12	0.19 UD	0.19 U	0.19 U	0.065 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	ug/m3	430	0.14 UD	0.14 U	0.14 U	0.082 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.72	0.2 U	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
1,1-Dichloroethene	ug/m3	20	0.14 UD	0.14 U	0.14 U	0.078 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.41	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 UD	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	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.17 UD	0.12 J	0.14 J	0.14 J	0.32	0.74	0.24	0.17 U	0.22	0.17 U	0.31	0.25 U	0.37	0.7	0.65	0.3	0.18 U	0.25 U	0.29	0.39	0.27	0.52	0.55
1,2-Dibromomethane (EDB)	ug/m3	0.038	0.27 UD	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	0.38 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
1,2-Dichlorobenzene	ug/m3	410	0.21 UD	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	0.3 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
1,2-Dichloroethane	ug/m3	0.31	0.14 UD	0.14 U	0.06 J	0.099 J	0.14 U	0.14 U	0.14 U	0.14 U	0.06 J	0.14 U	0.14 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
1,2-Dichloropropane	ug/m3	0.42	0.16 UD	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	0.23 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
1,2-Dichlorotetrafluoroethane	ug/m3	NA				0.25 U		0.25 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	ug/m3	52	0.17 UD	0.041 J	0.069 J	0.059 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.11 J	0.25 U	0.25 U	0.25	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.59
1,3-Butadiene	ug/m3	NA	0.078 UD	0.048 J	0.078 U	0.13	0.16	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.11 U	0.11 U	0.3	0.66	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,3-Dichlorobenzene	ug/m3	410	0.21 UD	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	0.3 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
1,4-Dichlorobenzene	ug/m3	24	0.21 UD	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	0.3 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	0.34
1,4-Dioxane	ug/m3	NA				1.3 U		1.3 U																	
2-Butanone	ug/m3	500	0.84 JD	1.5 J	1.1 J	1.2 J	1.4 J	0.5 J	1.6 J	0.72 J	2.1 J	1.4 J	2 J	21	4.1	4.6	3	2.9	0.95	1.6	1.1	2.3	0.81	1	2.1
2-Hexanone	ug/m3	NA	0.14 UD	0.3	0.14 U	0.14 U	0.16	0.14 U	0.14 U	0.14 U	0.32	0.44	0.14 U	0.2 U	0.2 U	0.35	0.26	0.2 U	0.14 U	0.2 U	0.25	0.54	0.2 U	0.26	0.51
4-Ethyltoluene	ug/m3	NA	0.17 UD	0.045 J	0.17 U	0.055 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Isopropyltoluene	ug/m3	370																							
4-Methyl-2-pentanone	ug/m3	200	0.14 UD	0.14 J	0.08 J	0.14 U	0.21	0.14 U	0.33	0.14 U	0.32	0.083 J	0.14 U	0.2 U	0.2 U	0.35	0.2 U	0.2 U	0.14 U	0.2 U	0.39	0.2 U	0.2 U	0.2 U	0.2 U
Acetone	ug/m3	500	9.3 D	12	7.7	17	12	9.8	15	4.9	14	9.8	12	17	9.6	14	18	9.7	13	39	6.2	17	11	8.8	17
Acrylonitrile	ug/m3	NA																							
Benzene	ug/m3	3.3	0.38 D	0.53	0.23	0.46	0.98	1	0.27	0.44	0.5	0.48	0.47	1	0.67	1.8	3	0.77	0.58	0.44	0.41	0.47	0.39	0.54	1.2
Benzyl chloride	ug/m3	NA	0.18 UD	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	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.46	0.24 UD	0.24 U	0.24 U	0.12 J	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	ug/m3	7.3	0.36 UD	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	ug/m3	NA	0.14 UD	0.14 U	0.14 U	0.095 J	0.14 U	0.14 U	0.14 U	0.14 U	0.13 J	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	NA	1.1 UD	1.1 U	0.22 J	0.97 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	ug/m3	0.54	0.29 D	0.32	0.34	0.49	0.5	0.42	0.4	0.39	0.4	0.39	0.5	0.33	0.41	0.55	0.57	0.48	0.41	0.41	0.44	0.4	0.46	0.42	0.31 U
Chlorobenzene	ug/m3	200	0.16 UD	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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	500	0.093 UD	0.093 U	0.093 U	0.096	0.093 U	0.093 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.13 U	0.13 U	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
Chloroform	ug/m3	0.5	0.13 JD	0.075 J	0.14 J	0.3	0.67	0.17 U	0.42	0.17 U	0.16 J	0.14 J	0.16 J	0.24 U	0.24 U	0.24 U	0.24 U	0.25	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	ug/m3	80	0.8 D	1	1.2	1.2	1.5	0.97	1.2	1.2	1.2	1.1	1.1	1.1	1	1.3	1.3	1	1.1	1.2	0.91	1.1	0.96	0.98	1.2
cis-1,2-Dichloroethene	ug/m3	100	0.14 UD	0.14 U	0.14 U	0.15	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	2.1	0.24	1.1	1.1	0.95	0.59	1.6	0.2 U	0.2 U	0.79	0.48	0.58
cis-1,3-Dichloropropene	ug/m3	NA	0.16 UD	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	0.22 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	ug/m3	NA	0.12 UD	0.12 U	0.12 U	0.12 U	0.84	3.3	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.44	0.61	0.17 U	0.12 U	0.22	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	ug/m3	NA	0.3 UD	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	0.43 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	ug/m3	500	1.7 D	1.2	2.3	1.7	2.2	1.4	0.62	1.2	1.5	2.2	1.5	1.8	2.2	2.6	2.9	2.7	2.1	2.9	2	2.1	2.3	2.1	2.2
Ethanol	ug/m3	NA	29 D	9.1	11	21	22	51	20	3	15	94 D	6.8	5.5	8.8	12	17	7.9	4.9	7.5	4.8	6.7	7.8	6.2	14
Ethyl acetate	ug/m3	NA	0.2 D	0.57	0.13 U	0.65	0.13 U																		

Appendix E1  
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space  
Former Gorham Manufacturing Site  
Providence, Rhode Island

Area:			Large Retail Space																						
Location:			IA-2																						
Sample ID:	IA-2-020510	IA-2-021210	IA-2-021910	IA-2-032610	IA-2-043010	IA-2-052810	IA-2-070110	IA-2-091610	IA-2-120710	IA-2-021711	IA-2-060211	IA-2-091511	IA-2-120811	IA-2-030812	IA-2-061412	IA-2-091312	IA-2-010313	IA-2-031513	IA-2-060713	IA-2-090613	IA-2-121313	IA-2-030714	IA-2-061314		
Sample Date:	2/5/2010	2/12/2010	2/19/2010	3/26/2010	4/30/2010	5/28/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	12/13/2013	3/7/2014	6/13/2014		
Analyte	Units	CT IACTIND 2003																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1												0.62 U		0.37 UD	0.37 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD	
1,1,1-Trichloroethane	ug/m3	500	0.73	0.27 U	0.27 U	0.27 U	0.27 U	1	0.27 U	0.28	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.13 JD	0.082 UD	0.16 UD	0.08 JD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 UD	0.1 UD	0.21 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 UD	0.082 UD	0.16 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	
1,1-Dichloroethane	ug/m3	430	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 UD	0.061 UD	0.12 UD	0.043 JD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	
1,1-Dichloroethene	ug/m3	20	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 UD	0.059 UD	0.12 UD	0.045 JD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.15 D	
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 UD	0.45 UD	0.45 UD	0.52 UD	0.52 UD	0.52 UD	0.26 UD	0.26 UD	0.26 UD	0.26 UD	
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.25 U	0.25 U	0.31	0.35	0.48	0.52	0.25 U	0.52	0.25 U	0.25 J	0.088 JD	0.15 UD	0.19 D	0.48 D	0.17 D	0.13 JD	0.43 D	0.2 D	0.17 UD	0.57 D	
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 UD	0.12 UD	0.23 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.18 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.063 JD	0.061 UD	0.051 JD	0.08 JD	0.14 D	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.069 UD	0.14 UD	0.16 UD	0.16 UD	0.11 JD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	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	ug/m3	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 UD	0.15 UD	0.08 JD	0.26 D	0.17 D	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.17 UD	
1,3-Butadiene	ug/m3	NA	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 UD	0.066 UD	0.066 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.44 D	
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.18 UD	0.08 JD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.18 UD	0.093 JD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	
1,4-Dioxane	ug/m3	NA													0.18 U										
2-Butanone	ug/m3	500	0.7	0.44	0.3 U	0.96	1.3	3.1	3.4	0.96	0.36	1.9 B	2.9 U	5.9 J	0.93 JD	0.84 JD	1.4 JD	2.8 JD	4.1 D	2.4 JD	4.2 D	2.1 JD	1.2 JD	1.8 JD	
2-Hexanone	ug/m3	NA	0.2 U	0.2 U	0.2 U	0.2 U	0.26	0.84	0.68	0.2 U	0.2 U	0.24	4.1 U	0.5	0.12 UD	0.16 D	0.15 D	0.32 D	0.14 D	0.22 D	0.51 D	0.41 D	0.14 UD	0.39 D	
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 UD	0.15 UD	0.086 JD	0.19 D	0.17 D	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.17 UD	
4-Isopropyltoluene	ug/m3	370																							
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.28	0.49	0.34	0.2 U	0.2 U	0.2 U	0.24	0.1 JD	0.11 JD	0.12 JD	0.19 D	0.14 D	0.14 UD	0.54 D	0.46 D	0.18 D	0.57 D	
Acetone	ug/m3	500	7.8	3.1	0.48 U	6.3	8.2	18	20	11	9.8 B	15 B	8.9 B	18	6.2 D	5.4 D	14 D	17 BD	3.3 D	46 D	32 D	22 D	32 D	29 D	
Acrylonitrile	ug/m3	NA																							
Benzene	ug/m3	3.3	0.86	0.67	0.16 U	0.58	0.63	0.47	0.48	0.72	0.48	1.5	0.26	0.3	0.39 D	0.36 D	0.24 D	0.62 D	0.11 D	0.91 D	0.56 D	0.32 D	0.66 D	2 D	
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 UD	0.16 UD	0.16 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	
Bromodichloromethane	ug/m3	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 UD	0.1 UD	0.2 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	
Bromoform	ug/m3	7.3	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	0.31 UD	0.31 UD	0.31 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.22	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 UD	0.12 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	
Carbon disulfide	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 UD	0.93 UD	0.93 UD	1.1 UD	1.1 D	0.47 JD	0.39 JD	0.33 JD	0.17 JD	0.56 JD	
Carbon tetrachloride	ug/m3	0.54	0.4	0.31 U	0.31 U	0.43	0.47	0.5	0.52	0.5	0.48	0.31 U	0.62	0.52	0.49 D	0.48 D	0.45 D	0.43 D	0.22 D	0.45 D	0.58 D	0.45 D	0.46 D	0.42 D	
Chlorobenzene	ug/m3	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.14 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	
Chloroethane	ug/m3	500	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 UD	0.079 UD	0.079 UD	0.093 UD	0.093 UD	0.14 D	0.093 UD	0.093 UD	0.093 UD	0.093 UD	
Chloroform	ug/m3	0.5	0.47	0.4	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	3.4	0.24 U	0.24 U	0.24 U	0.24 U	0.085 JD	0.073 UD	0.14 JD	0.25 D	0.17 UD	0.15 JD	0.17 UD	0.17 UD	0.37 D	0.29 D	
Chloromethane	ug/m3	80	1.3	1.3	1.4	1.3	0.8	1.2	1.2	1.1	0.96	0.97	0.95	1.2	0.93 D	1 D	1.4 D	1.3 D	0.072 D	2.7 D	1.7 D	0.98 D	1.1 D	1.3 D	
cis-1,2-Dichloroethene	ug/m3	100	0.2 U	0.2 U	0.2 U	0.2 U	1	0.2 U	0.61	0.2 U	1.7	0.2 U	0.2 U	0.2 U	0.17 D	0.059 UD	0.12 UD	0.064 JD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.068 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.2	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.1 UD	0.1 UD	0.1 UD	0.26 D	0.12 D	0.12 UD	0.12 UD	0.12 UD	0.32 D	0.22 D	
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 UD	0.13 UD	0.26 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	
Dichlorodifluoromethane	ug/m3	500	2.5	2.6	3	1.6	2	2.4	2.6	1.7	1.9	3.2	1.6	2	2.7 D	2.1 D	2.7 D	2.8 D	0.17 D	1.7 D	3.3 D	1.8 D	2.6 D	1.5 D	
Ethanol	ug/m3	NA	35	17	20	4.4	4.9	5	7.6	9	2.7	10	2.5	8.5	2.1 JD	2.1 JD	10 D	9.8 D	2.6 D	380 D	66 D	46 D	89 D	130 D	
Ethyl acetate	ug/m3	NA	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	0.22 JD	0.24 D	3.5 D	0.71 D	0.13 D	2 D	0.39 D	0.28 D	13 D	0.36 D	
Ethylbenzene	ug/m3	290	0.34	0.22 U	0.22 U	0.22 U	0.23	0.24	0.29	0.46	0.22 U	0.5	0.22 U	0.22 J	0.13 JD	0.13 UD	0.13 UD	0.41 D	0.15 D	0.25 D	0.39 D	0.17 D	0.15 UD	0.56 D	
Hexachlorobutadiene	ug/m3	NA	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 UD	0.32 UD	0.32 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	
Hexane	ug/m3	NA	0.64	1.4	0.18 U	0.27	1.6	0.51	0.49	0.53	0.35 U	1.6	0.31	7 J	0.32 JD	0.34 JD	2.6 JD	2.4 JD	4.9 D	2.3 JD	1.6 JD	0.65 JD	4.9 JD	1.2 JD	
Isopropyl alcohol	ug/m3	NA	3.6	0.25 U	0.25 U	0.63	3.2	0.12 U	1.2	0.25 U	0.25 U	2	1.2 U	4.9 J	2.9 UD	0.76 JD	2.9 UD	2.8 JD	3.4 UD	3.6 D	3.4 UD	1.7 JD	9.7 D	4.1 D	
Isopropylbenzene	ug/m3	120																							
m,p-Xylene	ug/m3	NA	1.1	0.43 U	0.43 U	0.47	0.75	0.96	1.3	1.5	0.43 U	1.5	0.36 J												

**Appendix E1  
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space  
Former Gorham Manufacturing Site  
Providence, Rhode Island**

Area:			Large Retail Space																							
Location:			IA-2												IA-3											
Sample ID:	IA-2-091214	IA-2-121914	IA-2-032715	IA-2-061115	IA-2-091615	IA-2-121815	IA-2-021816	IA-2-080516	IA-2-021017	IA-2-090717	IA-2-022818	IA-2-091218	IA-3	IA-3-020309	IA-3-021109	IA-3-021809	IA-3-022609	IA-3-041409	IA-3-042409	IA-3-091709	IA-3-092409	IA-3-100109	IA-3-100809			
Sample Date:	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	4/14/2009	4/24/2009	9/17/2009	9/24/2009	10/1/2009	10/8/2009			
Analyte	Units	CT IACTIND 2003																								
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.25 UD	0.44 UD	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U		
1,1,1-Trichloroethane	ug/m3	500	0.055 UD	0.16 JD	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U		
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.069 UD	0.24 UD	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U		
1,1,2-Trichloroethane	ug/m3	12	0.11 UD	0.19 UD	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U		
1,1-Dichloroethane	ug/m3	430	0.04 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U		
1,1-Dichloroethene	ug/m3	20	0.04 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U		
1,2,4-Trichlorobenzene	ug/m3	NA	0.15 UD	0.26 UD	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U		
1,2,4-Trimethylbenzene	ug/m3	52	0.2 D	0.17 UD	0.25	0.23	0.17 U	0.48	0.27	0.21	0.17 U	0.17	0.42	0.17 U	0.25 U	0.36	0.68	0.61	0.25 U	0.18 U	0.25 U	0.29	0.4	0.25 U	0.39	
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.077 UD	0.27 UD	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U		
1,2-Dichlorobenzene	ug/m3	410	0.12 UD	0.21 UD	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U		
1,2-Dichloroethane	ug/m3	0.31	0.04 D	0.14 UD	0.14 U	0.065 J	0.051 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.062 J	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U		
1,2-Dichloropropane	ug/m3	0.42	0.046 UD	0.16 UD	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U		
1,2-Dichlorotetrafluoroethane	ug/m3	NA						0.25 U			0.25 U			0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U		
1,3,5-Trimethylbenzene	ug/m3	52	0.059 JD	0.17 UD	0.079 J	0.069 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U		
1,3-Butadiene	ug/m3	NA	0.044 UD	0.078 UD	0.078 U	0.078 U	0.15	0.2	0.078 U	0.078 U	0.087	0.078 U	0.078 U	0.11 U	0.11 U	0.3	0.77	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U		
1,3-Dichlorobenzene	ug/m3	410	0.12 UD	0.21 UD	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U		
1,4-Dichlorobenzene	ug/m3	24	0.12 UD	0.21 UD	0.063 J	0.097 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U		
1,4-Dioxane	ug/m3	NA						1.3 U			1.3 U															
2-Butanone	ug/m3	500	4.9 D	0.92 JD	1.7 J	1.8 J	1.7 J	1.9 J	1.3 J	1.3 J	0.74 J	2.2 J	2.4 J	1.5 J	20	4.2	4.6	4	1.7	1.6	2.5	2	2.6	0.7	1.5	
2-Hexanone	ug/m3	NA	0.16 D	0.14 UD	0.2	0.12 J	0.14 U	0.18	0.2	0.14 U	0.14 U	0.37	0.72	0.14 U	0.2 U	0.26	0.33	0.3	0.2 U	0.14 U	0.38	0.51	0.58	0.2 U	0.37	
4-Ethyltoluene	ug/m3	NA	0.049 JD	0.17 UD	0.072 J	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	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U		
4-Isopropyltoluene	ug/m3	370																								
4-Methyl-2-pentanone	ug/m3	200	1.3 D	0.14 UD	0.84	0.9	1.2	1.1	0.39	1.4	0.14 U	2	0.73	1.6	0.2 U	0.2 U	0.29	0.34	0.2 U	0.14 U	0.22	0.2 U	0.42	0.2 U	0.2 U	
Acetone	ug/m3	500	37 D	9.7 D	40	29	170 E	33	26	36	8.8	31	43	10	18	12	17	24	9.7	7.5	50	11	19	6.7	11	
Acrylonitrile	ug/m3	NA																								
Benzene	ug/m3	3.3	0.3 D	0.36 D	0.67	0.39	0.66	1.1	0.52	0.25	0.49	0.55	0.57	0.48	1	0.71	1.9	3.1	0.69	0.6	0.46	0.41	0.5	0.39	0.46	
Benzyl chloride	ug/m3	NA	0.052 UD	0.18 UD	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	0.26 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	ug/m3	0.46	0.067 UD	0.24 UD	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U		
Bromoform	ug/m3	7.3	0.21 UD	0.36 UD	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U		
Bromomethane	ug/m3	NA	0.078 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U		
Carbon disulfide	ug/m3	NA	0.49 JD	1.1 UD	0.29 J	0.39 J	0.41 J	0.26 J	0.13 J	0.34 J	1.1 U	0.34 J	0.16 J	0.29 J	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U		
Carbon tetrachloride	ug/m3	0.54	0.43 D	0.37 D	0.36	0.35	0.32	0.49	0.38	0.4	0.45	0.41	0.4	0.47	0.34	0.45	0.52	0.6	0.43	0.22 U	0.43	0.4	0.43	0.4	0.42	
Chlorobenzene	ug/m3	200	0.046 UD	0.16 UD	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U		
Chloroethane	ug/m3	500	0.053 UD	0.093 UD	0.061 J	0.093 U	0.059 J	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.13 U	0.13 U	0.43	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U		
Chloroform	ug/m3	0.5	1 D	0.13 JD	0.41	0.62	0.24	0.33	0.21	0.73	0.17 U	0.68	2.4	0.21	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U		
Chloromethane	ug/m3	80	0.71 D	0.8 D	1.4	1.3	1.1	1.7	0.97	1.4	1.3	1.4	1.3	1.2	1.1	0.98	1.2	1.4	1.1	1.2	1.2	0.91	1.1	0.97	1	
cis-1,2-Dichloroethene	ug/m3	100	0.04 UD	0.14 UD	0.14 U	0.14 U	0.053 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.48	0.14 U	1.9	0.2 U	1.1	1.1	0.55	0.61	1.5	0.2 U	0.94	0.49
cis-1,3-Dichloropropene	ug/m3	NA	0.045 UD	0.16 UD	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Cyclohexane	ug/m3	NA	0.069 UD	0.12 UD	0.12 U	0.12 U	0.14	0.89	0.15	0.12 U	0.12 U	0.12 U	0.12 U	0.3	0.12 U	0.17 U	0.46	0.6	0.17 U	0.15	0.17 U	0.17 U	0.17 U	0.17 U		
Dibromochloromethane	ug/m3	NA	0.085 UD	0.3 UD	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
Dichlorodifluoromethane	ug/m3	500	2.1 D	1.8 D	1.4	2.4	1.7	2.4	1.5	0.63	0.95	1.4	2.2	1.9	1.9	2.3	2.5	2.9	2.6	2	2.9	2.1	2.1	2.2	2.2	
Ethanol	ug/m3	NA	140 D	27 D	150	220	51	72	110	180	48	320	990 D	11	5.5	9.2	13	18	7.9	4.2	9	6.2	7.5	4.5	5	
Ethyl acetate	ug/m3	NA	0.35 D	0.17 D	0.45	0.49	7.5	0.75	0.13 U	0.39	0.23	1.6	0.39	0.25 U	0.37 U	0.18 U	0.18 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	ug/m3	290	0.14 D	0.076 JD	0.2	0.15	0.16	0.73	0.2	0.16	0.15 U	0.19	0.15 J	0.23	0.25	0.29	0.64	0.77	0.22 U	0.16	0.22 U	0.22 U	0.23	0.22 U	0.24	
Hexachlorobutadiene	ug/m3	NA	0.21 UD	0.37 UD	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 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		
Hexane	ug/m3	NA	0.56 JD	0.29 JD	5	0.44 J	1.1 J	2.4 J	0.4 J	0.47 J	0.27 J	0.39 J	0.4 J	0.67 J	0.94	0.87	1.3	1.9	3.7	0.37	0.77	0.96	0.47	0.37	0.71	
Isopropyl alcohol	ug/m3	NA	4.4 D	1.5 JD	7.3	3.8	5.4	3.4 U	2.3 J	12	1.6 J	14	49	1.8 J	3.5	4.1	5.5	4.9	3.1	0.18 U	33	180	5.9	0.25 U	0.25 U	
Isopropylbenzene	ug/m3	120																								
m,p-Xylene	ug/m3	NA	0.44 D	0.31 D	0.61	0.45	0.32	4	0.59	0.5	0.29 J	0.69	0.41	0.72	0.75	0.9	2									

**Appendix E1**  
**Summary of Analytical Results - Indoor Air Sampling for Large Retail Space**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

Area:			Large Retail Space																							
Location:			IA-3																							
Sample ID:			IA-3-012810	IA-3-020510	IA-3-021210	IA-3-021910	IA-3-032610	IA-3-043010	IA-3-052810	IA-3-070110	IA-3-091610	IA-3-120710	IA-3-021711	IA-3-060211	IA-3-091511	IA-3-120811	IA-3-030812	IA-3-061412	IA-3-091312	IA-3-010313	IA-3-031513	IA-3-060713	IA-3-090613	IA-3-121313	IA-3-030714	
Sample Date:			1/28/2010	2/5/2010	2/12/2010	2/19/2010	3/26/2010	4/30/2010	5/28/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	12/13/2013	3/7/2014	
Analyte	Units	CT IACTIND 2003																								
1,1,1,2-Tetrachloroethane	ug/m3	1.1																								
1,1,1-Trichloroethane	ug/m3	500	0.45	0.71	0.29	0.86	0.27 U	1.2	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.11 JD	0.082 UD	0.16 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 UD	0.1 UD	0.21 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 UD	0.082 UD	0.16 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	
1,1-Dichloroethane	ug/m3	430	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 UD	0.061 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	
1,1-Dichloroethene	ug/m3	20	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 UD	0.059 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 UD	0.45 UD	0.45 UD	0.52 UD	0.52 UD	0.26 UD	0.26 UD	0.26 UD	0.26 UD	
1,2,4-Trimethylbenzene	ug/m3	52	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 J	0.071 JD	0.1 JD	0.19 D	0.47 D	0.17 UD	0.076 JD	0.26 D	0.33 D	0.17 UD	0.53 D	
1,2-Dibromomethane (EDB)	ug/m3	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 UD	0.12 UD	0.23 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.18 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.056 JD	0.061 UD	0.051 JD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.069 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	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	ug/m3	52	0.42	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 J	0.15 UD	0.15 UD	0.074 JD	0.22 D	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.17 UD	
1,3-Butadiene	ug/m3	NA	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 UD	0.066 UD	0.066 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.55 D	
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.18 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.18 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	
1,4-Dioxane	ug/m3	NA															0.18 U									
2-Butanone	ug/m3	500	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 J	1.2 JD	0.45 JD	2.4 JD	2.7 JD	4.1 JD	2.2 JD	2 JD	2.9 JD	0.66 JD	1.1 JD	
2-Hexanone	ug/m3	NA	0.52	0.39	0.22	0.39	0.2 U	0.29	0.52	0.67	0.2 U	0.2 U	0.2 U	4.1 U	0.24	0.093 JD	0.12 UD	0.33 D	0.22 D	0.14 UD	0.32 D	0.28 D	0.31 D	0.14 UD	0.14 UD	
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 UD	0.15 UD	0.074 JD	0.15 JD	0.17 UD	0.17 UD	0.17 UD	0.17 UD	0.18 D	
4-Isopropyltoluene	ug/m3	370																								
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.38	0.34	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.084 JD	0.12 UD	0.19 D	0.21 D	0.14 UD	0.14 UD	0.19 D	0.36 D	0.14 UD	0.17 D
Acetone	ug/m3	500	14	21	6.7	7.3	3.8	7.7	15	21	11	9.7 B	9.7 B	11 B	13	7.2 D	3.9 D	13 D	12 BD	3.3 D	12 D	28 D	16 D	14 D	11 D	
Acrylonitrile	ug/m3	NA																								
Benzene	ug/m3	3.3	1.3	0.86	0.67	0.53	0.6	0.67	0.47	0.51	0.72	0.47	1.4	0.29	0.3	0.39 D	0.35 D	0.23 D	0.66 D	0.11 D	0.75 D	0.23 D	0.75 D	0.54 D	2.4 D	
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 UD	0.16 UD	0.16 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	
Bromodichloromethane	ug/m3	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 UD	0.1 UD	0.2 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	
Bromoform	ug/m3	7.3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 UD	0.31 UD	0.31 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 UD	0.12 UD	0.31 D	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	
Carbon disulfide	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 UD	0.93 UD	0.93 UD	1.1 UD	1.1 UD	1.1 UD	0.25 JD	1.1 UD	1.1 UD	
Carbon tetrachloride	ug/m3	0.54	0.31 U	0.42	0.31 U	0.43	0.43	0.49	0.54	0.57	0.41	0.45	0.6	0.64	0.51	0.5 D	0.49 D	0.43 D	0.38 D	0.22 D	0.39 D	0.42 D	0.47 D	0.47 D	0.45 D	
Chlorobenzene	ug/m3	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.14 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	
Chloroethane	ug/m3	500	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 UD	0.079 UD	0.079 UD	0.093 UD	0.093 UD	0.093 UD	0.098 D	0.093 UD	0.093 UD	
Chloroform	ug/m3	0.5	0.24 U	0.53	0.48	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 J	0.079 JD	0.073 UD	0.15 D	0.19 D	0.17 UD	0.075 JD	0.17 UD	0.21 D	0.17 UD	
Chloromethane	ug/m3	80	1.2	2.9	1.3	1.2	1.1	0.85	1.2	1.2	1.1	0.98	0.97	1.2	1.4	0.84 D	1.1 D	1.4 D	1.3 D	0.072 D	1.3 D	1.3 D	1.1 D	1 D	1.3 D	
cis-1,2-Dichloroethene	ug/m3	100	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	0.2 U	0.2 U	0.17 D	0.059 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.19 D	0.14 UD	0.14 UD	
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.068 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.18	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.1 UD	0.1 UD	0.1 UD	0.27 D	0.12 UD	0.12 UD	0.12 UD	0.12 UD	0.34 D	
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 UD	0.13 UD	0.26 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	
Dichlorodifluoromethane	ug/m3	500	2.3	2.5	2.5	3	1.6	2.1	2.5	2.7	1.5	2.1	3.1	2.1	1.8	2.6 D	2.1 D	2.8 D	2.8 D	0.17 D	1.8 D	2.7 D	1.8 D	2.7 D	1.5 D	
Ethanol	ug/m3	NA	13	40	17	38	3.6	5.3	5.5	7	8	2.4	9.4	3.6	5.8	2.1 JD	2.2 JD	4.4 D	6.6 D	2.6 D	2.5 JD	21 D	27 D	11 D	24 D	
Ethyl acetate	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 UD	0.11 UD	0.73 D	0.37 D	0.51 D	0.13 D	0.44 D	0.28 D	0.34 D	
Ethylbenzene	ug/m3	290	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 J	0.12 JD	0.11 JD	0.14 D	0.42 D	0.15 D	0.098 JD	0.18 D	0.36 D	0.15 UD	0.55 D	
Hexachlorobutadiene	ug/m3	NA	0.53 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 UD	0.32 UD	0.32 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	
Hexane	ug/m3	NA	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 J	0.35 JD	0.37 JD	0.74 JD	1.4 JD	4.9 JD	1 JD	0.68 JD	0.94 JD	0.76 JD	2.1 JD	
Isopropyl alcohol																										

**Appendix E1**  
**Summary of Analytical Results - Indoor Air Sampling for Large Retail Space**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

Area:			Large Retail Space																									
Location:			IA-3													IA-4												
Sample ID:			IA-3-061314	IA-3-091214	IA-3-121914	IA-03-032715	IA-3-061115	IA-3-091615	IA-3-121815	IA-3-021816	IA-3-080516	IA-3-021017	IA-3-090717	IA-3-022818	IA-3-091218	IA-4	IA-4-020309	IA-4-021109	IA-4-021809	IA-4-022609	IA-4-041409	IA-4-042409	IA-4-091709	IA-4-092409	IA-4-100109			
Sample Date:			6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	4/14/2009	4/24/2009	9/17/2009	9/24/2009	10/1/2009			
Analyte	Units	CT IACTIND 2003																										
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 UD	0.25 UD	0.44 UD	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U													
1,1,1-Trichloroethane	ug/m3	500	0.19 UD	0.19 D	0.16 JD	0.05 J	0.19 U	0.092 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	10	0.62	1.1	1.1	0.45	1.5	2.2	0.27 U	0.27 U	0.27 U			
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 UD	0.069 UD	0.24 UD	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U			
1,1,2-Trichloroethane	ug/m3	12	0.19 UD	0.11 UD	0.19 UD	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	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U			
1,1-Dichloroethane	ug/m3	430	0.14 UD	0.04 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.73	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			
1,1-Dichloroethene	ug/m3	20	0.14 UD	0.04 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.42	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			
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 UD	0.15 UD	0.26 UD	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	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U			
1,2,4-Trimethylbenzene	ug/m3	52	0.23 D	0.32 D	0.12 JD	0.12 J	0.13 J	0.13 J	0.17 U	0.17 U	0.26	0.17 U	0.17 U	0.21	0.17 U	0.17 U	0.21	0.17 U	0.26	0.37	0.74	0.65	0.29	0.18 U	0.25 U	0.25 U	0.41	0.28
1,2-Dibromothane (EDB)	ug/m3	0.038	0.27 UD	0.077 UD	0.27 UD	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	0.38 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	ug/m3	410	0.21 UD	0.12 UD	0.21 UD	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	0.3 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			
1,2-Dichloroethane	ug/m3	0.31	0.14 UD	0.032 JD	0.14 UD	0.14 U	0.057 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.057 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U			
1,2-Dichloropropane	ug/m3	0.42	0.16 UD	0.046 UD	0.16 UD	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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U			
1,2-Dichlorotetrafluoroethane	ug/m3	NA							0.25 U						0.25 U					0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U			
1,3,5-Trimethylbenzene	ug/m3	52	0.17 UD	0.069 JD	0.17 UD	0.038 J	0.079 J	0.041 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.32	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U			
1,3-Butadiene	ug/m3	NA	0.078 UD	0.044 UD	0.078 UD	0.045 J	0.078 U	0.062 J	0.17	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.11 U	0.11 U	0.33	0.77	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U			
1,3-Dichlorobenzene	ug/m3	410	0.21 UD	0.12 UD	0.21 UD	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	0.3 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			
1,4-Dichlorobenzene	ug/m3	24	0.21 UD	0.12 UD	0.068 JD	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	0.3 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			
1,4-Dioxane	ug/m3	NA							1.3 U					1.3 U														
2-Butanone	ug/m3	500	1.5 JD	2.1 JD	1.1 JD	1.4 J	1.5 J	0.96 J	0.99 J	0.8 J	2.3 J	0.62 J	2.5 J	1.2 J	2 J	21	4.4	6	3.2	2.5	1.1	1.6	1.5	2	1.3			
2-Hexanone	ug/m3	NA	0.14 UD	0.21 D	0.14 UD	0.27	0.14	0.14 U	0.14 U	0.14 U	0.47	0.14 U	0.31	0.28	0.14 U	0.2 U	0.33	0.73	0.39	0.2 U	0.14 U	0.2 U	0.29	0.45	0.32			
4-Ethyltoluene	ug/m3	NA	0.17 UD	0.051 JD	0.059 JD	0.086 J	0.045 J	0.066 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.11 J	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U			
4-Isopropyltoluene	ug/m3	370																										
4-Methyl-2-pentanone	ug/m3	200	0.35 D	0.26 D	0.27 D	0.15	0.13 J	0.14 U	0.24	0.14 U	0.14 U	0.39	0.086 J	0.47	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			
Acetone	ug/m3	500	15 D	42 D	29 D	11	10	15	9.9	8.5	19	4.9	14	7.9	12	17	10	15	20	7.8	7.9	20	9.3	16	9.3			
Acrylonitrile	ug/m3	NA																										
Benzene	ug/m3	3.3	0.41 D	0.29 D	0.5 D	0.5	0.28	0.43	1.1	0.55	0.62	0.43	0.5	0.51	0.51	1.1	0.68	1.8	3	0.76	0.59	0.44	0.4	0.43	0.37			
Benzyl chloride	ug/m3	NA	0.18 UD	0.052 UD	0.18 UD	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	0.26 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	ug/m3	0.46	0.24 UD	0.067 UD	0.24 UD	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	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U			
Bromoform	ug/m3	7.3	0.36 UD	0.21 UD	0.36 UD	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U			
Bromomethane	ug/m3	NA	0.16 D	0.099 D	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U			
Carbon disulfide	ug/m3	NA	0.15 JD	0.16 JD	0.24 JD	1.1 U	0.092 J	0.13 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U			
Carbon tetrachloride	ug/m3	0.54	0.44 D	0.42 D	0.34 D	0.36	0.36	0.39	0.53	0.41	0.43	0.42	0.39	0.4	0.51	0.4	0.43	0.5	0.58	0.46	0.22 U	0.45	0.41	0.4	0.46			
Chlorobenzene	ug/m3	200	0.16 UD	0.046 UD	0.16 UD	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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U			
Chloroethane	ug/m3	500	0.093 UD	0.053 UD	0.093 UD	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.41	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U			
Chloroform	ug/m3	0.5	0.24 D	0.28 D	0.4 D	0.085 J	0.14 J	0.21	0.28	0.17 U	0.55	0.17 U	0.16 J	0.14 J	0.18	0.24 U	0.24 U	0.24 U	0.24 U	0.26	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U			
Chloromethane	ug/m3	80	1.2 D	0.73 D	0.85 D	0.99	1.7	1.1	1.4	0.99	1.4	1.2	1.2	1.2	2.3	1.2	0.99	1.4	1.3	1	1.1	1.2	0.9	1.1	1			
cis-1,2-Dichloroethene	ug/m3	100	0.14 UD	0.04 UD	0.46 D	0.14 U	0.14 U	0.11 J	0.15	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	2.4	0.2 U	1.1	1.1	0.98	0.61	1.7	0.2 U	0.2 U	0.84			
cis-1,3-Dichloropropene	ug/m3	NA	0.16 UD	0.045 UD	0.16 UD	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	0.22 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	ug/m3	NA	0.12 UD	0.069 UD	0.12 UD	0.12 U	0.12 U	0.12 U	1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.44	0.64	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U			
Dibromochloromethane	ug/m3	NA	0.3 UD	0.085 UD	0.3 UD	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	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U			
Dichlorodifluoromethane	ug/m3	500	2.1 D	2.2 D	1.8 D	1.4	2.3	1.6	2.4	1.6	0.64	0.87	1.4	2.3	2.2	1.9	2.2	2.5	2.8	2.6	2.1	2.4	2.1	2	2.2			
Ethanol	ug/m3	NA	64 D	41 D	580 D	8.7	16	25	14	61	21	2.8	16	94 D	11	5.3	8.9	12	18	8	5.2	5.5	6	6.5	4.9			
Ethyl acetate	ug/m3	NA	0.13 UD	0.25 D	0.47 D	0.27	0.13 U	4.5	0.13 U	1.1	0.13 U	0.83	0.22 J	0.15	0.25 U	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			
Ethylbenzene	ug/m3	290	0.22 D	0.17 D	0.14 JD	0.13 J	0.12 J	0.15 J	0.41	0.15 U	0.22	0.15 U	0.22	0.088 J	0.34	0.25	0.29	0.65	0.78	0.29	0.16	0.22 U	0.22 U	0.27	0.22 U			
Hexachlorobutadiene	ug/m3	NA	0.37 UD	0.21 UD	0.37 UD	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 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			
Hexane	ug/m3	NA	0.44 JD	0.43 JD	0.41 JD	5.1	0.45 J	0.72 J	1.9 J	0.49 J	0.59 J	0.23 J	0.64 J	0.28 J	0.68 J	0.9	0.66	1.2	1.7	0.66	0.43	0.34	2.2	0.42	0.49			
Isopropyl alcohol	ug/m3	NA	5.2 D	4.8 D	7.7 D	1.9 J	0.87 J	2.1 J	3.4 U	3.4 U	5.4	0.93 J	2.5 J	2.1 J	8	3.5	3.3	4.7	4.8	3.9	0.18 U	13	5.6	5.2	0.25 U			
Isopropylbenzene	ug/m3	120	</																									

**Appendix E1  
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space  
Former Gorham Manufacturing Site  
Providence, Rhode Island**

Area:			Large Retail Space																								
Location:			IA-4																								
Sample ID:			IA-4-100809	IA-4-012810	IA-4-020510	IA-4-021210	IA-4-021910	IA-4-032610	IA-4-043010	IA-4-052810	IA-4-070110	IA-4-091610	IA-4-120710	IA-4-021711	IA-4-060211	IA-4-091511	IA-4-120811	IA-4-030812	IA-4-061412	IA-4-091312	IA-4-010313	IA-4-031513	IA-4-060713	IA-4-090613	IA-4-121313		
Sample Date:			10/8/2009	1/28/2010	2/5/2010	2/12/2010	2/19/2010	3/26/2010	4/30/2010	5/28/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	12/13/2013		
Analyte	Units	CT IACTIND 2003																									
1,1,1,2-Tetrachloroethane	ug/m3	1.1																0.62 U		0.37 UD	0.37 UD	0.44 UD	0.44 UD	0.44 UD	0.44 UD		
1,1,1-Trichloroethane	ug/m3	500	0.27 U	0.27 U	0.76	0.29	0.89	0.27 U	1.1	0.28	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.14 JD	0.082 UD	0.16 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD		
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 UD	0.1 UD	0.21 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD		
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 UD	0.082 UD	0.16 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD	0.19 UD		
1,1-Dichloroethane	ug/m3	430	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 UD	0.061 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD		
1,1-Dichloroethane	ug/m3	20	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 UD	0.059 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD		
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 UD	0.45 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD		
1,2,4-Trimethylbenzene	ug/m3	52	0.41	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.34	0.41	0.44	0.25 U	0.49	0.25 U	0.25 J	0.094 JD	0.15 UD	0.19 D	0.38 D	0.17 D	0.13 JD	0.47 D	0.2 D	0.17 UD	0.17 UD		
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 UD	0.12 UD	0.23 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD	0.27 UD		
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 D	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD		
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.063 JD	0.061 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD		
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.069 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD		
1,2-Dichlorotetrafluoroethane	ug/m3	NA	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	ug/m3	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 UD	0.15 UD	0.08 JD	0.12 JD	0.17 D	0.17 UD	0.17 UD	0.17 UD	0.17 UD		
1,3-Butadiene	ug/m3	NA	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 UD	0.066 UD	0.066 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD	0.078 UD		
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.18 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD		
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 UD	0.18 UD	0.18 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD	0.21 UD		
1,4-Dioxane	ug/m3	NA															0.18 U										
2-Butanone	ug/m3	500	1.2	0.3 U	0.69	1.2	0.5	1.6	1.5	2.2	4.8	2.4	0.96	1 B	2.9 U	5.9 J	1 JD	1.5 JD	0.97 JD	2.3 JD	4.1 D	2.3 JD	3.9 JD	0.95 JD	1.2 JD		
2-Hexanone	ug/m3	NA	0.27	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.39	0.54	1	0.59	0.2 U	0.2 U	0.21 J	0.35	0.086 JD	0.32 D	0.098 JD	0.18 D	0.14 D	0.25 D	0.51 D	0.14 UD	0.14 UD		
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 UD	0.15 UD	0.068 JD	0.12 JD	0.17 D	0.17 UD	0.17 UD	0.17 UD	0.17 UD		
4-Isopropyltoluene	ug/m3	370																									
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.43	0.45	0.2 U	0.2 U	0.2 U	0.2 J	0.098 JD	0.15 D	0.13 D	0.14 UD	0.14 D	0.28 D	0.56 D	0.47 D	0.16 D	0.16 D		
Acetone	ug/m3	500	10	2.3	4.9	5.9	2.5	6.9	8.7	15	31	19	13 B	12 B	12 B	15	7.4 D	6.8 D	9.1 D	12 BD	3.3 D	44 D	36 D	18 D	29 D		
Acrylonitrile	ug/m3	NA																									
Benzene	ug/m3	3.3	0.48	0.16 U	0.88	0.66	0.54	0.57	0.64	0.48	0.47	0.66	0.49	1.4	0.31	0.3	0.38 D	0.35 D	0.23 D	0.64 D	0.11 D	0.82 D	0.55 D	0.47 D	0.56 D		
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 UD	0.16 UD	0.16 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD	0.18 UD		
Bromodichloromethane	ug/m3	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 UD	0.1 UD	0.2 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD	0.24 UD		
Bromoform	ug/m3	7.3	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	0.31 UD	0.31 UD	0.31 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD	0.36 UD		
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 UD	0.12 UD	0.24 D	0.14 UD	0.14 UD	0.13 JD	0.14 UD	0.14 UD	0.14 UD		
Carbon disulfide	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	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 J	0.93 UD	0.93 UD	0.052 JD	1.1 UD	1.1 D	0.52 JD	0.38 JD	0.39 JD	0.15 JD	0.15 JD		
Carbon tetrachloride	ug/m3	0.54	0.4	0.31 U	0.43	0.31 U	0.42	0.43	0.47	0.52	0.48	0.44	0.46	0.57	0.68	0.52	0.48 D	0.47 D	0.43 D	0.36 D	0.22 D	0.41 D	0.65 D	0.45 D	0.46 D		
Chlorobenzene	ug/m3	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.14 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD		
Chloroethane	ug/m3	500	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 UD	0.079 UD	0.079 UD	0.093 UD	0.093 UD	0.093 UD	0.093 UD	0.093 UD	0.093 UD		
Chloroform	ug/m3	0.5	0.24 U	0.24 U	0.46	0.39	0.24 U	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 J	0.085 JD	0.073 UD	0.13 JD	0.19 D	0.17 UD	0.11 JD	0.17 UD	0.27 D	0.44 D		
Chloromethane	ug/m3	80	1	1.3	1.3	1.3	1.2	1.1	0.77	1.2	1.2	1.2	1	0.95	0.95	1.1	1.5	1.4 D	1 D	1.3 D	1.3 D	0.072 D	1.3 D	1.6 D	1 D	1.1 D	
cis-1,2-Dichloroethene	ug/m3	100	0.48	0.2 U	0.2 U	0.2 U	0.59	0.2 U	1.3	0.2 U	0.44	0.2 U	1.8	0.2 U	0.2 U	0.2 U	0.19 D	0.059 UD	0.12 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD	0.14 UD		
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 UD	0.068 UD	0.14 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD	0.16 UD		
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.1 UD	0.1 UD	0.1 UD	0.26 D	0.12 D	0.12 UD	0.12 UD	0.12 UD	0.12 UD		
Dibromochloromethane	ug/m3	NA	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	0.3 UD	0.3 UD	0.26 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD	0.3 UD		
Dichlorodifluoromethane	ug/m3	500	2.2	2.4	2.5	2.6	3	1.7	2.1	2.5	2.6	1.5	2	3.2	1.8	1.7	2.8 D	2 D	2.9 D	2.8 D	0.17 D	1.7 D	3.3 D	1.8 D	2.7 D		
Ethanol	ug/m3	NA	5.6	7.7	34	17	31	3.9	4.9	6.1	8.7	9.8	3.4	8.9	5.3	7	2.4 D	2.5 D	9.4 D	7.3 D	2.6 D	46 D	79 D	71 D	91 D		
Ethyl acetate	ug/m3	NA	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	0.26	0.18 UD	0.18 UD	0.16 D	0.21 D	0.38 D	2.4 D	0.13 UD	0.73 D	0.94 D	0.13 UD	0.13 UD
Ethylbenzene	ug/m3	290	0.26	0.22 U	0.26	0.22 U	0.22 U	0.22 U	0.25	0.25	0.29	0.44	0.22 U	0.49	0.22 U	0.22 J	0.16 D	0.17 D	0.14 D	0.38 D	0.15 D	0.32 D	0.43 D	0.19 D	0.15 UD		
Hexachlorobutadiene	ug/m3	NA	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 UD	0.32 UD	0.32 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD	0.37 UD		
Hexane	ug/m3	NA	0.93	0.18 U	0.37	1.3	0.49	0.19	1.3	0.55	2.8	0.61	0.38	1.7	1	7 J	0.35 JD	0.55 JD	0.47 JD	5 D	4.9 D	0.89 JD	2.8 JD	0.53 JD	4.9 UD		
Isopropyl alcohol	ug/m3	NA	0.25 U	0.96	0.25 U	0.25 U	1.9	0.66	3.4	4.4	1.8	8.3	0.48	1.7	1.2 U	4.9 J	2.9 UD	2.9 UD	2.9 UD	1.4 JD	3						

**Appendix E1  
Summary of Analytical Results - Indoor Air Sampling for Large Retail Space  
Former Gorham Manufacturing Site  
Providence, Rhode Island**

Area:			Large Retail Space																						
Location:			IA-4													LRAIR01	LRAIR02	LRAIR03	LRAIR04	LRAIR05	LRAIR06	LRAIR07	LRAIR08	LRAIR09	
Sample ID:	IA-4-030714	IA-4-061314	IA-4-091214	IA-4-121914	IA-04-032715	IA-4-061115	IA-4-091615	IA-4-121815	IA-4-021816	IA-4080516	IA-4-021017	IA-4-090717	IA-4-022818	IA-4-091218	LRAIR01	LRAIR02	LRAIR03	LRAIR04	LRAIR05	LRAIR06	LRAIR07	LRAIR08	LRAIR09		
Sample Date:	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009	5/15/2009		
Analyte	Units	CT IACTIND 2003																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 UD	0.44 UD	0.25 UD	0.44 UD	0.44 U	0.44 U	0.44 U		0.44 U	0.44 U	0.44 U	0.44 U											
1,1,1-Trichloroethane	ug/m3	500	0.19 UD	0.19 UD	0.055 UD	0.28 D	0.19 U	0.19 U	0.054 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.45	0.52	0.65	0.57	0.51	0.44	0.69	0.5	0.49		
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 UD	0.24 UD	0.069 UD	0.24 UD	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 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	ug/m3	12	0.19 UD	0.19 UD	0.11 UD	0.19 UD	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 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	ug/m3	430	0.14 UD	0.14 UD	0.04 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	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	ug/m3	20	0.14 UD	0.14 UD	0.04 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	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	ug/m3	NA	0.26 UD	0.26 UD	0.15 UD	0.26 UD	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U		
1,2,4-Trimethylbenzene	ug/m3	52	0.56 D	0.26 D	0.17 D	0.14 JD	0.25	0.2	0.22	0.45	0.24	0.2	0.17 U	0.18	0.36	0.21	0.25 U	0.25 U	0.25 U	0.29	0.25 U	0.25 U	0.25 U		
1,2-Dibromothane (EDB)	ug/m3	0.038	0.27 UD	0.27 UD	0.077 UD	0.27 UD	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 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	ug/m3	410	0.21 UD	0.21 UD	0.12 UD	0.21 UD	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 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	ug/m3	0.31	0.14 UD	0.14 UD	0.04 UD	0.14 UD	0.14 U	0.14 U	0.051 J	0.14 U	0.14 U	0.14 U	0.14 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	ug/m3	0.42	0.16 UD	0.16 UD	0.046 UD	0.16 UD	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 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	ug/m3	NA							0.25 U			0.25 U			0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U		
1,3,5-Trimethylbenzene	ug/m3	52	0.17 UD	0.17 UD	0.098 UD	0.17 UD	0.066 J	0.066 J	0.066 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U		
1,3-Butadiene	ug/m3	NA	0.47 D	0.11 D	0.044 UD	0.078 UD	0.078 U	0.078 U	0.16	0.1	0.078 U	0.078 U	0.093	0.078 U	0.078 U	0.078 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	ug/m3	410	0.21 UD	0.21 UD	0.12 UD	0.21 UD	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 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	ug/m3	24	0.21 UD	0.21 UD	0.12 UD	0.08 JD	0.063 J	0.12 J	0.084 J	0.21 U	0.21 U	0.21 U	0.21 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	ug/m3	NA							1.3 U			1.3 U													
2-Butanone	ug/m3	500	1.1 JD	2.9 JD	4.6 D	1.1 JD	1.9 J	1.9 J	1.8 J	2.5 J	1.1 J	1.6 J	0.98 J	1.9 J	2.1 J	1.6 J	3.3	3.4	2.1	2.6	2	1.6	3.1		
2-Hexanone	ug/m3	NA	0.15 D	0.36 D	0.2 D	0.14 UD	0.25	0.14 U	0.14 U	0.22	0.14 U	0.14 U	0.35	0.69	0.14 U	0.73	0.66	0.38	0.51	0.37	0.38	0.61	0.48		
4-Ethyltoluene	ug/m3	NA	0.18 D	0.17 UD	0.098 UD	0.055 JD	0.069 J	0.041 J	0.076 J	0.17 U	0.17 U	0.18	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U		
4-Isopropyltoluene	ug/m3	370																							
4-Methyl-2-pentanone	ug/m3	200	0.48 D	1.3 D	1 D	0.34 D	0.89	0.97	1.6	1.5	0.52	0.14 U	0.13 J	2.1	0.6	1.7	0.42	0.39	0.32	0.36	0.54	0.27	0.3		
Acetone	ug/m3	500	29 D	37 D	38 D	27 D	42	28	170 E	28	31	38	11	31	36	11	12	13	10	11	8.5	7.7	13		
Acrylonitrile	ug/m3	NA																							
Benzene	ug/m3	3.3	2.2 D	0.68 D	0.39 D	0.47 D	0.69	0.36	0.79	1.1	0.54	0.25	0.48	0.58	0.56	0.46	0.54	0.6	0.67	0.55	0.56	0.51	0.53		
Benzyl chloride	ug/m3	NA	0.18 UD	0.18 UD	0.052 UD	0.18 UD	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26 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	ug/m3	0.46	0.24 UD	0.24 UD	0.067 UD	0.24 UD	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U		
Bromoform	ug/m3	7.3	0.36 UD	0.36 UD	0.21 UD	0.36 UD	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U		
Bromomethane	ug/m3	NA	0.14 UD	0.14 UD	0.078 UD	0.14 UD	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 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	ug/m3	NA	0.19 JD	0.62 JD	0.46 JD	0.27 JD	0.31 J	0.35 J	0.44 J	0.31 J	0.14 J	0.3 J	1.1 U	0.34 J	0.14 J	0.28 J	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U		
Carbon tetrachloride	ug/m3	0.54	0.45 D	0.4 D	0.39 D	0.37 D	0.35	0.31	0.41	0.54	0.36	0.44	0.43	0.38	0.41	0.49	0.7	0.68	0.71	0.68	0.68	0.63	0.68		
Chlorobenzene	ug/m3	200	0.16 UD	0.16 UD	0.046 UD	0.16 UD	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 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	ug/m3	500	0.093 UD	0.093 UD	0.053 UD	0.093 UD	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U		
Chloroform	ug/m3	0.5	0.46 D	0.84 D	1.2 D	0.69 D	0.39	1.2	0.28	0.34	0.24	0.74	0.17 U	0.69	1.9	0.21	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U		
Chloromethane	ug/m3	80	1.4 D	1.2 D	0.89 D	0.97 D	1.2	1.8	1.2	1.3	1.2	1.3	1.2	1.4	1.3	1.1	1	0.98	1	0.95	1	0.92	1.1		
cis-1,2-Dichloroethene	ug/m3	100	0.14 UD	0.14 UD	0.04 UD	0.14 UD	0.14 U	0.14 U	0.053 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.63	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	ug/m3	NA	0.16 UD	0.16 UD	0.045 UD	0.16 UD	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U		
Cyclohexane	ug/m3	NA	0.33 D	0.12 UD	0.069 UD	0.12 UD	0.12 U	0.12 U	1.3	0.12 U	0.12 U	0.12 U	0.12 U	0.26	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U		
Dibromochloromethane	ug/m3	NA	0.3 UD	0.3 UD	0.085 UD	0.3 UD	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.43 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	ug/m3	500	1.3 D	2.1 D	2.1 D	1.7 D	1.4	2.1	1.7	2.2	1.6	0.61	0.91	1.5	2.4	2.2	2.5	2.3	2.6	2.4	2.7	2.4	2.8		
Ethanol	ug/m3	NA	83 D	240 D	150 D	260 D	190	330	57	69	120	2.6 U	47	290	550 D	11	65	9	6.5	5.9	6	5.6	5.9		
Ethyl acetate	ug/m3	NA	0.88 D	0.26 D	0.38 D	0.46 D	0.69	0.69	9.9	0.6	0.73	1.5	0.31	1.5	0.41	0.25 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U		
Ethylbenzene	ug/m3	290	0.57 D	0.27 D	0.12 D	0.14 JD	0.19	0.16	0.34	0.86	0.17	0.17	0.15 U	0.17	0.15 J	0.26	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.27		
Hexachlorobutadiene	ug/m3	NA	0.37 UD	0.37 UD	0.21 UD	0.37 UD	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U			
Hexane	ug/m3	NA	1.3 JD	0.75 JD	0.58 JD	0.44 JD	5.6	0.45 J	1.6 J	2.5 J	0.42 J	0.81 J	0.3 J	0.35 J	0.36 J	0.									

Appendix E1  
 Summary of Analytical Results - Indoor Air Sampling for Large Retail Space  
 Former Gorham Manufacturing Site  
 Providence, Rhode Island

Area:		Large Retail S	
Location:		LRAIR10	
Sample ID:		LRAIR10	
Sample Date:		5/15/2009	
Analyte	Units	CT IACTIND 2003	
1,1,1,2-Tetrachloroethane	ug/m3	1.1	
1,1,1-Trichloroethane	ug/m3	500	0.53
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U
1,1,2-Trichloroethane	ug/m3	12	0.27 U
1,1-Dichloroethane	ug/m3	430	0.2 U
1,1-Dichloroethene	ug/m3	20	0.2 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U
1,2-Dichlorobenzene	ug/m3	410	0.3 U
1,2-Dichloroethane	ug/m3	0.31	0.2 U
1,2-Dichloropropane	ug/m3	0.42	0.23 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.35 U
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U
1,3-Butadiene	ug/m3	NA	0.11 U
1,3-Dichlorobenzene	ug/m3	410	0.3 U
1,4-Dichlorobenzene	ug/m3	24	0.3 U
1,4-Dioxane	ug/m3	NA	
2-Butanone	ug/m3	500	1.4
2-Hexanone	ug/m3	NA	0.29
4-Ethyltoluene	ug/m3	NA	0.25 U
4-Isopropyltoluene	ug/m3	370	
4-Methyl-2-pentanone	ug/m3	200	0.23
Acetone	ug/m3	500	6.9
Acrylonitrile	ug/m3	NA	
Benzene	ug/m3	3.3	0.57
Benzyl chloride	ug/m3	NA	0.26 U
Bromodichloromethane	ug/m3	0.46	0.33 U
Bromoform	ug/m3	7.3	0.51 U
Bromomethane	ug/m3	NA	0.19 U
Carbon disulfide	ug/m3	NA	0.16 U
Carbon tetrachloride	ug/m3	0.54	<b>0.66</b>
Chlorobenzene	ug/m3	200	0.23 U
Chloroethane	ug/m3	500	0.13 U
Chloroform	ug/m3	0.5	0.24 U
Chloromethane	ug/m3	80	1.2
cis-1,2-Dichloroethene	ug/m3	100	0.2 U
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U
Cyclohexane	ug/m3	NA	0.17 U
Dibromochloromethane	ug/m3	NA	0.43 U
Dichlorodifluoromethane	ug/m3	500	2.7
Ethanol	ug/m3	NA	14
Ethyl acetate	ug/m3	NA	0.18 U
Ethylbenzene	ug/m3	290	0.22 U
Hexachlorobutadiene	ug/m3	NA	1.1 U
Hexane	ug/m3	NA	0.18 U
Isopropyl alcohol	ug/m3	NA	3.2
Isopropylbenzene	ug/m3	120	
m,p-Xylene	ug/m3	NA	0.5
Methyl methacrylate	ug/m3	NA	
Methylene chloride	ug/m3	17	1.4
Methyl-t-butyl ether	ug/m3	190	0.18 U
Naphthalene	ug/m3	NA	
n-Butylbenzene	ug/m3	410	
n-Heptane	ug/m3	NA	0.2 U
o-Xylene	ug/m3	NA	0.26
Propylene (Propene)	ug/m3	NA	0.09 U
sec-Butylbenzene	ug/m3	410	
Styrene	ug/m3	290	0.21 U
Tetrachloroethene	ug/m3	5	0.46
Tetrahydrofuran	ug/m3	NA	0.15 U
Toluene	ug/m3	500	0.47
trans-1,2-Dichloroethene	ug/m3	200	0.2 U
trans-1,3-Dichloropropene	ug/m3	NA	0.22 U
Trichloroethene	ug/m3	1	0.27 U
Trichlorofluoromethane	ug/m3	500	1.4
Trichlorotrifluoroethane	ug/m3	NA	0.58
Vinyl acetate	ug/m3	NA	0.18 U
Vinyl chloride	ug/m3	1.9	0.13 U

Notes:  
 NA - not available  
 U - Not detected, value is the detection limit  
 B - Compounds detected in method blank as well as field sample  
 J - Indicates compound was detected at an estimated value.  
 D - Result from diluted analyses  
 ug/m3 - micrograms per cubic meter  
 Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 10/24/2018

Checked By: HWC, 10/24/2018

## **Appendix E2**

Summary of All Analytical Results –  
Extraction Well and Post-Treatment Samples for Large Retail Space

**Appendix E2**  
**Summary of Analytical Results - Extraction Well and Post-Treatment Sampling for Large Retail Space**  
**Former Gorham Manufacturing Site**  
**Providence, Rhode Island**

Area:			Extraction Well - Large Retail Space																								
Location:			EW-1		EW-2		EW-3		EW-4		EW-Combined																
Sample ID:			EW-1-030609	EW-1-033109	EW-2-030609	EW-2-033109	EW-3-030609	EW-3-033109	EW-4-030609	EW-4-033109	EW-Combined-020309	EW-COMBINED-021109	EW-COMBINED-021809	EW-COMBINED-022609	EW-COMBINED-041409	EW-COMBINED-042409	EW-COMBINED-091709	EW-COMBINED-092409	EW-COMBINED-100109	EW-COMBINED-100809	EW-COMBINED-012810	EW-COMBINED-020510	EW-COMBINED-021210	EW-COMBINED-021910	EW-COMBINED-043010		
Sample Date:			3/6/2009	3/31/2009	3/6/2009	3/31/2009	3/6/2009	3/31/2009	3/6/2009	3/31/2009																	
Analyte	Units	CT IACTIND 2003																									
1,1,1,2-Tetrachloroethane	ug/m3	1.1																									
1,1,1-Trichloroethane	ug/m3	500	<b>59000</b>	<b>66000</b>	<b>26000</b>	<b>30000</b>	<b>54000</b>	<b>72000</b>	<b>11000</b>	<b>14000</b>	<b>190000</b>	<b>91000</b>	<b>73000</b>	<b>32000</b>	<b>3500</b>	<b>19000</b>	<b>11000</b>	<b>8100</b>	<b>7900</b>	<b>6800</b>	<b>1500</b>	<b>2500</b>	150	<b>1200</b>	<b>1400</b>		
1,1,2,2-Tetrachloroethane	ug/m3	0.14	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	1.7 U	6.8 U	6.8 U	6.8 U	14 U	14 U	6.8 U	0.34 U	3.4 U	6.8 U	14 U	14 U	0.68 U	6.8 U	0.34 U	0.68 U	0.68 U		
1,1,2-Trichloroethane	ug/m3	12	6.4	10	5.4 U	5.4 U	5.4 U	5.4 U	1.4 U	5.4 U	5.4 U	5.4 U	11 U	11 U	5.4 U	0.65	2.7 U	5.4 U	11 U	11 U	0.54 U	5.4 U	0.27 U	0.54 U	0.54 U		
1,1-Dichloroethane	ug/m3	430	<b>4100</b>	<b>4400</b>	<b>5700</b>	<b>7000</b>	<b>1600</b>	<b>2300</b>	<b>690</b>	<b>1400</b>	<b>19000</b>	<b>7800</b>	<b>5300</b>	<b>4800</b>	<b>390</b>	<b>2200</b>	<b>1600</b>	<b>1900</b>	<b>1900</b>	<b>1700</b>	<b>280</b>	<b>370</b>	31	<b>310</b>	<b>200</b>		
1,1-Dichloroethane	ug/m3	20	<b>570</b>	<b>1200</b>	<b>330</b>	<b>640</b>	<b>340</b>	<b>560</b>	<b>97</b>	<b>210</b>	<b>7800</b>	<b>1800</b>	<b>1000</b>	<b>630</b>	<b>73</b>	<b>420</b>	<b>310</b>	<b>250</b>	<b>260</b>	<b>280</b>	<b>52</b>	<b>66</b>	7.3	<b>62</b>	<b>30</b>		
1,2,4-Trichlorobenzene	ug/m3	NA	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	1.9 U	7.4 U	7.4 U	7.4 U	15 U	15 U	7.4 U	0.37 U	3.7 U	7.4 U	15 U	15 U	0.74 U	7.4 U	0.37 U	0.74 U	0.74 U		
1,2,4-Trimethylbenzene	ug/m3	52	5 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U	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	0.5 U		
1,2-Dibromoethane (EDB)	ug/m3	0.038	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	7.6 U	7.6 U	7.6 U	16 U	16 U	7.6 U	0.38 U	3.8 U	7.6 U	16 U	16 U	0.76 U	7.6 U	0.38 U	0.76 U	0.76 U		
1,2-Dichlorobenzene	ug/m3	410	6 U	6 U	6 U	6 U	6 U	6 U	1.5 U	6 U	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	0.6 U		
1,2-Dichloroethane	ug/m3	0.31	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U	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	0.4 U		
1,2-Dichloropropane	ug/m3	0.42	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	4.6 U	4.6 U	4.6 U	9.2 U	9.2 U	4.6 U	0.23 U	2.3 U	4.6 U	9.2 U	9.2 U	0.46 U	4.6 U	0.23 U	0.46 U	0.46 U		
1,2-Dichlorotetrafluoroethane	ug/m3	NA	7 U	7 U	7 U	7 U	7 U	7 U	1.8 U	7 U	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	0.7 U		
1,3,5-Trimethylbenzene	ug/m3	52	5 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U	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	0.5 U		
1,3-Butadiene	ug/m3	NA	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	0.55 U	2.2 U	2.2 U	2.2 U	4.4 U	4.4 U	2.2 U	0.11 U	2.3 U	4.5 U	8.9 U	8.9 U	0.45 U	4.5 U	0.23 U	0.45 U	0.45 U		
1,3-Dichlorobenzene	ug/m3	410	6 U	6 U	6 U	6 U	6 U	6 U	1.5 U	6 U	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	0.6 U		
1,4-Dichlorobenzene	ug/m3	24	6 U	6 U	6 U	6 U	6 U	6 U	1.5 U	6 U	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	0.6 U		
1,4-Dioxane	ug/m3	NA																									
2-Butanone	ug/m3	500	3.5	8.9	12	11	36	10	36	6.4	37	32	48	60	21	40	7.8	31	30	21	4	11	10	9	12		
2-Hexanone	ug/m3	NA	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U	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	0.4 U		
4-Ethyltoluene	ug/m3	NA	5 U	5 U	5 U	5 U	5 U	5 U	1.3 U	5 U	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	0.5 U		
4-Methyl-2-pentanone	ug/m3	200	4 U	4 U	4 U	4 U	4 U	4 U	1 U	4 U	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	0.4 U		
Acetone	ug/m3	500	35	16	9.6 U	9.6 U	53	24	26	12	<b>1600</b>	31	75	63	4.8 U	0.24 U	20	9.6 U	20 U	20 U	31	9.6 U	13	0.96 U	16		
Benzene	ug/m3	3.3	<b>5.3</b>	<b>11</b>	<b>5.6</b>	<b>7.8</b>	3.2 U	<b>6.8</b>	1.4	3.2 U	<b>14</b>	<b>7.3</b>	<b>8.4</b>	6.4 U	3.2 U	2.5	2.7	3.2 U	6.4 U	6.4 U	0.61	3.2 U	0.63	0.43	0.74		
Benzyl chloride	ug/m3	NA	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	5.2 U	1.3 U	5.2 U	5.2 U	5.2 U	11 U	11 U	5.2 U	0.26 U	2.6 U	5.2 U	11 U	11 U	0.52 U	5.2 U	0.26 U	0.52 U	0.52 U		
Bromodichloromethane	ug/m3	0.46	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	6.6 U	1.7 U	6.6 U	6.6 U	6.6 U	14 U	14 U	6.6 U	0.33 U	3.3 U	6.6 U	14 U	14 U	0.66 U	6.6 U	0.33 U	0.66 U	0.66 U		
Bromoform	ug/m3	7.3	11 U	11 U	11 U	11 U	11 U	11 U	2.6 U	11 U	11 U	11 U	21 U	21 U	11 U	0.51 U	5.1 U	11 U	21 U	21 U	1.1 U	11 U	0.51 U	1.1 U	1.1 U		
Bromomethane	ug/m3	NA	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	0.95 U	3.8 U	3.8 U	3.8 U	7.6 U	7.6 U	3.8 U	0.19 U	1.9 U	3.8 U	7.6 U	7.6 U	0.38 U	3.8 U	0.19 U	0.38 U	0.38 U		
Carbon disulfide	ug/m3	NA	3.2 U	3.2 U	27	25	3.2 U	3.2 U	1.8	3.2 U	3.2 U	3.2 U	63	32	20	3.2 U	4.6	1.6 U	3.2 U	6.4 U	6.4 U	4.3	3.2 U	0.17	3.8	0.77	
Carbon tetrachloride	ug/m3	0.54	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	6.2 U	1.6 U	6.2 U	6.2 U	6.2 U	13 U	13 U	6.2 U	0.57	3.1 U	6.2 U	13 U	13 U	0.62 U	6.2 U	0.38	0.62 U	0.62 U		
Chlorobenzene	ug/m3	200	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	4.6 U	4.6 U	4.6 U	9.2 U	9.2 U	4.6 U	0.23 U	2.3 U	4.6 U	9.2 U	9.2 U	0.46 U	4.6 U	0.23 U	0.46 U	0.46 U		
Chloroethane	ug/m3	500	170	250	<b>700</b>	<b>590</b>	41	44	17	33	<b>3400</b>	<b>1700</b>	<b>1200</b>	450	42	220	110	94	92	88	9.8	11	1.3	9.9	4.8		
Chloroform	ug/m3	0.5	<b>20</b>	<b>34</b>	<b>9.6</b>	<b>15</b>	<b>13</b>	<b>23</b>	<b>3.6</b>	<b>7.5</b>	<b>27</b>	<b>17</b>	<b>20</b>	<b>17</b>	4.8 U	<b>8.8</b>	<b>12</b>	<b>14</b>	<b>11</b>	<b>11</b>	<b>4.1</b>	<b>5.8</b>	0.49	<b>6.2</b>	<b>6</b>		
Chloromethane	ug/m3	80	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	2 U	2 U	4 U	4 U	2 U	0.82	1 U	2 U	4 U	4 U	0.2 U	2 U	0.1 U	0.2 U	0.2 U		
cis-1,2-Dichloroethene	ug/m3	100	<b>2000</b>	<b>2200</b>	<b>6100</b>	<b>7600</b>	<b>610</b>	<b>1200</b>	<b>560</b>	<b>1300</b>	<b>14000</b>	<b>4700</b>	<b>6300</b>	<b>4200</b>	<b>300</b>	<b>1600</b>	<b>1600</b>	<b>1500</b>	<b>1300</b>	<b>1200</b>	<b>190</b>	<b>280</b>	21	<b>240</b>	<b>180</b>		
cis-1,3-Dichloropropene	ug/m3	NA	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 U	4.4 U	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U		
Cyclohexane	ug/m3	NA	3.4 U	5.7	8.4	8.8	3.4 U	3.4 U	0.85 U	3.4 U	3.4 U	3.4 U	6.8 U	6.8 U	3.4 U	0.17 U	1.7 U	3.4 U	6.8 U	6.8 U	0.34 U	3.4 U	0.17 U	0.34 U	0.34 U		
Dibromochloromethane	ug/m3	NA	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	8.6 U	8.6 U	8.6 U	18 U	18 U	8.6 U	0.43 U	4.3 U	8.6 U	18 U	18 U	0.86 U	8.6 U	0.43 U	0.86 U	0.86 U		
Dichlorodifluoromethane	ug/m3	500	5 U	170	5 U	5 U	5.4	7	2.6	5 U	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	1.7		
Ethanol	ug/m3	NA	33	40	12	8.3	39	1.8 U	8.6	1.8 U	960	81	120	120	17	21	200	96	32	33	39	60	23	62	10		
Ethyl acetate	ug/m3	NA	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	3.6 U	3.6 U	7.3 U	3.6 U	7.2 U	15 U	0.37 U	1.8 U	3.6 U	7.2 U	7.2 U	0.36 U	3.6 U	0.18 U	0.36 U	0.36 U		
Ethylbenzene	ug/m3	290	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	4.4 U	9.4	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U		
Hexachlorobutadiene	ug/m3	NA	22 U	22 U	22 U	22 U	22 U	22 U	5.4 U	22 U	22 U	22 U	43 U	43 U	22 U	1.1 U	5.3 U	11 U	22 U	22 U	1.1 U	11 U	0.53 U	1.1 U	1.1 U		
Hexane	ug/m3	NA	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.2	3.6 U	16	4.9	270	7.2 U	3.6 U	2.3	1.9	3.6 U	7.2 U	7.2 U	0.36 U	3.6 U	0.74	0.36 U	0.92		
Isopropyl alcohol	ug/m3	NA	28	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.6	5.9	7.5	7.1	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	0.5 U	2.6
m,p-Xylene	ug/m3	NA	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	8.6 U	25	8.6 U	18 U	18 U	8.6 U	0.43 U	4.3 U	8.6 U	18 U	18 U	0.86 U	8.6 U	0.49	0.86 U	0.86 U		
Methyl methacrylate	ug/m3	NA																									
Methylene chloride	ug/m3	17	7 U	<b>19</b>	7 U	17	7 U	13	<b>19</b>	12	12	7 U	14 U	14 U	<b>19</b>	2.6	7 U	14 U	28 U	28 U	1.4 U	14 U	2.6	1.4 U	1.4 U		
Methyl-t-butyl ether	ug/m3	190	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	3.6 U	3.6 U	3.6 U	7.2 U	7.2 U	3.6 U	0.18 U</											

**Appendix E2  
Summary of Analytical Results - Extraction Well and Post-Treatment Sampling for Large Retail Space  
Former Gorham Manufacturing Site  
Providence, Rhode Island**

Area:			Extraction Well - Large Retail Space																						
Location:			EW-Combined																						
Sample ID:	EW-COMBINED-052810	EW-COMBINED-070110	EW-COMBINED-091610	EW-COMBINED-120710	EW-COMBINED-021711	EW-COMBINED-091511	EW-Combined-120811	EW-Combined-030812	EW-Combined-061412	EW-Combined-091312	EW-Combined-010313	EW-Combined-031513	EW-Combined-060713	EW-Combined-090613	EW-Combined-121313	EW-Combined-030714	EW-Combined-061314	EW-Combined-091214	EW-Combined-121914	EW-Combined-032715	EW-Combined-061115	EW-Combined-091615	EW-combined-121815		
Sample Date:	5/28/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	3/27/2015	6/11/2015	9/16/2015	12/18/2015		
Analyte	Units	CT IACTIND 2003																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1							2.5 UD					1.2 UD					1.2 UD						
1,1,1-Trichloroethane	ug/m3	500	<b>1700</b>	<b>2000</b>	<b>4700</b>	280 D	<b>2500 D</b>	340 D	12 UD	1.2 UD	1.2 UD	1.2 UD	1.2 UD	1.2 UD	0.44 UD	1.2 UD	1.2 UD	1.2 UD	1.2 UD	2.5 UD	1.2 UD	1.2 U	1.2 U	2.5 U	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	6.8 U	0.68 U	0.68 U	0.69 UD	0.69 UD	1.4 UD	0.69 UD	3.4 UD	0.69 UD	0.69 UD	0.69 UD	0.24 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	0.69 UD	1.4 U	1.4 U	
1,1,2-Trichloroethane	ug/m3	12	5.4 U	0.54 U	<b>0.55</b>	0.55 UD	0.55 UD	1.1 UD	0.55 UD	2.7 UD	0.55 UD	<b>0.26 JD</b>	0.55 UD	0.55 UD	0.55 UD	0.19 UD	0.55 UD	0.55 UD	0.55 UD	1.1 UD	0.55 UD	0.55 U	<b>0.28 J</b>	1.1 U	1.1 U
1,1-Dichloroethane	ug/m3	430	270	290	330	36 D	170 D	200 D	70 D	78 D	130 D	200 D	0.4 D	59 D	68 D	150 D	62 D	53 D	68 D	130 D	55 D	49	100	190	69
1,1-Dichloroethane	ug/m3	20	<b>40</b>	<b>52</b>	<b>81</b>	<b>7.3 D</b>	<b>58 D</b>	<b>44 D</b>	<b>21 D</b>	<b>34 D</b>	<b>42 D</b>	15 D	0.4 D	<b>24 D</b>	<b>38 D</b>	<b>56 D</b>	<b>24 D</b>	<b>27 D</b>	<b>40 D</b>	<b>52 D</b>	14 D	<b>22</b>	<b>46</b>	<b>160</b>	<b>21</b>
1,2,4-Trichlorobenzene	ug/m3	NA	7.4 U	0.74 U	0.74 U	0.74 UD	0.74 UD	3 UD	1.5 UD	<b>3800 D</b>	1.5 UD	1.5 UD	1.5 UD	1.5 UD	0.74 UD	0.26 UD	0.74 UD	0.74 UD	0.74 UD	1.5 UD	0.74 UD	0.74 U	0.74 U	1.5 U	1.5 U
1,2,4-Trimethylbenzene	ug/m3	52	5 U	0.5 U	0.5 U	0.49 UD	0.49 UD	0.98 UD	1.2 D	4.9 UD	<b>0.57 D</b>	<b>0.24 JD</b>	0.49 UD	14 D	0.49 UD	0.49 UD	0.49 UD	0.49 UD	0.98 UD	0.49 UD	0.49 U	0.98 U	0.98 U	0.98 U	
1,2-Dibromoethane (EDB)	ug/m3	0.038	7.6 U	0.76 U	0.76 U	0.77 UD	0.77 UD	1.5 UD	0.77 UD	3.8 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	0.27 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	0.77 UD	0.77 U	1.5 U	1.5 U	
1,2-Dichlorobenzene	ug/m3	410	6 U	0.6 U	0.6 U	0.6 UD	0.6 UD	1.2 UD	0.6 UD	<b>7.3 D</b>	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	0.6 UD	1.2 UD	0.6 UD	0.6 U	1.2 U	1.2 U	1.2 U	
1,2-Dichloroethane	ug/m3	0.31	4 U	0.4 U	0.4 U	0.4 UD	0.4 UD	0.81 UD	0.4 UD	2 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 UD	0.4 U	0.81 U	0.81 U	0.81 U	
1,2-Dichloropropane	ug/m3	0.42	4.6 U	0.46 U	0.46 U	0.46 UD	0.46 UD	0.92 UD	0.46 UD	2.3 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.16 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 U	0.92 U	0.92 U	0.92 U	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	7 U	0.7 U	0.7 U																			1.4 U	
1,3,5-Trimethylbenzene	ug/m3	52	5 U	0.5 U	0.5 U	0.49 UD	0.49 UD	0.98 UD	<b>0.29 JD</b>	4.9 UD	<b>0.15 JD</b>	0.49 UD	0.49 UD	<b>3.9 D</b>	0.49 UD	0.17 UD	0.49 UD	0.49 UD	0.49 UD	0.98 UD	0.49 UD	0.49 U	0.98 U	0.98 U	
1,3-Butadiene	ug/m3	NA	2.2 U	0.22 U	0.22 U	0.22 UD	0.22 UD	0.44 UD	0.22 UD	2.2 UD	0.22 UD	0.22 UD	0.22 UD	0.22 UD	0.078 UD	0.22 UD	0.22 UD	0.22 UD	0.44 UD	0.22 UD	0.22 U	0.22 U	0.44 U	0.44 U	
1,3-Dichlorobenzene	ug/m3	410	6 U	0.6 U	0.6 U	0.6 UD	0.6 UD	1.2 UD	0.6 UD	6 UD	0.6 UD	0.6 UD	0.6 UD	1.1 D	0.6 UD	0.21 UD	0.6 UD	0.6 UD	0.6 UD	1.2 UD	0.6 UD	0.6 U	1.2 U	1.2 U	
1,4-Dichlorobenzene	ug/m3	24	6 U	0.6 U	0.6 U	0.6 UD	0.6 UD	1.2 UD	0.6 UD	6 UD	0.6 UD	0.6 UD	0.6 UD	<b>0.64 D</b>	0.6 UD	0.21 UD	0.6 UD	0.6 UD	0.6 UD	1.2 UD	0.6 UD	0.6 U	1.2 U	1.2 U	
1,4-Dioxane	ug/m3	NA						<b>0.72 UD</b>																7.2 U	
2-Butanone	ug/m3	500	22	22	10	4.5 D	4.5 BD	24 JD	1.3 JD	120 UD	110 D	16 D	12 JD	22 D	5.3 JD	7.6 D	0.97 JD	2.5 JD	5.1 JD	3.3 JD	1.4 JD	1.2 J	1.2 J	1.3 J	1.5 J
2-Hexanone	ug/m3	NA	4 U	0.4 U	0.4 U	0.41 UD	0.41 UD	<b>0.82 JD</b>	<b>0.16 JD</b>	4.1 UD	0.31 JD	0.41 UD	0.41 UD	1.4 D	0.41 UD	<b>0.26 D</b>	0.41 UD	0.41 UD	0.41 UD	0.82 UD	0.41 UD	0.41 U	0.82 U	0.82 U	
4-Ethyltoluene	ug/m3	NA	5 U	0.5 U	0.5 U	0.49 UD	0.49 UD	0.98 UD	<b>0.27 JD</b>	4.9 UD	0.49 UD	0.49 UD	0.49 UD	<b>3.4 D</b>	0.49 UD	0.17 UD	0.49 UD	0.49 UD	0.98 UD	0.49 UD	0.49 U	0.98 U	0.98 U	0.98 U	
4-Methyl-2-pentanone	ug/m3	200	4 U	0.4 U	0.4 U	0.41 UD	0.41 UD	0.82 UD	<b>0.16 JD</b>	4.1 UD	<b>0.38 JD</b>	0.41 UD	0.41 UD	<b>8.7 D</b>	0.41 UD	0.14 UD	0.41 UD	0.41 UD	0.82 UD	0.41 UD	<b>0.13 J</b>	0.41 U	0.82 U	0.82 U	
Acetone	ug/m3	500	24	16	6.6	11 BD	6.3 BD	19 JD	6.6 JD	22 JD	19 D	14 BD	9.5 D	75 D	12 D	11 D	6.6 JD	15 D	9.8 D	19 UD	6.2 JD	6.1 J	9.5 U	12 J	6.7 J
Benzene	ug/m3	3.3	<b>5.5</b>	<b>0.84</b>	<b>1.7</b>	<b>0.5 D</b>	<b>0.72 D</b>	<b>0.77 D</b>	<b>0.56 D</b>	3.2 UD	1 D	<b>0.96 D</b>	<b>0.32 D</b>	<b>5 D</b>	0.32 UD	<b>0.82 D</b>	0.32 UD	<b>0.63 D</b>	<b>0.66 D</b>	<b>0.35 JD</b>	<b>0.33 D</b>	0.39	0.36	<b>0.55 J</b>	<b>0.69</b>
Benzyl chloride	ug/m3	NA	5.2 U	0.52 U	0.52 U	0.52 UD	0.52 UD	1 UD	0.52 UD	5.2 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.18 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 UD	0.52 U	1 U	1 U	1 U	
Bromodichloromethane	ug/m3	0.46	6.6 U	0.66 U	0.66 U	0.67 UD	0.67 UD	1.3 UD	0.67 UD	3.4 UD	<b>10 D</b>	0.67 UD	0.67 UD	0.67 UD	0.67 UD	0.24 UD	0.67 UD	0.67 UD	0.67 UD	0.67 UD	0.67 U	1.3 U	<b>9.1</b>	9.1	
Bromoform	ug/m3	7.3	11 U	1.1 U	1.1 U	1 UD	1 UD	2.1 UD	1 UD	10 UD	1 UD	1 UD	1 UD	1 UD	1 UD	0.36 UD	1 UD	1 UD	1 UD	2.1 UD	1 UD	1 U	2.1 U	2.1 U	
Bromomethane	ug/m3	NA	3.8 U	0.38 U	0.38 U	0.39 UD	0.39 UD	0.78 UD	0.39 UD	3.9 UD	0.39 UD	0.39 UD	0.39 UD	0.39 UD	0.14 UD	0.39 UD	0.39 UD	0.39 UD	0.39 UD	0.78 UD	0.39 UD	0.39 U	0.78 U	0.78 U	
Carbon disulfide	ug/m3	NA	3.2 U	1.1	1.3	0.31 UD	<b>0.73 D</b>	<b>6.2 JD</b>	3.1 UD	31 UD	1.7 JD	3.6 D	3.1 JD	<b>0.82 JD</b>	3.1 UD	<b>0.73 JD</b>	3.1 UD	3.1 UD	<b>0.4 JD</b>	<b>0.52 JD</b>	<b>0.33 JD</b>	<b>0.24 J</b>	<b>0.37 J</b>	1 J	6.2 U
Carbon tetrachloride	ug/m3	0.54	6.2 U	<b>0.73</b>	<b>1.1</b>	0.63 UD	<b>0.63 D</b>	1.3 JD	<b>0.48 JD</b>	3.1 UD	0.5 JD	<b>0.74 D</b>	0.63 UD	0.63 UD	0.63 UD	<b>0.68 D</b>	0.63 UD	0.63 UD	0.63 UD	<b>0.58 JD</b>	0.4 JD	<b>0.28 J</b>	<b>0.49 J</b>	<b>0.75 J</b>	1.3 U
Chlorobenzene	ug/m3	200	7.2	0.46 U	0.46 U	0.46 UD	0.46 UD	0.92 UD	0.46 UD	4.6 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.16 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 UD	0.46 U	0.92 U	0.92 U	0.92 U	
Chloroethane	ug/m3	500	7.2	9.4	17	1 D	3.6 D	6.7 D	2.1 D	2.6 UD	3 D	5.3 D	0.26 D	1.1 D	1.4 D	3.3 D	1.2 D	1 D	1.5 D	1.8 D	0.77 D	0.44	1	2.7	0.93
Chloroform	ug/m3	0.5	<b>7.9</b>	<b>8</b>	<b>8.3</b>	<b>1.6 D</b>	<b>6.9 D</b>	<b>7.6 D</b>	<b>2.7 D</b>	<b>3.2 D</b>	<b>6.3 D</b>	<b>8.5 D</b>	0.49 D	<b>3.5 D</b>	<b>2.3 D</b>	<b>7 D</b>	<b>1.5 D</b>	<b>3.1 D</b>	<b>3.4 D</b>	<b>4.9 D</b>	<b>3.4 D</b>	<b>2.5</b>	<b>6.4</b>	<b>4.1</b>	<b>3.1</b>
Chloromethane	ug/m3	80	2 U	0.2 U	0.2 U	0.21 UD	0.21 UD	0.41 UD	0.21 UD	2.1 UD	20 D	0.21 UD	0.21 UD	0.21 UD	0.14 UD	0.41 UD	0.41 UD	0.41 UD	0.83 UD	0.41 UD	0.41 U	0.83 U	<b>15</b>	15	
cis-1,2-Dichloroethene	ug/m3	100	<b>260</b>	<b>260</b>	<b>360</b>	<b>28 D</b>	<b>120 D</b>	<b>160 D</b>	<b>38 D</b>	<b>47 D</b>	<b>75 D</b>	<b>150 D</b>	0.4 D	30 D	24 D	93 D	12 D	25 D	30 D	57 D	25 D	21	52	41	20
cis-1,3-Dichloropropene	ug/m3	NA	4.4 U	0.44 U	0.44 U	0.45 UD	0.45 UD	0.91 UD	0.45 UD	2.3 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.16 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 UD	0.45 U	0.91 U	0.91 U	0.91 U
Cyclohexane	ug/m3	NA	3.4 U	0.34 U	<b>0.55</b>	0.34 UD	0.34 UD	0.69 UD	0.34 UD	3.4 UD	0.34 UD	0.34 UD	0.34 UD	21 D	0.34 UD	0.12 UD	0.34 UD	0.34 UD	0.34 UD	0.69 UD	0.34 UD	0.34 U	0.69 U	0.69 U	0.69 U
Dibromochloromethane	ug/m3	NA	8.6 U	0.86 U	0.86 U	0.85 UD	0.85 UD	1.7 UD	0.85 UD	4.3 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	0.3 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	0.85 UD	0.85 U	1.7 U	1.7 U	1.7 U	
Dichlorodifluoromethane	ug/m3	500	5 U	2.5	1.6	3 D	4.1 D	2.9 D	2.9 D	4.9 UD	2.9 D	2.9 D	0.49 D	2.5 D	2.1 D	11 D	3.2 D	2.4 D	2.1 D	2.5 D	2.7 D	1.8	2.9	2.6	3.2
Ethanol	ug/m3	NA	19 U	15	1.9 U	8.2 D	17 D	15 JD	9.2 D	75 UD	7.2 JD	12 D	7.5 D	320 D	34 D	30 D	11 D	38 D	41 D	15 D	12 D	5.2 J	5.1 J	20	18
Ethyl acetate	ug/m3	NA	3.6 U	0.36 U	0.36 U	0.36 UD	0.36 UD	0.72 UD	0.36 UD	3.6 UD	1.3 D	0.36 UD	0.36 UD	110 D	0.36 UD	0.13 UD	1.8 D	1.8 D	0.36 UD	0.72 UD	0.36 UD	11	1.3	0.72 U	0.72 U
Ethylbenzene	ug/m3	290	4.4 U	0.44 U	<b>0.58</b>	0.43 UD	0.43 UD	0.87 UD	<b>0.58 D</b>	4.3 UD	<b>0.28 JD</b>	0.21 UD	0.43 UD	13 D	0.43 UD	0.2 D	0.43 UD	0.43 UD	0.43 UD	0.87 UD	0.43 UD	0.43 U	0.87 U	0.87 U	0.87 U
Hexachlorobutadiene	ug/m3	NA	11 U	1.1 U	1.1 U	1.1 UD	1.1 UD	2.1 UD	1.1 UD	11 UD	1.1 UD	1.1 UD	1.1 UD	1.1 UD	0.37 UD	1.1 UD	1.1 UD	1.1 UD	2.1 UD	1.1 UD	1.1 U	2.1 U	2.1 U	2.1 U	
Hexane	ug/m3	NA	3.6 U	<b>0.44</b>	<b>0.71 U</b>	0.7 UD	<b>0.8 D</b>	28 UD	<b>0.66 JD</b>	140 UD	0.91 JD	1.5 JD	14 JD	<b>6.8 JD</b>	14 UD	<b>2.2 JD</b>	<b>1.2 JD</b>	<b>0.8 JD</b>	14 UD	28 UD	14 UD	<b>7.9 J</b>	14 U	<b>1.6 J</b>	28 U
Isopropyl alcohol	ug/m3	NA	2.4 U	0.24 U	0.5 U	<b>0.84 D</b>	0.25 UD	20 JD	9.8 UD	98 UD	3.1 JD	2.9 JD	9.8 UD	27 D	9.8 UD	3.4 UD	3 JD	1.6 JD	1.6 JD	2.7 JD	9.8 UD	9.8 U	3.8 J	3.7 J	20 U
m,p-Xylene	ug/m3	NA	8.6 U	0.86 U	1.6	0.87 UD	0.87 JD	1.7 UD	1.6 D	8.7 UD	0.51 JD	0.59 JD	0.87 UD	34 D	0.87 UD	0.4 D	0.87 UD	0.57 JD	0						

**Appendix E2  
Summary of Analytical Results - Extraction Well and Post-Treatment Sampling for Large Retail Space  
Former Gorham Manufacturing Site  
Providence, Rhode Island**

Area:			Extraction Well - Large Retail Space						Post Treatment - Large Retail Space								
Location:			EW-Combined						PostCarbon								
Sample ID:			EW-Combined-021816	EW-Combined-080516	EW-Combined-021017	EW-Combined-090717	EW-Combined-022818	EW-Combined-091218	Post carbon-020309	POST CARBON-021109	POST CARBON-021809	POST CARBON-022609	POST CARBON-041409	POST CARBON-100809	Post-Carbon-010810	Post-Carbon-121914	Post Carbon-091218
Sample Date:			2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/3/2009	2/11/2009	2/18/2009	2/26/2009	4/14/2009	10/8/2009	1/8/2010	12/19/2014	9/12/2018
Analyte	Units	CT IACTIND 2003															
1,1,1,2-Tetrachloroethane	ug/m3	1.1	2.5 U		1.2 U	2.5 U	2.5 UD	2.5 UD							1.2 UD	2.5 UD	
1,1,1-Trichloroethane	ug/m3	500	320	<b>4000</b>	<b>260</b>	<b>530</b>	<b>150 D</b>	<b>690 D</b>	<b>1</b>	<b>15</b>	<b>45</b>	<b>1.9</b>	<b>13000</b>	<b>0.56</b>	<b>450</b>	<b>380 D</b>	<b>740 D</b>
1,1,1,2,2-Tetrachloroethane	ug/m3	0.14	1.4 U	6.9 U	0.69 U	1.4 U	1.4 UD	1.4 UD	0.34 U	1.7 U	0.68 U	0.68 U	68 U	0.34 U	0.34 U	0.69 UD	1.4 UD
1,1,2-Trichloroethane	ug/m3	12	1.1 U	5.5 U	0.55 U	1.1 U	1.1 UD	1.1 UD	0.27 U	1.4 U	0.54 U	0.54 U	54 U	0.27 U	0.27 U	0.55 UD	1.1 UD
1,1-Dichloroethane	ug/m3	430	25	<b>360</b>	<b>25</b>	<b>67</b>	<b>19 D</b>	<b>73 D</b>	<b>0.2 U</b>	<b>1 U</b>	<b>5.4</b>	<b>11000</b>	<b>490</b>	<b>370</b>	<b>610</b>	<b>21 D</b>	<b>80 D</b>
1,1-Dichloroethene	ug/m3	20	<b>9</b>	<b>160</b>	<b>11</b>	<b>24</b>	<b>10 D</b>	<b>27 D</b>	<b>0.2 U</b>	<b>1 U</b>	<b>0.4 U</b>	<b>6400</b>	<b>96</b>	<b>78</b>	<b>87</b>	<b>3.8 D</b>	<b>30 D</b>
1,2,4-Trichlorobenzene	ug/m3	NA	1.5 U	7.4 U	0.74 U	1.5 U	1.5 UD	1.5 UD	0.37 U	1.9 U	0.74 U	0.74 U	74 U	0.37 U	0.37 U	0.74 UD	1.5 UD
1,2,4-Trimethylbenzene	ug/m3	52	0.98 U	4.9 U	0.49 U	0.98 U	0.98 UD	0.98 UD	0.25 U	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U	0.49 UD	0.98 UD
1,2-Dibromoethane (EDB)	ug/m3	0.038	1.5 U	7.7 U	0.77 U	1.5 U	1.5 UD	1.5 UD	0.38 U	1.9 U	0.76 U	0.76 U	76 U	0.38 U	0.38 U	0.77 UD	1.5 UD
1,2-Dichlorobenzene	ug/m3	410	1.2 U	6 U	0.6 U	1.2 U	1.2 UD	1.2 UD	0.3 U	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U	0.6 UD	1.2 UD
1,2-Dichloroethane	ug/m3	0.31	0.81 U	4 U	0.4 U	0.81 U	0.81 UD	0.81 UD	0.2 U	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U	0.4 UD	0.81 UD
1,2-Dichloropropane	ug/m3	0.42	0.92 U	4.6 U	0.46 U	0.92 U	0.92 UD	0.92 UD	0.23 U	1.2 U	0.46 U	0.46 U	46 U	0.23 U	0.23 U	0.46 UD	0.92 UD
1,2-Dichlorotetrafluoroethane	ug/m3	NA		7 U					0.35 U	1.8 U	0.7 U	0.7 U	70 U	0.35 U	0.35 U		
1,3,5-Trimethylbenzene	ug/m3	52	0.98 U	4.9 U	0.49 U	0.98 U	0.98 UD	0.98 UD	0.21 U	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U	0.49 UD	0.98 UD
1,3-Butadiene	ug/m3	NA	0.44 U	2.2 U	0.22 U	0.44 U	0.44 UD	0.44 UD	0.11 U	0.55 U	0.22 U	0.22 U	22 U	0.23 U	0.23 U	0.22 UD	0.44 UD
1,3-Dichlorobenzene	ug/m3	410	1.2 U	6 U	0.6 U	1.2 U	1.2 UD	1.2 UD	0.29 U	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U	0.6 UD	1.2 UD
1,4-Dichlorobenzene	ug/m3	24	1.2 U	6 U	0.6 U	1.2 U	1.2 UD	1.2 UD	0.3 U	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U	0.6 UD	1.2 UD
1,4-Dioxane	ug/m3	NA		36 U													
2-Butanone	ug/m3	500	24 U	14 J	0.59 J	2.5 J	1.3 JD	1.9 JD	10	6.3	9.4	5.5	330	1.9	2	2.5 JD	0.52 JD
2-Hexanone	ug/m3	NA	0.82 U	4.1 U	0.41 U	0.82 U	0.82 UD	0.82 UD	0.2 U	1 U	0.4 U	0.4 U	13000	0.27	0.34	0.41 UD	0.82 UD
4-Ethyltoluene	ug/m3	NA	0.98 U	4.9 U	0.49 U	0.98 U	0.98 UD	0.98 UD	0.21 U	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U	0.49 UD	0.98 UD
4-Methyl-2-pentanone	ug/m3	200	0.82 U	4.1 U	0.41 U	0.82 U	0.82 UD	0.82 UD	5	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U	0.41 UD	0.82 UD
Acetone	ug/m3	500	19 U	39 J	3.7 J	8.7 J	19 UD	19 UD	<b>1200</b>	11	19	12	430	3.6	5.7	21 D	19 UD
Benzene	ug/m3	3.3	0.64 U	3.2 U	0.33	0.51 J	0.4 JD	0.49 JD	1.3	0.8 U	0.32 U	0.32 U	32 U	0.16 U	0.16 U	0.33 D	0.55 JD
Benzyl chloride	ug/m3	NA	1 U	5.2 U	0.52 U	1 U	1 UD	1 UD	0.26 U	1.3 U	0.52 U	0.52 U	52 U	0.26 U	0.26 U	0.52 UD	1 UD
Bromodichloromethane	ug/m3	0.46	1.3 U	6.7 U	<b>1.6</b>	1.3 U	1.3 UD	1.3 UD	0.33 U	1.7 U	0.66 U	0.66 U	66 U	0.33 U	0.33 U	0.67 UD	1.3 UD
Bromoform	ug/m3	7.3	2.1 U	10 U	1 U	2.1 U	2.1 UD	2.1 UD	0.51 U	2.6 U	1.1 U	1.1 U	110 U	0.51 U	0.51 U	1 UD	2.1 UD
Bromomethane	ug/m3	NA	0.78 U	3.9 U	0.39 U	0.78 U	0.78 UD	0.78 UD	0.19 U	0.95 U	0.38 U	0.38 U	38 U	0.19 U	0.19 U	0.39 UD	0.78 UD
Carbon disulfide	ug/m3	NA	6.2 U	31 U	3.1 U	6.2 U	6.2 UD	6.2 UD	0.16 U	0.8 U	0.31 U	0.31 U	31 U	0.16 U	0.2	3.1 UD	6.2 UD
Carbon tetrachloride	ug/m3	0.54	1.3 U	6.3 U	0.63 U	1.3 U	1.3 UD	<b>0.58 JD</b>	<b>0.38</b>	1.6 U	0.62 U	0.62 U	62 U	0.31 U	0.31 U	<b>0.35 JD</b>	1.3 UD
Chlorobenzene	ug/m3	200	0.92 U	4.6 U	0.46 U	0.92 U	0.92 UD	0.92 UD	0.23 U	1.2 U	0.46 U	0.46 U	46 U	0.23 U	0.23 U	0.46 UD	0.92 UD
Chloroethane	ug/m3	500	0.53 U	8.6	0.31	1.3	0.53 UD	0.53 UD	0.13 U	<b>5100</b>	<b>1800</b>	<b>480</b>	<b>64</b>	<b>19</b>	<b>10</b>	0.26 UD	0.53 UD
Chloroform	ug/m3	0.5	<b>1.6</b>	<b>20</b>	<b>1.5</b>	<b>4.1</b>	<b>1.9 D</b>	<b>5.1 D</b>	0.24 U	1.2 U	0.48 U	<b>0.67</b>	48 U	0.24 U	<b>6.8</b>	<b>1.2 D</b>	<b>6.5 D</b>
Chloromethane	ug/m3	80	0.83 U	4.1 U	0.57	0.83 U	0.83 UD	0.83 UD	0.59	0.5 U	0.2 U	0.2 U	23	0.1 U	0.1 U	0.41 UD	0.83 UD
cis-1,2-Dichloroethene	ug/m3	100	<b>12</b>	<b>160</b>	<b>7.3</b>	<b>41</b>	<b>9.5 D</b>	<b>42 D</b>	<b>0.27</b>	<b>1 U</b>	<b>3.9</b>	<b>5200</b>	<b>820</b>	<b>230</b>	<b>570</b>	<b>8.7 D</b>	<b>54 D</b>
cis-1,3-Dichloropropene	ug/m3	NA	0.91 U	4.5 U	0.45 U	0.91 U	0.91 UD	0.91 UD	0.22 U	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	0.45 UD	0.91 UD
Cyclohexane	ug/m3	NA	0.69 U	3.4 U	0.53	0.69 U	0.69 UD	0.69 UD	<b>0.93</b>	0.85 U	0.34 U	0.34 U	34 U	0.17 U	0.17 U	0.34 UD	0.69 UD
Dibromochloromethane	ug/m3	NA	1.7 U	8.5 U	0.85 U	1.7 U	1.7 UD	1.7 UD	0.43 U	2.2 U	0.86 U	0.86 U	86 U	0.43 U	0.43 U	0.85 UD	1.7 UD
Dichlorodifluoromethane	ug/m3	500	2.7	5	1.3	2.2	2.3 D	2.2 D	<b>0.76</b>	4.1	3	2.4	50 U	1.7	1.9	2 D	2.2 D
Ethanol	ug/m3	NA	9.5 J	140	5.9 J	16	12 JD	14 JD	740	36	25	9.8	110	0.38 U	2.8	4.7 JD	15 UD
Ethyl acetate	ug/m3	NA	0.72 U	3.6 U	0.36 U	2.5	0.72 UD	1.4 UD	0.37 U	0.9 U	0.36 U	0.73 U	73 U	0.18 U	0.18 U	0.36 UD	1.4 UD
Ethylbenzene	ug/m3	290	0.87 U	4.3 U	0.43 U	0.87 U	0.87 UD	0.87 UD	10	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	0.43 UD	0.87 UD
Hexachlorobutadiene	ug/m3	NA	2.1 U	11 U	1.1 U	2.1 U	2.1 UD	2.1 UD	1.1 U	5.4 U	2.2 U	2.2 U	220 U	0.53 U	0.53 U	1.1 UD	2.1 UD
Hexane	ug/m3	NA	28 U	140 U	14 U	28 U	28 UD	28 UD	3	0.9 U	0.46	0.36 U	36 U	0.18 U	0.23	<b>0.74 JD</b>	28 UD
Isopropyl alcohol	ug/m3	NA	20 U	98 U	<b>0.66 J</b>	<b>1.6 J</b>	20 UD	20 UD	450	2.9	3.1	47	290	0.25 U	1.4	9.8 UD	20 UD
m,p-Xylene	ug/m3	NA	1.7 U	8.7 U	0.87 U	1.7 U	1.7 UD	1.7 UD	27	2.2 U	0.86 U	0.86 U	86 U	0.43 U	0.43 U	0.87 UD	1.7 UD
Methyl methacrylate	ug/m3	NA	0.82 U		0.41 U	0.82 U	0.82 UD	0.82 UD								0.41 UD	0.82 UD
Methylene chloride	ug/m3	17	6.9 U	35 U	3.5 U	6.9 U	6.9 UD	6.9 UD	<b>20</b>	<b>76</b>	17	3	<b>810</b>	0.7 U	<b>0.72</b>	<b>0.55 JD</b>	6.9 UD
Methyl-t-butyl ether	ug/m3	190	0.72 U	3.6 U	0.36 U	0.72 U	0.72 UD	0.72 UD	0.18 U	0.9 U	0.36 U	0.36 U	36 U	0.18 U	0.18 U	0.36 UD	0.72 UD
Naphthalene	ug/m3	NA		5.2 U													
n-Heptane	ug/m3	NA	0.82 U	4.1 U	0.41 U	0.82 U	0.82 UD	0.82 UD	1.8	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U	0.41 UD	0.82 UD
o-Xylene	ug/m3	NA	0.87 U	4.3 U	0.43 U	0.87 U	0.87 UD	0.87 UD	9.5	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	0.43 UD	0.87 UD
Propylene (Propene)	ug/m3	NA	14 U	<b>8.2 J</b>	<b>1.4 J</b>	14 U	<b>1.5 JD</b>	14 UD	0.18 U	98	0.18 U	0.35 U	35 U	0.35 U	0.35 U	<b>2.1 JD</b>	14 UD
Styrene	ug/m3	290	0.85 U	4.3 U	0.43 U	0.85 U	0.85 UD	0.85 UD	3.4	1.1 U	0.42 U	0.42 U	42 U	0.21 U	0.21 U	0.43 UD	0.85 UD
Tetrachloroethene	ug/m3	5	<b>37</b>	<b>870</b>	<b>66</b>	<b>260</b>	<b>66 D</b>	<b>220 D</b>	<b>0.72</b>	1.7 U	1.1	0.68 U	68 U	0.52	1.9	<b>19 D</b>	3 D
Tetrahydrofuran	ug/m3	NA	0.59 U	9.4	0.29 U	1.2 U	0.48 JD	0.53 JD	6.8	22	40	18	210	4.1	6.5	0.35 D	0.59 UD
Toluene	ug/m3	500	0.75 U	6.6	0.36 J	1.3	0.72 JD	1.1 D	29	0.95 U	0.65	0.38 U	38 U	0.19 U	0.36	0.28 JD	0.39 JD
trans-1,2-Dichloroethene	ug/m3	200	0.79 U	4	0.4 U	0.81	0.79 UD	0.79 UD	0.2 U	1 U	0.4 U	28	40 U	7.7	15	0.18 JD	1.2 D
trans-1,3-Dichloropropene	ug/m3	NA	0.91 U	4.5 U	0.45 U	0.91 U	0.91 UD	0.91 UD	0.22 U	1.1 U	0.44 U	0.44 U	44 U	0.22 U	0.22 U	0.45 UD	0.91 UD
Trichloroethene	ug/m3	1	<b>200</b>	<b>3200</b>	<b>180</b>	<b>670</b>	<b>160 D</b>	<b>800 D</b>	<b>2</b>	<b>11</b>	<b>16</b>	<b>2.7</b>	54 U	1	1	<b>250 D</b>	<b>1600 D</b>
Trichlorofluoromethane	ug/m3	500	93	<b>1200</b>	88	220	<b>67 D</b>	280 D	0.71	1.4 U	23	<b>6700</b>	84	180	210	42 D	280 D
Trichlorotrifluoroethane	ug/m3	NA	6.1 U	31 U	3.1 U	6.1 U	6.1 UD	<b>0.64 JD</b>	1.3	1.9 U	0.76 U	0.76 U	76 U	0.38 U	0.51	0.74 JD	0.64 JD
Vinyl acetate	ug/m3	NA	14 U	70 U	<b>0.56 J</b>	14 U	14 UD	14 UD	0.71 U	0.9 U	0.36 U	1.5 U	150 U	0.71 U	0.71 U	0.8 JD	0.49 JD
Vinyl chloride	ug/m3	1.9	0.51 U	2.6 U	0.26 U	0.51 U	0.51 UD	0.51 UD	0.13 U	<b>30</b>	<b>13</b>	<b>4.5</b>	26 U	0.13 U	0.13 U	0.26 UD	0.51 UD

Notes:  
NA - not available  
U - Not detected; value is the detection limit  
B - Compounds detected in method blank as well as field sample  
J - Indicates compound was detected at an estimated value.  
D - Result from diluted analyses  
ug/m3 - micrograms per cubic meter  
Bolded and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios