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April 21, 2021

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

RE: Air Monitoring Report
April 2021 Semi-Annual Monitoring
Retail Complex, Active Sub-Slab Depressurization System
Former Gorham Manufacturing Facility
333 Adelaide Avenue, Providence, Rhode Island
Wood Project No. 3652210306

Dear Mr. Martella:

This letter report presents the results of semi-annual compliance sampling and analysis conducted by Wood Environment and Infrastructure Solutions, Inc. (Wood) at the retail complex located at the Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island (Site). The reporting period is from November 2020 through March 2021 which includes one semi-annual compliance sampling event conducted on March 8, 2021.

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 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 March 8, 2021. The sampling was performed consistent with the requirements of the Orders of Approval. This is the ninth 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 (Con-Test W. O. 21C0477) for March 8, 2021 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 collected southwest of the property, upwind of the retail building. The results for the recent outdoor reference sample and the two previous outdoor reference samples are provided in **Table 1**. All historic outdoor reference sample results are provided in **Appendix C**.

Small Retail Spaces

The March 2021 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 March 8, 2021 in conjunction with the semi-annual air sampling program. The indoor air and vapor extraction sampling and sub-slab vacuum monitoring locations are shown in **Figure 1**.

During the reporting period, the eastern small retail space (indoor air sample location IA-5) was intermittently occupied as storage/staging area for a clothing consignment shop which occupied the center small retail space (sample location IA-6). The western small retail space (sample location IA-7) was intermittently occupied as a church hall.

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 March 8, 2021 analytical results:

- The indoor air sample results for the March 8, 2021 sampling event in the small retail spaces (sample locations IA-5 through IA-7) were in compliance with TAC action levels.
- The eastern small retail space (indoor air sample location IA-5) was intermittently occupied as storage/staging area for the consignment shop during the reporting period.
- The center small retail space (sample location IA-6) was occupied as a consignment shop during the reporting period.
- The western small retail space (sample location IA-7) was intermittently occupied as a church hall.

- The mitigation systems in the small retail areas were functioning correctly during the sampling event.

Large Retail Space

The March 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 March 8, 2021 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 samples for IA-1 and IA-3 and two most recent samples for IA-2 and IA-4), 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 indoor air sample results for the March 8, 20201 sampling event in the large retail spaces (sample locations IA-1 through IA-4) were in compliance with TAC action levels, with one exception.
- Carbon tetrachloride was detected slightly above its TAC of 0.54 ug/m³ in one sample at IA-1 (concentration of 0.55 ug/m³). The analyte was detected at a similar concentration (0.71 ug/m³) in the outdoor reference sample and was not detected in the sub-slab soil gas sample (EW-Combined) from the large retail space. Therefore, the carbon tetrachloride present in indoor air samples does not appear to originate from the subsurface or groundwater.
- The mitigation system in the large retail area was functioning correctly during the sampling event.
- A sample (Post Carbon-030821) was collected from the exhaust air of the treatment system. The concentration of total VOCs was lower than the total VOC concentration in the previous sampling rounds in 2020. Wood will continue to monitor the total VOC's in the exhaust air to determine when a carbon change-out may be required in the future.

ASD System Monitoring/Maintenance

The ASD system performance is monitored monthly by Clean Harbors Environmental Services. There were no system shutdowns during the reporting period. Vacuum monitoring conducted at the time of the March 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 April 2021 through October 2021. The report will be prepared and submitted to the Rhode Island Department of Environmental Management in November 2021.

Please contact Greg Simpson, Textron, (401-457-2635) or Greg Avenia, Wood, (401-648-9243) if we can provide additional information or answer any questions concerning these monitoring events and system adjustments.

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.



Michael Murphy
Principal Scientist



Gregory Avenia, PE, CFM
Project Manager

- Attachments:
- 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)
 - Table 3. Vacuum Monitoring Results – Small Retail Spaces
 - Table 4a. Summary of Analytical Results – Indoor Air Sampling for Large Retail Space
 - Table 4b. Summary of Analytical Results – Extraction Well and Post-Treatment Sampling for Large Retail Space
 - Table 5. Vacuum Monitoring Results – Large Retail Space
 - Figure 1. Vapor Mitigation Sample Locations
 - Appendix A. Laboratory Report
 - Appendix B. Analytical Laboratory Detection Limits
 - Appendix C. Outdoor Reference Sample Results
 - Appendix D1. Summary of All Analytical Results – Indoor Air Samples for Small Retail Space
 - Appendix D2. Summary of All Analytical Results – Extraction Well Samples for Small Retail Space
 - Appendix E1. Summary of All Analytical Results – Indoor Air Samples for Large Retail Space
 - Appendix E2. Summary of All Analytical Results – Extraction Well and Post-Treatment Samples for Large Retail Space

cc: Robert Azar, Deputy Director - Providence Planning & Development
G. Simpson, Textron, Inc. (Electronic)
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Shane Brackett, Paolino Properties (including tenants)

wood.

Tables

Table 1.
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-1-09092020	AA-1-10292020	AA-1-030821
Sample Date:		9/9/2020	10/29/2020	3/8/2021
Analyte	Units			
1,1,1,2-Tetrachloroethane	ug/m3	0.44 U	0.44 U	0.37 U
1,1,1-Trichloroethane	ug/m3	0.19 U	0.19 U	0.16 U
1,1,2,2-Tetrachloroethane	ug/m3	0.24 U	0.24 U	0.21 U
1,1,2-Trichloroethane	ug/m3	0.19 U	0.19 U	0.16 U
1,1-Dichloroethane	ug/m3	0.14 U	0.14 U	0.12 U
1,1-Dichloroethene	ug/m3	0.14 U	0.14 U	0.12 U
1,2,4-Trichlorobenzene	ug/m3	0.26 U	0.26 U	0.22 U
1,2,4-Trimethylbenzene	ug/m3	0.17 U	0.73	0.15 U
1,2-Dibromoethane (EDB)	ug/m3	0.27 U	0.27 U	0.23 U
1,2-Dichlorobenzene	ug/m3	0.21 U	0.21 U	0.18 U
1,2-Dichloroethane	ug/m3	0.14 U	0.14 U	0.12 U
1,2-Dichloropropane	ug/m3	0.16 U	0.16 U	0.14 U
1,3,5-Trimethylbenzene	ug/m3	0.17 U	0.19	0.15 U
1,3-Butadiene	ug/m3	0.077 U	0.077 U	0.066 U
1,3-Dichlorobenzene	ug/m3	0.21 U	0.21 U	0.18 U
1,4-Dichlorobenzene	ug/m3	0.21 U	0.21 U	0.18 U
2-Butanone	ug/m3	1.4 J	0.73 J	0.71 J
2-Hexanone	ug/m3	0.29 U	0.29 U	0.25 U
4-Ethyltoluene	ug/m3	0.17 U	0.17 U	0.15 U
4-Methyl-2-pentanone	ug/m3	0.14 U	0.14 U	0.12 U
Acetone	ug/m3	8.2	15	7.8
Benzene	ug/m3	0.15	1.2	0.68
Benzyl chloride	ug/m3	0.18 U	0.18 U	0.16 U
Bromodichloromethane	ug/m3	0.23 U	0.23 U	0.2 U
Bromoform	ug/m3	0.36 U	0.36 U	0.31 U
Bromomethane	ug/m3	0.14 U	0.14 U	0.12 U
Carbon Disulfide	ug/m3	1.1 U	1.1 U	0.93 U
Carbon Tetrachloride	ug/m3	0.43	0.39	0.71
Chlorobenzene	ug/m3	0.16 U	0.16 U	0.14 U
Chloroethane	ug/m3	0.092 U	0.092 U	0.079 U
Chloroform	ug/m3	0.13 J	0.31	0.11 J
Chloromethane	ug/m3	0.14 U	0.14 U	1.8
cis-1,2-Dichloroethene	ug/m3	0.14 U	0.14 U	0.12 U
cis-1,3-Dichloropropene	ug/m3	0.16 U	0.16 U	0.14 U
Cyclohexane	ug/m3	0.12 U	0.12 U	0.1 U
Dibromochloromethane	ug/m3	0.3 U	0.3 U	0.26 U
Dichlorodifluoromethane	ug/m3	2	2.5	2.9
Ethanol	ug/m3	6.3	14	11
Ethyl Acetate	ug/m3	1.3 U	1.3 U	2.4
Ethylbenzene	ug/m3	0.079 J	0.67	0.081 J
Hexachlorobutadiene	ug/m3	0.37 U	0.37 U	0.32 U
Hexane	ug/m3	4.9 U	0.94 J	4.2 U
Isopropyl alcohol	ug/m3	3.4 U	2.2 J	0.72 J
m,p-Xylene	ug/m3	0.18 J	1.8	0.31
Methyl methacrylate	ug/m3	0.14 U	0.14 U	
Methylene Chloride	ug/m3	1.2 U	1 J	5.8
Methyl-t-butyl ether	ug/m3	0.13 U	0.13 U	0.11 U
Naphthalene	ug/m3			0.16 U
n-Heptane	ug/m3	0.14 U	0.65	0.12 U
o-Xylene	ug/m3	0.15 U	0.71	0.17
Propylene (Propene)	ug/m3	2.4 U	2.4 U	2.1 U
Styrene	ug/m3	0.15 U	0.15	0.13 U
Tetrachloroethene	ug/m3	0.1 J	0.44	0.11 J
Tetrahydrofuran	ug/m3	1 U	1 U	0.88 U
Toluene	ug/m3	0.52	3.4	0.45
trans-1,2-Dichloroethene	ug/m3	0.14 U	0.14 U	0.12 U
trans-1,3-Dichloropropene	ug/m3	0.16 U	0.16 U	0.14 U
Trichloroethene	ug/m3	0.19 U	0.19	0.16 U
Trichlorofluoromethane	ug/m3	1.1	1.3	1.6
Trichlorotrifluoroethane	ug/m3	0.48 J	1.1 U	0.57 J
Vinyl Acetate	ug/m3	2.5 U	2.5 U	2.1 U
Vinyl Chloride	ug/m3	0.089 U	0.089 U	0.077 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

Prepared By: AKN, 4/5/2021

Checked By: MM, 4/5/2021

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-5-09092020	IA-5-030821	IA-6-09092020	IA-6-030821	IA-7-09092020	IA-7-030821
Sample Date:		9/9/2020	3/8/2021	9/9/2020	3/8/2021	9/9/2020	3/8/2021
Analyte	Units	CT IACTIND 2003					
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.37 U	0.44 U	0.37 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.16 U	0.19 U	0.16 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.21 U	0.24 U	0.21 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.16 U	0.19 U	0.16 U	0.19 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.22 U	0.26 U	0.22 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.17 U	0.035 J	0.17 U	0.15 U	0.17 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.23 U	0.27 U	0.23 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.18 U	0.21 U	0.18 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.15 U	0.17 U	0.15 U	0.17 U
1,3-Butadiene	ug/m3	NA	0.077 U	0.066 U	0.077 U	0.066 U	0.077 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.18 U	0.21 U	0.18 U	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.18 U	0.21 U	0.18 U	0.21 U
2-Butanone	ug/m3	500	4.1 U	1.3 J	0.63 J	0.53 J	1.5 J
2-Hexanone	ug/m3	NA	0.29 U	0.25 U	0.29 U	0.25 U	0.29 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.15 U	0.17 U	0.15 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
Acetone	ug/m3	500	7.2	11	11	6	16
Benzene	ug/m3	3.3	0.15	0.63	0.11 U	0.62	0.11 U
Benzyl chloride	ug/m3	NA	0.18 U	0.16 U	0.18 U	0.16 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.23 U	0.2 U	0.23 U	0.2 U	0.23 U
Bromoform	ug/m3	7.3	0.36 U	0.31 U	0.36 U	0.31 U	0.36 U
Bromomethane	ug/m3	NA	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
Carbon Disulfide	ug/m3	NA	1.1 U	0.93 U	0.38 J	0.93 U	1.1 U
Carbon Tetrachloride	ug/m3	0.54	0.45	0.34	0.44	0.46	0.22 U
Chlorobenzene	ug/m3	200	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U
Chloroethane	ug/m3	500	0.092 U	0.079 U	0.092 U	0.079 U	0.092 U
Chloroform	ug/m3	0.5	0.12 J	0.15 U	0.22	0.15 U	0.17 U
Chloromethane	ug/m3	80	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U
Cyclohexane	ug/m3	NA	0.12 U	0.1 U	0.12 U	0.1 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.26 U	0.3 U	0.26 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	0.17 U	1.9	0.17 U	0.15 U	0.17 U
Ethanol	ug/m3	NA	99	110	1500	390	990
Ethyl Acetate	ug/m3	NA	1.3 U	2.8	1.3 U	1.1 U	1.3
Ethylbenzene	ug/m3	290	0.079 J	0.083 J	0.15 J	0.13	0.15 U
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.32 U	0.37 U	0.32 U	0.37 U
Hexane	ug/m3	NA	4.9 U	4.2 U	4.9 U	0.54 J	4.9 U
Isopropyl alcohol	ug/m3	NA	3.4 U	2 J	3.4 U	1.8 J	33
m,p-Xylene	ug/m3	NA	0.24 J	0.2 J	0.39	0.29	0.3 U
Methyl methacrylate	ug/m3	NA	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
Methylene Chloride	ug/m3	17	0.6 J	2.8	1.2 U	2.4	1.2 U
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.11 U	0.13 U	0.11 U	0.13 U
n-Heptane	ug/m3	NA	0.14 U	0.36	0.34	0.12 U	0.14 U
o-Xylene	ug/m3	NA	0.1 J	0.078 J	0.18	0.12 J	0.15 U
Propylene (Propene)	ug/m3	NA	2.4 U	2.1 U	2.4 U	2.1 U	2.4 U
Styrene	ug/m3	290	0.11 J	0.13 U	0.21	0.13 U	0.15 U
Tetrachloroethene	ug/m3	5	0.18 J	0.22	0.62	0.24	0.24 U
Tetrahydrofuran	ug/m3	NA	1 U	0.88 U	1 U	0.88 U	1 U
Toluene	ug/m3	500	0.54	0.58	1.3	0.58	0.13 U
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.12 U	0.14 U	0.12 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.14 U	0.16 U	0.14 U	0.16 U
Trichloroethene	ug/m3	1	0.19 U	0.16 U	0.19 U	0.16 U	0.19 U
Trichlorofluoromethane	ug/m3	500	1.1	1.1	1.1	1	0.78 U
Trichlorotrifluoroethane	ug/m3	NA	1.1 U	0.44 J	1.1 U	0.92 U	1.1 U
Vinyl Acetate	ug/m3	NA	2.5 U	2.1 U	2.5 U	2.1 U	2.5 U
Vinyl Chloride	ug/m3	1.9	0.089 U	0.077 U	0.089 U	0.077 U	0.089 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, 4/5/2021

Checked By: MM, 4/5/2021

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-5-09092020	EW-5-030821	EW-6-09092020	EW-6-030821	EW-7-09092020	EW-7-030821
Sample Date:		9/9/2020	3/8/2021	9/9/2020	3/8/2021	9/9/2020	3/8/2021
Analyte	Units						
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
1,1,1-Trichloroethane	ug/m3	73	11	0.55 U	0.55 U	8.7	42
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U
1,1,2-Trichloroethane	ug/m3	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U
1,1-Dichloroethane	ug/m3	0.4 U	1.6	0.4 U	0.4 U	0.4 U	2.7
1,1-Dichloroethene	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2,4-Trichlorobenzene	ug/m3	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U
1,2,4-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
1,2-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
1,3,5-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
1,3-Butadiene	ug/m3	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,3-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
1,4-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
2-Butanone	ug/m3	12 U	130	10 J	6.3 J	18	21
2-Hexanone	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
4-Ethyltoluene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U
4-Methyl-2-pentanone	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
Acetone	ug/m3	15	640	63	32	15	11
Benzene	ug/m3	0.32 U	3	1.9	1.6	0.32 U	1.2
Benzyl chloride	ug/m3	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U
Bromodichloromethane	ug/m3	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Bromoform	ug/m3	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/m3	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
Carbon Disulfide	ug/m3	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
Carbon Tetrachloride	ug/m3	0.47 J	0.63 U	0.4 J	0.63 U	0.63 U	0.47 J
Chlorobenzene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U
Chloroethane	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Chloroform	ug/m3	0.93	0.3 J	0.49 U	0.49 U	1.3	2.9
Chloromethane	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
cis-1,2-Dichloroethene	ug/m3	0.73	0.52	0.4 U	0.4 U	1.3	2.1
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Cyclohexane	ug/m3	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Dibromochloromethane	ug/m3	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
Dichlorodifluoromethane	ug/m3	0.49 U	0.49 U	2	0.49 U	0.49 U	0.49 U
Ethanol	ug/m3	71	47	350	8.2	45	150
Ethyl Acetate	ug/m3	3.6 U	3.6 U	9.1	3.6 U	3.6 U	3.6 U
Ethylbenzene	ug/m3	0.16 J	16	0.25 J	0.43 U	0.16 J	0.16 J
Hexachlorobutadiene	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	14 U	14 U	14 U	14 U	14 U	14 U
Isopropyl alcohol	ug/m3	9.8 U	9.8 U	9.8 U	9.8 U	9.8 U	8.5 J
m,p-Xylene	ug/m3	0.51 J	67	0.54 J	0.87 U	0.4 J	0.43 J
Methyl methacrylate	ug/m3	0.41 U		0.41 U		0.41 U	
Methylene Chloride	ug/m3	3.5 U	1.8 J	1.6 J	3.5 U	3.5 U	3.5 U
Methyl-t-butyl ether	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Naphthalene	ug/m3		3.4		0.52 U		0.52 U
n-Heptane	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U
o-Xylene	ug/m3	0.2 J	18	0.25 J	0.43 U	0.43 U	0.2 J
Propylene (Propene)	ug/m3	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U
Styrene	ug/m3	0.43 U	0.43 U	0.21 J	0.43 U	0.31 J	0.46
Tetrachloroethene	ug/m3	6.8	0.38 J	0.79	0.68 U	53	190
Tetrahydrofuran	ug/m3	2.9 U	820	3.6	2.9 U	1300	1300
Toluene	ug/m3	0.74	1.9	1.4	0.57	0.81	0.75
trans-1,2-Dichloroethene	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	1.4	3.2
trans-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
Trichloroethene	ug/m3	54	40	0.54 U	0.54 U	130	320
Trichlorofluoromethane	ug/m3	2.2 U	2 J	1.1 J	1.1 J	120	600
Trichlorotrifluoroethane	ug/m3	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
Vinyl Acetate	ug/m3	7 U	7 U	7 U	7 U	7 U	7 U
Vinyl Chloride	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 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

Prepared By: AKN, 4/5/2021

Checked By: MM, 4/5/2021

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
2/8/2019	-0.129	-0.078	-0.127
9/6/2019	-0.217	-0.107	-0.002
2/14/2020	-0.195	-0.074	-0.011
9/9/2020	-0.217	-0.109	-0.137
3/8/2021	-0.209	-0.172	-0.002

** ASD system offline.

NM = Not Measured

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

Prepared by/Date: MAM 04/08/2021

Checked by/Date:

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		
Sample ID:		IA-1-021420	IA-1-09092020	IA-1-030821	IA-2-09092020	IA-2-10292020	IA-2-030821	IA-3-021420	IA-3-09092020	IA-3-030821
Sample Date:		2/14/2020	9/9/2020	3/8/2021	9/9/2020	10/29/2020	3/8/2021	2/14/2020	9/9/2020	3/8/2021
Analyte	Units	CT IACTIND 2003								
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U	0.37 U	0.44 U	0.44 U	0.37 U	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.19 U	0.16 U	530	0.19 U	0.16 U	0.19 U	0.16 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.21 U	0.24 U	0.24 U	0.21 U	0.24 U	0.21 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.16 U	0.19 U	0.19 U	0.16 U	0.19 U	0.16 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.12 U	0.14 U	0.12 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.12 U	6.1	0.14 U	0.12 U	0.14 U	0.12 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.22 U	0.26 U	0.26 U	0.22 U	0.26 U	0.22 U
1,2,4-Trimethylbenzene	ug/m3	52	0.17 U	0.2	0.15 U	0.17 U	0.62	0.15 U	0.17 U	0.15 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.23 U	0.27 U	0.27 U	0.23 U	0.27 U	0.23 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.18 U	0.21 U	0.18 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.12 U	0.14 U	0.12 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.14 U	0.16 U	0.14 U
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.062 J	0.15 U	0.17 U	0.2	0.15 U	0.17 U	0.15 U
1,3-Butadiene	ug/m3	NA	0.078 U	0.077 U	0.066 U	0.077 U	0.077 U	0.066 U	0.078 U	0.077 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.18 U	0.21 U	0.18 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.18 U	0.21 U	0.18 U
2-Butanone	ug/m3	500	1.1 J	2 J	4.1 U	4.1 U	0.77 J	0.71 J	4.1 U	3.1 J
2-Hexanone	ug/m3	NA	0.14 U	0.29 U	0.25 U	0.29 U	0.29 U	0.25 U	0.14 U	0.29 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.15 U	0.17 U	0.17 U	0.15 U	0.17 U	0.15 U
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.12 U	0.14 U	0.12 U
Acetone	ug/m3	500	7.8	9.3	8.9	13	14	4.8	6.7	13
Benzene	ug/m3	3.3	0.36	0.24	0.59	0.45	1.1	0.51	0.35	0.25
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.16 U	0.18 U	0.18 U	0.16 U	0.18 U	0.16 U
Bromodichloromethane	ug/m3	0.46	0.24 U	0.23 U	0.2 U	0.23 U	0.23 U	0.2 U	0.24 U	0.23 U
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.31 U	0.36 U	0.36 U	0.31 U	0.36 U	0.31 U
Bromomethane	ug/m3	NA	0.27 U	0.14 U	0.12 U	0.14 U	0.14 U	0.12 U	0.27 U	0.14 U
Carbon Disulfide	ug/m3	NA	1.1 U	1.1 U	0.93 U	1.1 U	1.1 U	0.93 U	1.1 U	1.1 U
Carbon Tetrachloride	ug/m3	0.54	0.44	0.38	0.55	0.46	0.37	0.46	0.42	0.44
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.14 U	0.16 U	0.14 U
Chloroethane	ug/m3	500	0.093 U	0.092 U	0.079 U	0.092 U	0.092 U	0.079 U	0.093 U	0.092 U
Chloroform	ug/m3	0.5	0.17 U	0.13 J	0.15 U	4	0.27	0.097 J	0.17 U	0.13 J
Chloromethane	ug/m3	80	1.3	0.14 U	0.12 U	0.14 U	0.14 U	0.12 U	1.1	0.14 U
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.12 U	33	0.14 U	0.12 U	0.14 U	0.12 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.14 U	0.16 U	0.14 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U	0.1 U	0.12 U	0.1 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.26 U	0.3 U	0.3 U	0.26 U	0.3 U	0.26 U
Dichlorodifluoromethane	ug/m3	500	1.5	2.1	0.15 U	0.17 U	2.6	2	1.5	0.17 U
Ethanol	ug/m3	NA	5.1	81	23	32	16	5	4.1	80
Ethyl Acetate	ug/m3	NA	0.13 U	1.3 U	7.5	1.3 U	1.3 U	1.1 U	0.13 U	1.3 U
Ethylbenzene	ug/m3	290	0.15 U	0.14 J	0.1 J	0.14 J	0.66	0.07 J	0.15 U	0.15 J
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.32 U	0.37 U	0.37 U	0.32 U	0.37 U	0.32 U
Hexane	ug/m3	NA	4.9 U	4.9 U	4.2 U	4.9 U	4.9 U	4.2 U	4.9 U	1.3 J
Isopropyl alcohol	ug/m3	NA	3.4 U	3.4 U	2.9 U	3.4 U	2.5 J	2.9 U	3.4 U	2.9 U
m,p-Xylene	ug/m3	NA	0.3 U	0.47	0.3	0.44	2	0.2 J	0.3 U	0.49
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.12 U	0.14 U	0.12 U
Methylene Chloride	ug/m3	17	0.68 J	1.2 U	2.2	1.2 U	1.2 U	1.5	0.5 J	2.2
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	0.11 U	0.13 U	0.13 U	0.11 U	0.13 U	0.11 U
n-Heptane	ug/m3	NA	0.14 U	0.14 U	0.12 U	0.14 U	0.51	0.12 U	0.14 U	0.12 U
o-Xylene	ug/m3	NA	0.15 U	0.2	0.15	0.2	0.79	0.086 J	0.15 U	0.2
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.1 U	2.4 U	2.4 U	2.1 U	2.4 U	2.1 U
Styrene	ug/m3	290	0.15 U	0.08 J	0.13 U	0.29	0.15	0.13 U	0.15 U	0.13 U
Tetrachloroethene	ug/m3	5	0.24 U	0.3	0.28	620	0.72	0.14 J	0.24 U	0.4
Tetrahydrofuran	ug/m3	NA	0.1 U	0.4 J	0.88 U	1.4	1 U	0.88 U	0.1 U	0.88 U
Toluene	ug/m3	500	0.28	0.72	0.53	0.69	4.1	0.45	0.26	0.76
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.12 U	0.14 U	0.12 U
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.14 U	0.16 U	0.14 U
Trichloroethene	ug/m3	1	0.19 U	0.19 U	0.1 J	770	0.23	0.16 U	0.19 U	0.19 U
Trichlorofluoromethane	ug/m3	500	1.2	1.1	1.1	130	1.3	1.1	1.2	1.1
Trichlorotrifluoroethane	ug/m3	NA	0.43 J	0.49 J	0.53 J	1.1 U	0.56 J	0.39 J	0.41 J	1.1 U
Vinyl Acetate	ug/m3	NA	2.5 U	2.5 U	2.1 U	2.5 U	2.5 U	2.1 U	2.5 U	2.1 U
Vinyl Chloride	ug/m3	1.9	0.09 U	0.089 U	0.077 U	0.089 U	0.089 U	0.077 U	0.09 U	0.089 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
Bolted and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 4/5/2021
Checked By: MM, 4/5/2021

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-4		
Sample ID:		IA-4-09092020	IA-4-10292020	IA-4-030821
Sample Date:		9/9/2020	10/29/2020	3/8/2021
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	0.17 U	0.61
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	0.077 U	0.077 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	1.9 J	0.98 J
2-Hexanone	ug/m3	NA	0.29 U	0.29 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.14 U
Acetone	ug/m3	500	13	14
Benzene	ug/m3	3.3	0.23	1.1
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.23 U	0.23 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	0.47	0.38
Chlorobenzene	ug/m3	200	0.16 U	0.16 U
Chloroethane	ug/m3	500	0.092 U	0.092 U
Chloroform	ug/m3	0.5	0.17 U	0.25
Chloromethane	ug/m3	80	0.14 U	1
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	2	2.6
Ethanol	ug/m3	NA	81	14
Ethyl Acetate	ug/m3	NA	1.3 U	1.3 U
Ethylbenzene	ug/m3	290	0.15 J	0.63
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U
Hexane	ug/m3	NA	4.9 U	0.85 J
Isopropyl alcohol	ug/m3	NA	3.4 U	2.6 J
m,p-Xylene	ug/m3	NA	0.44	1.9
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U
Methylene Chloride	ug/m3	17	0.74 J	1.2
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U
n-Heptane	ug/m3	NA	0.14 U	0.6
o-Xylene	ug/m3	NA	0.18	0.82
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U
Styrene	ug/m3	290	0.15 U	0.14 J
Tetrachloroethene	ug/m3	5	0.35	0.74
Tetrahydrofuran	ug/m3	NA	1 U	1 U
Toluene	ug/m3	500	0.69	3.9
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U
Trichloroethene	ug/m3	1	0.11 J	0.28
Trichlorofluoromethane	ug/m3	500	1.1	1.4
Trichlorotrifluoroethane	ug/m3	NA	0.5 J	0.48 J
Vinyl Acetate	ug/m3	NA	2.5 U	2.5 U
Vinyl Chloride	ug/m3	1.9	0.089 U	0.089 U
				0.077 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, 4/5/2021

Checked By: MM, 4/5/2021

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

Analyte	Units	Area:		Post Treatment - Large Retail	
		Location:		EW-Combined	
		Sample ID:	EW-Comb.-09092020	EW-Combined-030821	Post Carbon-09092020
Sample Date:		9/9/2020	3/8/2021	9/9/2020	3/8/2021
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,1,1-Trichloroethane	ug/m3	470	97	840	730
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	0.69 U	0.69 U	0.69 U
1,1,2-Trichloroethane	ug/m3	0.55 U	0.55 U	0.55 U	0.55 U
1,1-Dichloroethane	ug/m3	29	9	62	16
1,1-Dichloroethene	ug/m3	27	7.4	41	9.8
1,2,4-Trichlorobenzene	ug/m3	0.74 U	0.74 U	0.74 U	0.74 U
1,2,4-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	0.77 U	0.77 U	0.77 U
1,2-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
1,3,5-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U
1,3-Butadiene	ug/m3	0.22 U	0.22 U	0.22 U	0.22 U
1,3-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U
1,4-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U
2-Butanone	ug/m3	8 J	12 U	12 U	12 U
2-Hexanone	ug/m3	0.82 U	0.82 U	0.82 U	0.82 U
4-Ethyltoluene	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U
4-Methyl-2-pentanone	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U
Acetone	ug/m3	12	9.5 U	9.5 U	6.8 J
Benzene	ug/m3	0.32 U	0.4	0.32 U	0.12 J
Benzyl chloride	ug/m3	0.52 U	0.52 U	0.52 U	0.52 U
Bromodichloromethane	ug/m3	0.67 U	0.67 U	0.67 U	0.67 U
Bromoform	ug/m3	1 U	1 U	1 U	1 U
Bromomethane	ug/m3	0.39 U	0.39 U	0.39 U	0.39 U
Carbon Disulfide	ug/m3	3.1 U	3.1 U	3.1 U	3.1 U
Carbon Tetrachloride	ug/m3	1.1	0.63 U	0.63 U	0.63 U
Chlorobenzene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U
Chloroethane	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U
Chloroform	ug/m3	4.7	0.6	3.7	3
Chloromethane	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U
cis-1,2-Dichloroethene	ug/m3	11	4.6	40	17
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
Cyclohexane	ug/m3	0.34 U	0.34 U	0.34 U	0.34 U
Dibromochloromethane	ug/m3	0.85 U	0.85 U	0.85 U	0.85 U
Dichlorodifluoromethane	ug/m3	0.49 U	0.49 U	0.49 U	0.49 U
Ethanol	ug/m3	18	10	6 J	9.7
Ethyl Acetate	ug/m3	3.6 U	3.6 U	3.6 U	3.6 U
Ethylbenzene	ug/m3	0.18 J	0.43 U	0.43 U	0.43 U
Hexachlorobutadiene	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	14 U	14 U	14 U	1.4 J
Isopropyl alcohol	ug/m3	9.8 U	9.8 U	9.8 U	9.8 U
m,p-Xylene	ug/m3	0.57 J	0.87 U	0.87 U	0.87 U
Methyl methacrylate	ug/m3	0.41 U		0.41 U	
Methylene Chloride	ug/m3	3.5 U	3.5 U	3.5 U	14
Methyl-t-butyl ether	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U
Naphthalene	ug/m3		0.52 U		0.52 U
n-Heptane	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U
o-Xylene	ug/m3	0.25 J	0.43 U	0.43 U	0.43 U
Propylene (Propene)	ug/m3	6.9 U	6.9 U	6.9 U	6.9 U
Styrene	ug/m3	0.43 U	0.43 U	0.43 U	0.43 U
Tetrachloroethene	ug/m3	64	17	3.1	1.9
Tetrahydrofuran	ug/m3	8	2.9 U	2.9 U	2.9 U
Toluene	ug/m3	0.7	0.28 J	0.19 J	0.23 J
trans-1,2-Dichloroethene	ug/m3	0.4 U	0.4 U	0.4 U	0.41
trans-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U
Trichloroethene	ug/m3	1100	43	1200	600
Trichlorofluoromethane	ug/m3	310	36	230	50
Trichlorotrifluoroethane	ug/m3	3.1 U	3.1 U	3.1 U	3.1 U
Vinyl Acetate	ug/m3	7 U	7 U	7 U	7 U
Vinyl Chloride	ug/m3	0.26 U	0.26 U	0.26 U	0.26 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

Prepared By: AKN, 4/5/2021

Checked By: MM, 4/5/2021

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
2/8/2019	-0.274	-0.633	-0.677	-0.229
4/11/2019	NM	-0.681	NM	NM
9/12/2019	-0.525	-0.68	-0.131	-0.267
2/14/2020	-0.564	-0.728	-0.003	-0.271
9/9/2020	-0.476	-0.659	-0.560	-0.251
3/8/2021	-0.461	-0.646	-0.742	-0.227

* vacuum reduced at extraction wells

** ASD system offline

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

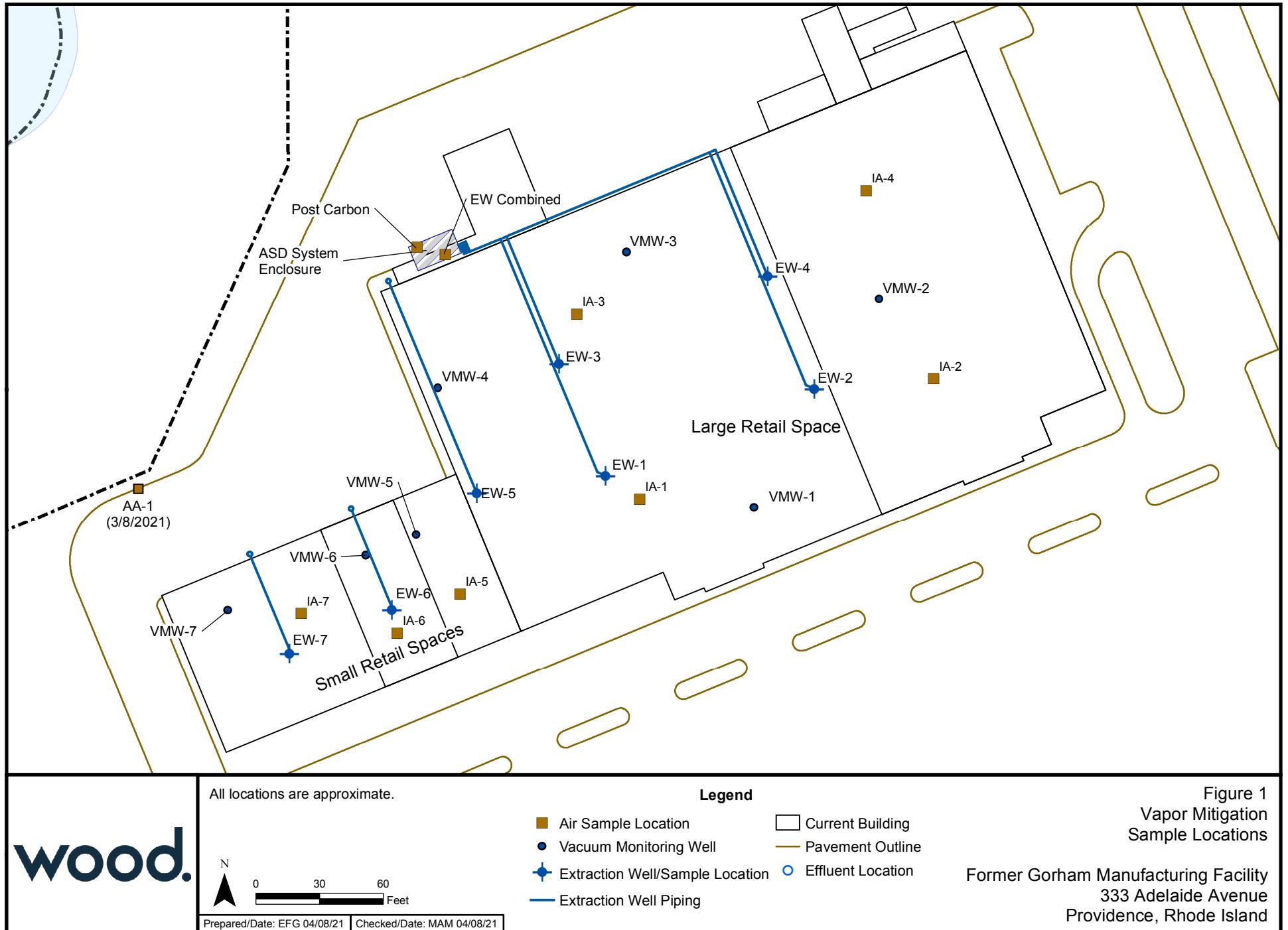
NM - not measured

Prepared by/Date: MAM 04/08/2021

Checked by/Date:

wood.

Figures



wood.



wood.

Appendix A

Laboratory Report

April 1, 2021

Gregory Avenia
WOOD PLC- MA
271 Mill Road
Chelmsford, MA 01824

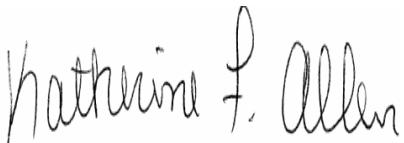
Project Location: Providence, RI
Client Job Number:
Project Number: 365211036
Laboratory Work Order Number: 21C0477

Enclosed are results of analyses for samples received by the laboratory on March 10, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kaitlyn A. Feliciano
Project Manager



QA Officer
Katherine Allen



Laboratory Manager
Daren Damboragian

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

REPORT DATE: 4/1/2021

WOOD PLC- MA
271 Mill Road
Chelmsford, MA 01824
ATTN: Gregory Avenia

PURCHASE ORDER NUMBER: C012206368

PROJECT NUMBER: 365211036

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21C0477

The results of analyses performed on the following samples submitted to Con-Test, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Providence, RI

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
IA-1-030821	21C0477-01	Indoor air		EPA TO-15	
IA-2-030821	21C0477-02	Indoor air		EPA TO-15	
IA-3-030821	21C0477-03	Indoor air		EPA TO-15	
IA-4-030821	21C0477-04	Indoor air		EPA TO-15	
IA-5-030821	21C0477-05	Indoor air		EPA TO-15	
IA-6-030821	21C0477-06	Indoor air		EPA TO-15	
IA-7-030821	21C0477-07	Indoor air		EPA TO-15	
AA-1-030821	21C0477-08	Indoor air		EPA TO-15	
EU-5-030821	21C0477-09	Soil Gas		EPA TO-15	
EU-6-030821	21C0477-10	Soil Gas		EPA TO-15	
EU-7-030821	21C0477-11	Soil Gas		EPA TO-15	
EU-Combined-030821	21C0477-12	Soil Gas		EPA TO-15	
Post Carbon-030821	21C0477-13	Soil Gas		EPA TO-15	
Unused Can#1470/Unused Reg#4206	21C0477-14	Soil Gas		-	

CASE NARRATIVE SUMMARY

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

EPA TO-15**Qualifications:**

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

Analyte & Samples(s) Qualified:**2-Hexanone (MBK)**

B278429-BS1, B278532-BS1

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

Analyte & Samples(s) Qualified:**Methylene Chloride, Naphthalene**

21C0477-01[IA-1-030821], 21C0477-02[IA-2-030821], 21C0477-03[IA-3-030821], 21C0477-04[IA-4-030821], 21C0477-05[IA-5-030821], 21C0477-06[IA-6-030821],
21C0477-07[IA-7-030821], B278429-BLK1, B278429-BS1, 21C0477-08[AA-1-030821], 21C0477-09[EU-5-030821], 21C0477-10[EU-6-030821],
21C0477-11[EU-7-030821], 21C0477-12[EU-Combined-030821], 21C0477-13[Post Carbon-030821]

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:**2-Hexanone (MBK)**

B278429-BS1, B278532-BS1

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

Analyte & Samples(s) Qualified:**1,2,4-Trichlorobenzene, 1,2,4-Trimethylbenzene**

21C0477-01[IA-1-030821], 21C0477-02[IA-2-030821], 21C0477-03[IA-3-030821], 21C0477-04[IA-4-030821], 21C0477-05[IA-5-030821], 21C0477-06[IA-6-030821],
21C0477-07[IA-7-030821], 21C0477-08[AA-1-030821], 21C0477-09[EU-5-030821], 21C0477-10[EU-6-030821], 21C0477-11[EU-7-030821],
21C0477-12[EU-Combined-030821], 21C0477-13[Post Carbon-030821], B278429-BLK1, B278429-BS1, B278532-BLK1, B278532-BS1, B278532-DUP1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace 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.



Lisa A. Worthington
Technical Representative

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: IA-1-030821

Sample ID: 21C0477-01

Sample Matrix: Indoor air

Sampled: 3/8/2021 09:15

Sample Description/Location:

Sub Description/Location:

Canister ID: 2013

Canister Size: 6 liter

Flow Controller ID: 4180

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -7.0

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Acetone	3.7	1.2	0.73			8.9	2.9	1.7	0.6	3/19/21 21:10	BRF
Benzene	0.18	0.030	0.0088			0.59	0.096	0.028	0.6	3/19/21 21:10	BRF
Benzyl chloride	ND	0.030	0.014			ND	0.16	0.070	0.6	3/19/21 21:10	BRF
Bromodichloromethane	ND	0.030	0.0083			ND	0.20	0.056	0.6	3/19/21 21:10	BRF
Bromoform	ND	0.030	0.010			ND	0.31	0.11	0.6	3/19/21 21:10	BRF
Bromomethane	ND	0.030	0.016			ND	0.12	0.062	0.6	3/19/21 21:10	BRF
1,3-Butadiene	ND	0.030	0.022			ND	0.066	0.049	0.6	3/19/21 21:10	BRF
2-Butanone (MEK)	0.69	1.2	0.099	J		2.0	3.5	0.29	0.6	3/19/21 21:10	BRF
Carbon Disulfide	ND	0.30	0.076			ND	0.93	0.24	0.6	3/19/21 21:10	BRF
Carbon Tetrachloride	0.088	0.030	0.0080			0.55	0.19	0.050	0.6	3/19/21 21:10	BRF
Chlorobenzene	ND	0.030	0.0073			ND	0.14	0.033	0.6	3/19/21 21:10	BRF
Chloroethane	ND	0.030	0.029			ND	0.079	0.077	0.6	3/19/21 21:10	BRF
Chloroform	ND	0.030	0.0073			ND	0.15	0.035	0.6	3/19/21 21:10	BRF
Chloromethane	ND	0.060	0.023			ND	0.12	0.047	0.6	3/19/21 21:10	BRF
Cyclohexane	ND	0.030	0.015			ND	0.10	0.051	0.6	3/19/21 21:10	BRF
Dibromochloromethane	ND	0.030	0.010			ND	0.26	0.086	0.6	3/19/21 21:10	BRF
1,2-Dibromoethane (EDB)	ND	0.030	0.0078			ND	0.23	0.060	0.6	3/19/21 21:10	BRF
1,2-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.067	0.6	3/19/21 21:10	BRF
1,3-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.066	0.6	3/19/21 21:10	BRF
1,4-Dichlorobenzene	ND	0.030	0.0067			ND	0.18	0.040	0.6	3/19/21 21:10	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.030	0.0094			ND	0.15	0.047	0.6	3/19/21 21:10	BRF
1,1-Dichloroethane	ND	0.030	0.0094			ND	0.12	0.038	0.6	3/19/21 21:10	BRF
1,2-Dichloroethane	ND	0.030	0.011			ND	0.12	0.044	0.6	3/19/21 21:10	BRF
1,1-Dichloroethylene	ND	0.030	0.016			ND	0.12	0.065	0.6	3/19/21 21:10	BRF
cis-1,2-Dichloroethylene	ND	0.030	0.010			ND	0.12	0.040	0.6	3/19/21 21:10	BRF
trans-1,2-Dichloroethylene	ND	0.030	0.0089			ND	0.12	0.035	0.6	3/19/21 21:10	BRF
1,2-Dichloropropane	ND	0.030	0.011			ND	0.14	0.050	0.6	3/19/21 21:10	BRF
cis-1,3-Dichloropropene	ND	0.030	0.014			ND	0.14	0.063	0.6	3/19/21 21:10	BRF
trans-1,3-Dichloropropene	ND	0.030	0.010			ND	0.14	0.046	0.6	3/19/21 21:10	BRF
Ethanol	12	1.2	0.36			23	2.3	0.69	0.6	3/19/21 21:10	BRF
Ethyl Acetate	2.1	0.30	0.18			7.5	1.1	0.64	0.6	3/19/21 21:10	BRF
Ethylbenzene	0.024	0.030	0.0062	J		0.10	0.13	0.027	0.6	3/19/21 21:10	BRF
4-Ethyltoluene	ND	0.030	0.0093			ND	0.15	0.046	0.6	3/19/21 21:10	BRF
Heptane	ND	0.030	0.013			ND	0.12	0.053	0.6	3/19/21 21:10	BRF
Hexachlorobutadiene	ND	0.030	0.013			ND	0.32	0.14	0.6	3/19/21 21:10	BRF
Hexane	ND	1.2	0.054			ND	4.2	0.19	0.6	3/19/21 21:10	BRF
2-Hexanone (MBK)	ND	0.060	0.017			ND	0.25	0.069	0.6	3/19/21 21:10	BRF
Isopropanol	ND	1.2	0.28			ND	2.9	0.68	0.6	3/19/21 21:10	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.012			ND	0.11	0.043	0.6	3/19/21 21:10	BRF
Methylene Chloride	0.62	0.30	0.069	V-05		2.2	1.0	0.24	0.6	3/19/21 21:10	BRF
Methyl methacrylate	ND	0.030	0.017			ND	0.12	0.070	0.6	3/19/21 21:10	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.030	0.016			ND	0.12	0.064	0.6	3/19/21 21:10	BRF
Propene	ND	1.2	0.10			ND	2.1	0.17	0.6	3/19/21 21:10	BRF
Styrene	ND	0.030	0.0086			ND	0.13	0.037	0.6	3/19/21 21:10	BRF
1,1,1,2-Tetrachloroethane	ND	0.055	0.020			ND	0.37	0.14	0.6	3/19/21 21:10	BRF
1,1,2,2-Tetrachloroethane	ND	0.030	0.0080			ND	0.21	0.055	0.6	3/19/21 21:10	BRF
Tetrachloroethylene	0.041	0.030	0.0098			0.28	0.20	0.066	0.6	3/19/21 21:10	BRF

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: IA-1-030821

Sample ID: 21C0477-01

Sample Matrix: Indoor air

Sampled: 3/8/2021 09:15

Sample Description/Location:

Sub Description/Location:

Canister ID: 2013

Canister Size: 6 liter

Flow Controller ID: 4180

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -7.0

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Tetrahydrofuran	ND	0.30	0.074			ND	0.88	0.22	0.6	3/19/21 21:10	BRF
Toluene	0.14	0.030	0.0087			0.53	0.11	0.033	0.6	3/19/21 21:10	BRF
1,2,4-Trichlorobenzene	ND	0.030	0.018	V-34		ND	0.22	0.14	0.6	3/19/21 21:10	BRF
1,1,1-Trichloroethane	ND	0.030	0.0098			ND	0.16	0.053	0.6	3/19/21 21:10	BRF
1,1,2-Trichloroethane	ND	0.030	0.011			ND	0.16	0.060	0.6	3/19/21 21:10	BRF
Trichloroethylene	0.019	0.030	0.011	J		0.10	0.16	0.060	0.6	3/19/21 21:10	BRF
Trichlorofluoromethane (Freon 11)	0.19	0.12	0.023			1.1	0.67	0.13	0.6	3/19/21 21:10	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.070	0.12	0.023	J		0.53	0.92	0.17	0.6	3/19/21 21:10	BRF
1,2,4-Trimethylbenzene	ND	0.030	0.0068	V-34		ND	0.15	0.034	0.6	3/19/21 21:10	BRF
1,3,5-Trimethylbenzene	ND	0.030	0.0078			ND	0.15	0.038	0.6	3/19/21 21:10	BRF
Vinyl Acetate	ND	0.60	0.084			ND	2.1	0.30	0.6	3/19/21 21:10	BRF
Vinyl Chloride	ND	0.030	0.017			ND	0.077	0.043	0.6	3/19/21 21:10	BRF
m&p-Xylene	0.070	0.060	0.010			0.30	0.26	0.045	0.6	3/19/21 21:10	BRF
o-Xylene	0.034	0.030	0.0080			0.15	0.13	0.035	0.6	3/19/21 21:10	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	100	70-130	3/19/21 21:10
4-Bromofluorobenzene (2)	75.4	70-130	3/19/21 21:10

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: IA-2-030821

Sample ID: 21C0477-02

Sample Matrix: Indoor air

Sampled: 3/8/2021 09:18

Sample Description/Location:

Sub Description/Location:

Canister ID: 9013

Canister Size: 6 liter

Flow Controller ID: 4369

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -5

Receipt Vacuum(in Hg): -5.4

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Acetone	2.0	1.2	0.73			4.8	2.9	1.7	0.6	3/19/21 21:43	BRF
Benzene	0.16	0.030	0.0088			0.51	0.096	0.028	0.6	3/19/21 21:43	BRF
Benzyl chloride	ND	0.030	0.014			ND	0.16	0.070	0.6	3/19/21 21:43	BRF
Bromodichloromethane	ND	0.030	0.0083			ND	0.20	0.056	0.6	3/19/21 21:43	BRF
Bromoform	ND	0.030	0.010			ND	0.31	0.11	0.6	3/19/21 21:43	BRF
Bromomethane	ND	0.030	0.016			ND	0.12	0.062	0.6	3/19/21 21:43	BRF
1,3-Butadiene	ND	0.030	0.022			ND	0.066	0.049	0.6	3/19/21 21:43	BRF
2-Butanone (MEK)	0.26	1.2	0.099	J		0.77	3.5	0.29	0.6	3/19/21 21:43	BRF
Carbon Disulfide	ND	0.30	0.076			ND	0.93	0.24	0.6	3/19/21 21:43	BRF
Carbon Tetrachloride	0.074	0.030	0.0080			0.46	0.19	0.050	0.6	3/19/21 21:43	BRF
Chlorobenzene	ND	0.030	0.0073			ND	0.14	0.033	0.6	3/19/21 21:43	BRF
Chloroethane	ND	0.030	0.029			ND	0.079	0.077	0.6	3/19/21 21:43	BRF
Chloroform	0.020	0.030	0.0073	J		0.097	0.15	0.035	0.6	3/19/21 21:43	BRF
Chloromethane	ND	0.060	0.023			ND	0.12	0.047	0.6	3/19/21 21:43	BRF
Cyclohexane	ND	0.030	0.015			ND	0.10	0.051	0.6	3/19/21 21:43	BRF
Dibromochloromethane	ND	0.030	0.010			ND	0.26	0.086	0.6	3/19/21 21:43	BRF
1,2-Dibromoethane (EDB)	ND	0.030	0.0078			ND	0.23	0.060	0.6	3/19/21 21:43	BRF
1,2-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.067	0.6	3/19/21 21:43	BRF
1,3-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.066	0.6	3/19/21 21:43	BRF
1,4-Dichlorobenzene	ND	0.030	0.0067			ND	0.18	0.040	0.6	3/19/21 21:43	BRF
Dichlorodifluoromethane (Freon 12)	0.40	0.030	0.0094			2.0	0.15	0.047	0.6	3/19/21 21:43	BRF
1,1-Dichloroethane	ND	0.030	0.0094			ND	0.12	0.038	0.6	3/19/21 21:43	BRF
1,2-Dichloroethane	ND	0.030	0.011			ND	0.12	0.044	0.6	3/19/21 21:43	BRF
1,1-Dichloroethylene	ND	0.030	0.016			ND	0.12	0.065	0.6	3/19/21 21:43	BRF
cis-1,2-Dichloroethylene	ND	0.030	0.010			ND	0.12	0.040	0.6	3/19/21 21:43	BRF
trans-1,2-Dichloroethylene	ND	0.030	0.0089			ND	0.12	0.035	0.6	3/19/21 21:43	BRF
1,2-Dichloropropane	ND	0.030	0.011			ND	0.14	0.050	0.6	3/19/21 21:43	BRF
cis-1,3-Dichloropropene	ND	0.030	0.014			ND	0.14	0.063	0.6	3/19/21 21:43	BRF
trans-1,3-Dichloropropene	ND	0.030	0.010			ND	0.14	0.046	0.6	3/19/21 21:43	BRF
Ethanol	2.7	1.2	0.36			5.0	2.3	0.69	0.6	3/19/21 21:43	BRF
Ethyl Acetate	ND	0.30	0.18			ND	1.1	0.64	0.6	3/19/21 21:43	BRF
Ethylbenzene	0.016	0.030	0.0062	J		0.070	0.13	0.027	0.6	3/19/21 21:43	BRF
4-Ethyltoluene	ND	0.030	0.0093			ND	0.15	0.046	0.6	3/19/21 21:43	BRF
Heptane	ND	0.030	0.013			ND	0.12	0.053	0.6	3/19/21 21:43	BRF
Hexachlorobutadiene	ND	0.030	0.013			ND	0.32	0.14	0.6	3/19/21 21:43	BRF
Hexane	ND	1.2	0.054			ND	4.2	0.19	0.6	3/19/21 21:43	BRF
2-Hexanone (MBK)	ND	0.060	0.017			ND	0.25	0.069	0.6	3/19/21 21:43	BRF
Isopropanol	ND	1.2	0.28			ND	2.9	0.68	0.6	3/19/21 21:43	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.012			ND	0.11	0.043	0.6	3/19/21 21:43	BRF
Methylene Chloride	0.43	0.30	0.069	V-05		1.5	1.0	0.24	0.6	3/19/21 21:43	BRF
Methyl methacrylate	ND	0.030	0.017			ND	0.12	0.070	0.6	3/19/21 21:43	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.030	0.016			ND	0.12	0.064	0.6	3/19/21 21:43	BRF
Propene	ND	1.2	0.10			ND	2.1	0.17	0.6	3/19/21 21:43	BRF
Styrene	ND	0.030	0.0086			ND	0.13	0.037	0.6	3/19/21 21:43	BRF
1,1,1,2-Tetrachloroethane	ND	0.055	0.020			ND	0.37	0.14	0.6	3/19/21 21:43	BRF
1,1,2,2-Tetrachloroethane	ND	0.030	0.0080			ND	0.21	0.055	0.6	3/19/21 21:43	BRF
Tetrachloroethylene	0.021	0.030	0.0098	J		0.14	0.20	0.066	0.6	3/19/21 21:43	BRF

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: IA-2-030821

Sample ID: 21C0477-02

Sample Matrix: Indoor air

Sampled: 3/8/2021 09:18

Sample Description/Location:

Sub Description/Location:

Canister ID: 9013

Canister Size: 6 liter

Flow Controller ID: 4369

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -5

Receipt Vacuum(in Hg): -5.4

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Tetrahydrofuran	ND	0.30	0.074			ND	0.88	0.22	0.6	3/19/21 21:43	BRF
Toluene	0.12	0.030	0.0087			0.45	0.11	0.033	0.6	3/19/21 21:43	BRF
1,2,4-Trichlorobenzene	ND	0.030	0.018	V-34		ND	0.22	0.14	0.6	3/19/21 21:43	BRF
1,1,1-Trichloroethane	ND	0.030	0.0098			ND	0.16	0.053	0.6	3/19/21 21:43	BRF
1,1,2-Trichloroethane	ND	0.030	0.011			ND	0.16	0.060	0.6	3/19/21 21:43	BRF
Trichloroethylene	ND	0.030	0.011			ND	0.16	0.060	0.6	3/19/21 21:43	BRF
Trichlorofluoromethane (Freon 11)	0.19	0.12	0.023			1.1	0.67	0.13	0.6	3/19/21 21:43	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.050	0.12	0.023	J		0.39	0.92	0.17	0.6	3/19/21 21:43	BRF
1,2,4-Trimethylbenzene	ND	0.030	0.0068			ND	0.15	0.034	0.6	3/19/21 21:43	BRF
1,3,5-Trimethylbenzene	ND	0.030	0.0078			ND	0.15	0.038	0.6	3/19/21 21:43	BRF
Vinyl Acetate	ND	0.60	0.084			ND	2.1	0.30	0.6	3/19/21 21:43	BRF
Vinyl Chloride	ND	0.030	0.017			ND	0.077	0.043	0.6	3/19/21 21:43	BRF
m&p-Xylene	0.046	0.060	0.010	J		0.20	0.26	0.045	0.6	3/19/21 21:43	BRF
o-Xylene	0.020	0.030	0.0080	J		0.086	0.13	0.035	0.6	3/19/21 21:43	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	97.7	70-130	3/19/21 21:43
4-Bromofluorobenzene (2)	73.2	70-130	3/19/21 21:43

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: IA-3-030821

Sample ID: 21C0477-03

Sample Matrix: Indoor air

Sampled: 3/8/2021 09:16

Sample Description/Location:

Sub Description/Location:

Canister ID: 2228

Canister Size: 6 liter

Flow Controller ID: 4295

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6.0

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Acetone	6.5	1.2	0.73			15	2.9	1.7	0.6	3/19/21 22:15	BRF
Benzene	0.19	0.030	0.0088			0.60	0.096	0.028	0.6	3/19/21 22:15	BRF
Benzyl chloride	ND	0.030	0.014			ND	0.16	0.070	0.6	3/19/21 22:15	BRF
Bromodichloromethane	ND	0.030	0.0083			ND	0.20	0.056	0.6	3/19/21 22:15	BRF
Bromoform	ND	0.030	0.010			ND	0.31	0.11	0.6	3/19/21 22:15	BRF
Bromomethane	ND	0.030	0.016			ND	0.12	0.062	0.6	3/19/21 22:15	BRF
1,3-Butadiene	ND	0.030	0.022			ND	0.066	0.049	0.6	3/19/21 22:15	BRF
2-Butanone (MEK)	1.1	1.2	0.099	J		3.1	3.5	0.29	0.6	3/19/21 22:15	BRF
Carbon Disulfide	ND	0.30	0.076			ND	0.93	0.24	0.6	3/19/21 22:15	BRF
Carbon Tetrachloride	0.023	0.030	0.0080	J		0.15	0.19	0.050	0.6	3/19/21 22:15	BRF
Chlorobenzene	ND	0.030	0.0073			ND	0.14	0.033	0.6	3/19/21 22:15	BRF
Chloroethane	ND	0.030	0.029			ND	0.079	0.077	0.6	3/19/21 22:15	BRF
Chloroform	0.031	0.030	0.0073			0.15	0.15	0.035	0.6	3/19/21 22:15	BRF
Chloromethane	ND	0.060	0.023			ND	0.12	0.047	0.6	3/19/21 22:15	BRF
Cyclohexane	ND	0.030	0.015			ND	0.10	0.051	0.6	3/19/21 22:15	BRF
Dibromochloromethane	ND	0.030	0.010			ND	0.26	0.086	0.6	3/19/21 22:15	BRF
1,2-Dibromoethane (EDB)	ND	0.030	0.0078			ND	0.23	0.060	0.6	3/19/21 22:15	BRF
1,2-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.067	0.6	3/19/21 22:15	BRF
1,3-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.066	0.6	3/19/21 22:15	BRF
1,4-Dichlorobenzene	ND	0.030	0.0067			ND	0.18	0.040	0.6	3/19/21 22:15	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.030	0.0094			ND	0.15	0.047	0.6	3/19/21 22:15	BRF
1,1-Dichloroethane	ND	0.030	0.0094			ND	0.12	0.038	0.6	3/19/21 22:15	BRF
1,2-Dichloroethane	ND	0.030	0.011			ND	0.12	0.044	0.6	3/19/21 22:15	BRF
1,1-Dichloroethylene	ND	0.030	0.016			ND	0.12	0.065	0.6	3/19/21 22:15	BRF
cis-1,2-Dichloroethylene	ND	0.030	0.010			ND	0.12	0.040	0.6	3/19/21 22:15	BRF
trans-1,2-Dichloroethylene	ND	0.030	0.0089			ND	0.12	0.035	0.6	3/19/21 22:15	BRF
1,2-Dichloropropane	ND	0.030	0.011			ND	0.14	0.050	0.6	3/19/21 22:15	BRF
cis-1,3-Dichloropropene	ND	0.030	0.014			ND	0.14	0.063	0.6	3/19/21 22:15	BRF
trans-1,3-Dichloropropene	ND	0.030	0.010			ND	0.14	0.046	0.6	3/19/21 22:15	BRF
Ethanol	10	1.2	0.36			19	2.3	0.69	0.6	3/19/21 22:15	BRF
Ethyl Acetate	ND	0.30	0.18			ND	1.1	0.64	0.6	3/19/21 22:15	BRF
Ethylbenzene	0.025	0.030	0.0062	J		0.11	0.13	0.027	0.6	3/19/21 22:15	BRF
4-Ethyltoluene	ND	0.030	0.0093			ND	0.15	0.046	0.6	3/19/21 22:15	BRF
Heptane	ND	0.030	0.013			ND	0.12	0.053	0.6	3/19/21 22:15	BRF
Hexachlorobutadiene	ND	0.030	0.013			ND	0.32	0.14	0.6	3/19/21 22:15	BRF
Hexane	ND	1.2	0.054			ND	4.2	0.19	0.6	3/19/21 22:15	BRF
2-Hexanone (MBK)	ND	0.060	0.017			ND	0.25	0.069	0.6	3/19/21 22:15	BRF
Isopropanol	ND	1.2	0.28			ND	2.9	0.68	0.6	3/19/21 22:15	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.012			ND	0.11	0.043	0.6	3/19/21 22:15	BRF
Methylene Chloride	1.2	0.30	0.069	V-05		4.1	1.0	0.24	0.6	3/19/21 22:15	BRF
Methyl methacrylate	ND	0.030	0.017			ND	0.12	0.070	0.6	3/19/21 22:15	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.030	0.016			ND	0.12	0.064	0.6	3/19/21 22:15	BRF
Propene	ND	1.2	0.10			ND	2.1	0.17	0.6	3/19/21 22:15	BRF
Styrene	ND	0.030	0.0086			ND	0.13	0.037	0.6	3/19/21 22:15	BRF
1,1,2-Tetrachloroethane	ND	0.055	0.020			ND	0.37	0.14	0.6	3/19/21 22:15	BRF
1,1,2,2-Tetrachloroethane	ND	0.030	0.0080			ND	0.21	0.055	0.6	3/19/21 22:15	BRF
Tetrachloroethylene	0.041	0.030	0.0098			0.28	0.20	0.066	0.6	3/19/21 22:15	BRF

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: IA-3-030821

Sample ID: 21C0477-03

Sample Matrix: Indoor air

Sampled: 3/8/2021 09:16

Sample Description/Location:

Sub Description/Location:

Canister ID: 2228

Canister Size: 6 liter

Flow Controller ID: 4295

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6.0

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Tetrahydrofuran	ND	0.30	0.074			ND	0.88	0.22	0.6	3/19/21 22:15	BRF
Toluene	0.15	0.030	0.0087			0.56	0.11	0.033	0.6	3/19/21 22:15	BRF
1,2,4-Trichlorobenzene	ND	0.030	0.018	V-34		ND	0.22	0.14	0.6	3/19/21 22:15	BRF
1,1,1-Trichloroethane	ND	0.030	0.0098			ND	0.16	0.053	0.6	3/19/21 22:15	BRF
1,1,2-Trichloroethane	ND	0.030	0.011			ND	0.16	0.060	0.6	3/19/21 22:15	BRF
Trichloroethylene	0.024	0.030	0.011	J		0.13	0.16	0.060	0.6	3/19/21 22:15	BRF
Trichlorofluoromethane (Freon 11)	0.18	0.12	0.023			0.99	0.67	0.13	0.6	3/19/21 22:15	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.053	0.12	0.023	J		0.40	0.92	0.17	0.6	3/19/21 22:15	BRF
1,2,4-Trimethylbenzene	ND	0.030	0.0068			ND	0.15	0.034	0.6	3/19/21 22:15	BRF
1,3,5-Trimethylbenzene	ND	0.030	0.0078			ND	0.15	0.038	0.6	3/19/21 22:15	BRF
Vinyl Acetate	ND	0.60	0.084			ND	2.1	0.30	0.6	3/19/21 22:15	BRF
Vinyl Chloride	ND	0.030	0.017			ND	0.077	0.043	0.6	3/19/21 22:15	BRF
m&p-Xylene	0.071	0.060	0.010			0.31	0.26	0.045	0.6	3/19/21 22:15	BRF
o-Xylene	0.029	0.030	0.0080	J		0.13	0.13	0.035	0.6	3/19/21 22:15	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	99.5	70-130	3/19/21 22:15
4-Bromofluorobenzene (2)	73.1	70-130	3/19/21 22:15

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: IA-4-030821

Sample ID: 21C0477-04

Sample Matrix: Indoor air

Sampled: 3/8/2021 09:19

Sample Description/Location:

Sub Description/Location:

Canister ID: 9003

Canister Size: 6 liter

Flow Controller ID: 4370

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6.0

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Acetone	2.8	1.2	0.73			6.6	2.9	1.7	0.6	3/19/21 22:47	BRF
Benzene	0.16	0.030	0.0088			0.50	0.096	0.028	0.6	3/19/21 22:47	BRF
Benzyl chloride	ND	0.030	0.014			ND	0.16	0.070	0.6	3/19/21 22:47	BRF
Bromodichloromethane	ND	0.030	0.0083			ND	0.20	0.056	0.6	3/19/21 22:47	BRF
Bromoform	ND	0.030	0.010			ND	0.31	0.11	0.6	3/19/21 22:47	BRF
Bromomethane	ND	0.030	0.016			ND	0.12	0.062	0.6	3/19/21 22:47	BRF
1,3-Butadiene	ND	0.030	0.022			ND	0.066	0.049	0.6	3/19/21 22:47	BRF
2-Butanone (MEK)	ND	1.2	0.099			ND	3.5	0.29	0.6	3/19/21 22:47	BRF
Carbon Disulfide	ND	0.30	0.076			ND	0.93	0.24	0.6	3/19/21 22:47	BRF
Carbon Tetrachloride	0.082	0.030	0.0080			0.51	0.19	0.050	0.6	3/19/21 22:47	BRF
Chlorobenzene	ND	0.030	0.0073			ND	0.14	0.033	0.6	3/19/21 22:47	BRF
Chloroethane	ND	0.030	0.029			ND	0.079	0.077	0.6	3/19/21 22:47	BRF
Chloroform	0.019	0.030	0.0073	J		0.091	0.15	0.035	0.6	3/19/21 22:47	BRF
Chloromethane	ND	0.060	0.023			ND	0.12	0.047	0.6	3/19/21 22:47	BRF
Cyclohexane	ND	0.030	0.015			ND	0.10	0.051	0.6	3/19/21 22:47	BRF
Dibromochloromethane	ND	0.030	0.010			ND	0.26	0.086	0.6	3/19/21 22:47	BRF
1,2-Dibromoethane (EDB)	ND	0.030	0.0078			ND	0.23	0.060	0.6	3/19/21 22:47	BRF
1,2-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.067	0.6	3/19/21 22:47	BRF
1,3-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.066	0.6	3/19/21 22:47	BRF
1,4-Dichlorobenzene	ND	0.030	0.0067			ND	0.18	0.040	0.6	3/19/21 22:47	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.030	0.0094			ND	0.15	0.047	0.6	3/19/21 22:47	BRF
1,1-Dichloroethane	ND	0.030	0.0094			ND	0.12	0.038	0.6	3/19/21 22:47	BRF
1,2-Dichloroethane	ND	0.030	0.011			ND	0.12	0.044	0.6	3/19/21 22:47	BRF
1,1-Dichloroethylene	ND	0.030	0.016			ND	0.12	0.065	0.6	3/19/21 22:47	BRF
cis-1,2-Dichloroethylene	ND	0.030	0.010			ND	0.12	0.040	0.6	3/19/21 22:47	BRF
trans-1,2-Dichloroethylene	ND	0.030	0.0089			ND	0.12	0.035	0.6	3/19/21 22:47	BRF
1,2-Dichloropropane	ND	0.030	0.011			ND	0.14	0.050	0.6	3/19/21 22:47	BRF
cis-1,3-Dichloropropene	ND	0.030	0.014			ND	0.14	0.063	0.6	3/19/21 22:47	BRF
trans-1,3-Dichloropropene	ND	0.030	0.010			ND	0.14	0.046	0.6	3/19/21 22:47	BRF
Ethanol	3.0	1.2	0.36			5.6	2.3	0.69	0.6	3/19/21 22:47	BRF
Ethyl Acetate	ND	0.30	0.18			ND	1.1	0.64	0.6	3/19/21 22:47	BRF
Ethylbenzene	0.016	0.030	0.0062	J		0.070	0.13	0.027	0.6	3/19/21 22:47	BRF
4-Ethyltoluene	ND	0.030	0.0093			ND	0.15	0.046	0.6	3/19/21 22:47	BRF
Heptane	ND	0.030	0.013			ND	0.12	0.053	0.6	3/19/21 22:47	BRF
Hexachlorobutadiene	ND	0.030	0.013			ND	0.32	0.14	0.6	3/19/21 22:47	BRF
Hexane	ND	1.2	0.054			ND	4.2	0.19	0.6	3/19/21 22:47	BRF
2-Hexanone (MBK)	ND	0.060	0.017			ND	0.25	0.069	0.6	3/19/21 22:47	BRF
Isopropanol	ND	1.2	0.28			ND	2.9	0.68	0.6	3/19/21 22:47	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.012			ND	0.11	0.043	0.6	3/19/21 22:47	BRF
Methylene Chloride	0.34	0.30	0.069	V-05		1.2	1.0	0.24	0.6	3/19/21 22:47	BRF
Methyl methacrylate	ND	0.030	0.017			ND	0.12	0.070	0.6	3/19/21 22:47	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.030	0.016			ND	0.12	0.064	0.6	3/19/21 22:47	BRF
Propene	ND	1.2	0.10			ND	2.1	0.17	0.6	3/19/21 22:47	BRF
Styrene	ND	0.030	0.0086			ND	0.13	0.037	0.6	3/19/21 22:47	BRF
1,1,1,2-Tetrachloroethane	ND	0.055	0.020			ND	0.37	0.14	0.6	3/19/21 22:47	BRF
1,1,2,2-Tetrachloroethane	ND	0.030	0.0080			ND	0.21	0.055	0.6	3/19/21 22:47	BRF
Tetrachloroethylene	0.020	0.030	0.0098	J		0.14	0.20	0.066	0.6	3/19/21 22:47	BRF

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: IA-4-030821

Sample ID: 21C0477-04

Sample Matrix: Indoor air

Sampled: 3/8/2021 09:19

Sample Description/Location:

Sub Description/Location:

Canister ID: 9003

Canister Size: 6 liter

Flow Controller ID: 4370

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6.0

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Tetrahydrofuran	ND	0.30	0.074			ND	0.88	0.22	0.6	3/19/21 22:47	BRF
Toluene	0.11	0.030	0.0087			0.41	0.11	0.033	0.6	3/19/21 22:47	BRF
1,2,4-Trichlorobenzene	ND	0.030	0.018	V-34		ND	0.22	0.14	0.6	3/19/21 22:47	BRF
1,1,1-Trichloroethane	ND	0.030	0.0098			ND	0.16	0.053	0.6	3/19/21 22:47	BRF
1,1,2-Trichloroethane	ND	0.030	0.011			ND	0.16	0.060	0.6	3/19/21 22:47	BRF
Trichloroethylene	ND	0.030	0.011			ND	0.16	0.060	0.6	3/19/21 22:47	BRF
Trichlorofluoromethane (Freon 11)	0.19	0.12	0.023			1.1	0.67	0.13	0.6	3/19/21 22:47	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.062	0.12	0.023	J		0.47	0.92	0.17	0.6	3/19/21 22:47	BRF
1,2,4-Trimethylbenzene	ND	0.030	0.0068			ND	0.15	0.034	0.6	3/19/21 22:47	BRF
1,3,5-Trimethylbenzene	ND	0.030	0.0078			ND	0.15	0.038	0.6	3/19/21 22:47	BRF
Vinyl Acetate	ND	0.60	0.084			ND	2.1	0.30	0.6	3/19/21 22:47	BRF
Vinyl Chloride	ND	0.030	0.017			ND	0.077	0.043	0.6	3/19/21 22:47	BRF
m&p-Xylene	0.043	0.060	0.010	J		0.18	0.26	0.045	0.6	3/19/21 22:47	BRF
o-Xylene	0.017	0.030	0.0080	J		0.073	0.13	0.035	0.6	3/19/21 22:47	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	98.0	70-130	3/19/21 22:47
4-Bromofluorobenzene (2)	72.8	70-130	3/19/21 22:47

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: IA-5-030821

Sample ID: 21C0477-05

Sample Matrix: Indoor air

Sampled: 3/8/2021 07:58

Sample Description/Location:

Sub Description/Location:

Canister ID: 1277

Canister Size: 6 liter

Flow Controller ID: 4306

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -8

Receipt Vacuum(in Hg): -10.2

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Acetone	4.6	1.2	0.73			11	2.9	1.7	0.6	3/19/21 23:20	BRF
Benzene	0.20	0.030	0.0088			0.63	0.096	0.028	0.6	3/19/21 23:20	BRF
Benzyl chloride	ND	0.030	0.014			ND	0.16	0.070	0.6	3/19/21 23:20	BRF
Bromodichloromethane	ND	0.030	0.0083			ND	0.20	0.056	0.6	3/19/21 23:20	BRF
Bromoform	ND	0.030	0.010			ND	0.31	0.11	0.6	3/19/21 23:20	BRF
Bromomethane	ND	0.030	0.016			ND	0.12	0.062	0.6	3/19/21 23:20	BRF
1,3-Butadiene	ND	0.030	0.022			ND	0.066	0.049	0.6	3/19/21 23:20	BRF
2-Butanone (MEK)	0.43	1.2	0.099	J		1.3	3.5	0.29	0.6	3/19/21 23:20	BRF
Carbon Disulfide	ND	0.30	0.076			ND	0.93	0.24	0.6	3/19/21 23:20	BRF
Carbon Tetrachloride	0.053	0.030	0.0080			0.34	0.19	0.050	0.6	3/19/21 23:20	BRF
Chlorobenzene	ND	0.030	0.0073			ND	0.14	0.033	0.6	3/19/21 23:20	BRF
Chloroethane	ND	0.030	0.029			ND	0.079	0.077	0.6	3/19/21 23:20	BRF
Chloroform	ND	0.030	0.0073			ND	0.15	0.035	0.6	3/19/21 23:20	BRF
Chloromethane	ND	0.060	0.023			ND	0.12	0.047	0.6	3/19/21 23:20	BRF
Cyclohexane	ND	0.030	0.015			ND	0.10	0.051	0.6	3/19/21 23:20	BRF
Dibromochloromethane	ND	0.030	0.010			ND	0.26	0.086	0.6	3/19/21 23:20	BRF
1,2-Dibromoethane (EDB)	ND	0.030	0.0078			ND	0.23	0.060	0.6	3/19/21 23:20	BRF
1,2-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.067	0.6	3/19/21 23:20	BRF
1,3-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.066	0.6	3/19/21 23:20	BRF
1,4-Dichlorobenzene	ND	0.030	0.0067			ND	0.18	0.040	0.6	3/19/21 23:20	BRF
Dichlorodifluoromethane (Freon 12)	0.39	0.030	0.0094			1.9	0.15	0.047	0.6	3/19/21 23:20	BRF
1,1-Dichloroethane	ND	0.030	0.0094			ND	0.12	0.038	0.6	3/19/21 23:20	BRF
1,2-Dichloroethane	ND	0.030	0.011			ND	0.12	0.044	0.6	3/19/21 23:20	BRF
1,1-Dichloroethylene	ND	0.030	0.016			ND	0.12	0.065	0.6	3/19/21 23:20	BRF
cis-1,2-Dichloroethylene	ND	0.030	0.010			ND	0.12	0.040	0.6	3/19/21 23:20	BRF
trans-1,2-Dichloroethylene	ND	0.030	0.0089			ND	0.12	0.035	0.6	3/19/21 23:20	BRF
1,2-Dichloropropane	ND	0.030	0.011			ND	0.14	0.050	0.6	3/19/21 23:20	BRF
cis-1,3-Dichloropropene	ND	0.030	0.014			ND	0.14	0.063	0.6	3/19/21 23:20	BRF
trans-1,3-Dichloropropene	ND	0.030	0.010			ND	0.14	0.046	0.6	3/19/21 23:20	BRF
Ethanol	60	8.0	2.4			110	15	4.6	4	3/20/21 21:09	BRF
Ethyl Acetate	0.78	0.30	0.18			2.8	1.1	0.64	0.6	3/19/21 23:20	BRF
Ethylbenzene	0.019	0.030	0.0062	J		0.083	0.13	0.027	0.6	3/19/21 23:20	BRF
4-Ethyltoluene	ND	0.030	0.0093			ND	0.15	0.046	0.6	3/19/21 23:20	BRF
Heptane	0.087	0.030	0.013			0.36	0.12	0.053	0.6	3/19/21 23:20	BRF
Hexachlorobutadiene	ND	0.030	0.013			ND	0.32	0.14	0.6	3/19/21 23:20	BRF
Hexane	ND	1.2	0.054			ND	4.2	0.19	0.6	3/19/21 23:20	BRF
2-Hexanone (MBK)	ND	0.060	0.017			ND	0.25	0.069	0.6	3/19/21 23:20	BRF
Isopropanol	0.80	1.2	0.28	J		2.0	2.9	0.68	0.6	3/19/21 23:20	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.012			ND	0.11	0.043	0.6	3/19/21 23:20	BRF
Methylene Chloride	0.82	0.30	0.069	V-05		2.8	1.0	0.24	0.6	3/19/21 23:20	BRF
Methyl methacrylate	ND	0.030	0.017			ND	0.12	0.070	0.6	3/19/21 23:20	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.030	0.016			ND	0.12	0.064	0.6	3/19/21 23:20	BRF
Propene	ND	1.2	0.10			ND	2.1	0.17	0.6	3/19/21 23:20	BRF
Styrene	ND	0.030	0.0086			ND	0.13	0.037	0.6	3/19/21 23:20	BRF
1,1,1,2-Tetrachloroethane	ND	0.055	0.020			ND	0.37	0.14	0.6	3/19/21 23:20	BRF
1,1,2,2-Tetrachloroethane	ND	0.030	0.0080			ND	0.21	0.055	0.6	3/19/21 23:20	BRF
Tetrachloroethylene	0.032	0.030	0.0098			0.22	0.20	0.066	0.6	3/19/21 23:20	BRF

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: IA-5-030821

Sample ID: 21C0477-05

Sample Matrix: Indoor air

Sampled: 3/8/2021 07:58

Sample Description/Location:

Sub Description/Location:

Canister ID: 1277

Canister Size: 6 liter

Flow Controller ID: 4306

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -8

Receipt Vacuum(in Hg): -10.2

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Tetrahydrofuran	ND	0.30	0.074			ND	0.88	0.22	0.6	3/19/21 23:20	BRF
Toluene	0.15	0.030	0.0087			0.58	0.11	0.033	0.6	3/19/21 23:20	BRF
1,2,4-Trichlorobenzene	ND	0.030	0.018	V-34		ND	0.22	0.14	0.6	3/19/21 23:20	BRF
1,1,1-Trichloroethane	ND	0.030	0.0098			ND	0.16	0.053	0.6	3/19/21 23:20	BRF
1,1,2-Trichloroethane	ND	0.030	0.011			ND	0.16	0.060	0.6	3/19/21 23:20	BRF
Trichloroethylene	ND	0.030	0.011			ND	0.16	0.060	0.6	3/19/21 23:20	BRF
Trichlorofluoromethane (Freon 11)	0.19	0.12	0.023			1.1	0.67	0.13	0.6	3/19/21 23:20	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.057	0.12	0.023	J		0.44	0.92	0.17	0.6	3/19/21 23:20	BRF
1,2,4-Trimethylbenzene	0.0072	0.030	0.0068	J		0.035	0.15	0.034	0.6	3/19/21 23:20	BRF
1,3,5-Trimethylbenzene	ND	0.030	0.0078			ND	0.15	0.038	0.6	3/19/21 23:20	BRF
Vinyl Acetate	ND	0.60	0.084			ND	2.1	0.30	0.6	3/19/21 23:20	BRF
Vinyl Chloride	ND	0.030	0.017			ND	0.077	0.043	0.6	3/19/21 23:20	BRF
m&p-Xylene	0.046	0.060	0.010	J		0.20	0.26	0.045	0.6	3/19/21 23:20	BRF
o-Xylene	0.018	0.030	0.0080	J		0.078	0.13	0.035	0.6	3/19/21 23:20	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	104	70-130	3/20/21 21:09
4-Bromofluorobenzene (1)	97.8	70-130	3/19/21 23:20
4-Bromofluorobenzene (2)	72.8	70-130	3/19/21 23:20

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: IA-6-030821

Sample ID: 21C0477-06

Sample Matrix: Indoor air

Sampled: 3/8/2021 08:01

Sample Description/Location:

Sub Description/Location:

Canister ID: 1259

Canister Size: 6 liter

Flow Controller ID: 4200

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -5

Receipt Vacuum(in Hg): -5.8

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Acetone	2.5	1.2	0.73			6.0	2.9	1.7	0.6	3/19/21 23:53	BRF
Benzene	0.20	0.030	0.0088			0.62	0.096	0.028	0.6	3/19/21 23:53	BRF
Benzyl chloride	ND	0.030	0.014			ND	0.16	0.070	0.6	3/19/21 23:53	BRF
Bromodichloromethane	ND	0.030	0.0083			ND	0.20	0.056	0.6	3/19/21 23:53	BRF
Bromoform	ND	0.030	0.010			ND	0.31	0.11	0.6	3/19/21 23:53	BRF
Bromomethane	ND	0.030	0.016			ND	0.12	0.062	0.6	3/19/21 23:53	BRF
1,3-Butadiene	ND	0.030	0.022			ND	0.066	0.049	0.6	3/19/21 23:53	BRF
2-Butanone (MEK)	0.18	1.2	0.099	J		0.53	3.5	0.29	0.6	3/19/21 23:53	BRF
Carbon Disulfide	ND	0.30	0.076			ND	0.93	0.24	0.6	3/19/21 23:53	BRF
Carbon Tetrachloride	0.074	0.030	0.0080			0.46	0.19	0.050	0.6	3/19/21 23:53	BRF
Chlorobenzene	ND	0.030	0.0073			ND	0.14	0.033	0.6	3/19/21 23:53	BRF
Chloroethane	ND	0.030	0.029			ND	0.079	0.077	0.6	3/19/21 23:53	BRF
Chloroform	ND	0.030	0.0073			ND	0.15	0.035	0.6	3/19/21 23:53	BRF
Chloromethane	ND	0.060	0.023			ND	0.12	0.047	0.6	3/19/21 23:53	BRF
Cyclohexane	ND	0.030	0.015			ND	0.10	0.051	0.6	3/19/21 23:53	BRF
Dibromochloromethane	ND	0.030	0.010			ND	0.26	0.086	0.6	3/19/21 23:53	BRF
1,2-Dibromoethane (EDB)	ND	0.030	0.0078			ND	0.23	0.060	0.6	3/19/21 23:53	BRF
1,2-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.067	0.6	3/19/21 23:53	BRF
1,3-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.066	0.6	3/19/21 23:53	BRF
1,4-Dichlorobenzene	ND	0.030	0.0067			ND	0.18	0.040	0.6	3/19/21 23:53	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.030	0.0094			ND	0.15	0.047	0.6	3/19/21 23:53	BRF
1,1-Dichloroethane	ND	0.030	0.0094			ND	0.12	0.038	0.6	3/19/21 23:53	BRF
1,2-Dichloroethane	ND	0.030	0.011			ND	0.12	0.044	0.6	3/19/21 23:53	BRF
1,1-Dichloroethylene	ND	0.030	0.016			ND	0.12	0.065	0.6	3/19/21 23:53	BRF
cis-1,2-Dichloroethylene	ND	0.030	0.010			ND	0.12	0.040	0.6	3/19/21 23:53	BRF
trans-1,2-Dichloroethylene	ND	0.030	0.0089			ND	0.12	0.035	0.6	3/19/21 23:53	BRF
1,2-Dichloropropane	ND	0.030	0.011			ND	0.14	0.050	0.6	3/19/21 23:53	BRF
cis-1,3-Dichloropropene	ND	0.030	0.014			ND	0.14	0.063	0.6	3/19/21 23:53	BRF
trans-1,3-Dichloropropene	ND	0.030	0.010			ND	0.14	0.046	0.6	3/19/21 23:53	BRF
Ethanol	210	40	12			390	75	23	20	3/20/21 21:35	BRF
Ethyl Acetate	ND	0.30	0.18			ND	1.1	0.64	0.6	3/19/21 23:53	BRF
Ethylbenzene	0.030	0.030	0.0062			0.13	0.13	0.027	0.6	3/19/21 23:53	BRF
4-Ethyltoluene	ND	0.030	0.0093			ND	0.15	0.046	0.6	3/19/21 23:53	BRF
Heptane	ND	0.030	0.013			ND	0.12	0.053	0.6	3/19/21 23:53	BRF
Hexachlorobutadiene	ND	0.030	0.013			ND	0.32	0.14	0.6	3/19/21 23:53	BRF
Hexane	0.15	1.2	0.054	J		0.54	4.2	0.19	0.6	3/19/21 23:53	BRF
2-Hexanone (MBK)	ND	0.060	0.017			ND	0.25	0.069	0.6	3/19/21 23:53	BRF
Isopropanol	0.73	1.2	0.28	J		1.8	2.9	0.68	0.6	3/19/21 23:53	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.012			ND	0.11	0.043	0.6	3/19/21 23:53	BRF
Methylene Chloride	0.70	0.30	0.069	V-05		2.4	1.0	0.24	0.6	3/19/21 23:53	BRF
Methyl methacrylate	ND	0.030	0.017			ND	0.12	0.070	0.6	3/19/21 23:53	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.030	0.016			ND	0.12	0.064	0.6	3/19/21 23:53	BRF
Propene	ND	1.2	0.10			ND	2.1	0.17	0.6	3/19/21 23:53	BRF
Styrene	ND	0.030	0.0086			ND	0.13	0.037	0.6	3/19/21 23:53	BRF
1,1,1,2-Tetrachloroethane	ND	0.055	0.020			ND	0.37	0.14	0.6	3/19/21 23:53	BRF
1,1,2,2-Tetrachloroethane	ND	0.030	0.0080			ND	0.21	0.055	0.6	3/19/21 23:53	BRF
Tetrachloroethylene	0.035	0.030	0.0098			0.24	0.20	0.066	0.6	3/19/21 23:53	BRF

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: IA-6-030821

Sample ID: 21C0477-06

Sample Matrix: Indoor air

Sampled: 3/8/2021 08:01

Sample Description/Location:

Sub Description/Location:

Canister ID: 1259

Canister Size: 6 liter

Flow Controller ID: 4200

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -5

Receipt Vacuum(in Hg): -5.8

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Tetrahydrofuran	ND	0.30	0.074			ND	0.88	0.22	0.6	3/19/21 23:53	BRF
Toluene	0.15	0.030	0.0087			0.58	0.11	0.033	0.6	3/19/21 23:53	BRF
1,2,4-Trichlorobenzene	ND	0.030	0.018	V-34		ND	0.22	0.14	0.6	3/19/21 23:53	BRF
1,1,1-Trichloroethane	ND	0.030	0.0098			ND	0.16	0.053	0.6	3/19/21 23:53	BRF
1,1,2-Trichloroethane	ND	0.030	0.011			ND	0.16	0.060	0.6	3/19/21 23:53	BRF
Trichloroethylene	ND	0.030	0.011			ND	0.16	0.060	0.6	3/19/21 23:53	BRF
Trichlorofluoromethane (Freon 11)	0.18	0.12	0.023			1.0	0.67	0.13	0.6	3/19/21 23:53	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.12	0.023			ND	0.92	0.17	0.6	3/19/21 23:53	BRF
1,2,4-Trimethylbenzene	ND	0.030	0.0068			ND	0.15	0.034	0.6	3/19/21 23:53	BRF
1,3,5-Trimethylbenzene	ND	0.030	0.0078			ND	0.15	0.038	0.6	3/19/21 23:53	BRF
Vinyl Acetate	ND	0.60	0.084			ND	2.1	0.30	0.6	3/19/21 23:53	BRF
Vinyl Chloride	ND	0.030	0.017			ND	0.077	0.043	0.6	3/19/21 23:53	BRF
m&p-Xylene	0.067	0.060	0.010			0.29	0.26	0.045	0.6	3/19/21 23:53	BRF
o-Xylene	0.028	0.030	0.0080	J		0.12	0.13	0.035	0.6	3/19/21 23:53	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	101	70-130	3/20/21 21:35
4-Bromofluorobenzene (1)	98.5	70-130	3/19/21 23:53
4-Bromofluorobenzene (2)	73.4	70-130	3/19/21 23:53

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: IA-7-030821

Sample ID: 21C0477-07

Sample Matrix: Indoor air

Sampled: 3/8/2021 08:02

Sample Description/Location:

Sub Description/Location:

Canister ID: 1502

Canister Size: 6 liter

Flow Controller ID: 4079

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -9

Receipt Vacuum(in Hg): -9.6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Acetone	6.6	1.2	0.73			16	2.9	1.7	0.6	3/20/21 0:25	BRF
Benzene	0.20	0.030	0.0088			0.63	0.096	0.028	0.6	3/20/21 0:25	BRF
Benzyl chloride	ND	0.030	0.014			ND	0.16	0.070	0.6	3/20/21 0:25	BRF
Bromodichloromethane	ND	0.030	0.0083			ND	0.20	0.056	0.6	3/20/21 0:25	BRF
Bromoform	ND	0.030	0.010			ND	0.31	0.11	0.6	3/20/21 0:25	BRF
Bromomethane	ND	0.030	0.016			ND	0.12	0.062	0.6	3/20/21 0:25	BRF
1,3-Butadiene	ND	0.030	0.022			ND	0.066	0.049	0.6	3/20/21 0:25	BRF
2-Butanone (MEK)	0.69	1.2	0.099	J		2.0	3.5	0.29	0.6	3/20/21 0:25	BRF
Carbon Disulfide	ND	0.30	0.076			ND	0.93	0.24	0.6	3/20/21 0:25	BRF
Carbon Tetrachloride	0.041	0.030	0.0080			0.26	0.19	0.050	0.6	3/20/21 0:25	BRF
Chlorobenzene	ND	0.030	0.0073			ND	0.14	0.033	0.6	3/20/21 0:25	BRF
Chloroethane	ND	0.030	0.029			ND	0.079	0.077	0.6	3/20/21 0:25	BRF
Chloroform	ND	0.030	0.0073			ND	0.15	0.035	0.6	3/20/21 0:25	BRF
Chloromethane	ND	0.060	0.023			ND	0.12	0.047	0.6	3/20/21 0:25	BRF
Cyclohexane	ND	0.030	0.015			ND	0.10	0.051	0.6	3/20/21 0:25	BRF
Dibromochloromethane	ND	0.030	0.010			ND	0.26	0.086	0.6	3/20/21 0:25	BRF
1,2-Dibromoethane (EDB)	ND	0.030	0.0078			ND	0.23	0.060	0.6	3/20/21 0:25	BRF
1,2-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.067	0.6	3/20/21 0:25	BRF
1,3-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.066	0.6	3/20/21 0:25	BRF
1,4-Dichlorobenzene	ND	0.030	0.0067			ND	0.18	0.040	0.6	3/20/21 0:25	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.030	0.0094			ND	0.15	0.047	0.6	3/20/21 0:25	BRF
1,1-Dichloroethane	ND	0.030	0.0094			ND	0.12	0.038	0.6	3/20/21 0:25	BRF
1,2-Dichloroethane	ND	0.030	0.011			ND	0.12	0.044	0.6	3/20/21 0:25	BRF
1,1-Dichloroethylene	ND	0.030	0.016			ND	0.12	0.065	0.6	3/20/21 0:25	BRF
cis-1,2-Dichloroethylene	ND	0.030	0.010			ND	0.12	0.040	0.6	3/20/21 0:25	BRF
trans-1,2-Dichloroethylene	ND	0.030	0.0089			ND	0.12	0.035	0.6	3/20/21 0:25	BRF
1,2-Dichloropropane	ND	0.030	0.011			ND	0.14	0.050	0.6	3/20/21 0:25	BRF
cis-1,3-Dichloropropene	ND	0.030	0.014			ND	0.14	0.063	0.6	3/20/21 0:25	BRF
trans-1,3-Dichloropropene	ND	0.030	0.010			ND	0.14	0.046	0.6	3/20/21 0:25	BRF
Ethanol	300	40	12			570	75	23	20	3/20/21 22:00	BRF
Ethyl Acetate	1.0	0.30	0.18			3.8	1.1	0.64	0.6	3/20/21 0:25	BRF
Ethylbenzene	0.033	0.030	0.0062			0.14	0.13	0.027	0.6	3/20/21 0:25	BRF
4-Ethyltoluene	ND	0.030	0.0093			ND	0.15	0.046	0.6	3/20/21 0:25	BRF
Heptane	ND	0.030	0.013			ND	0.12	0.053	0.6	3/20/21 0:25	BRF
Hexachlorobutadiene	ND	0.030	0.013			ND	0.32	0.14	0.6	3/20/21 0:25	BRF
Hexane	ND	1.2	0.054			ND	4.2	0.19	0.6	3/20/21 0:25	BRF
2-Hexanone (MBK)	ND	0.060	0.017			ND	0.25	0.069	0.6	3/20/21 0:25	BRF
Isopropanol	7.2	1.2	0.28			18	2.9	0.68	0.6	3/20/21 0:25	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.012			ND	0.11	0.043	0.6	3/20/21 0:25	BRF
Methylene Chloride	1.5	0.30	0.069	V-05		5.2	1.0	0.24	0.6	3/20/21 0:25	BRF
Methyl methacrylate	ND	0.030	0.017			ND	0.12	0.070	0.6	3/20/21 0:25	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.030	0.016			ND	0.12	0.064	0.6	3/20/21 0:25	BRF
Propene	ND	1.2	0.10			ND	2.1	0.17	0.6	3/20/21 0:25	BRF
Styrene	ND	0.030	0.0086			ND	0.13	0.037	0.6	3/20/21 0:25	BRF
1,1,1,2-Tetrachloroethane	ND	0.055	0.020			ND	0.37	0.14	0.6	3/20/21 0:25	BRF
1,1,2,2-Tetrachloroethane	ND	0.030	0.0080			ND	0.21	0.055	0.6	3/20/21 0:25	BRF
Tetrachloroethylene	0.29	0.030	0.0098			2.0	0.20	0.066	0.6	3/20/21 0:25	BRF

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: IA-7-030821

Sample ID: 21C0477-07

Sample Matrix: Indoor air

Sampled: 3/8/2021 08:02

Sample Description/Location:

Sub Description/Location:

Canister ID: 1502

Canister Size: 6 liter

Flow Controller ID: 4079

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -28

Final Vacuum(in Hg): -9

Receipt Vacuum(in Hg): -9.6

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Tetrahydrofuran	ND	0.30	0.074			ND	0.88	0.22	0.6	3/20/21 0:25	BRF
Toluene	0.20	0.030	0.0087			0.75	0.11	0.033	0.6	3/20/21 0:25	BRF
1,2,4-Trichlorobenzene	ND	0.030	0.018	V-34		ND	0.22	0.14	0.6	3/20/21 0:25	BRF
1,1,1-Trichloroethane	ND	0.030	0.0098			ND	0.16	0.053	0.6	3/20/21 0:25	BRF
1,1,2-Trichloroethane	ND	0.030	0.011			ND	0.16	0.060	0.6	3/20/21 0:25	BRF
Trichloroethylene	ND	0.030	0.011			ND	0.16	0.060	0.6	3/20/21 0:25	BRF
Trichlorofluoromethane (Freon 11)	0.21	0.12	0.023			1.2	0.67	0.13	0.6	3/20/21 0:25	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.12	0.023			ND	0.92	0.17	0.6	3/20/21 0:25	BRF
1,2,4-Trimethylbenzene	ND	0.030	0.0068			ND	0.15	0.034	0.6	3/20/21 0:25	BRF
1,3,5-Trimethylbenzene	ND	0.030	0.0078			ND	0.15	0.038	0.6	3/20/21 0:25	BRF
Vinyl Acetate	ND	0.60	0.084			ND	2.1	0.30	0.6	3/20/21 0:25	BRF
Vinyl Chloride	ND	0.030	0.017			ND	0.077	0.043	0.6	3/20/21 0:25	BRF
m&p-Xylene	0.10	0.060	0.010			0.45	0.26	0.045	0.6	3/20/21 0:25	BRF
o-Xylene	0.040	0.030	0.0080			0.17	0.13	0.035	0.6	3/20/21 0:25	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	98.2	70-130	3/20/21 0:25
4-Bromofluorobenzene (1)	105	70-130	3/20/21 22:00
4-Bromofluorobenzene (2)	74.9	70-130	3/20/21 0:25

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: AA-1-030821

Sample ID: 21C0477-08

Sample Matrix: Indoor air

Sampled: 3/8/2021 09:13

Sample Description/Location:

Sub Description/Location:

Canister ID: 1328

Canister Size: 6 liter

Flow Controller ID: 4209

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -8

Receipt Vacuum(in Hg): -6.3

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Acetone	3.3	1.2	0.73			7.8	2.9	1.7	0.6	3/20/21 17:37	BRF
Benzene	0.21	0.030	0.0088			0.68	0.096	0.028	0.6	3/20/21 17:37	BRF
Benzyl chloride	ND	0.030	0.014			ND	0.16	0.070	0.6	3/20/21 17:37	BRF
Bromodichloromethane	ND	0.030	0.0083			ND	0.20	0.056	0.6	3/20/21 17:37	BRF
Bromoform	ND	0.030	0.010			ND	0.31	0.11	0.6	3/20/21 17:37	BRF
Bromomethane	ND	0.030	0.016			ND	0.12	0.062	0.6	3/20/21 17:37	BRF
1,3-Butadiene	ND	0.030	0.022			ND	0.066	0.049	0.6	3/20/21 17:37	BRF
2-Butanone (MEK)	0.24	1.2	0.099	J		0.71	3.5	0.29	0.6	3/20/21 17:37	BRF
Carbon Disulfide	ND	0.30	0.076			ND	0.93	0.24	0.6	3/20/21 17:37	BRF
Carbon Tetrachloride	0.11	0.030	0.0080			0.71	0.19	0.050	0.6	3/20/21 17:37	BRF
Chlorobenzene	ND	0.030	0.0073			ND	0.14	0.033	0.6	3/20/21 17:37	BRF
Chloroethane	ND	0.030	0.029			ND	0.079	0.077	0.6	3/20/21 17:37	BRF
Chloroform	0.022	0.030	0.0073	J		0.11	0.15	0.035	0.6	3/20/21 17:37	BRF
Chloromethane	0.87	0.060	0.023			1.8	0.12	0.047	0.6	3/20/21 17:37	BRF
Cyclohexane	ND	0.030	0.015			ND	0.10	0.051	0.6	3/20/21 17:37	BRF
Dibromochloromethane	ND	0.030	0.010			ND	0.26	0.086	0.6	3/20/21 17:37	BRF
1,2-Dibromoethane (EDB)	ND	0.030	0.0078			ND	0.23	0.060	0.6	3/20/21 17:37	BRF
1,2-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.067	0.6	3/20/21 17:37	BRF
1,3-Dichlorobenzene	ND	0.030	0.011			ND	0.18	0.066	0.6	3/20/21 17:37	BRF
1,4-Dichlorobenzene	ND	0.030	0.0067			ND	0.18	0.040	0.6	3/20/21 17:37	BRF
Dichlorodifluoromethane (Freon 12)	0.58	0.030	0.0094			2.9	0.15	0.047	0.6	3/20/21 17:37	BRF
1,1-Dichloroethane	ND	0.030	0.0094			ND	0.12	0.038	0.6	3/20/21 17:37	BRF
1,2-Dichloroethane	ND	0.030	0.011			ND	0.12	0.044	0.6	3/20/21 17:37	BRF
1,1-Dichloroethylene	ND	0.030	0.016			ND	0.12	0.065	0.6	3/20/21 17:37	BRF
cis-1,2-Dichloroethylene	ND	0.030	0.010			ND	0.12	0.040	0.6	3/20/21 17:37	BRF
trans-1,2-Dichloroethylene	ND	0.030	0.0089			ND	0.12	0.035	0.6	3/20/21 17:37	BRF
1,2-Dichloropropane	ND	0.030	0.011			ND	0.14	0.050	0.6	3/20/21 17:37	BRF
cis-1,3-Dichloropropene	ND	0.030	0.014			ND	0.14	0.063	0.6	3/20/21 17:37	BRF
trans-1,3-Dichloropropene	ND	0.030	0.010			ND	0.14	0.046	0.6	3/20/21 17:37	BRF
Ethanol	6.1	1.2	0.36			11	2.3	0.69	0.6	3/20/21 17:37	BRF
Ethyl Acetate	0.68	0.30	0.18			2.4	1.1	0.64	0.6	3/20/21 17:37	BRF
Ethylbenzene	0.019	0.030	0.0062	J		0.081	0.13	0.027	0.6	3/20/21 17:37	BRF
4-Ethyltoluene	ND	0.030	0.0093			ND	0.15	0.046	0.6	3/20/21 17:37	BRF
Heptane	ND	0.030	0.013			ND	0.12	0.053	0.6	3/20/21 17:37	BRF
Hexachlorobutadiene	ND	0.030	0.013			ND	0.32	0.14	0.6	3/20/21 17:37	BRF
Hexane	ND	1.2	0.054			ND	4.2	0.19	0.6	3/20/21 17:37	BRF
2-Hexanone (MBK)	ND	0.060	0.017			ND	0.25	0.069	0.6	3/20/21 17:37	BRF
Isopropanol	0.29	1.2	0.28	J		0.72	2.9	0.68	0.6	3/20/21 17:37	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.030	0.012			ND	0.11	0.043	0.6	3/20/21 17:37	BRF
Methylene Chloride	1.7	0.30	0.069			5.8	1.0	0.24	0.6	3/20/21 17:37	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.030	0.016			ND	0.12	0.064	0.6	3/20/21 17:37	BRF
Naphthalene	ND	0.030	0.017	V-05		ND	0.16	0.088	0.6	3/20/21 17:37	BRF
Propene	ND	1.2	0.10			ND	2.1	0.17	0.6	3/20/21 17:37	BRF
Styrene	ND	0.030	0.0086			ND	0.13	0.037	0.6	3/20/21 17:37	BRF
1,1,2-Tetrachloroethane	ND	0.055	0.020			ND	0.37	0.14	0.6	3/20/21 17:37	BRF
1,1,2,2-Tetrachloroethane	ND	0.030	0.0080			ND	0.21	0.055	0.6	3/20/21 17:37	BRF
Tetrachloroethylene	0.016	0.030	0.0098	J		0.11	0.20	0.066	0.6	3/20/21 17:37	BRF

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: AA-1-030821

Sample ID: 21C0477-08

Sample Matrix: Indoor air

Sampled: 3/8/2021 09:13

Sample Description/Location:

Sub Description/Location:

Canister ID: 1328

Canister Size: 6 liter

Flow Controller ID: 4209

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -8

Receipt Vacuum(in Hg): -6.3

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Tetrahydrofuran	ND	0.30	0.074			ND	0.88	0.22	0.6	3/20/21 17:37	BRF
Toluene	0.12	0.030	0.0087			0.45	0.11	0.033	0.6	3/20/21 17:37	BRF
1,2,4-Trichlorobenzene	ND	0.030	0.018	V-34		ND	0.22	0.14	0.6	3/20/21 17:37	BRF
1,1,1-Trichloroethane	ND	0.030	0.0098			ND	0.16	0.053	0.6	3/20/21 17:37	BRF
1,1,2-Trichloroethane	ND	0.030	0.011			ND	0.16	0.060	0.6	3/20/21 17:37	BRF
Trichloroethylene	ND	0.030	0.011			ND	0.16	0.060	0.6	3/20/21 17:37	BRF
Trichlorofluoromethane (Freon 11)	0.29	0.12	0.023			1.6	0.67	0.13	0.6	3/20/21 17:37	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.074	0.12	0.023	J		0.57	0.92	0.17	0.6	3/20/21 17:37	BRF
1,2,4-Trimethylbenzene	ND	0.030	0.0068			ND	0.15	0.034	0.6	3/20/21 17:37	BRF
1,3,5-Trimethylbenzene	ND	0.030	0.0078			ND	0.15	0.038	0.6	3/20/21 17:37	BRF
Vinyl Acetate	ND	0.60	0.084			ND	2.1	0.30	0.6	3/20/21 17:37	BRF
Vinyl Chloride	ND	0.030	0.017			ND	0.077	0.043	0.6	3/20/21 17:37	BRF
m&p-Xylene	0.071	0.060	0.010			0.31	0.26	0.045	0.6	3/20/21 17:37	BRF
o-Xylene	0.040	0.030	0.0080			0.17	0.13	0.035	0.6	3/20/21 17:37	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	99.9	70-130	3/20/21 17:37
4-Bromofluorobenzene (2)	76.3	70-130	3/20/21 17:37

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: EU-5-030821

Sample ID: 21C0477-09

Sample Matrix: Soil Gas

Sampled: 3/8/2021 09:55

Sample Description/Location:

Sub Description/Location:

Canister ID: 1256

Canister Size: 6 liter

Flow Controller ID: 4375

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6.5

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Acetone	270	40	24			640	95	57	20	3/20/21 18:27	BRF
Benzene	0.95	0.10	0.029			3.0	0.32	0.093	2	3/20/21 18:03	BRF
Benzyl chloride	ND	0.10	0.045			ND	0.52	0.23	2	3/20/21 18:03	BRF
Bromodichloromethane	ND	0.10	0.028			ND	0.67	0.19	2	3/20/21 18:03	BRF
Bromoform	ND	0.10	0.034			ND	1.0	0.36	2	3/20/21 18:03	BRF
Bromomethane	ND	0.10	0.053			ND	0.39	0.21	2	3/20/21 18:03	BRF
1,3-Butadiene	ND	0.10	0.073			ND	0.22	0.16	2	3/20/21 18:03	BRF
2-Butanone (MEK)	45	4.0	0.33			130	12	0.98	2	3/20/21 18:03	BRF
Carbon Disulfide	ND	1.0	0.25			ND	3.1	0.79	2	3/20/21 18:03	BRF
Carbon Tetrachloride	ND	0.10	0.027			ND	0.63	0.17	2	3/20/21 18:03	BRF
Chlorobenzene	ND	0.10	0.024			ND	0.46	0.11	2	3/20/21 18:03	BRF
Chloroethane	ND	0.10	0.098			ND	0.26	0.26	2	3/20/21 18:03	BRF
Chloroform	0.062	0.10	0.024	J		0.30	0.49	0.12	2	3/20/21 18:03	BRF
Chloromethane	ND	0.20	0.076			ND	0.41	0.16	2	3/20/21 18:03	BRF
Cyclohexane	ND	0.10	0.049			ND	0.34	0.17	2	3/20/21 18:03	BRF
Dibromochloromethane	ND	0.10	0.034			ND	0.85	0.29	2	3/20/21 18:03	BRF
1,2-Dibromoethane (EDB)	ND	0.10	0.026			ND	0.77	0.20	2	3/20/21 18:03	BRF
1,2-Dichlorobenzene	ND	0.10	0.037			ND	0.60	0.22	2	3/20/21 18:03	BRF
1,3-Dichlorobenzene	ND	0.10	0.036			ND	0.60	0.22	2	3/20/21 18:03	BRF
1,4-Dichlorobenzene	ND	0.10	0.022			ND	0.60	0.13	2	3/20/21 18:03	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10	0.031			ND	0.49	0.16	2	3/20/21 18:03	BRF
1,1-Dichloroethane	0.40	0.10	0.031			1.6	0.40	0.13	2	3/20/21 18:03	BRF
1,2-Dichloroethane	ND	0.10	0.037			ND	0.40	0.15	2	3/20/21 18:03	BRF
1,1-Dichloroethylene	ND	0.10	0.054			ND	0.40	0.22	2	3/20/21 18:03	BRF
cis-1,2-Dichloroethylene	0.13	0.10	0.034			0.52	0.40	0.13	2	3/20/21 18:03	BRF
trans-1,2-Dichloroethylene	ND	0.10	0.030			ND	0.40	0.12	2	3/20/21 18:03	BRF
1,2-Dichloropropane	ND	0.10	0.036			ND	0.46	0.17	2	3/20/21 18:03	BRF
cis-1,3-Dichloropropene	ND	0.10	0.046			ND	0.45	0.21	2	3/20/21 18:03	BRF
trans-1,3-Dichloropropene	ND	0.10	0.034			ND	0.45	0.15	2	3/20/21 18:03	BRF
Ethanol	25	4.0	1.2			47	7.5	2.3	2	3/20/21 18:03	BRF
Ethyl Acetate	ND	1.0	0.59			ND	3.6	2.1	2	3/20/21 18:03	BRF
Ethylbenzene	3.7	0.10	0.021			16	0.43	0.090	2	3/20/21 18:03	BRF
4-Ethyltoluene	ND	0.10	0.031			ND	0.49	0.15	2	3/20/21 18:03	BRF
Heptane	ND	0.10	0.043			ND	0.41	0.18	2	3/20/21 18:03	BRF
Hexachlorobutadiene	ND	0.10	0.044			ND	1.1	0.47	2	3/20/21 18:03	BRF
Hexane	ND	4.0	0.18			ND	14	0.64	2	3/20/21 18:03	BRF
2-Hexanone (MBK)	ND	0.20	0.056			ND	0.82	0.23	2	3/20/21 18:03	BRF
Isopropanol	ND	4.0	0.92			ND	9.8	2.3	2	3/20/21 18:03	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.040			ND	0.36	0.14	2	3/20/21 18:03	BRF
Methylene Chloride	0.53	1.0	0.23	J		1.8	3.5	0.80	2	3/20/21 18:03	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.052			ND	0.41	0.21	2	3/20/21 18:03	BRF
Naphthalene	0.66	0.10	0.056	V-05		3.4	0.52	0.29	2	3/20/21 18:03	BRF
Propene	ND	4.0	0.34			ND	6.9	0.58	2	3/20/21 18:03	BRF
Styrene	ND	0.10	0.029			ND	0.43	0.12	2	3/20/21 18:03	BRF
1,1,2-Tetrachloroethane	ND	0.18	0.066			ND	1.2	0.45	2	3/20/21 18:03	BRF
1,1,2,2-Tetrachloroethane	ND	0.10	0.027			ND	0.69	0.18	2	3/20/21 18:03	BRF
Tetrachloroethylene	0.056	0.10	0.033	J		0.38	0.68	0.22	2	3/20/21 18:03	BRF

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: EU-5-030821

Sample ID: 21C0477-09

Sample Matrix: Soil Gas

Sampled: 3/8/2021 09:55

Sample Description/Location:

Sub Description/Location:

Canister ID: 1256

Canister Size: 6 liter

Flow Controller ID: 4375

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -6

Receipt Vacuum(in Hg): -6.5

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Tetrahydrofuran	280	10	2.5			820	29	7.3	20	3/20/21 18:27	BRF
Toluene	0.51	0.10	0.029			1.9	0.38	0.11	2	3/20/21 18:03	BRF
1,2,4-Trichlorobenzene	ND	0.10	0.061	V-34		ND	0.74	0.45	2	3/20/21 18:03	BRF
1,1,1-Trichloroethane	2.1	0.10	0.033			11	0.55	0.18	2	3/20/21 18:03	BRF
1,1,2-Trichloroethane	ND	0.10	0.037			ND	0.55	0.20	2	3/20/21 18:03	BRF
Trichloroethylene	7.5	0.10	0.037			40	0.54	0.20	2	3/20/21 18:03	BRF
Trichlorofluoromethane (Freon 11)	0.35	0.40	0.076	J		2.0	2.2	0.43	2	3/20/21 18:03	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.075			ND	3.1	0.58	2	3/20/21 18:03	BRF
1,2,4-Trimethylbenzene	ND	0.10	0.023			ND	0.49	0.11	2	3/20/21 18:03	BRF
1,3,5-Trimethylbenzene	ND	0.10	0.026			ND	0.49	0.13	2	3/20/21 18:03	BRF
Vinyl Acetate	ND	2.0	0.28			ND	7.0	0.99	2	3/20/21 18:03	BRF
Vinyl Chloride	ND	0.10	0.056			ND	0.26	0.14	2	3/20/21 18:03	BRF
m&p-Xylene	15	0.20	0.035			67	0.87	0.15	2	3/20/21 18:03	BRF
o-Xylene	4.3	0.10	0.027			18	0.43	0.12	2	3/20/21 18:03	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	94.7	70-130	3/20/21 18:27
4-Bromofluorobenzene (1)	101	70-130	3/20/21 18:03
4-Bromofluorobenzene (2)	72.4	70-130	3/20/21 18:27
4-Bromofluorobenzene (2)	75.4	70-130	3/20/21 18:03

ANALYTICAL RESULTS

Project Location: Providence, RI
 Date Received: 3/10/2021
Field Sample #: EU-6-030821
Sample ID: 21C0477-10
 Sample Matrix: Soil Gas
 Sampled: 3/8/2021 08:35

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1738
 Canister Size: 6 liter
 Flow Controller ID: 4290
 Sample Type: 30 min

Work Order: 21C0477
 Initial Vacuum(in Hg): -29.5
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -5.8
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Results	ug/m3			Date/Time	
		RL	MDL	Flag/Qual		RL	MDL	Dilution	Analyzed	Analyst
Acetone	14	4.0	2.4		32	9.5	5.7	2	3/20/21 18:53	BRF
Benzene	0.49	0.10	0.029		1.6	0.32	0.093	2	3/20/21 18:53	BRF
Benzyl chloride	ND	0.10	0.045		ND	0.52	0.23	2	3/20/21 18:53	BRF
Bromodichloromethane	ND	0.10	0.028		ND	0.67	0.19	2	3/20/21 18:53	BRF
Bromoform	ND	0.10	0.034		ND	1.0	0.36	2	3/20/21 18:53	BRF
Bromomethane	ND	0.10	0.053		ND	0.39	0.21	2	3/20/21 18:53	BRF
1,3-Butadiene	ND	0.10	0.073		ND	0.22	0.16	2	3/20/21 18:53	BRF
2-Butanone (MEK)	2.1	4.0	0.33	J	6.3	12	0.98	2	3/20/21 18:53	BRF
Carbon Disulfide	ND	1.0	0.25		ND	3.1	0.79	2	3/20/21 18:53	BRF
Carbon Tetrachloride	ND	0.10	0.027		ND	0.63	0.17	2	3/20/21 18:53	BRF
Chlorobenzene	ND	0.10	0.024		ND	0.46	0.11	2	3/20/21 18:53	BRF
Chloroethane	ND	0.10	0.098		ND	0.26	0.26	2	3/20/21 18:53	BRF
Chloroform	ND	0.10	0.024		ND	0.49	0.12	2	3/20/21 18:53	BRF
Chloromethane	ND	0.20	0.076		ND	0.41	0.16	2	3/20/21 18:53	BRF
Cyclohexane	ND	0.10	0.049		ND	0.34	0.17	2	3/20/21 18:53	BRF
Dibromochloromethane	ND	0.10	0.034		ND	0.85	0.29	2	3/20/21 18:53	BRF
1,2-Dibromoethane (EDB)	ND	0.10	0.026		ND	0.77	0.20	2	3/20/21 18:53	BRF
1,2-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	3/20/21 18:53	BRF
1,3-Dichlorobenzene	ND	0.10	0.036		ND	0.60	0.22	2	3/20/21 18:53	BRF
1,4-Dichlorobenzene	ND	0.10	0.022		ND	0.60	0.13	2	3/20/21 18:53	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10	0.031		ND	0.49	0.16	2	3/20/21 18:53	BRF
1,1-Dichloroethane	ND	0.10	0.031		ND	0.40	0.13	2	3/20/21 18:53	BRF
1,2-Dichloroethane	ND	0.10	0.037		ND	0.40	0.15	2	3/20/21 18:53	BRF
1,1-Dichloroethylene	ND	0.10	0.054		ND	0.40	0.22	2	3/20/21 18:53	BRF
cis-1,2-Dichloroethylene	ND	0.10	0.034		ND	0.40	0.13	2	3/20/21 18:53	BRF
trans-1,2-Dichloroethylene	ND	0.10	0.030		ND	0.40	0.12	2	3/20/21 18:53	BRF
1,2-Dichloropropane	ND	0.10	0.036		ND	0.46	0.17	2	3/20/21 18:53	BRF
cis-1,3-Dichloropropene	ND	0.10	0.046		ND	0.45	0.21	2	3/20/21 18:53	BRF
trans-1,3-Dichloropropene	ND	0.10	0.034		ND	0.45	0.15	2	3/20/21 18:53	BRF
Ethanol	4.3	4.0	1.2		8.2	7.5	2.3	2	3/20/21 18:53	BRF
Ethyl Acetate	ND	1.0	0.59		ND	3.6	2.1	2	3/20/21 18:53	BRF
Ethylbenzene	ND	0.10	0.021		ND	0.43	0.090	2	3/20/21 18:53	BRF
4-Ethyltoluene	ND	0.10	0.031		ND	0.49	0.15	2	3/20/21 18:53	BRF
Heptane	ND	0.10	0.043		ND	0.41	0.18	2	3/20/21 18:53	BRF
Hexachlorobutadiene	ND	0.10	0.044		ND	1.1	0.47	2	3/20/21 18:53	BRF
Hexane	ND	4.0	0.18		ND	14	0.64	2	3/20/21 18:53	BRF
2-Hexanone (MBK)	ND	0.20	0.056		ND	0.82	0.23	2	3/20/21 18:53	BRF
Isopropanol	ND	4.0	0.92		ND	9.8	2.3	2	3/20/21 18:53	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.040		ND	0.36	0.14	2	3/20/21 18:53	BRF
Methylene Chloride	ND	1.0	0.23		ND	3.5	0.80	2	3/20/21 18:53	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.052		ND	0.41	0.21	2	3/20/21 18:53	BRF
Naphthalene	ND	0.10	0.056	V-05	ND	0.52	0.29	2	3/20/21 18:53	BRF
Propene	ND	4.0	0.34		ND	6.9	0.58	2	3/20/21 18:53	BRF
Styrene	ND	0.10	0.029		ND	0.43	0.12	2	3/20/21 18:53	BRF
1,1,2-Tetrachloroethane	ND	0.18	0.066		ND	1.2	0.45	2	3/20/21 18:53	BRF
1,1,2,2-Tetrachloroethane	ND	0.10	0.027		ND	0.69	0.18	2	3/20/21 18:53	BRF
Tetrachloroethylene	ND	0.10	0.033		ND	0.68	0.22	2	3/20/21 18:53	BRF

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: EU-6-030821

Sample ID: 21C0477-10

Sample Matrix: Soil Gas

Sampled: 3/8/2021 08:35

Sample Description/Location:

Sub Description/Location:

Canister ID: 1738

Canister Size: 6 liter

Flow Controller ID: 4290

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -29.5

Final Vacuum(in Hg): -5

Receipt Vacuum(in Hg): -5.8

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Tetrahydrofuran	ND	1.0	0.25			ND	2.9	0.73	2	3/20/21 18:53	BRF
Toluene	0.15	0.10	0.029			0.57	0.38	0.11	2	3/20/21 18:53	BRF
1,2,4-Trichlorobenzene	ND	0.10	0.061	V-34		ND	0.74	0.45	2	3/20/21 18:53	BRF
1,1,1-Trichloroethane	ND	0.10	0.033			ND	0.55	0.18	2	3/20/21 18:53	BRF
1,1,2-Trichloroethane	ND	0.10	0.037			ND	0.55	0.20	2	3/20/21 18:53	BRF
Trichloroethylene	ND	0.10	0.037			ND	0.54	0.20	2	3/20/21 18:53	BRF
Trichlorofluoromethane (Freon 11)	0.19	0.40	0.076	J		1.1	2.2	0.43	2	3/20/21 18:53	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.075			ND	3.1	0.58	2	3/20/21 18:53	BRF
1,2,4-Trimethylbenzene	ND	0.10	0.023			ND	0.49	0.11	2	3/20/21 18:53	BRF
1,3,5-Trimethylbenzene	ND	0.10	0.026			ND	0.49	0.13	2	3/20/21 18:53	BRF
Vinyl Acetate	ND	2.0	0.28			ND	7.0	0.99	2	3/20/21 18:53	BRF
Vinyl Chloride	ND	0.10	0.056			ND	0.26	0.14	2	3/20/21 18:53	BRF
m&p-Xylene	ND	0.20	0.035			ND	0.87	0.15	2	3/20/21 18:53	BRF
o-Xylene	ND	0.10	0.027			ND	0.43	0.12	2	3/20/21 18:53	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	97.0	70-130	3/20/21 18:53
4-Bromofluorobenzene (2)	73.9	70-130	3/20/21 18:53

ANALYTICAL RESULTS

Project Location: Providence, RI
 Date Received: 3/10/2021
Field Sample #: EU-7-030821
Sample ID: 21C0477-11
 Sample Matrix: Soil Gas
 Sampled: 3/8/2021 08:37

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1258
 Canister Size: 6 liter
 Flow Controller ID: 4093
 Sample Type: 30 min

Work Order: 21C0477
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -8.0
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Acetone	4.8	4.0	2.4			11	9.5	5.7	2	3/20/21 19:45	BRF
Benzene	0.38	0.10	0.029			1.2	0.32	0.093	2	3/20/21 19:45	BRF
Benzyl chloride	ND	0.10	0.045			ND	0.52	0.23	2	3/20/21 19:45	BRF
Bromodichloromethane	ND	0.10	0.028			ND	0.67	0.19	2	3/20/21 19:45	BRF
Bromoform	ND	0.10	0.034			ND	1.0	0.36	2	3/20/21 19:45	BRF
Bromomethane	ND	0.10	0.053			ND	0.39	0.21	2	3/20/21 19:45	BRF
1,3-Butadiene	ND	0.10	0.073			ND	0.22	0.16	2	3/20/21 19:45	BRF
2-Butanone (MEK)	7.1	4.0	0.33			21	12	0.98	2	3/20/21 19:45	BRF
Carbon Disulfide	ND	1.0	0.25			ND	3.1	0.79	2	3/20/21 19:45	BRF
Carbon Tetrachloride	0.074	0.10	0.027	J		0.47	0.63	0.17	2	3/20/21 19:45	BRF
Chlorobenzene	ND	0.10	0.024			ND	0.46	0.11	2	3/20/21 19:45	BRF
Chloroethane	ND	0.10	0.098			ND	0.26	0.26	2	3/20/21 19:45	BRF
Chloroform	0.60	0.10	0.024			2.9	0.49	0.12	2	3/20/21 19:45	BRF
Chloromethane	ND	0.20	0.076			ND	0.41	0.16	2	3/20/21 19:45	BRF
Cyclohexane	ND	0.10	0.049			ND	0.34	0.17	2	3/20/21 19:45	BRF
Dibromochloromethane	ND	0.10	0.034			ND	0.85	0.29	2	3/20/21 19:45	BRF
1,2-Dibromoethane (EDB)	ND	0.10	0.026			ND	0.77	0.20	2	3/20/21 19:45	BRF
1,2-Dichlorobenzene	ND	0.10	0.037			ND	0.60	0.22	2	3/20/21 19:45	BRF
1,3-Dichlorobenzene	ND	0.10	0.036			ND	0.60	0.22	2	3/20/21 19:45	BRF
1,4-Dichlorobenzene	ND	0.10	0.022			ND	0.60	0.13	2	3/20/21 19:45	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10	0.031			ND	0.49	0.16	2	3/20/21 19:45	BRF
1,1-Dichloroethane	0.66	0.10	0.031			2.7	0.40	0.13	2	3/20/21 19:45	BRF
1,2-Dichloroethane	ND	0.10	0.037			ND	0.40	0.15	2	3/20/21 19:45	BRF
1,1-Dichloroethylene	ND	0.10	0.054			ND	0.40	0.22	2	3/20/21 19:45	BRF
cis-1,2-Dichloroethylene	0.52	0.10	0.034			2.1	0.40	0.13	2	3/20/21 19:45	BRF
trans-1,2-Dichloroethylene	0.80	0.10	0.030			3.2	0.40	0.12	2	3/20/21 19:45	BRF
1,2-Dichloropropane	ND	0.10	0.036			ND	0.46	0.17	2	3/20/21 19:45	BRF
cis-1,3-Dichloropropene	ND	0.10	0.046			ND	0.45	0.21	2	3/20/21 19:45	BRF
trans-1,3-Dichloropropene	ND	0.10	0.034			ND	0.45	0.15	2	3/20/21 19:45	BRF
Ethanol	81	4.0	1.2			150	7.5	2.3	2	3/20/21 19:45	BRF
Ethyl Acetate	ND	1.0	0.59			ND	3.6	2.1	2	3/20/21 19:45	BRF
Ethylbenzene	0.036	0.10	0.021	J		0.16	0.43	0.090	2	3/20/21 19:45	BRF
4-Ethyltoluene	ND	0.10	0.031			ND	0.49	0.15	2	3/20/21 19:45	BRF
Heptane	ND	0.10	0.043			ND	0.41	0.18	2	3/20/21 19:45	BRF
Hexachlorobutadiene	ND	0.10	0.044			ND	1.1	0.47	2	3/20/21 19:45	BRF
Hexane	ND	4.0	0.18			ND	14	0.64	2	3/20/21 19:45	BRF
2-Hexanone (MBK)	ND	0.20	0.056			ND	0.82	0.23	2	3/20/21 19:45	BRF
Isopropanol	3.5	4.0	0.92	J		8.5	9.8	2.3	2	3/20/21 19:45	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.040			ND	0.36	0.14	2	3/20/21 19:45	BRF
Methylene Chloride	ND	1.0	0.23			ND	3.5	0.80	2	3/20/21 19:45	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.052			ND	0.41	0.21	2	3/20/21 19:45	BRF
Naphthalene	ND	0.10	0.056	V-05		ND	0.52	0.29	2	3/20/21 19:45	BRF
Propene	ND	4.0	0.34			ND	6.9	0.58	2	3/20/21 19:45	BRF
Styrene	0.11	0.10	0.029			0.46	0.43	0.12	2	3/20/21 19:45	BRF
1,1,1,2-Tetrachloroethane	ND	0.18	0.066			ND	1.2	0.45	2	3/20/21 19:45	BRF
1,1,2,2-Tetrachloroethane	ND	0.10	0.027			ND	0.69	0.18	2	3/20/21 19:45	BRF
Tetrachloroethylene	28	0.10	0.033			190	0.68	0.22	2	3/20/21 19:45	BRF

ANALYTICAL RESULTS

Project Location: Providence, RI
 Date Received: 3/10/2021
Field Sample #: EU-7-030821
Sample ID: 21C0477-11
 Sample Matrix: Soil Gas
 Sampled: 3/8/2021 08:37

Sample Description/Location:
 Sub Description/Location:
 Canister ID: 1258
 Canister Size: 6 liter
 Flow Controller ID: 4093
 Sample Type: 30 min

Work Order: 21C0477
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -8.0
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Tetrahydrofuran	430	5.0	1.2			1300	15	3.6	10	3/20/21 20:10	BRF
Toluene	0.20	0.10	0.029			0.75	0.38	0.11	2	3/20/21 19:45	BRF
1,2,4-Trichlorobenzene	ND	0.10	0.061	V-34		ND	0.74	0.45	2	3/20/21 19:45	BRF
1,1,1-Trichloroethane	7.7	0.10	0.033			42	0.55	0.18	2	3/20/21 19:45	BRF
1,1,2-Trichloroethane	ND	0.10	0.037			ND	0.55	0.20	2	3/20/21 19:45	BRF
Trichloroethylene	60	0.10	0.037			320	0.54	0.20	2	3/20/21 19:45	BRF
Trichlorofluoromethane (Freon 11)	110	2.0	0.38			600	11	2.1	10	3/20/21 20:10	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.075			ND	3.1	0.58	2	3/20/21 19:45	BRF
1,2,4-Trimethylbenzene	ND	0.10	0.023			ND	0.49	0.11	2	3/20/21 19:45	BRF
1,3,5-Trimethylbenzene	ND	0.10	0.026			ND	0.49	0.13	2	3/20/21 19:45	BRF
Vinyl Acetate	ND	2.0	0.28			ND	7.0	0.99	2	3/20/21 19:45	BRF
Vinyl Chloride	ND	0.10	0.056			ND	0.26	0.14	2	3/20/21 19:45	BRF
m&p-Xylene	0.10	0.20	0.035	J		0.43	0.87	0.15	2	3/20/21 19:45	BRF
o-Xylene	0.046	0.10	0.027	J		0.20	0.43	0.12	2	3/20/21 19:45	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	93.1	70-130	3/20/21 20:10
4-Bromofluorobenzene (1)	97.3	70-130	3/20/21 19:45
4-Bromofluorobenzene (2)	71.2	70-130	3/20/21 20:10
4-Bromofluorobenzene (2)	76.0	70-130	3/20/21 19:45

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: EU-Combined-030821

Sample ID: 21C0477-12

Sample Matrix: Soil Gas

Sampled: 3/8/2021 10:38

Sample Description/Location:

Sub Description/Location:

Canister ID: 1239

Canister Size: 6 liter

Flow Controller ID: 4089

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -5

Receipt Vacuum(in Hg): -5.8

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Results	ug/m3			Date/Time	
		RL	MDL	Flag/Qual		RL	MDL	Dilution	Analyzed	Analyst
Acetone	ND	4.0	2.4		ND	9.5	5.7	2	3/20/21 20:36	BRF
Benzene	0.12	0.10	0.029		0.40	0.32	0.093	2	3/20/21 20:36	BRF
Benzyl chloride	ND	0.10	0.045		ND	0.52	0.23	2	3/20/21 20:36	BRF
Bromodichloromethane	ND	0.10	0.028		ND	0.67	0.19	2	3/20/21 20:36	BRF
Bromoform	ND	0.10	0.034		ND	1.0	0.36	2	3/20/21 20:36	BRF
Bromomethane	ND	0.10	0.053		ND	0.39	0.21	2	3/20/21 20:36	BRF
1,3-Butadiene	ND	0.10	0.073		ND	0.22	0.16	2	3/20/21 20:36	BRF
2-Butanone (MEK)	ND	4.0	0.33		ND	12	0.98	2	3/20/21 20:36	BRF
Carbon Disulfide	ND	1.0	0.25		ND	3.1	0.79	2	3/20/21 20:36	BRF
Carbon Tetrachloride	ND	0.10	0.027		ND	0.63	0.17	2	3/20/21 20:36	BRF
Chlorobenzene	ND	0.10	0.024		ND	0.46	0.11	2	3/20/21 20:36	BRF
Chloroethane	ND	0.10	0.098		ND	0.26	0.26	2	3/20/21 20:36	BRF
Chloroform	0.12	0.10	0.024		0.60	0.49	0.12	2	3/20/21 20:36	BRF
Chloromethane	ND	0.20	0.076		ND	0.41	0.16	2	3/20/21 20:36	BRF
Cyclohexane	ND	0.10	0.049		ND	0.34	0.17	2	3/20/21 20:36	BRF
Dibromochloromethane	ND	0.10	0.034		ND	0.85	0.29	2	3/20/21 20:36	BRF
1,2-Dibromoethane (EDB)	ND	0.10	0.026		ND	0.77	0.20	2	3/20/21 20:36	BRF
1,2-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	3/20/21 20:36	BRF
1,3-Dichlorobenzene	ND	0.10	0.036		ND	0.60	0.22	2	3/20/21 20:36	BRF
1,4-Dichlorobenzene	ND	0.10	0.022		ND	0.60	0.13	2	3/20/21 20:36	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10	0.031		ND	0.49	0.16	2	3/20/21 20:36	BRF
1,1-Dichloroethane	2.2	0.10	0.031		9.0	0.40	0.13	2	3/20/21 20:36	BRF
1,2-Dichloroethane	ND	0.10	0.037		ND	0.40	0.15	2	3/20/21 20:36	BRF
1,1-Dichloroethylene	1.9	0.10	0.054		7.4	0.40	0.22	2	3/20/21 20:36	BRF
cis-1,2-Dichloroethylene	1.2	0.10	0.034		4.6	0.40	0.13	2	3/20/21 20:36	BRF
trans-1,2-Dichloroethylene	ND	0.10	0.030		ND	0.40	0.12	2	3/20/21 20:36	BRF
1,2-Dichloropropane	ND	0.10	0.036		ND	0.46	0.17	2	3/20/21 20:36	BRF
cis-1,3-Dichloropropene	ND	0.10	0.046		ND	0.45	0.21	2	3/20/21 20:36	BRF
trans-1,3-Dichloropropene	ND	0.10	0.034		ND	0.45	0.15	2	3/20/21 20:36	BRF
Ethanol	5.5	4.0	1.2		10	7.5	2.3	2	3/20/21 20:36	BRF
Ethyl Acetate	ND	1.0	0.59		ND	3.6	2.1	2	3/20/21 20:36	BRF
Ethylbenzene	ND	0.10	0.021		ND	0.43	0.090	2	3/20/21 20:36	BRF
4-Ethyltoluene	ND	0.10	0.031		ND	0.49	0.15	2	3/20/21 20:36	BRF
Heptane	ND	0.10	0.043		ND	0.41	0.18	2	3/20/21 20:36	BRF
Hexachlorobutadiene	ND	0.10	0.044		ND	1.1	0.47	2	3/20/21 20:36	BRF
Hexane	ND	4.0	0.18		ND	14	0.64	2	3/20/21 20:36	BRF
2-Hexanone (MBK)	ND	0.20	0.056		ND	0.82	0.23	2	3/20/21 20:36	BRF
Isopropanol	ND	4.0	0.92		ND	9.8	2.3	2	3/20/21 20:36	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.040		ND	0.36	0.14	2	3/20/21 20:36	BRF
Methylene Chloride	ND	1.0	0.23		ND	3.5	0.80	2	3/20/21 20:36	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.052		ND	0.41	0.21	2	3/20/21 20:36	BRF
Naphthalene	ND	0.10	0.056	V-05	ND	0.52	0.29	2	3/20/21 20:36	BRF
Propene	ND	4.0	0.34		ND	6.9	0.58	2	3/20/21 20:36	BRF
Styrene	ND	0.10	0.029		ND	0.43	0.12	2	3/20/21 20:36	BRF
1,1,1,2-Tetrachloroethane	ND	0.18	0.066		ND	1.2	0.45	2	3/20/21 20:36	BRF
1,1,2,2-Tetrachloroethane	ND	0.10	0.027		ND	0.69	0.18	2	3/20/21 20:36	BRF
Tetrachloroethylene	2.6	0.10	0.033		17	0.68	0.22	2	3/20/21 20:36	BRF

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: EU-Combined-030821

Sample ID: 21C0477-12

Sample Matrix: Soil Gas

Sampled: 3/8/2021 10:38

Sample Description/Location:

Sub Description/Location:

Canister ID: 1239

Canister Size: 6 liter

Flow Controller ID: 4089

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -30

Final Vacuum(in Hg): -5

Receipt Vacuum(in Hg): -5.8

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Tetrahydrofuran	ND	1.0	0.25		J	0.28	2.9	0.73	2	3/20/21 20:36	BRF
Toluene	0.074	0.10	0.029		V-34	ND	0.38	0.11	2	3/20/21 20:36	BRF
1,2,4-Trichlorobenzene	ND	0.10	0.061			0.74	0.45	2	3/20/21 20:36	BRF	
1,1,1-Trichloroethane	18	0.10	0.033			97	0.55	0.18	2	3/20/21 20:36	BRF
1,1,2-Trichloroethane	ND	0.10	0.037			ND	0.55	0.20	2	3/20/21 20:36	BRF
Trichloroethylene	7.9	0.10	0.037			43	0.54	0.20	2	3/20/21 20:36	BRF
Trichlorofluoromethane (Freon 11)	6.3	0.40	0.076			36	2.2	0.43	2	3/20/21 20:36	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.075			ND	3.1	0.58	2	3/20/21 20:36	BRF
1,2,4-Trimethylbenzene	ND	0.10	0.023			ND	0.49	0.11	2	3/20/21 20:36	BRF
1,3,5-Trimethylbenzene	ND	0.10	0.026			ND	0.49	0.13	2	3/20/21 20:36	BRF
Vinyl Acetate	ND	2.0	0.28			ND	7.0	0.99	2	3/20/21 20:36	BRF
Vinyl Chloride	ND	0.10	0.056			ND	0.26	0.14	2	3/20/21 20:36	BRF
m&p-Xylene	ND	0.20	0.035			ND	0.87	0.15	2	3/20/21 20:36	BRF
o-Xylene	ND	0.10	0.027			ND	0.43	0.12	2	3/20/21 20:36	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	96.8	70-130	3/20/21 20:36
4-Bromofluorobenzene (2)	72.8	70-130	3/20/21 20:36

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: Post Carbon-030821

Sample ID: 21C0477-13

Sample Matrix: Soil Gas

Sampled: 3/8/2021 10:39

Sample Description/Location:

Sub Description/Location:

Canister ID: 1339

Canister Size: 6 liter

Flow Controller ID: 4187

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -7

Receipt Vacuum(in Hg): -8.3

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Acetone	2.9	4.0	2.4	J		6.8	9.5	5.7	2	3/20/21 21:03	BRF
Benzene	0.036	0.10	0.029	J		0.12	0.32	0.093	2	3/20/21 21:03	BRF
Benzyl chloride	ND	0.10	0.045			ND	0.52	0.23	2	3/20/21 21:03	BRF
Bromodichloromethane	ND	0.10	0.028			ND	0.67	0.19	2	3/20/21 21:03	BRF
Bromoform	ND	0.10	0.034			ND	1.0	0.36	2	3/20/21 21:03	BRF
Bromomethane	ND	0.10	0.053			ND	0.39	0.21	2	3/20/21 21:03	BRF
1,3-Butadiene	ND	0.10	0.073			ND	0.22	0.16	2	3/20/21 21:03	BRF
2-Butanone (MEK)	ND	4.0	0.33			ND	12	0.98	2	3/20/21 21:03	BRF
Carbon Disulfide	ND	1.0	0.25			ND	3.1	0.79	2	3/20/21 21:03	BRF
Carbon Tetrachloride	ND	0.10	0.027			ND	0.63	0.17	2	3/20/21 21:03	BRF
Chlorobenzene	ND	0.10	0.024			ND	0.46	0.11	2	3/20/21 21:03	BRF
Chloroethane	ND	0.10	0.098			ND	0.26	0.26	2	3/20/21 21:03	BRF
Chloroform	0.62	0.10	0.024			3.0	0.49	0.12	2	3/20/21 21:03	BRF
Chloromethane	ND	0.20	0.076			ND	0.41	0.16	2	3/20/21 21:03	BRF
Cyclohexane	ND	0.10	0.049			ND	0.34	0.17	2	3/20/21 21:03	BRF
Dibromochloromethane	ND	0.10	0.034			ND	0.85	0.29	2	3/20/21 21:03	BRF
1,2-Dibromoethane (EDB)	ND	0.10	0.026			ND	0.77	0.20	2	3/20/21 21:03	BRF
1,2-Dichlorobenzene	ND	0.10	0.037			ND	0.60	0.22	2	3/20/21 21:03	BRF
1,3-Dichlorobenzene	ND	0.10	0.036			ND	0.60	0.22	2	3/20/21 21:03	BRF
1,4-Dichlorobenzene	ND	0.10	0.022			ND	0.60	0.13	2	3/20/21 21:03	BRF
Dichlorodifluoromethane (Freon 12)	ND	0.10	0.031			ND	0.49	0.16	2	3/20/21 21:03	BRF
1,1-Dichloroethane	4.0	0.10	0.031			16	0.40	0.13	2	3/20/21 21:03	BRF
1,2-Dichloroethane	ND	0.10	0.037			ND	0.40	0.15	2	3/20/21 21:03	BRF
1,1-Dichloroethylene	2.5	0.10	0.054			9.8	0.40	0.22	2	3/20/21 21:03	BRF
cis-1,2-Dichloroethylene	4.4	0.10	0.034			17	0.40	0.13	2	3/20/21 21:03	BRF
trans-1,2-Dichloroethylene	0.10	0.10	0.030			0.41	0.40	0.12	2	3/20/21 21:03	BRF
1,2-Dichloropropane	ND	0.10	0.036			ND	0.46	0.17	2	3/20/21 21:03	BRF
cis-1,3-Dichloropropene	ND	0.10	0.046			ND	0.45	0.21	2	3/20/21 21:03	BRF
trans-1,3-Dichloropropene	ND	0.10	0.034			ND	0.45	0.15	2	3/20/21 21:03	BRF
Ethanol	5.2	4.0	1.2			9.7	7.5	2.3	2	3/20/21 21:03	BRF
Ethyl Acetate	ND	1.0	0.59			ND	3.6	2.1	2	3/20/21 21:03	BRF
Ethylbenzene	ND	0.10	0.021			ND	0.43	0.090	2	3/20/21 21:03	BRF
4-Ethyltoluene	ND	0.10	0.031			ND	0.49	0.15	2	3/20/21 21:03	BRF
Heptane	ND	0.10	0.043			ND	0.41	0.18	2	3/20/21 21:03	BRF
Hexachlorobutadiene	ND	0.10	0.044			ND	1.1	0.47	2	3/20/21 21:03	BRF
Hexane	0.39	4.0	0.18	J		1.4	14	0.64	2	3/20/21 21:03	BRF
2-Hexanone (MBK)	ND	0.20	0.056			ND	0.82	0.23	2	3/20/21 21:03	BRF
Isopropanol	ND	4.0	0.92			ND	9.8	2.3	2	3/20/21 21:03	BRF
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.040			ND	0.36	0.14	2	3/20/21 21:03	BRF
Methylene Chloride	4.1	1.0	0.23			14	3.5	0.80	2	3/20/21 21:03	BRF
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.052			ND	0.41	0.21	2	3/20/21 21:03	BRF
Naphthalene	ND	0.10	0.056	V-05		ND	0.52	0.29	2	3/20/21 21:03	BRF
Propene	ND	4.0	0.34			ND	6.9	0.58	2	3/20/21 21:03	BRF
Styrene	ND	0.10	0.029			ND	0.43	0.12	2	3/20/21 21:03	BRF
1,1,1,2-Tetrachloroethane	ND	0.18	0.066			ND	1.2	0.45	2	3/20/21 21:03	BRF
1,1,2,2-Tetrachloroethane	ND	0.10	0.027			ND	0.69	0.18	2	3/20/21 21:03	BRF
Tetrachloroethylene	0.28	0.10	0.033			1.9	0.68	0.22	2	3/20/21 21:03	BRF

ANALYTICAL RESULTS

Project Location: Providence, RI

Date Received: 3/10/2021

Field Sample #: Post Carbon-030821

Sample ID: 21C0477-13

Sample Matrix: Soil Gas

Sampled: 3/8/2021 10:39

Sample Description/Location:

Sub Description/Location:

Canister ID: 1339

Canister Size: 6 liter

Flow Controller ID: 4187

Sample Type: 30 min

Work Order: 21C0477

Initial Vacuum(in Hg): -29

Final Vacuum(in Hg): -7

Receipt Vacuum(in Hg): -8.3

Flow Controller Type: Fixed-Orifice

Flow Controller Calibration

RPD Pre and Post-Sampling:

EPA TO-15

Analyte	Results	ppbv			Flag/Qual	Results	ug/m3			Date/Time	
		RL	MDL				RL	MDL	Dilution	Analyzed	Analyst
Tetrahydrofuran	ND	1.0	0.25		J	ND	2.9	0.73	2	3/20/21 21:03	BRF
Toluene	0.060	0.10	0.029		V-34	0.23	0.38	0.11	2	3/20/21 21:03	BRF
1,2,4-Trichlorobenzene	ND	0.10	0.061			ND	0.74	0.45	2	3/20/21 21:03	BRF
1,1,1-Trichloroethane	130	0.50	0.16			730	2.7	0.89	10	3/21/21 14:11	BRF
1,1,2-Trichloroethane	ND	0.10	0.037			ND	0.55	0.20	2	3/20/21 21:03	BRF
Trichloroethylene	110	0.50	0.18			600	2.7	0.99	10	3/21/21 14:11	BRF
Trichlorofluoromethane (Freon 11)	8.8	0.40	0.076			50	2.2	0.43	2	3/20/21 21:03	BRF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.075			ND	3.1	0.58	2	3/20/21 21:03	BRF
1,2,4-Trimethylbenzene	ND	0.10	0.023			ND	0.49	0.11	2	3/20/21 21:03	BRF
1,3,5-Trimethylbenzene	ND	0.10	0.026			ND	0.49	0.13	2	3/20/21 21:03	BRF
Vinyl Acetate	ND	2.0	0.28			ND	7.0	0.99	2	3/20/21 21:03	BRF
Vinyl Chloride	ND	0.10	0.056			ND	0.26	0.14	2	3/20/21 21:03	BRF
m&p-Xylene	ND	0.20	0.035			ND	0.87	0.15	2	3/20/21 21:03	BRF
o-Xylene	ND	0.10	0.027			ND	0.43	0.12	2	3/20/21 21:03	BRF

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	95.6	70-130	3/21/21 14:11
4-Bromofluorobenzene (1)	97.4	70-130	3/20/21 21:03
4-Bromofluorobenzene (2)	73.3	70-130	3/20/21 21:03

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

Lab Number [Field ID]	Batch	Pressure Dilution	Pre Dilution	Pre-Dil Initial mL	Pre-Dil Final mL	Default Injection mL	Actual Injection mL	Date
21C0477-01 [IA-1-030821]	B278429	1.5	1	N/A	1000	200	500	03/19/21
21C0477-02 [IA-2-030821]	B278429	1.5	1	N/A	1000	200	500	03/19/21
21C0477-03 [IA-3-030821]	B278429	1.5	1	N/A	1000	200	500	03/19/21
21C0477-04 [IA-4-030821]	B278429	1.5	1	N/A	1000	200	500	03/19/21
21C0477-05 [IA-5-030821]	B278429	1.5	1	N/A	1000	200	500	03/19/21
21C0477-06 [IA-6-030821]	B278429	1.5	1	N/A	1000	200	500	03/19/21
21C0477-07 [IA-7-030821]	B278429	1.5	1	N/A	1000	200	500	03/19/21

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
21C0477-05RE1 [IA-5-030821]	B278496	1.5	1	N/A	1000	200	75	03/20/21
21C0477-06RE1 [IA-6-030821]	B278496	1.5	1	N/A	1000	200	15	03/20/21
21C0477-07RE1 [IA-7-030821]	B278496	1.5	1	N/A	1000	200	15	03/20/21

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
21C0477-08 [AA-1-030821]	B278532	1.5	1	N/A	1000	200	500	03/20/21
21C0477-09 [EU-5-030821]	B278532	1.5	1	N/A	1000	200	150	03/20/21
21C0477-09RE1 [EU-5-030821]	B278532	1.5	1	N/A	1000	200	15	03/20/21
21C0477-10 [EU-6-030821]	B278532	1.5	1	N/A	1000	200	150	03/20/21
21C0477-11 [EU-7-030821]	B278532	1.5	1	N/A	1000	200	150	03/20/21
21C0477-11RE1 [EU-7-030821]	B278532	1.5	1	N/A	1000	200	30	03/20/21
21C0477-12 [EU-Combined-030821]	B278532	1.5	1	N/A	1000	200	150	03/20/21
21C0477-13 [Post Carbon-030821]	B278532	1.5	1	N/A	1000	200	150	03/20/21

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
21C0477-13RE1 [Post Carbon-030821]	B278541	1.5	1	N/A	1000	200	30	03/21/21

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Flag/Qual
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Batch B278429 - TO-15 Prep
Blank (B278429-BLK1) Prepared & Analyzed: 03/19/21

Acetone	ND	0.80
Benzene	ND	0.020
Benzyl chloride	ND	0.020
Bromodichloromethane	ND	0.020
Bromoform	ND	0.020
Bromomethane	ND	0.020
1,3-Butadiene	ND	0.020
2-Butanone (MEK)	ND	0.80
Carbon Disulfide	ND	0.20
Carbon Tetrachloride	ND	0.020
Chlorobenzene	ND	0.020
Chloroethane	ND	0.020
Chloroform	ND	0.020
Chloromethane	ND	0.040
Cyclohexane	ND	0.020
Dibromochloromethane	ND	0.020
1,2-Dibromoethane (EDB)	ND	0.020
1,2-Dichlorobenzene	ND	0.020
1,3-Dichlorobenzene	ND	0.020
1,4-Dichlorobenzene	ND	0.020
Dichlorodifluoromethane (Freon 12)	ND	0.020
1,1-Dichloroethane	ND	0.020
1,2-Dichloroethane	ND	0.020
1,1-Dichloroethylene	ND	0.020
cis-1,2-Dichloroethylene	ND	0.020
trans-1,2-Dichloroethylene	ND	0.020
1,2-Dichloropropane	ND	0.020
cis-1,3-Dichloropropene	ND	0.020
trans-1,3-Dichloropropene	ND	0.020
Ethanol	ND	0.80
Ethyl Acetate	ND	0.20
Ethylbenzene	ND	0.020
4-Ethyltoluene	ND	0.020
Heptane	ND	0.020
Hexachlorobutadiene	ND	0.020
Hexane	ND	0.80
2-Hexanone (MBK)	ND	0.020
Isopropanol	ND	0.80
Methyl tert-Butyl Ether (MTBE)	ND	0.020
Methylene Chloride	ND	0.20
Methyl methacrylate	ND	0.020
4-Methyl-2-pentanone (MIBK)	ND	0.020
Propene	ND	0.80
Styrene	ND	0.020
1,1,1,2-Tetrachloroethane	ND	0.036
1,1,2,2-Tetrachloroethane	ND	0.020

V-05

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	Limits	RPD RPD	Limit	Flag/Qual
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Batch B278429 - TO-15 Prep

Blank (B278429-BLK1)	Prepared & Analyzed: 03/19/21					
Tetrachloroethylene	ND	0.020				
Tetrahydrofuran	ND	0.20				
Toluene	ND	0.020				
1,2,4-Trichlorobenzene	ND	0.020				V-34
1,1,1-Trichloroethane	ND	0.020				
1,1,2-Trichloroethane	ND	0.020				
Trichloroethylene	ND	0.020				
Trichlorofluoromethane (Freon 11)	ND	0.080				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.080				
1,2,4-Trimethylbenzene	ND	0.020				
1,3,5-Trimethylbenzene	ND	0.020				
Vinyl Acetate	ND	0.40				
Vinyl Chloride	ND	0.020				
m&p-Xylene	ND	0.040				
o-Xylene	ND	0.020				

Surrogate: 4-Bromofluorobenzene (1)	7.92	8.00	99.1	70-130
Surrogate: 4-Bromofluorobenzene (2)	5.91	8.00	73.9	70-130

LCS (B278429-BS1)	Prepared & Analyzed: 03/19/21					
Acetone	5.42	5.00	108	70-130		
Benzene	5.07	5.00	101	70-130		
Benzyl chloride	4.34	5.00	86.8	70-130		
Bromodichloromethane	5.71	5.00	114	70-130		
Bromoform	5.27	5.00	105	70-130		
Bromomethane	3.77	5.00	75.5	70-130		
1,3-Butadiene	4.13	5.00	82.6	70-130		
2-Butanone (MEK)	4.98	5.00	99.5	70-130		
Carbon Disulfide	3.85	5.00	77.0	70-130		
Carbon Tetrachloride	5.10	5.00	102	70-130		
Chlorobenzene	4.79	5.00	95.7	70-130		
Chloroethane	4.26	5.00	85.2	70-130		
Chloroform	4.14	5.00	82.7	70-130		
Chloromethane	4.76	5.00	95.2	70-130		
Cyclohexane	5.03	5.00	101	70-130		
Dibromochloromethane	4.90	5.00	98.0	70-130		
1,2-Dibromoethane (EDB)	5.11	5.00	102	70-130		
1,2-Dichlorobenzene	5.17	5.00	103	70-130		
1,3-Dichlorobenzene	5.30	5.00	106	70-130		
1,4-Dichlorobenzene	5.14	5.00	103	70-130		
Dichlorodifluoromethane (Freon 12)	4.15	5.00	83.1	70-130		
1,1-Dichloroethane	4.35	5.00	87.0	70-130		
1,2-Dichloroethane	4.76	5.00	95.1	70-130		
1,1-Dichloroethylene	4.64	5.00	92.8	70-130		
cis-1,2-Dichloroethylene	4.39	5.00	87.7	70-130		
trans-1,2-Dichloroethylene	4.39	5.00	87.7	70-130		
1,2-Dichloropropane	5.32	5.00	106	70-130		

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	Limits	RPD RPD	Limit	Flag/Qual
Batch B278429 - TO-15 Prep											
LCS (B278429-BS1)											
Prepared & Analyzed: 03/19/21											
cis-1,3-Dichloropropene	5.10		5.00		102	70-130					
trans-1,3-Dichloropropene	5.35		5.00		107	70-130					
Ethanol	4.91		5.00		98.1	70-130					
Ethyl Acetate	4.11		5.00		82.2	70-130					
Ethylbenzene	4.97		5.00		99.3	70-130					
4-Ethyltoluene	5.03		5.00		101	70-130					
Heptane	5.53		5.00		111	70-130					
Hexachlorobutadiene	4.69		5.00		93.8	70-130					
Hexane	5.41		5.00		108	70-130					
2-Hexanone (MBK)	7.04		5.00		141 *	70-130					L-01, V-20
Isopropanol	4.76		5.00		95.3	70-130					
Methyl tert-Butyl Ether (MTBE)	3.98		5.00		79.7	70-130					
Methylene Chloride	5.12		5.00		102	70-130					V-05
Methyl methacrylate	5.67		5.00		113	70-130					
4-Methyl-2-pentanone (MIBK)	6.15		5.00		123	70-130					
Propene	4.74		5.00		94.7	70-130					
Styrene	4.88		5.00		97.7	70-130					
1,1,1,2-Tetrachloroethane	0.759		0.910		83.4	70-130					
1,1,2,2-Tetrachloroethane	5.30		5.00		106	70-130					
Tetrachloroethylene	4.88		5.00		97.6	70-130					
Tetrahydrofuran	5.06		5.00		101	70-130					
Toluene	4.83		5.00		96.7	70-130					
1,2,4-Trichlorobenzene	4.09		5.00		81.8	70-130					V-34
1,1,1-Trichloroethane	4.91		5.00		98.2	70-130					
1,1,2-Trichloroethane	4.93		5.00		98.5	70-130					
Trichloroethylene	5.32		5.00		106	70-130					
Trichlorofluoromethane (Freon 11)	4.26		5.00		85.3	70-130					
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	3.85		5.00		77.1	70-130					
1,2,4-Trimethylbenzene	5.07		5.00		101	70-130					
1,3,5-Trimethylbenzene	4.99		5.00		99.9	70-130					
Vinyl Acetate	4.62		5.00		92.4	70-130					
Vinyl Chloride	4.41		5.00		88.2	70-130					
m&p-Xylene	10.6		10.0		106	70-130					
o-Xylene	5.13		5.00		103	70-130					
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	8.06		8.00		101	70-130					
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	5.94		8.00		74.2	70-130					

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	RPD Limits	RPD RPD	Flag/Qual Limit
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Batch B278496 - TO-15 Prep

Blank (B278496-BLK1)	Prepared & Analyzed: 03/20/21					
Ethanol	ND	0.80				
Surrogate: 4-Bromofluorobenzene (I)	8.36		8.00		104	70-130
LCS (B278496-BS1)	Prepared & Analyzed: 03/20/21					
Ethanol	3.75		5.00		75.0	70-130
Surrogate: 4-Bromofluorobenzene (I)	8.74		8.00		109	70-130

Batch B278532 - TO-15 Prep

Blank (B278532-BLK1)	Prepared & Analyzed: 03/20/21					
Acetone	ND	0.80				
Benzene	ND	0.020				
Benzyl chloride	ND	0.020				
Bromodichloromethane	ND	0.020				
Bromoform	ND	0.020				
Bromomethane	ND	0.020				
1,3-Butadiene	ND	0.020				
2-Butanone (MEK)	ND	0.80				
Carbon Disulfide	ND	0.20				
Carbon Tetrachloride	ND	0.020				
Chlorobenzene	ND	0.020				
Chloroethane	ND	0.020				
Chloroform	ND	0.020				
Chloromethane	ND	0.040				
Cyclohexane	ND	0.020				
Dibromochloromethane	ND	0.020				
1,2-Dibromoethane (EDB)	ND	0.020				
1,2-Dichlorobenzene	ND	0.020				
1,3-Dichlorobenzene	ND	0.020				
1,4-Dichlorobenzene	ND	0.020				
Dichlorodifluoromethane (Freon 12)	ND	0.020				
1,1-Dichloroethane	ND	0.020				
1,2-Dichloroethane	ND	0.020				
1,1-Dichloroethylene	ND	0.020				
cis-1,2-Dichloroethylene	ND	0.020				
trans-1,2-Dichloroethylene	ND	0.020				
1,2-Dichloropropane	ND	0.020				
cis-1,3-Dichloropropene	ND	0.020				
trans-1,3-Dichloropropene	ND	0.020				
Ethanol	ND	0.80				
Ethyl Acetate	ND	0.20				
Ethylbenzene	ND	0.020				
4-Ethyltoluene	ND	0.020				
Heptane	ND	0.020				
Hexachlorobutadiene	ND	0.020				
Hexane	ND	0.80				
2-Hexanone (MBK)	ND	0.020				

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	RPD Limits	RPD RPD	RPD Limit	Flag/Qual
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Batch B278532 - TO-15 Prep

Blank (B278532-BLK1)	Prepared & Analyzed: 03/20/21					
Isopropanol	ND	0.80				
Methyl tert-Butyl Ether (MTBE)	ND	0.020				
Methylene Chloride	ND	0.20				
Methyl methacrylate	ND	0.020				
4-Methyl-2-pentanone (MIBK)	ND	0.020				
Propene	ND	0.80				
Styrene	ND	0.020				
1,1,1,2-Tetrachloroethane	ND	0.036				
1,1,2,2-Tetrachloroethane	ND	0.020				
Tetrachloroethylene	ND	0.020				
Tetrahydrofuran	ND	0.20				
Toluene	ND	0.020				
1,2,4-Trichlorobenzene	ND	0.020				
1,1,1-Trichloroethane	ND	0.020				
1,1,2-Trichloroethane	ND	0.020				
Trichloroethylene	ND	0.020				
Trichlorofluoromethane (Freon 11)	ND	0.080				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.080				
1,2,4-Trimethylbenzene	ND	0.020				
1,3,5-Trimethylbenzene	ND	0.020				
Vinyl Acetate	ND	0.40				
Vinyl Chloride	ND	0.020				
m&p-Xylene	ND	0.040				
o-Xylene	ND	0.020				
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	7.83		8.00		97.9	70-130
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	5.90		8.00		73.8	70-130

LCS (B278532-BS1)	Prepared & Analyzed: 03/20/21					
Acetone	5.62		5.00		112	70-130
Benzene	5.19		5.00		104	70-130
Benzyl chloride	4.55		5.00		91.0	70-130
Bromodichloromethane	5.93		5.00		119	70-130
Bromoform	5.63		5.00		113	70-130
Bromomethane	4.11		5.00		82.2	70-130
1,3-Butadiene	4.29		5.00		85.7	70-130
2-Butanone (MEK)	4.83		5.00		96.7	70-130
Carbon Disulfide	4.04		5.00		80.8	70-130
Carbon Tetrachloride	5.38		5.00		108	70-130
Chlorobenzene	4.98		5.00		99.6	70-130
Chloroethane	4.42		5.00		88.4	70-130
Chloroform	4.31		5.00		86.2	70-130
Chloromethane	4.88		5.00		97.5	70-130
Cyclohexane	5.25		5.00		105	70-130
Dibromochloromethane	5.22		5.00		104	70-130
1,2-Dibromoethane (EDB)	5.40		5.00		108	70-130
1,2-Dichlorobenzene	5.48		5.00		110	70-130

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	Limits	RPD RPD	Limit	Flag/Qual
Batch B278532 - TO-15 Prep											
LCS (B278532-BS1)											
Prepared & Analyzed: 03/20/21											
1,3-Dichlorobenzene	5.48		5.00		110	70-130					
1,4-Dichlorobenzene	5.46		5.00		109	70-130					
Dichlorodifluoromethane (Freon 12)	4.43		5.00		88.6	70-130					
1,1-Dichloroethane	4.46		5.00		89.1	70-130					
1,2-Dichloroethane	5.01		5.00		100	70-130					
1,1-Dichloroethylene	4.80		5.00		96.0	70-130					
cis-1,2-Dichloroethylene	4.55		5.00		91.1	70-130					
trans-1,2-Dichloroethylene	4.56		5.00		91.1	70-130					
1,2-Dichloropropane	5.46		5.00		109	70-130					
cis-1,3-Dichloropropene	5.37		5.00		107	70-130					
trans-1,3-Dichloropropene	5.53		5.00		111	70-130					
Ethanol	5.11		5.00		102	70-130					
Ethyl Acetate	4.35		5.00		87.0	70-130					
Ethylbenzene	5.17		5.00		103	70-130					
4-Ethyltoluene	5.23		5.00		105	70-130					
Heptane	5.89		5.00		118	70-130					
Hexachlorobutadiene	4.99		5.00		99.8	70-130					
Hexane	5.66		5.00		113	70-130					
2-Hexanone (MBK)	7.27		5.00		145	*	70-130				L-01, V-20
Isopropanol	5.28		5.00		106	70-130					
Methyl tert-Butyl Ether (MTBE)	4.05		5.00		81.0	70-130					
Methylene Chloride	5.30		5.00		106	70-130					
Methyl methacrylate	5.74		5.00		115	70-130					
4-Methyl-2-pentanone (MIBK)	6.22		5.00		124	70-130					
Propene	4.87		5.00		97.5	70-130					
Styrene	5.10		5.00		102	70-130					
1,1,1,2-Tetrachloroethane	0.804		0.910		88.4	70-130					
1,1,2,2-Tetrachloroethane	5.60		5.00		112	70-130					
Tetrachloroethylene	5.11		5.00		102	70-130					
Tetrahydrofuran	5.14		5.00		103	70-130					
Toluene	5.05		5.00		101	70-130					
1,2,4-Trichlorobenzene	4.33		5.00		86.7	70-130					V-34
1,1,1-Trichloroethane	5.10		5.00		102	70-130					
1,1,2-Trichloroethane	5.22		5.00		104	70-130					
Trichloroethylene	5.45		5.00		109	70-130					
Trichlorofluoromethane (Freon 11)	4.44		5.00		88.7	70-130					
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	4.02		5.00		80.4	70-130					
1,2,4-Trimethylbenzene	5.26		5.00		105	70-130					
1,3,5-Trimethylbenzene	5.25		5.00		105	70-130					
Vinyl Acetate	4.72		5.00		94.4	70-130					
Vinyl Chloride	4.58		5.00		91.5	70-130					
m&p-Xylene	11.1		10.0		111	70-130					
o-Xylene	5.33		5.00		107	70-130					
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	8.23		8.00		103	70-130					
<i>Surrogate: 4-Bromofluorobenzene (2)</i>	5.98		8.00		74.7	70-130					

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	RPD Limits	RPD RPD	RPD Limit	Flag/Qual
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Batch B278532 - TO-15 Prep

Duplicate (B278532-DUP1)	Source: 21C0477-10				Prepared & Analyzed: 03/20/21						
Acetone	14	4.0	33	9.5		14		0.981	25		
Benzene	0.52	0.10	1.7	0.32		0.49		5.56	25		
Benzyl chloride	ND	0.10	ND	0.52		ND			25		
Bromodichloromethane	ND	0.10	ND	0.67		ND			25		
Bromoform	ND	0.10	ND	1.0		ND			25		
Bromomethane	ND	0.10	ND	0.39		ND			25		
1,3-Butadiene	ND	0.10	ND	0.22		ND			25		
2-Butanone (MEK)	1.9	4.0	5.7	12		2.1		10.2	25		J
Carbon Disulfide	ND	1.0	ND	3.1		ND			25		
Carbon Tetrachloride	ND	0.10	ND	0.63		ND			25		
Chlorobenzene	ND	0.10	ND	0.46		ND			25		
Chloroethane	ND	0.10	ND	0.26		ND			25		
Chloroform	ND	0.10	ND	0.49		ND			25		
Chloromethane	ND	0.20	ND	0.41		ND			25		
Cyclohexane	ND	0.10	ND	0.34		ND			25		
Dibromochloromethane	ND	0.10	ND	0.85		ND			25		
1,2-Dibromoethane (EDB)	ND	0.10	ND	0.77		ND			25		
1,2-Dichlorobenzene	ND	0.10	ND	0.60		ND			25		
1,3-Dichlorobenzene	ND	0.10	ND	0.60		ND			25		
1,4-Dichlorobenzene	ND	0.10	ND	0.60		ND			25		
Dichlorodifluoromethane (Freon 12)	ND	0.10	ND	0.49		ND			25		
1,1-Dichloroethane	ND	0.10	ND	0.40		ND			25		
1,2-Dichloroethane	ND	0.10	ND	0.40		ND			25		
1,1-Dichloroethylene	ND	0.10	ND	0.40		ND			25		
cis-1,2-Dichloroethylene	ND	0.10	ND	0.40		ND			25		
trans-1,2-Dichloroethylene	ND	0.10	ND	0.40		ND			25		
1,2-Dichloropropane	ND	0.10	ND	0.46		ND			25		
cis-1,3-Dichloropropene	ND	0.10	ND	0.45		ND			25		
trans-1,3-Dichloropropene	ND	0.10	ND	0.45		ND			25		
Ethanol	4.6	4.0	8.6	7.5		4.3		4.81	25		
Ethyl Acetate	ND	1.0	ND	3.6		ND			25		
Ethylbenzene	ND	0.10	ND	0.43		ND			25		
4-Ethyltoluene	ND	0.10	ND	0.49		ND			25		
Heptane	ND	0.10	ND	0.41		ND			25		
Hexachlorobutadiene	ND	0.10	ND	1.1		ND			25		
Hexane	ND	4.0	ND	14		ND			25		
2-Hexanone (MBK)	ND	0.10	ND	0.41		ND			25		
Isopropanol	ND	4.0	ND	9.8		ND			25		
Methyl tert-Butyl Ether (MTBE)	ND	0.10	ND	0.36		ND			25		
Methylene Chloride	ND	1.0	ND	3.5		ND			25		
Methyl methacrylate	ND	0.10	ND	0.41		ND			25		
4-Methyl-2-pentanone (MIBK)	ND	0.10	ND	0.41		ND			25		
Propene	ND	4.0	ND	6.9		ND			25		
Styrene	ND	0.10	ND	0.43		ND			25		
1,1,1,2-Tetrachloroethane	ND	0.18	ND	1.2		ND			25		
1,1,2,2-Tetrachloroethane	ND	0.10	ND	0.69		ND			25		

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv Results	RL	ug/m3 Results	RL	Spike Level ppbv	Source Result	%REC %REC	RPD Limits	RPD RPD	Flag/Qual
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Batch B278532 - TO-15 Prep

Duplicate (B278532-DUP1)	Source: 21C0477-10				Prepared & Analyzed: 03/20/21				
Tetrachloroethylene	ND	0.10	ND	0.68		ND			25
Tetrahydrofuran	ND	1.0	ND	2.9		ND			25
Toluene	0.16	0.10	0.60	0.38		0.15		6.45	25
1,2,4-Trichlorobenzene	ND	0.10	ND	0.74		ND			25
1,1,1-Trichloroethane	ND	0.10	ND	0.55		ND			25
1,1,2-Trichloroethane	ND	0.10	ND	0.55		ND			25
Trichloroethylene	ND	0.10	ND	0.54		ND			25
Trichlorofluoromethane (Freon 11)	0.19	0.40	1.0	2.2		0.19		3.17	25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	ND	3.1		ND			25
1,2,4-Trimethylbenzene	ND	0.10	ND	0.49		ND			25
1,3,5-Trimethylbenzene	ND	0.10	ND	0.49		ND			25
Vinyl Acetate	ND	2.0	ND	7.0		ND			25
Vinyl Chloride	ND	0.10	ND	0.26		ND			25
m&p-Xylene	ND	0.20	ND	0.87		ND			25
o-Xylene	ND	0.10	ND	0.43		ND			25
Surrogate: 4-Bromofluorobenzene (1)	7.79			8.00		97.4	70-130		
Surrogate: 4-Bromofluorobenzene (2)	5.83			8.00		72.8	70-130		

Batch B278541 - TO-15 Prep

Blank (B278541-BLK1)	Prepared & Analyzed: 03/21/21				
1,1,1-Trichloroethane	ND	0.020			
Trichloroethylene	ND	0.020			
Surrogate: 4-Bromofluorobenzene (1)	7.88		8.00	98.5	70-130
LCS (B278541-BS1)	Prepared & Analyzed: 03/21/21				
1,1,1-Trichloroethane	5.10		5.00	102	70-130
Trichloroethylene	5.52		5.00	110	70-130
Surrogate: 4-Bromofluorobenzene (1)	8.25		8.00	103	70-130

Note: Blank Subtraction is not performed unless otherwise noted

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
m³	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-01	Laboratory fortified blank/laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

ANALYST

RJM	Raymond J. McCarthy
RAP	Raisa A. Petraitis
KF2	Kaitlyn A. Feliciano
BRF	Brittany R. Fisk

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

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
IA-1-030821 (21C0477-01)		Lab File ID: J2107819.D				Analyzed: 03/19/21 21:10			
Bromochloromethane (1)	144877	2.857				60 - 140	2.8570	+/-0.50	
1,4-Difluorobenzene (1)	493859	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (1)	437047	5.053				60 - 140	5.0530	+/-0.50	
1,4-Difluorobenzene (2)	494853	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (2)	77507	5.053				60 - 140	5.0530	+/-0.50	
IA-2-030821 (21C0477-02)		Lab File ID: J2107820.D				Analyzed: 03/19/21 21:43			
Bromochloromethane (1)	142894	2.86				60 - 140	2.8600	+/-0.50	
1,4-Difluorobenzene (1)	485517	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (1)	428733	5.054				60 - 140	5.0540	+/-0.50	
1,4-Difluorobenzene (2)	486146	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (2)	76115	5.054				60 - 140	5.0540	+/-0.50	
IA-3-030821 (21C0477-03)		Lab File ID: J2107821.D				Analyzed: 03/19/21 22:15			
Bromochloromethane (1)	146441	2.86				60 - 140	2.8600	+/-0.50	
1,4-Difluorobenzene (1)	494868	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (1)	431448	5.054				60 - 140	5.0540	+/-0.50	
1,4-Difluorobenzene (2)	495472	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (2)	78260	5.054				60 - 140	5.0540	+/-0.50	
IA-4-030821 (21C0477-04)		Lab File ID: J2107822.D				Analyzed: 03/19/21 22:47			
Bromochloromethane (1)	143715	2.857				60 - 140	2.8570	+/-0.50	
1,4-Difluorobenzene (1)	487762	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (1)	429429	5.053				60 - 140	5.0530	+/-0.50	
1,4-Difluorobenzene (2)	488867	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (2)	76957	5.053				60 - 140	5.0530	+/-0.50	
IA-5-030821 (21C0477-05)		Lab File ID: J2107823.D				Analyzed: 03/19/21 23:20			
Bromochloromethane (1)	141371	2.857				60 - 140	2.8570	+/-0.50	
1,4-Difluorobenzene (1)	487458	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (1)	426999	5.054				60 - 140	5.0540	+/-0.50	
1,4-Difluorobenzene (2)	488353	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (2)	76368	5.054				60 - 140	5.0540	+/-0.50	
IA-6-030821 (21C0477-06)		Lab File ID: J2107824.D				Analyzed: 03/19/21 23:53			
Bromochloromethane (1)	144816	2.857				60 - 140	2.8570	+/-0.50	
1,4-Difluorobenzene (1)	493172	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (1)	433826	5.054				60 - 140	5.0540	+/-0.50	
1,4-Difluorobenzene (2)	494497	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (2)	77486	5.054				60 - 140	5.0540	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
IA-7-030821 (21C0477-07)		Lab File ID: J2107825.D						Analyzed: 03/20/21 00:25	
Bromochloromethane (1)	140805	2.857				60 - 140	2.8570	+/-0.50	
1,4-Difluorobenzene (1)	489251	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (1)	427210	5.053				60 - 140	5.0530	+/-0.50	
1,4-Difluorobenzene (2)	490092	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (2)	74540	5.053				60 - 140	5.0530	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
IA-5-030821 (21C0477-05RE1)		Lab File ID: K2107923.D						Analyzed: 03/20/21 21:09	
Bromochloromethane (1)	109523	2.965				60 - 140	2.9650	+/-0.50	
1,4-Difluorobenzene (1)	448523	3.581				60 - 140	3.5810	+/-0.50	
Chlorobenzene-d5 (1)	331292	5.18				60 - 140	5.1800	+/-0.50	
IA-6-030821 (21C0477-06RE1)		Lab File ID: K2107924.D						Analyzed: 03/20/21 21:35	
Bromochloromethane (1)	113132	2.968				60 - 140	2.9680	+/-0.50	
1,4-Difluorobenzene (1)	456878	3.581				60 - 140	3.5810	+/-0.50	
Chlorobenzene-d5 (1)	336272	5.183				60 - 140	5.1830	+/-0.50	
IA-7-030821 (21C0477-07RE1)		Lab File ID: K2107925.D						Analyzed: 03/20/21 22:00	
Bromochloromethane (1)	109826	2.968				60 - 140	2.9680	+/-0.50	
1,4-Difluorobenzene (1)	448261	3.58				60 - 140	3.5800	+/-0.50	
Chlorobenzene-d5 (1)	327611	5.18				60 - 140	5.1800	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
AA-1-030821 (21C0477-08)		Lab File ID: J2107915.D						Analyzed: 03/20/21 17:37	
Bromochloromethane (1)	149760	2.857				60 - 140	2.8570	+/-0.50	
1,4-Difluorobenzene (1)	508527	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (1)	447003	5.054				60 - 140	5.0540	+/-0.50	
1,4-Difluorobenzene (2)	509344	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (2)	77893	5.054				60 - 140	5.0540	+/-0.50	
EU-5-030821 (21C0477-09)		Lab File ID: J2107916.D						Analyzed: 03/20/21 18:03	
Bromochloromethane (1)	149274	2.856				60 - 140	2.8560	+/-0.50	
1,4-Difluorobenzene (1)	523350	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (1)	465133	5.053				60 - 140	5.0530	+/-0.50	
1,4-Difluorobenzene (2)	524200	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (2)	83208	5.053				60 - 140	5.0530	+/-0.50	

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INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
EU-5-030821 (21C0477-09RE1)		Lab File ID: J2107917.D				Analyzed: 03/20/21 18:27			
Bromochloromethane (1)	151339	2.86				60 - 140	2.8600	+/-0.50	
1,4-Difluorobenzene (1)	514365	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (1)	449367	5.053				60 - 140	5.0530	+/-0.50	
1,4-Difluorobenzene (2)	515409	3.465				60 - 140	3.4650	+/-0.50	
Chlorobenzene-d5 (2)	78251	5.053				60 - 140	5.0530	+/-0.50	
EU-6-030821 (21C0477-10)		Lab File ID: J2107918.D				Analyzed: 03/20/21 18:53			
Bromochloromethane (1)	154238	2.86				60 - 140	2.8600	+/-0.50	
1,4-Difluorobenzene (1)	519403	3.468				60 - 140	3.4680	+/-0.50	
Chlorobenzene-d5 (1)	457866	5.054				60 - 140	5.0540	+/-0.50	
1,4-Difluorobenzene (2)	520388	3.468				60 - 140	3.4680	+/-0.50	
Chlorobenzene-d5 (2)	80026	5.054				60 - 140	5.0540	+/-0.50	
EU-7-030821 (21C0477-11)		Lab File ID: J2107920.D				Analyzed: 03/20/21 19:45			
Bromochloromethane (1)	154040	2.863				60 - 140	2.8630	+/-0.50	
1,4-Difluorobenzene (1)	531956	3.468				60 - 140	3.4680	+/-0.50	
Chlorobenzene-d5 (1)	475989	5.054				60 - 140	5.0540	+/-0.50	
1,4-Difluorobenzene (2)	531956	3.468				60 - 140	3.4680	+/-0.50	
Chlorobenzene-d5 (2)	81179	5.054				60 - 140	5.0540	+/-0.50	
EU-7-030821 (21C0477-11RE1)		Lab File ID: J2107921.D				Analyzed: 03/20/21 20:10			
Bromochloromethane (1)	152489	2.866				60 - 140	2.8660	+/-0.50	
1,4-Difluorobenzene (1)	528516	3.471				60 - 140	3.4710	+/-0.50	
Chlorobenzene-d5 (1)	463377	5.056				60 - 140	5.0560	+/-0.50	
1,4-Difluorobenzene (2)	528813	3.471				60 - 140	3.4710	+/-0.50	
Chlorobenzene-d5 (2)	80668	5.056				60 - 140	5.0560	+/-0.50	
EU-Combined-030821 (21C0477-12)		Lab File ID: J2107922.D				Analyzed: 03/20/21 20:36			
Bromochloromethane (1)	152438	2.863				60 - 140	2.8630	+/-0.50	
1,4-Difluorobenzene (1)	516036	3.468				60 - 140	3.4680	+/-0.50	
Chlorobenzene-d5 (1)	456422	5.054				60 - 140	5.0540	+/-0.50	
1,4-Difluorobenzene (2)	516708	3.468				60 - 140	3.4680	+/-0.50	
Chlorobenzene-d5 (2)	80856	5.054				60 - 140	5.0540	+/-0.50	
Post Carbon-030821 (21C0477-13)		Lab File ID: J2107923.D				Analyzed: 03/20/21 21:03			
Bromochloromethane (1)	151798	2.86				60 - 140	2.8600	+/-0.50	
1,4-Difluorobenzene (1)	515814	3.468				60 - 140	3.4680	+/-0.50	
Chlorobenzene-d5 (1)	461721	5.054				60 - 140	5.0540	+/-0.50	
1,4-Difluorobenzene (2)	516406	3.468				60 - 140	3.4680	+/-0.50	
Chlorobenzene-d5 (2)	81651	5.054				60 - 140	5.0540	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

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

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Post Carbon-030821 (21C0477-13RE1)		Lab File ID: J2108011.D				Analyzed: 03/21/21 14:11			
Bromochloromethane (1)	146591	2.86				60 - 140	2.8600	+/-0.50	
1,4-Difluorobenzene (1)	496305	3.468				60 - 140	3.4680	+/-0.50	
Chlorobenzene-d5 (1)	435491	5.054				60 - 140	5.0540	+/-0.50	

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

CONTINUING CALIBRATION CHECK

COMPOUND	TYPE				RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CERTIFICATIONS

Certified Analyses included in this Report

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

CERTIFICATIONS

Certified Analyses included in this Report

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

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2021
ME	State of Maine	MA00100	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021



Phone: 413-525-2332

Fax: 413-525-6405

Email: info@contestlabs.com

CHAIN OF CUSTODY RECORD (AIR)

ANALYSIS REQUESTED											
						" Hg					
Please fill out completely, sign, date and retain the yellow copy for your records						Summa canisters and flow controllers must be returned within 15 days of receipt or rental fees will apply					
For summa canister and flow controller information please refer to Con-Test's Air Media Agreement						For summa canister and flow controller information please refer to Con-Test's Air Media Agreement					
Lab Receipt Pressure			Final Pressure			Initial Pressure			Comments:		
7-Day	<input checked="" type="checkbox"/>	10-Day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Due Date:			Atmospheric/Refrigerated			Atmospheric/Refrigerated			Atmospheric/Refrigerated		
7-Day			1-Day			3-Day			4-Day		
2-Day			<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>		
Project Location: Project Name: Textron Gothenburg Project Number: 365211036 Project Manager: Greg Azenica Con-Test Quote Name/Number: CLP Like Data Pkg Required: <input type="checkbox"/> Email To: PMA			Format: PDF <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> Other:			Fax To #: 335-427-3247			Fax To #: 510-571-7207		
Sampled By: M. Mengis			Client Use:			Collection Data			Matrix		
Con-Test Work Order#			Client Sample ID / Description			Beginning Date/Time	Ending Date/Time	Total Minutes Sampled	Flow Rate	Volume	Flow Controller ID
1 TA-1-030821			3/18/11 8:15			3/18/11 9:15	30	200	TA	6	286
2 TA-2-030821			3/18/11 8:48			3/18/11 9:18	30	TA	1	X	34
3 TA-3-030821			3/18/11 8:46			3/18/11 9:16	30	TA	X	X	30
4 TA-4-030821			3/18/11 8:44			3/18/11 9:15	30	TA	X	X	30
5 TA-5-030821			3/18/11 7:28			3/18/11 7:58	30	TA	X	X	30
6 TA-6-030821			3/18/11 7:31			3/18/11 8:01	30	TA	X	X	29
7 TA-7-030821			3/18/11 7:32			3/18/11 8:02	30	TA	X	X	28
8 AA-1-030821			3/18/11 8:43			3/18/11 9:13	30	AM3	Y	X	20
9 Eu-5-030821			3/18/11 9:05			3/18/11 9:55	30	SG	Y	X	30

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 _____

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ANALYTICAL LABORATORY
www.con-test.com

Relinquished by: (signature) <i>John J. McNamee</i>	Date/Time: 3/19/11 6:00	Per-Collection Unit Requirements	Special Requirements
Received by: (signature) <i>Jeffrey J. McNamee</i>	Date/Time: 3/19/11 10:11	<input type="checkbox"/> MA MCP Required	<input type="checkbox"/> MA MCP Required
Relinquished by: (signature) <i>John J. McNamee</i>	Date/Time: 3/19/11 10:20	<input type="checkbox"/> MCP Certification Form Required	<input type="checkbox"/> MCP Certification Form Required
Received by: (signature) <i>John J. McNamee</i>	Date/Time: 3/19/11 10:20	<input type="checkbox"/> CT RCP Required	<input type="checkbox"/> CT RCP Required
Relinquished by: (signature) <i>John J. McNamee</i>	Date/Time: 3/19/11 10:20	<input type="checkbox"/> RCP Certification Form Required	<input type="checkbox"/> RCP Certification Form Required
Received by: (signature) <i>John J. McNamee</i>	Date/Time: 3/19/11 10:20	<input type="checkbox"/> Other	<input type="checkbox"/> Other
Relinquished by: (signature) <i>John J. McNamee</i>	Date/Time: 3/19/11 10:20	Project Entity	Municipality
Received by: (signature) <i>John J. McNamee</i>	Date/Time: 3/19/11 10:20	<input type="checkbox"/> Government	<input type="checkbox"/> MWRA
Received by: (signature) <i>John J. McNamee</i>	Date/Time: 3/19/11 10:20	<input type="checkbox"/> Federal	<input type="checkbox"/> School
Received by: (signature) <i>John J. McNamee</i>	Date/Time: 3/19/11 10:20	<input type="checkbox"/> City	<input type="checkbox"/> Brownfield
Received by: (signature) <i>John J. McNamee</i>	Date/Time: 3/19/11 10:20	Other	<input type="checkbox"/> MBTA
Received by: (signature) <i>John J. McNamee</i>	Date/Time: 3/19/11 10:20	PCB ONLY	<input type="checkbox"/> Chromatogram
Received by: (signature) <i>John J. McNamee</i>	Date/Time: 3/19/11 10:20	Soxhlet	<input type="checkbox"/> AlHA-LAP, LLC
Received by: (signature) <i>John J. McNamee</i>	Date/Time: 3/19/11 10:20	Non Soxhlet	<input type="checkbox"/>

CHAIN OF CUSTODY RECORD (AIR)

Company Name: **Wood E + L**
 Address: **371 Main St Chelmsford MA 01824**
 Phone: **978-692-9696**
 Project Name: **Tektron Graham**

Project Location: **Prudential RE**
 Project Number: **36521035**
 Project Manager: **Greg Alvaro**
 Con-Test Quote Name/Number:
 Invoice Recipient:

Sampled By: **M Masjedizadeh** 339-917-3747

Lab Use Client Use

Con-Test Work Order#

Client Sample ID / Description

Beginning Date/Time

Ending Date/Time

Total Minutes Sampled

m³/min

L/min

Code

Liters m³

Volume

10 En-6-030824 31811 31811 30 200 SG C X 245505D 1738 1340

11 En-7-030821 31811 31811 30 SC C X 395 5 48 1258 1043

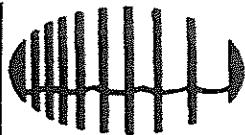
12 En-combined 030821 31811 31811 30 SG C 6 X 30 5 58 1239 1089

13 Post Grahams - 030821 31811 31811 30 SG C 6 Y 25 7 43 1339 1187

ANALYSIS REQUESTED			
Lab Receipt Pressure		Hg	
Final Pressure			
Initial Pressure			
please fill out completely, sign, date and retain the yellow copy for your records			
Summa canisters and flow controllers must be returned within 15 days of receipt or rental fees will apply			
For summa canister and flow controller information please refer to Con-Test's Air Media Agreement			

Matrix Codes:	
SG = SOIL GAS	IA = INDOOR AIR
AM = AMBIENT	SS = SUB SLAB
D = DUP	BL = BLANK
O = Other	
con-test ANALYTICAL LABORATORY www.contestlabs.com	
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	
Comments:	
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Project Entity	Government
	Municipality
	Federal
	21 J
	School
	Brownfield
	Other
PCB ONLY	<input type="checkbox"/>
Soxhlet	<input type="checkbox"/>
Non Soxhlet	<input type="checkbox"/>

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



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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 In/Out

Received By	<u>NAP</u>	Date	<u>3/9/21</u>	Time	<u>7:20</u>
How were the samples received?	In Cooler In Box <u>T</u>	On Ice Ambient		No Ice Melted Ice	
Were samples within Temperature Compliance? 2-6°C	By Gun # By Blank #		Actual Temp -	Actual Temp -	
Was Custody Seal Intact?	<u>NA</u>		Were Samples Tampered with?	<u>NA</u>	
Was COC Relinquished?	<u>T</u>		Does Chain Agree With Samples?	<u>T</u>	
Are there any loose caps/valves on any samples?	<u>F</u>				
Is COC in ink/ Legible?	<u>T</u>				
Did COC Include all Pertinent Information?	Client <u>T</u> Project <u>T</u>	Analysis ID's	<u>T</u> <u>T</u>	Sampler Name Collection Dates/Times	<u>T</u> <u>T</u>
Are Sample Labels filled out and legible?		<u>T</u>			
Are there Rushes?	<u>F</u>		Who was notified?		
Samples are received within holding time?		<u>T</u>			
Proper Media Used?	<u>T</u>		Individually Certified Cans?	<u>F</u>	
Are there Trip Blanks?	<u>F</u>		Is there enough Volume?	<u>T</u>	

Containers:	#	Size	Regulator	Duration	Accessories:		
Summa Cans	<u>14</u>	<u>6L</u>	<u>14</u>	<u>30 min</u>	Nut/Ferrule	<u>5</u>	IC Train
Tedlar Bags					Tubing	<u>15 ft</u>	
TO-17 Tubes					T-Connector		Shipping Charges
Radiello					Syringe		
Pufs/TO-11s					Tedlar		

Can #'s	#	Reg #'s
2012		<u>4179</u>
2013	<u>1328</u>	<u>4180</u>
9013	<u>1256</u>	<u>4369</u>
2228	<u>1738</u>	<u>4295</u>
9003	<u>1258</u>	<u>4370</u>
1277	<u>1239</u>	<u>4366</u>
1259	<u>1339</u>	<u>4200</u>
Unused Media		Pufs/TO-17's
<u>1170</u>	<u>4206</u>	<u>-310</u>

Comments:



Appendix B

Analytical Laboratory Detection Limits

Con-Test Analytical Laboratory

1/30/2015

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Blank Spike / LCS %R	Blank Spike / LCS RPD
TO-15 ppbv low level in Air (EPA TO-15)							
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 (Freon 114)	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	

Con-Test Analytical Laboratory

1/30/2015

Analytical Method Information

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Blank Spike / LCS %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 (Freo	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

Notes:

NA - not available
ND - Not detected

B - Compounds detected in method blank as well

J - Indicates compound was detected at an estimated value.

D - Result from diluted analyses

ug/m³ - micrograms per cubic meter

Prepared By: AKN, 4/5/2021

Checked By: MM, 4/5/2021

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-1-091610	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	AA-1-121815	AA-1-021816		
Sample Date:		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	12/18/2015	2/18/2016		
Analyte	Units																										
1,1,1,2-Tetrachloroethane	ug/m ³																										
1,1,1-Trichloroethane	ug/m ³	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.29	0.082 U	0.1 J	0.19 U	0.055 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/m ³	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.23 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U									
1,1,2-Trichloroethane	ug/m ³	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U								
1,1-Dichloroethane	ug/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.063 J	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U													
1,1-Dichloroethene	ug/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U								
1,2,4-Trichlorobenzene	ug/m ³	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.62	0.45 U	0.12 J	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U									
1,2,4-Trimethylbenzene	ug/m ³	0.94	0.25 U	1.1	0.25 U	0.25 U	0.16	0.15 U	0.15 U	0.26	0.17 U	0.21	0.17 U	0.19	0.17 U	0.17 U	0.51	0.069 J	0.17 U	0.2	0.059 J	0.29	0.31	0.17 U			
1,2-Dibromoethane (EDB)	ug/m ³	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.26 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U									
1,2-Dichlorobenzene	ug/m ³	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.34	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U												
1,2-Dichloroethane	ug/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.066 J	0.061 U	0.046 J	0.14 U	0.14 U	0.057 J	0.14 U	0.037 J	0.14 U	0.14 U	0.054 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U						
1,2-Dichloropropane	ug/m ³	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.046 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/m ³																									0.25 U	
1,3,5-Trimethylbenzene	ug/m ³	0.28	0.25 U	0.33	0.25 U	0.25 U	0.068 J	0.15 U	0.15 U	0.16 J	0.17 U	0.17 U	0.17 U	0.047 J	0.17 U	0.17 U	0.18	0.098 U	0.17 U	0.062 J	0.17 U	0.076 J	0.17 U	0.17 U	0.17 U	0.17 U	
1,3-Butadiene	ug/m ³	0.29	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.075 U	0.078 U	0.044 U	0.078 U	0.078 U	0.18	0.23	0.078 U								
1,3-Dichlorobenzene	ug/m ³	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U												
1,4-Dichlorobenzene	ug/m ³	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U																				1.3 U	
1,4-Dioxane	ug/m ³																										
2-Butanone	ug/m ³	2.7	0.37	1.8 B	2.9 U	5.9 J	0.35 J	1.4 J	1.1 J	2 J	4.1 J	1.9 J	3.9 J	3.7 J	0.94 J	0.82 J	1.4 J	2.2 J	1.1 J	1.2 J	0.96 J	2.1 J	1 J	2 J	0.69 J		
2-Hexanone	ug/m ³	0.41	0.2 U	0.2 U	4.1 U	0.67	0.12 U	0.34	0.14	0.27	0.14 U	0.13 J	0.49	0.32	0.14 U	0.14 U	0.26	0.34	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
4-Ethyltoluene	ug/m ³	0.3	0.25 U	0.34	0.25 U	0.053 J	0.15 U	0.15 U	0.093 J	0.17 U	0.17 U	0.17 U	0.063 J	0.17 U	0.17 U	0.17 U	0.17 U	0.098 U	0.17 U	0.079 J	0.17 U	0.093 J	0.17 U				
4-Methyl-2-pentanone	ug/m ³	2.8	0.2 U	0.2 U	0.2 U	0.12 U	0.12 U	0.23	0.1 J	0.14 U	0.083 J	0.24	0.14 U	0.14 U	0.14 U	0.14 U	0.2	0.036 J	0.14 U	0.092 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Acetone	ug/m ³	14	5.7 B	19 B	8.7 B	20	4.9	9.4	10	12 B	3.3	18	28	16</td													

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-1-080516	AA-1-021017	AA-1-090717	AA-1-022818	AA-1-091218	AA-1-020819	AA-1-041119	AA-1-090619	AA-1-021420	AA-1-090200	AA-1-10292020	AA-1-030821
Sample Date:		8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	4/11/2019	9/6/2019	2/14/2020	9/9/2020	10/29/2020	3/8/2021
Analyte	Units												
1,1,1,2-Tetrachloroethane	ug/m ³		0.44 U	0.37 U									
1,1,1-Trichloroethane	ug/m ³	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	0.16 U
1,1,2,2-Tetrachloroethane	ug/m ³	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.21 U
1,1,2-Trichloroethane	ug/m ³	0.19 U	0.19 U	0.19 U	0.19 U	0.42	0.19 U	0.16 U					
1,1-Dichloroethane	ug/m ³	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	0.12 U
1,1-Dichloroethene	ug/m ³	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	0.12 U
1,2,4-Trichlorobenzene	ug/m ³	0.26 U	0.26 U	0.26 U	0.26 U	0.52 U	0.26 U	0.22 U					
1,2,4-Trimethylbenzene	ug/m ³	0.17 U	0.17 U	0.17 U	0.12 J	0.18	0.17 U	0.73	0.15 U				
1,2-Dibromoethane (EDB)	ug/m ³	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.23 U
1,2-Dichlorobenzene	ug/m ³	0.21 U	0.21 U	0.21 U	0.21 U	0.84 U	0.21 U	0.18 U					
1,2-Dichloroethane	ug/m ³	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	0.12 U
1,2-Dichloropropane	ug/m ³	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	0.14 U
1,2-Dichlorotetrafluoroethane	ug/m ³	0.25 U											
1,3,5-Trimethylbenzene	ug/m ³	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	0.19	0.15 U
1,3-Butadiene	ug/m ³	0.078 U	0.078 U	0.9	0.078 U	0.077 U	0.077 U	0.066 U					
1,3-Dichlorobenzene	ug/m ³	0.21 U	0.21 U	0.21 U	0.21 U	0.49 J	0.21 U	0.18 U					
1,4-Dichlorobenzene	ug/m ³	0.21 U	0.21 U	0.21 U	0.21 U	0.5 J	0.21 U	0.18 U					
1,4-Dioxane	ug/m ³	1.3 U											
2-Butanone	ug/m ³	1.2 J	0.91 J	2.4 J	1.8 J	1.2 J	0.71 J	0.63 J	1.6 J	1.4 J	0.73 J	0.71 J	
2-Hexanone	ug/m ³	0.14 U	0.14 U	0.14 U	0.43	0.14 U	0.14 U	0.14 U	0.14 U	0.29 U	0.29 U	0.25 U	
4-Ethyltoluene	ug/m ³	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	0.15 U	
4-Methyl-2-pentanone	ug/m ³	0.14 U	0.14 U	0.3	0.072 J	0.14 U	0.12 U						
Acetone	ug/m ³	11	3.1 J	16	24	6.2	10	6.9	5.1	9.8	8.2	15	7.8
Benzene	ug/m ³	0.35	0.37	2.2	0.47	0.39	1.4	0.22	0.24	0.34	0.15	1.2	0.68
Benzyl chloride	ug/m ³	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	0.16 U	
Bromodichloromethane	ug/m ³	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.23 U	0.2 U
Bromoform	ug/m 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	0.36 U	0.36 U	0.31 U
Bromomethane	ug/m ³	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	0.12 U
Carbon disulfide	ug/m ³	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.93 U
Carbon tetrachloride	ug/m ³	0.39	0.44	0.4	0.39	0.49	0.91	0.44	0.39	0.41	0.43	0.39	0.71
Chlorobenzene	ug/m ³	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	0.14 U
Chloroethane	ug/m ³	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.19 U	0.093 U	0.093 U	0.093 U	0.092 U	0.092 U	0.079 U
Chloroform	ug/m ³	0.17 U	0.17 U	0.17 U	0.086 J	0.11 J	0.53	0.17 U	0.17 U	0.13 J	0.31	0.11 J	
Chlormethane	ug/m ³	1.2	1.2	1.2	1.2	0.93	1.3	1	0.87	1.5	0.14 U	0.14 U	1.8
cis-1,2-Dichloroethene	ug/m ³	0.14 U	0.14 U	0.14 U	0.14 U	0.33	0.14 U	0.12 U					
cis-1,3-Dichloropropene	ug/m ³	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	0.14 U
Cyclohexane	ug/m ³	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.1 U
Dibromochloromethane	ug/m ³	0.3 U	0.3 U	0.3 U	0.3 U	0.64	0.3 U	0.26 U					
Dichlorodifluoromethane	ug/m ³	0.64	1	1.5	1.7	2.1	2.2	1.3	1.7	1.6	2	2.5	2.9
Ethanol	ug/m ³	5.5	2.5 J	2.2 J	6.7	2.1 J	12	4	5.9	3.9	6.3	14	11
Ethyl acetate	ug/m ³	6.5	2.3	0.25 U	0.17	0.25 U	0.13 U	1.1	0.13 U	0.13 U	1.3 U	1.3 U	2.4
Ethylbenzene	ug/m ³	0.16	0.15 U	0.67	0.17	0.18	0.68	0.15 U	0.17	0.15 U	0.079 J	0.67	0.081 J
Hexachlorobutadiene	ug/m ³	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.32 U					
Hexane	ug/m ³	7.7	0.69 J	0.4 J	0.31 J	0.47 J	2.2 J	4.9 U	4.9 U	4.9 U	4.9 U	0.94 J	4.2 U
Isopropyl alcohol	ug/m ³	0.88 J	0.76 J	0.52 J	0.55 J	0.46 J	1.6 J	1.2 J	0.18 J	0.53 J	3.4 U	2.2 J	0.72 J
m,p-Xylene	ug/m ³	0.46	0.35	2.4	0.56	0.48	1.7	0.3 U	0.57	0.3 U	0.		



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/m ³	1.1																									
1,1,1-Trichloroethane	ug/m ³	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 J	0.15 J	0.082 U	0.065 J	0.19 U	0.19 U							
1,1,2,2-Tetrachloroethane	ug/m ³	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.16 J	0.1 U	0.21 U	0.24 U	0.24 U	0.19 U												
1,1,2-Trichloroethane	ug/m ³	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.14 J	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U												
1,1-Dichloroethane	ug/m ³	430	1.8	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	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U						
1,1-Dichloroethene	ug/m ³	20	0.58	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	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U						
1,2,4-Trichlorobenzene	ug/m ³	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.74 U	22	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.17 U						
1,2,4-Trimethylbenzene	ug/m ³	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 J	1.3	0.15 U	0.16	0.29	0.17 U									
1,2-Dibromoethane (EDB)	ug/m ³	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U												
1,2-Dichlorobenzene	ug/m ³	410	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	0.23	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U		
1,2-Dichloroethane	ug/m ³	0.31	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	0.066 J	0.061 U	0.044 J	0.14 U	0.14 U	0.14 U			
1,2-Dichloropropane	ug/m ³	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.14 U	0.069 U	0.067 J	0.16 U	0.16 U	0.16 U												
1,2-Dichlorotetrafluoroethane	ug/m ³	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U																		
1,3,5-Trimethylbenzene	ug/m ³	52	0.25 U	0.25	0.32	0.33	0.36	0.25 U	0.25 U	0.25	0.25 J	0.39	0.15 U	0.077 J	0.11 J	0.17 U											
1,3-Butadiene	ug/m ³	NA	0.11 U	0.11 U	0.11 U	0.11 U	0.25	0.11 U	0.08 U	0.11 U	0.066 U	0.066 U	0.078 U	0.078 U													
1,3-Dichlorobenzene	ug/m ³	410	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	0.076 J	0.18 U	0.18 U	0.21 U	0.21 U			
1,4-Dichlorobenzene	ug/m ³	24	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	0.37	0.18 U	0.18 U	0.21 U	0.21 U				
1,4-Dioxane	ug/m ³	NA																									
2-Butanone	ug/m ³	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 J	2 J	0.94 J	2.3 J	4.1 J		
2-Hexanone	ug/m ³	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	0.32	0.081 J	0.17	0.14		
4-Ethyltoluene	ug/m ³	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25	0.15 U	0.053 J	0.097 J	0.17 U														
4-Methyl-2-pentanone	ug/m ³	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.18	0.2 U	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.2	0.13 U						
Acetone	ug/m ³	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	11	13	13 B	3.3		
Benzene	ug/m ³	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	0.34	0				

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-5-031513	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-5-020819	IA-5-090619	IA-5-021420	IA-5-09020	IA-5-030821	
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	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	
Analyte	Units	CT IACTIND 2003																								
1,1,2-Tetrachloroethane	ug/m ³	1.1	0.44 U	0.25 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	0.37 U						
1,1,1-Trichloroethane	ug/m ³	500	0.19 U	0.079	0.19 U	0.042 J	0.19 U	0.077 J	0.19 U	0.19 U	0.16 U															
1,1,2,2-Tetrachloroethane	ug/m ³	0.14	0.24 U	0.069 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	0.21 U					
1,1,2-Trichloroethane	ug/m ³	12	0.19 U	0.11 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	0.16 U						
1,1-Dichloroethane	ug/m ³	430	0.14 U	0.04 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	0.12 U						
1,1-Dichloroethene	ug/m ³	20	0.14 U	0.04 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	0.12 U						
1,2,4-Trichlorobenzene	ug/m ³	NA	0.52 U	0.26 U	0.15 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	0.22 U					
1,2,4-Trimethylbenzene	ug/m ³	52	0.072 J	0.21	0.27	0.17 U	0.69	0.23	0.19	0.17 U	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	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.035 J
1,2-Dibromoethane (EDB)	ug/m ³	0.038	0.27 U	0.077 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	0.23 U					
1,2-Dichlorobenzene	ug/m ³	410	0.21 U	0.12 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	0.18 U						
1,2-Dichloroethane	ug/m ³	0.31	0.14 U	0.04	0.14 U	0.045 J	0.065 J	0.14 U	0.057 J	0.08 J	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U											
1,2-Dichloropropane	ug/m ³	0.42	0.16 U	0.046 U	0.16 U	0.16 U	0.1 J	0.16 U	0.13 J	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.14 U											
1,2-Dichlortetrafluoroethane	ug/m ³	NA																								
1,3,5-Trimethylbenzene	ug/m ³	52	0.17 U	0.17 U	0.17 U	0.17 U	0.19	0.17 U	0.057 J	0.17 U	0.038 J	0.038 J	0.066 J	0.17 U	0.42	0.17 U	0.17 U	0.17 U	0.17 U	0.15 U						
1,3-Butadiene	ug/m ³	NA	0.078 U	0.078 U	0.078 U	0.078 U	0.58	0.078 U	0.044 U	0.078 U	0.078 U	0.19	0.14	0.078 U	0.078 U	0.066 U										
1,3-Dichlorobenzene	ug/m ³	410	0.21 U	0.12 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	0.18 U						
1,4-Dichlorobenzene	ug/m ³	24	0.21 U	0.12 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	0.28	0.57 J	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U						
1,4-Dioxane	ug/m ³	NA																								
2-Butanone	ug/m ³	500	1.3 J	3.2 J	2.4 J	2.2 J	1.8 J	3.7 J	2.1 J	0.8 J	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	2.1 J	0.37 J	1.6 J	4.1 U	1.3 J	
2-Hexanone	ug/m ³	NA	0.16	0.48	0.44	0.14 U	0.32	0.52	0.29	0.14 U	0.43	0.16	0.14 U	0.14 U	0.15	0.31	0.14 U	0.57	0.26	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.29 U	0.25 U
4-Ethyltoluene	ug/m ³	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.22	0.17 U	0.09 J	0.17 U	0.041 J	0.079 J	0.17 U	0.17 U	0.15 U											
4-Methyl-2-pentanone	ug/m ³	200	0.14 U	0.19	0.14 U	0.14 U	0.24	0.35	0.17	0.14 U	0.19	0.14 U	0.14 U	0.14 U	0.37	0.14 U	0.14 U	0.12 U								
Acetone	ug/m ³	500	9.7	24	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																										
Location:		IA-6																										
Sample ID:		IA-6	IA-6-020309	IA-6-021109	IA-6-021809	IA-6-022609	IA-6-030609	IA-6-041409	IA-6-051509	IA-6-061109	IA-6-091709	IA-6-122909	IA-6-032610	IA-6-070110	IA-6-091610	IA-6-120710	IA-6-021711	IA-6-060211	IA-6-091511	IA-6-120811	IA-6-030812	IA-6-061412	IA-6-091312	IA-6-010313				
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	12/7/2010	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																										
1,1,1-Trichloroethane	ug/m3	500	110	3.9	0.27 U	0.29	0.27 U	0.27 U	1.6	0.27 U	0.27 U	0.27 U	0.35	0.27 U	0.085 J	0.082 U	0.072 J	0.19 U	0.19 U	0.44 U	0.44 U							
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.35	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U											
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.19 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U																
1,1-Dichloroethane	ug/m3	430	3.9	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	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U					
1,1-Dichloroethene	ug/m3	20	1.2	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	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U					
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.26 U	0.37 U	0.37 U	0.75 U	0.37 U	0.74 U	0.45 U	0.45 U	2.8	0.52 U	0.52 U	0.52 U													
1,2,4-Trimethylbenzene	ug/m3	52	0.75	0.32	0.29	1.5	0.25 U	0.25 U	0.18 U	0.25 U	0.29	0.34	0.25 U	0.16	0.15 U	0.21	0.17 U	0.17 U										
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.27 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U																		
1,2-Dichlorobenzene	ug/m3	410	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	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U							
1,2-Dichloroethane	ug/m3	0.31	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	0.056 J	0.061 U	0.056 J	0.14 U	0.14 U							
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.17 U	0.23 U	0.069 U	0.061 J	0.16 U	0.16 U	0.16 U																		
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.35 U	0.25 U	0.35 U																							
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.25 U	0.38	0.25 U	0.25 U	0.18 U	0.25 U	0.059 J	0.15 U	0.091 J	0.17 U	0.17 U													
1,3-Butadiene	ug/m3	NA	0.11 U	0.11 U	0.11 U	1.1	0.11 U	0.08 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U														
1,3-Dichlorobenzene	ug/m3	410	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	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U							
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.3 U	0.41	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U			
1,4-Dioxane	ug/m3	NA																										
2-Butanone	ug/m3	500	120	10	3.2	2.9	2.4	2.3	1	2.5	4.1	2.4	1.8	1.4	1.1	0.89	0.87	1.9 B	2.9 U	5.9 J	1.3 J	0.63 J	1.4 J	2.8 J	4.1 J			
2-Hexanone	ug/m3	NA	0.2 U	0.42	0.37	0.34	0.2 U	0.37	0.14 U	0.62	0.72	0.7	0.2 U	0.26	0.2 U	0.2 U	0.22	4.1 U	0.6	0.15	0.12 U	0.2	0.27	0.14 U				
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 U	0.47	0.25 U	0.18 U	0.25 U	0.15 U	0.08 J	0.17 U																
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.2 U	0.36	0.2 U	0.2 U	0.14 U	0.34	0.7	0.29	0.2 U	0.31	0.13	0.12 U	0.92	0.25	0.14 U									
Acetone	ug/m3	500	44	14	14	25	11	8.5	6.1	11	28	20	14	6.5	14	13	11 B	14 B	19 B	26	10	7.4	15	18 B	3.3			
Benzene	ug/m3	3.3	1	0.6	0.98	4.1	0.41	0.7	0.59	0.47	0.43	0.31	0.4	0.55	0.19	0.6	0.44	1.3	0.29	0.31	0.42	0.39	0.2	0.49	0.11			
Benzyl chloride	ug/m3	NA	0.26 U	0.19 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U																		
Bromodichloromethane	ug/m3	0.46	0.33 U	0.24 U	0.33 U	0.34 U	0.34 U	0.34 U	0.2 U	0.24 U	0.24 U																	
Bromoform	ug/m3	7.3	0.51 U	0.52 U	0.52 U	0.52 U	0.31 U	0.36 U	0.36 U																			
Bromomethane	ug/m3	NA	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U																				
Carbon disulfide	ug/m3	NA	0.16 U	0.12 U	0.16 U	1.6 J	0.93 U	0.93 U	0.93 U	0.93 U	0.93 U																	
Carbon tetrachloride	ug/m3	0.54	0.39	0.42	0.52	0.59	0.47	0.6	0.42	0.77	0.45	0.42	0.4	0.43	0.55	0.44	0.46	0.57	0.64	0.52	0.46	0.48	0.44	0.37	0.22	0.22	0.22	0.22

Notes:

NA - not available

U - Not detected, value is the detection limit
B - Compound detected in method blank or

B - Compounds detected in method blank as well as field sample
I - Indicates compound was detected at an estimated value

J - Indicates compound was detected at an estimated value.
D - Result from diluted analyses

D - Result from diluted analyses
µg/m³ - micrograms per cubic meter

Bolded and shaded values are above the

Bolded and shaded values are above the baseline.

Prepared By: AKN, 4/5/2021

Checked By: MM Date: 4/E/2021

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																								
Location:		IA-6																								
Sample ID:			IA-6-031513	IA-6-060713	IA-6-090613	IA-6-121313	IA-6-030714	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-6-020819	IA-6-090619	IA-6-021420	IA-6-09020	IA-6-030821	
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	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	
Analyte	Units	CT IACTIND 2003																								
1,1,2-Tetrachloroethane	ug/m ³	1.1	0.44 U	0.25 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	0.5 U	0.44 U	0.44 U	0.37 U						
1,1,1-Trichloroethane	ug/m ³	500	0.19 U	0.12	0.19 U	0.19 U	0.14 J	0.19 U	0.39	0.19 U	0.19 U	0.16 U														
1,1,2,2-Tetrachloroethane	ug/m ³	0.14	0.24 U	0.069 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	0.21 U						
1,1,2-Trichloroethane	ug/m ³	12	0.19 U	0.11 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	0.16 U						
1,1-Dichloroethane	ug/m ³	430	0.14 U	0.04 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	0.12 U						
1,1-Dichloroethene	ug/m ³	20	0.14 U	0.04 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	0.12 U						
1,2,4-Trichlorobenzene	ug/m ³	NA	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.15 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	0.22 U		
1,2,4-Trimethylbenzene	ug/m ³	52	0.076 J	0.21	0.27	0.17 U	0.55	0.21	0.29	0.17 U	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	0.17 U	0.29	0.17 U	0.17 U	0.15 U	
1,2-Dibromoethane (EDB)	ug/m ³	0.038	0.27 U	0.077 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	0.23 U						
1,2-Dichlorobenzene	ug/m ³	410	0.21 U	0.12 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	0.18 U						
1,2-Dichloroethane	ug/m ³	0.31	0.14 U	0.039 J	0.14 U	0.14 U	0.054 J	0.14 U	0.06 J	0.097 J	0.14 U	0.14 U	0.14 U	0.12 U												
1,2-Dichloropropane	ug/m ³	0.42	0.16 U	0.046 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	0.14 U						
1,2-Dichlorotetrafluoroethane	ug/m ³	NA														0.25 U	0.25 U									
1,3,5-Trimethylbenzene	ug/m ³	52	0.17 U	0.071 J	0.17 U	0.038 J	0.052 J	0.17 U	0.15 U																	
1,3-Butadiene	ug/m ³	NA	0.078 U	0.078 U	0.078 U	0.078 U	0.59	0.078 U	0.044 U	0.078 U	0.061 J	0.078 U	0.14	0.12	0.078 U	0.078 U	0.078 U	0.078 U	0.064 J	0.078 U	0.078 U	0.078 U	0.078 U	0.077 U	0.066 U	
1,3-Dichlorobenzene	ug/m ³	410	0.21 U	0.12 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	0.18 U						
1,4-Dichlorobenzene	ug/m ³	24	0.21 U	0.12 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	0.18 U						
1,4-Dioxane	ug/m ³	NA														1.3 U	1.3 U									
2-Butanone	ug/m ³	500	1.4 J	0.91 J	2.8 J	2.2 J	1.6 J	3.1 J	0.66 J	0.81 J	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	2.9 J	0.85 J	0.59 J	0.63 J	0.53 J	
2-Hexanone	ug/m ³	NA	0.2	0.14 U	0.48	0.14 U	0.29	0.41	0.043 J	0.14 U	0.18	0.12 J	0.14 U	0.22	0.16	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.25 U					
4-Ethyltoluene	ug/m ³	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.19	0.17 U	0.073 J	0.17 U	0.045 J	0.055 J	0.059 J	0.17 U	0.15 U											
4-Methyl-2-pentanone	ug/m ³	200	0.14 U	0.14 U	0.3	0.14 U	0.22	0.24	0.092	0.14 U	0.12 J	0.14 U	0.37	0.14 U	0.14 U	0.12 U										
Acetone	ug/m ³	500	10	20	29	27	12	26	9.2	8.2	9.2	11	17	9.3	5	21	7	38	7.8	29	14	11	7.7	11</td		

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	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	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	
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	12/7/2010	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																								
1,1,2-Tetrachloroethane	ug/m ³	1.1																								
1,1,1-Trichloroethane	ug/m ³	500	44	2.4	0.4	1.3	0.27 U	0.27 U	0.87	0.27 U	0.069 J	0.082 U	0.088 J	0.19 U	0.19 U											
1,1,2,2-Tetrachloroethane	ug/m ³	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U												
1,1,2-Trichloroethane	ug/m ³	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U												
1,1-Dichloroethane	ug/m ³	430	1.3	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	0.12 U	0.061 U	0.12 U	0.14 U	0.14 U	
1,1-Dichloroethene	ug/m ³	20	0.52	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	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	
1,2,4-Trichlorobenzene	ug/m ³	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.45 U	0.17 J	0.52 U	0.52 U	0.52 U								
1,2,4-Trimethylbenzene	ug/m ³	52	0.25 U	0.34	0.34	0.99	0.25 U	0.25 U	0.18 U	0.25 U	0.29	0.39	0.25 U	0.35	0.36	0.36	0.25 U	0.56	0.41	0.32	0.36	0.21	0.46	0.17 U		
1,2-Dibromoethane (EDB)	ug/m ³	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U												
1,2-Dichlorobenzene	ug/m ³	410	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	0.18 U	0.18 U	0.21 U	0.21 U		
1,2-Dichloroethane	ug/m ³	0.31	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	0.07 J	0.061 U	0.051 J	0.14 U	0.14 U		
1,2-Dichloropropane	ug/m ³	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.63	0.23 J	0.14 U	0.069 U	0.14 U	0.094 J	0.16 U											
1,2-Dichlorotetrafluoroethane	ug/m ³	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U																	
1,3,5-Trimethylbenzene	ug/m ³	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 J	0.1 J	0.15	0.083 J	0.26	0.17 U												
1,3-Butadiene	ug/m ³	NA	0.11 U	0.11 U	0.14	0.97	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.23 U	0.11 U	0.066 U	0.066 U	0.078 U	0.078 U									
1,3-Dichlorobenzene	ug/m ³	410	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	0.18 U	0.18 U	0.18 U	0.21 U			
1,4-Dichlorobenzene	ug/m ³	24	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	0.18 U	0.18 U	0.18 U	0.065 J	0.063 J	0.21 U	
1,4-Dioxane	ug/m ³	NA																								
2-Butanone	ug/m ³	500	70	6.5	3.9	5.2	2.2	1.3	1.3	2.3	7.3	2.2	0.49	2.1	4.3	1.8	0.42	1.7 B	4.7	5.9 J	2.1 J	0.97 J	1.1 J	2.8 J	4.1 J	
2-Hexanone	ug/m ³	NA	0.2 U	0.29	0.2 U	0.91	0.2 U	0.14 U	0.53	1.5	0.53	0.2 U	0.2 U	0.82	0.55	0.2 U	0.2 U	0.2 U	0.2 U	1.4 J	0.73	0.12 U	0.081 J	0.23	0.41	0.14
4-Ethyltoluene	ug/m ³	NA	0.25 U	0.25 U	0.25 U	0.27	0.25 U	0.18 U	0.25 J	0.074 J	0.097 J	0.065 J	0.16 J	0.17 U												
4-Methyl-2-pentanone	ug/m ³	200	0.2 U	0.2 U	0.2 U	0.42	0.2 U	0.14 U	0.22	0.79	0.24	0.2 U	0.2 U	0.43	0.61	0.2 U	0.2 U	0.53	0.36	0.15	0.13	1.4	0.29	0.14		
Acetone	ug/m ³	500	29	12	13	32	7.8	6.6	6.5	10	31	22	31	12	41	27	12 B	15 B	48 B	38	17	13	18	24 B	3.3	
Benzene	ug/m ³	3.3	0.95	0.75	1.1	3.2	0.67	0.73	0.42	0.35	0.52	0.43	0.52	0.53	0.27	0.56	0.45	1.1	0.41	0.34	0.44	0.36	0.2	0.49	0.11	
Benzyl chloride	ug/m ³	NA	0.26 U	0.26 U</td																						

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-7-031513	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	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	IA-7-020819	IA-7-090619	IA-7-021420	IA-7-090920		
Sample Date:			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	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	9/6/2019	2/14/2020	9/9/2020		
Analyte	Units	CT IACTIND 2003																									
1,1,2-Tetrachloroethane	ug/m ³	1.1	0.44 U	0.44 U	0.44 U	0.42 U	0.44 U	0.44 U	0.25 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/m ³	500	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	0.19 U	0.055 U	0.19 U	0.19 U	0.054 J	0.19 U														
1,1,2,2-Tetrachloroethane	ug/m ³	0.14	0.24 U	0.24 U	0.23 U	0.24 U	0.24 U	0.069 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/m ³	12	0.19 U	0.19 U	0.18 U	0.19 U	0.19 U	0.19 U	0.11 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/m ³	430	0.14 U	0.04 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/m ³	20	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.04 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/m ³	NA	0.52 U	0.26 U	0.26 U	0.25 U	0.26 U	0.26 U	0.15 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/m ³	52	0.1 J	0.58	0.4	0.7	0.25	0.38	0.31	0.37	0.052 J	0.33	0.21	0.15 J	0.28	0.17 U	0.23	0.17 U	0.21	0.17 U	0.29	0.54	0.17 U	0.17 U	0.17 U	0.17 U	
1,2-Dibromoethane (EDB)	ug/m ³	0.038	0.27 U	0.27 U	0.26 U	0.27 U	0.27 U	0.077 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/m ³	410	0.21 U	0.12 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/m ³	0.31	0.14 U	0.14 U	0.11 J	0.14 U	0.14 U	0.15	0.14 U	0.065 J	0.19	0.18	0.14 U	0.062 J	0.34	0.14 U	0.46	0.14 U	0.14 U	0.14 U	0.14 U						
1,2-Dichloropropane	ug/m ³	0.42	0.16 U	0.085	0.16 U	0.16 U	0.16 J	0.16 U	0.097 J	0.4	0.16 U	0.8	0.16 U	0.16 U	0.16 U	0.16 U											
1,2-Dichlortetrafluoroethane	ug/m ³	NA																									
1,3,5-Trimethylbenzene	ug/m ³	52	0.17 U	0.17 U	0.23	0.17 U	0.17 U	0.057 J	0.17 U	0.083 J	0.083 J	0.048 J	0.17 U	0.39	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U							
1,3-Butadiene	ug/m ³	NA	0.078 U	0.078 U	0.078 U	0.075 U	0.078 U	0.48	0.078 U	0.044 U	0.078 U	0.078 U	0.078 U	0.14	0.078 U	0.077 U	0.077 U										
1,3-Dichlorobenzene	ug/m ³	410	0.21 U	0.21 U	0.21 U	0.2 U	0.21 U	0.21 U	0.06 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	
1,4-Dichlorobenzene	ug/m ³	24	0.21 U	0.21 U	0.21 U	0.086 J	0.21 U	0.21 U	0.12 U	0.21 U	0.16 J	0.15 J	0.055 J	0.21 U	0.57	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U						
1,4-Dioxane	ug/m ³	NA																									
2-Butanone	ug/m ³	500	1.9 J	1.7 J	1.6 J	3.8 J	0.69 J	1.5 J	3 J	2.2 J	0.75 J	1.4 J	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	2.1 J	1.1 J	0.91 J	1.5 J	1.5 J	
2-Hexanone	ug/m ³	NA	0.35	0.14 U	0.15	1.1	0.14 U	0.37	0.35	0.41	0.14 U	0.43	0.17	0.14 U	0.28	0.14 U	0.36	0.14 U	0.43	0.37	0.14 U	0.29 U	0.29 U				
4-Ethyltoluene	ug/m ³	NA	0.17 U	0.17 U	0.17 U	0.2	0.17 U	0.17 U	0.065 J	0.17 U	0.09 J	0.069 J	0.055 J	0.17 U	0.17 U	0.17 U											
4-Methyl-2-pentanone	ug/m ³	200	0.14 U	0.21	0.2	0.44	0.14 U	0.34	0.18	0.14 U	0.18	0.15	0.14 U	0.18	0.14 U	0.18	0.14 U	0.14 U	0.2								

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-7-030821		
Sample Date: 3/8/2021		
Analyte	Units	CT IACTIND 2003
1,1,1,2-Tetrachloroethane	ug/m ³	1.1
1,1,1-Trichloroethane	ug/m ³	500
1,1,2,2-Tetrachloroethane	ug/m ³	0.14
1,1,2-Trichloroethane	ug/m ³	12
1,1-Dichloroethane	ug/m ³	430
1,1-Dichloroethene	ug/m ³	20
1,2,4-Trichlorobenzene	ug/m ³	NA
1,2,4-Trimethylbenzene	ug/m ³	52
1,2-Dibromoethane (EDB)	ug/m ³	0.038
1,2-Dichlorobenzene	ug/m ³	410
1,2-Dichloroethane	ug/m ³	0.31
1,2-Dichloropropane	ug/m ³	0.42
1,2-Dichlorotetrafluoroethane	ug/m ³	NA
1,3,5-Trimethylbenzene	ug/m ³	52
1,3-Butadiene	ug/m ³	NA
1,3-Dichlorobenzene	ug/m ³	410
1,4-Dichlorobenzene	ug/m ³	24
1,4-Dioxane	ug/m ³	NA
2-Butanone	ug/m ³	500
2-Hexanone	ug/m ³	NA
4-Ethyltoluene	ug/m ³	NA
4-Methyl-2-pentanone	ug/m ³	200
Acetone	ug/m ³	500
Benzene	ug/m ³	3.3
Benzyl chloride	ug/m ³	NA
Bromodichloromethane	ug/m ³	0.46
Bromoform	ug/m ³	7.3
Bromomethane	ug/m ³	NA
Carbon disulfide	ug/m ³	NA
Carbon tetrachloride	ug/m ³	0.54
Chlorobenzene	ug/m ³	200
Chloroethane	ug/m ³	500
Chloroform	ug/m ³	0.5
Chlormethane	ug/m ³	80
cis-1,2-Dichloroethene	ug/m ³	100
cis-1,3-Dichloropropene	ug/m ³	NA
Cyclohexane	ug/m ³	NA
Dibromochloromethane	ug/m ³	NA
Dichlorodifluoromethane	ug/m ³	500
Ethanol	ug/m ³	NA
Ethyl acetate	ug/m ³	3.8
Ethylbenzene	ug/m ³	290
Hexachlorobutadiene	ug/m ³	NA
Hexane	ug/m ³	NA
Isopropyl alcohol	ug/m ³	NA
m,p-Xylene	ug/m ³	NA
Methyl methacrylate	ug/m ³	NA
Methylene chloride	ug/m ³	17
Methyl-t-butyl ether	ug/m ³	190
Naphthalene	ug/m ³	NA
n-Heptane	ug/m ³	NA
o-Xylene	ug/m ³	NA
Propylene (Propene)	ug/m ³	NA
Styrene	ug/m ³	290
Tetrachloroethene	ug/m ³	5
Tetrahydrofuran	ug/m ³	NA
Toluene	ug/m ³	500
trans-1,2-Dichloroethene	ug/m ³	200
trans-1,3-Dichloropropene	ug/m ³	NA
Trichloroethene	ug/m ³	1
Trichlorofluoromethane	ug/m ³	500
Trichlorotrifluoroethane	ug/m ³	NA
Vinyl acetate	ug/m ³	NA
Vinyl chloride	ug/m ³	1.9
		0.077 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, 4/5/2021
Checked By: MM, 4/5/2021



Appendix D2

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

Appendix D2.
Summary of Analytical Results - Small 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	EW-6-031513	EW-6-060713		
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	3/15/2013	6/7/2013		
Analyte	Units																									
1,1,1,2-Tetrachloroethane	ug/m3																									
1,1,1-Trichloroethane	ug/m3	69000	32000	21000	16000	16000	5600	8200	5700	5400	1100	430	390	130	0.55 U	80	230	33	0.27 U	75	0.55 U	0.55 U	0.55 U	0.55 U	4.3	
1,1,2,2-Tetrachloroethane	ug/m3	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 U	6.9 U	14 U	3.4 U	0.34 U	0.69 U						
1,1,2-Trichloroethane	ug/m3	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 U	0.55 U	5.5 U	11 U	2.7 U	0.27 U	0.55 U	0.55 U	0.55 U	0.55 U		
1,1-Dichloroethane	ug/m3	5200	2500	2100	2200	1600	780	1200	1100	930	580	47	38	21	0.4 U	12	27	6.4	0.2 U	9.6	0.4 U	0.4 U	0.4 U	0.4 U	0.78	
1,1-Dichloroethene	ug/m3	850	210	100	110	55	74	87	83	80	6.4	3.5	4 U	0.4 U	4 U	7.9 U	2 U	0.2 U	0.84	0.4 U						
1,2,4-Trichlorobenzene	ug/m3	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 U	0.74 U	7.4 U	30 U	7.4 U	1.5 U							
1,2,4-Trimethylbenzene	ug/m3	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	2.5 U	5 U	0.49 U	0.49 U	4.9 U	9.8 U	2.5 U	0.49 U	0.26 J	0.6	0.49 U	0.49 U		
1,2-Dibromoethane (EDB)	ug/m3	7.6 U	7.6 U	7.6 U	7.6 U	76 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	7.6 U	0.77 U	0.77 U	7.7 U	15 U	3.8 U	0.38 U	0.77 U						
1,2-Dichlorobenzene	ug/m3	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	3 U	3 U	6 U	0.6 U	6 U	12 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U		
1,2-Dichloroethane	ug/m3	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	2 U	2 U	4 U	0.4 U	4 U	8.1 U	2 U	0.2 U	0.4 U						
1,2-Dichloropropane	ug/m3	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	2.3 U	4.6 U	0.46 U	4.6 U	9.2 U	2.3 U	0.23 U	0.46 U							
1,2-Dichlorotetrafluoroethane	ug/m3	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	3.5 U	7 U													
1,3,5-Trimethylbenzene	ug/m3	5 U	5 U	5 U	7.3	5 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	0.49 U	0.49 U	4.9 U	9.8 U	2.5 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U		
1,3-Butadiene	ug/m3	2.2 U	2.2 U	2.2 U	2.2 U	22 U	1.1 U	1.1 U	2.3 U	1.1 U	1.1 U	2.2 U	0.22 U	0.22 U	2.2 U	4.4 U	1.1 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U			
1,3-Dichlorobenzene	ug/m3	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	3 U	3 U	6 U	0.6 U	6 U	12 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U			
1,4-Dichlorobenzene	ug/m3	6 U	6 U	6 U	6 U	6 U	60 U	3 U	3 U	3 U	3 U	3 U	3 U	6 U	0.6 U	6 U	12 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U			
1,4-Dioxane	ug/m3																									
2-Butanone	ug/m3	120	280	300	130	97	160	37	65	8.7	23	1800	110	20	1.9 B	59 U	240 J	13 J	2.1 J	200	3.7 J	12 J	1.9 J	120		
2-Hexanone	ug/m3	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	2 U	2 U	4 U	0.41 U	0.41 U	82 U	8.2 U	2 U	0.41 U	0.7	0.52	0.41 U	0.41 U		
4-Ethyltoluene	ug/m3	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	2.5 U	5 U	0.49 U	0.49 U	4.9 U	9.8 U	2.5 U	0.49 U	0.28 J	0.49 U	0.49 U	0.49 U		
4-Methyl-2-pentanone	ug/m3	4 U	4 U	4 U	4 U	4 U	40 U	2 U	2 U	2 U	2 U	2 U	2 U	4 U	0.41 U	0.41 U	4.1 U	8.2 U	2 U	0.41 U	0.35 J	0.41 U	0.41 U	0.41 U		
Acetone	ug/m3	580	64	81	33	22	410	16	20	4.8 U	27	490	70	15 B	15 B	48 U	190 J	21 J	9.9	36	25 B	9.5 J	6.3 J	42		
Benzene	ug/m3	5.2	5.2	4.1	3.2 U	3.2 U	32 U	1.7	1.6 U	3.2 U	0.92	1.1	3.2 U	6.4 J	1.6 U	0.31 J	1.2	0.77	0.32	0.4	0.32 U					
Benzyl chloride	ug/m3	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	2.6 U	5.2 U	0.52 U	5.2 U	10 U	2.6 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U		
Bromodichloromethane	ug/m3	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	3.3 U	6.6 U	0.67 U	6.7 U	13 U	3.4 U	0.34 U	0.67 U	0.67 U	0.67 U	0.67 U			
Bromoform	ug/m3	11 U	11 U	11 U	11 U	11 U	110 U	5.1 U	11 U	1 U	10 U	21 U	5.2 U	1 U	1 U	1 U	1 U	1 U	1 U							
Brom																										

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

Area:		Extraction Well - Center Small Retail Space																				Extraction Well - Eastern Small				
Location:		EW-6																				EW-5				
Sample ID:		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-6-020819	EW-6-090619	EW-6-021420	EW-6-09020	EW-6-030821	EW-5-020309	EW-5-021109		
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	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	2/3/2009	2/11/2009		
Analyte	Units																									
1,1,2-Tetrachloroethane	ug/m3	0.44 U	1.2 U	1.2 U	1.2 U	2.5 U	1.2 U	1.2 U	2.5 U						1.2 U	2.5 U	2.5 U	2.5 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U		
1,1,1-Trichloroethane	ug/m3	71	18	13	26	58	19	14	13	5.9	27	10	180	4	3.9	2.6	27	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	190000	41000	
1,1,2,2-Tetrachloroethane	ug/m3	0.24 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	1.4 U	1.4 U	1.4 U	1.4 U	6.9 U	0.69 U	1.4 U	1.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	6.8 U	6.8 U		
1,1,2-Trichloroethane	ug/m3	0.19 U	0.55 U	0.55 U	0.55 U	1.1 U	0.55 U	0.55 U	1.1 U	1.1 U	1.1 U	1.1 U	5.5 U	0.55 U	1.1 U	1.1 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	5.4 U	5.4 U		
1,1-Dichloroethane	ug/m3	13	2.7	2.2	4.7	8.2	3.5	2.8	2.5	1.1	3.1	1.7	24	0.88	0.58 J	0.45 J	4.1	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	11000	1900	
1,1-Dichloroethene	ug/m3	1.1	0.4 U	0.4 U	0.4 U	0.52	0.4 U	0.4 U	0.79 U	0.79 U	0.79 U	0.79 U	4 U	0.4 U	0.79 U	0.79 U	1.1	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2500	290	
1,2,4-Trichlorobenzene	ug/m3	0.26 U	0.74 U	0.74 U	0.74 U	1.5 U	0.74 U	0.74 U	1.5 U	1.5 U	1.5 U	1.5 U	7.4 U	0.74 U	1.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	7.4 U	7.4 U		
1,2,4-Trimethylbenzene	ug/m3	0.59	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.2 J	0.24 J	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.49 U	0.49 U	5 U	5 U							
1,2-Dibromoethane (EDB)	ug/m3	0.27 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	1.5 U	1.5 U	1.5 U	1.5 U	7.7 U	0.77 U	1.5 U	1.5 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	7.6 U	7.6 U		
1,2-Dichlorobenzene	ug/m3	0.21 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 U	0.6 U	0.6 U	6 U	6 U						
1,2-Dichloroethane	ug/m3	0.14 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.81 U	0.81 U	0.81 U	0.81 U	4 U	0.4 U	0.81 U	0.81 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	4 U	4 U		
1,2-Dichloropropane	ug/m3	0.16 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	0.92 U	0.46 U	0.92 U	4.6 U	0.46 U	0.92 U	0.92 U	0.46 U	0.46 U	4.6 U	4.6 U						
1,2-Dichlorotetrafluoroethane	ug/m3												1.4 U		7 U									7 U	7 U	
1,3,5-Trimethylbenzene	ug/m3	0.3	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.49 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.49 U	0.49 U	5 U	5 U								
1,3-Butadiene	ug/m3	0.078 U	0.22 U	0.22 U	0.22 U	0.44 U	0.22 U	0.22 U	0.44 U	0.44 U	2.2 U	0.22 U	0.44 U	0.44 U	0.22 U	0.22 U	2.2 U	2.2 U								
1,3-Dichlorobenzene	ug/m3	0.21 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 U	1.5 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	6 U	
1,4-Dichlorobenzene	ug/m3	0.21 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 U	1.6 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	6 U	
1,4-Dioxane	ug/m3												7.2 U		36 U											
2-Butanone	ug/m3	95	4 J	4 J	6.8 J	11 J	5.2 J	11 J	13	7 J	2.2 J	6.1 J	79 J	3.1 J	120	57	160	6.4 J	17	6.1 J	10 J	6.3 J	6.3	89		
2-Hexanone	ug/m3	0.38	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.32 J	0.18 J	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	4 U							
4-Ethyltoluene	ug/m3	0.17 U	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.49 U	0.12 J	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.49 U	0.49 U	5 U								
4-Methyl-2-pentanone	ug/m3	0.14 U	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.13 J	0.41 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 U	0.41 U	0.41 U	4 U									
Acetone	ug/m3	35	17	16	27	36	35	39	35	44	17 J	33	210	25	26	17 J	42	33	38	26	63	32	530	32		
Benzene	ug/m3	1.2	0.42	0.96	0.73	1.1	0.7	0.65	0.56	0.56 J	0.64 U	0.64 U	9.6	1.3	0.46 J	0.58 J	0.91	2.5	1.2	0.69	1.9	1.6	1.3	12		
Benzyl chloride	ug/m3	0.18 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	1 U	1 U	1 U	1 U	5.2 U	0.52 U	1 U	1 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	5.2 U			
Bromodichloromethane																										

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

Area:		Extraction Well - Eastern Small Retail Space																								
Location:		EW-5																								
Sample ID:		EW-5-021809	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	EW-5-090613		
Sample Date:		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	12/7/2010	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		
Analyte	Units																									
1,1,1,2-Tetrachloroethane	ug/m ³																									
1,1,1-Trichloroethane	ug/m ³	17000	7100	1800	2600	3100	1900	3500	920	540	550	460	210	400	340	430	130	81	100	190	0.55 U	0.55 U	59	180		
1,1,2,2-Tetrachloroethane	ug/m ³	6.8 U	6.8 U	1.7 U	68 U	3.4 U	3.4 U	3.4 U	6.8 U	3.4 U	6.8 U	1.4 U	1.4 U	6.9 U	14 U	3.4 U	3.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.32 U		
1,1,2-Trichloroethane	ug/m ³	5.4 U	5.4 U	1.4 U	54 U	2.7 U	2.7 U	2.7 U	5.4 U	2.7 U	5.4 U	1.1 U	1.1 U	5.5 U	11 U	2.7 U	2.7 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.26 U		
1,1-Dichloroethane	ug/m ³	890	770	190	360	450	430	230	100	50	53	42	29	34	33	44	16	11	12	21	0.4 U	0.4 U	6.4	20		
1,1-Dichloroethene	ug/m ³	130	190	61	160	160	160	98	30	18	21	15	13	15	11	14	5	4.5	4.5	6.9	0.4 U	0.4 U	1.7	4.7		
1,2,4-Trichlorobenzene	ug/m ³	7.4 U	7.4 U	1.9 U	74 U	3.7 U	3.7 U	3.7 U	7.5 U	15 U	3.7 U	7.4 U	1.5 U	1.5 U	7.4 U	30 U	7.4 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.35 U	
1,2,4-Trimethylbenzene	ug/m ³	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.2 J	0.63	0.49 U	0.37					
1,2-Dibromoethane (EDB)	ug/m ³	7.6 U	7.6 U	1.9 U	76 U	3.8 U	3.8 U	3.8 U	7.6 U	3.8 U	7.6 U	1.5 U	1.5 U	7.7 U	15 U	3.8 U	3.8 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.36 U		
1,2-Dichlorobenzene	ug/m ³	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 U	1.2 U	6 U	12 U	3 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.28 U		
1,2-Dichloroethane	ug/m ³	4 U	4 U	1 U	40 U	2 U	2 U	2 U	4 U	2 U	4 U	0.81 U	0.81 U	4 U	8.1 U	2 U	2 U	0.17 J	0.4 U	0.19 U						
1,2-Dichloropropane	ug/m ³	4.6 U	4.6 U	1.2 U	46 U	2.3 U	2.3 U	2.3 U	4.6 U	2.3 U	4.6 U	0.92 U	0.92 U	4.6 U	9.2 U	2.3 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.22 U		
1,2-Dichlorotetrafluoroethane	ug/m ³	7 U	7 U	1.8 U	70 U	3.5 U	3.5 U	3.5 U	7 U	3.5 U	7 U															
1,3,5-Trimethylbenzene	ug/m ³	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.19 J	0.49 U	0.23 U						
1,3-Butadiene	ug/m ³	2.2 U	2.2 U	0.55 U	22 U	1.1 U	1.1 U	2.3 U	1.1 U	2.2 U	1.1 U	2.2 U	0.44 U	0.44 U	2.2 U	4.4 U	1.1 U	2.2 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.1 U	
1,3-Dichlorobenzene	ug/m ³	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 U	1.2 U	6 U	12 U	3 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.28 U		
1,4-Dichlorobenzene	ug/m ³	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 U	1.2 U	6 U	12 U	3 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.28 U		
1,4-Dioxane	ug/m ³																									
2-Butanone	ug/m ³	75	170	3700	64000	100000	230000	110000	7800	18000	28000	15000	4000	7200 B	17000	13000	2700	1800	870	840	12 J	1.7 J	1900	31000		
2-Hexanone	ug/m ³	4 U	4 U	1 U	40 U	2.7	2 U	2 U	4 U	2 U	4 U	0.82 U	0.82 U	82 U	8.2 U	2 U	4.1 U	0.43	0.41 U	0.49						
4-Ethyltoluene	ug/m ³	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.18 J	0.49 U	0.23 U						
4-Methyl-2-pentanone	ug/m ³	4 U	4 U	1 U	40 U	2 U	2 U	2 U	4 U	2 U	4 U	0.82 U	0.82 U	4.1 U	8.2 U	2 U	4.1 U	0.27 J	0.34 J	0.41 U	0.41 U	0.41 U	0.41 U	0.56		
Acetone	ug/m ³	52	29	460	5600	14000	6900	9200	1700	3200	6000	4500	2000 B	1800 B	2200 B	3400	710	400	440	670 B	9.5	8.5 J	610	6800		
Benzene	ug/m ³	6.2	4.8	5.6	32 U	11	7.1	11	6.3	5.5	8.2	5	4.2	4.5	4.2	6.4 J	2.8	2 J	1.1	3.7	0.32	0.47	1	7.1		
Benzyl chloride	ug/m ³	5.2 U	5.2 U	1.3 U	52 U	2.6 U	2.6 U	2.6 U	5.2 U	2.6 U	5.2 U	1 U	1 U	5.2 U	10 U	2.6 U	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.24 U		
Bromodichloromethane	ug/m ³	6.6 U	6.6 U	1.7 U	66 U	3.3 U	3.3 U	3.3 U	6.6 U	3.3 U	6.6 U	1.3 U														

Appendix D2.
Summary of Analytical Results - Small 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-5-121313	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-5-020819	EW-5-090619	EW-5-021420	EW-5-0902020	EW-5-030821	EW-7-020309	EW-7-021109	EW-7-021809		
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	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	2/3/2009	2/11/2009	2/18/2009		
Analyte	Units																									
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	1.2 U	1.2 U	2.5 U	1.2 U	1.2 U	1.2 U	2.5 U																	
1,1,1-Trichloroethane	ug/m3	40	68	54	74	25	14	0.19 J	55	32	15	68	7.4	42	17	49	11	40	11	73	11	5600	8500	7800		
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	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 U	1.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	
1,1,2-Trichloroethane	ug/m3	0.55 U	0.55 U	0.55 U	1.1 U	0.55 U	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 U	1.1 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	
1,1-Dichloroethane	ug/m3	4.8	7	7.4	9.3	4.2	2.9	0.4 U	6.9	4.4	2.8	7.5	1.8	6.2	2.3 J	5.9	0.4 U	4.9	1.7	0.4 U	1.6	1700	1800	1600		
1,1-Dichloroethene	ug/m3	1.5	1.8	2	2.4	1	0.9	0.4 U	1.5 J	1.1	0.84	4 U	0.4	1.3	4 U	1.3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	14	15	8.5		
1,2,4-Trichlorobenzene	ug/m3	0.74 U	0.74 U	0.74 U	1.5 U	0.74 U	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 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	
1,2,4-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	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 U	0.98 U	1.4	0.49 U	0.49 U	0.49 U	0.49 U	5 U	1 U	1.3 U		
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	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 U	1.5 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	7.6 U	1.6 U	1.9 U		
1,2-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.6 U	3 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	6 U	1.2 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	1.2 U	1.5 U		
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	2 U	0.81 U	0.81 U	4 U	0.4 U	0.81 U	4 U	0.81 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	4 U	0.8 U	1 U		
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	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 U	0.92 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	4.6 U	0.92 U	1.2 U		
1,2-Dichlorotetrafluoroethane	ug/m3									1.4 U		7 U											7 U	1.4 U	1.8 U	
1,3,5-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	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 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	5 U	1 U	1.3 U		
1,3-Butadiene	ug/m3	0.22 U	0.22 U	0.22 U	0.44 U	0.22 U	0.22 U	1.1 U	0.44 U	0.44 U	2.2 U	0.44 U	2.2 U	0.42 J	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.44 U	0.55 U					
1,3-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.6 U	3 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	6 U	1.2 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	1.2 U	1.5 U		
1,4-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.6 U	3 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	6 U	1.2 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	1.2 U	1.5 U		
1,4-Dioxane	ug/m3											7.2 U		36 U												
2-Butanone	ug/m3	680	1200	2100	3800	260	91	9.1 J	1700 E	410	130	4800	29	4500	750	5500	110	7300	160	12 U	130	8.7	12	7.3		
2-Hexanone	ug/m3	0.41 U	0.53	0.41 U	0.82 U	0.41 U	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 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.82 U	4 U	0.8 U	1 U	
4-Ethyltoluene	ug/m3	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	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 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	5 U	1 U	1.3 U		
4-Methyl-2-pentanone	ug/m3	0.41 U	0.41 U	0.46	0.82 U	0.41 U	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 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	4 U	0.8 U	1 U		
Acetone	ug/m3	210	380	610	500	98	49	21	550	120	58	570	11	700	320	710	47	1700	66	15	640	580	38	58		
Benzene	ug/m3	2.4	3.8	3	2.7	3.4	3.1	0.35	2.9	5	2.8	4	0.38	2.7	2 J	3.1	3.6	2.5	1.6	0.32 U	3	3.2 U	3.9	4.5		
Benzyl chloride	ug/m3	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	2.6 U	1 U	1 U	5.2 U	1 U	5.2 U	1 U	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	5.2 U			

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

Area:		Extraction Well - Western Small Retail Space																									
Location:		EW-7																									
Sample ID:		EW-7-022609	EW-7-030609	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-7-201711	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:		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	9/6/2013	10/3/2013			
Analyte	Units																										
1,1,2-Tetrachloroethane	ug/m ³																										
1,1,1-Trichloroethane	ug/m ³	8200	8100	1600	3600	2600	1400	340	51	250	290	160	110	5.5 U	110	66	11	47	95	0.55 U	3.1	15	76	52			
1,1,2,2-Tetrachloroethane	ug/m ³	1.7 U	1.7 U	6.8 U	3.4 U	3.4 U	3.4 U	0.68 U	0.68 U	0.68 U	0.69 U	0.69 U	6.9 U	1.4 U	0.69 U	3.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.24 U	0.69 U			
1,1,2-Trichloroethane	ug/m ³	1.4 U	1.4 U	5.4 U	2.7 U	2.7 U	2.7 U	0.54 U	0.54 U	0.54 U	0.55 U	0.55 U	5.5 U	1.1 U	0.55 U	2.7 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.19 U	0.55 U			
1,1-Dichloroethane	ug/m ³	2100	1700	590	1000	1100	970	470	85	320	340	220	150	45	150	80	6.4	42	100	0.4 U	2	7	51	25			
1,1-Dichloroethene	ug/m ³	9.4	6.6	4 U	4.2	4.2	4.5	2 U	0.4 U	0.81	0.94	0.63	0.4 U	4 U	0.79 J	0.13 J	2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U	0.4 U		
1,2,4-Trichlorobenzene	ug/m ³	1.9 U	1.9 U	7.4 U	3.7 U	3.7 U	7.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	7.4 U	3 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U	1.5 U			
1,2,4-Trimethylbenzene	ug/m ³	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	2.5	0.5 U	0.5 U	0.49 U	0.49 U	4.9 U	0.98 J	0.32 J	4.9 U	0.32 J	0.97	0.49	0.3 J	0.49 U	0.5	0.77				
1,2-Dibromoethane (EDB)	ug/m ³	1.9 U	1.9 U	7.6 U	3.8 U	3.8 U	3.8 U	0.76 U	0.76 U	0.76 U	0.77 U	0.77 U	7.7 U	1.5 U	0.77 U	3.8 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.27 U	0.77 U			
1,2-Dichlorobenzene	ug/m ³	1.5 U	1.5 U	6 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U		
1,2-Dichloroethane	ug/m ³	1 U	1 U	4 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	4 U	0.81 U	0.4 U	2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U	0.4 U		
1,2-Dichloropropane	ug/m ³	1.2 U	1.2 U	4.6 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	4.6 U	0.92 U	0.46 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U		
1,2-Dichlorotetrafluoroethane	ug/m ³	1.8 U	1.8 U	7 U	3.5 U	3.5 U	3.5 U	0.7 U																			
1,3,5-Trimethylbenzene	ug/m ³	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	1.1	0.5 U	0.5 U	0.49 U	0.49 U	4.9 U	0.98 U	0.49 U	4.9 U	0.49 U	0.5	0.49 U	0.24	0.32 J						
1,3-Butadiene	ug/m ³	0.55 U	0.55 U	2.2 U	1.1 U	1.1 U	2.3 U	1.1 U	0.22 U	0.22 U	0.22 U	0.22 U	2.2 U	0.44 U	0.22 U	2.2 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.078 U	0.22 U		
1,3-Dichlorobenzene	ug/m ³	1.5 U	1.5 U	6 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U		
1,4-Dichlorobenzene	ug/m ³	1.5 U	1.5 U	6 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U		
1,4-Dioxane	ug/m ³																										
2-Butanone	ug/m ³	8.5	5.5	4.5	7.1	16	4.9	3.5	31	3.8	1.8	4.1	5.3 B	59 U	24 J	6.2 J	100 J	14	3.6 J	12	210	99	12	8.5 J			
2-Hexanone	ug/m ³	1 U	1 U	4 U	2 U	2 U	2 U	0.4 U	1	0.4 U	0.41 U	0.41 U	82 U	0.82 J	0.14 J	4.1 U	0.28 J	0.64	0.41 U	0.39 J	0.41 U	0.51	0.41 U				
4-Ethyltoluene	ug/m ³	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.49 U	0.49 U	4.9 U	0.98 U	0.49 U	4.9 U	0.49 U	0.21 J	0.49 U	0.17 U	0.27 J							
4-Methyl-2-pentanone	ug/m ³	1 U	1 U	4 U	2 U	2 U	2 U	0.4 U	0.4 U	0.41 U	0.41 U	4.1 U	0.82 U	0.13 J	4.1 U	1.6	0.31 J	0.41	0.41 U								
Acetone	ug/m ³	30	24	15	24	24	7.9	49	26	25	12	42 B	35 B	48 U	23	12	46 J	31	17 B	9.5	55	28	24	35			
Benzene	ug/m ³	1.9	2.3	3.2 U	2.6	2.8	3	2.2	1.5	1.7	2.1	1.4	1.6	3.2 U	2.5	1.6	3.2 U	1.5	1.2	0.32	0.54	0.61	1.9	1.9			
Benzyl chloride	ug/m ³	1.3 U	1.3 U	5.2 U	2.6 U	2.6 U	2.6 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	5.2 U	1 U	0.52 U	5.2 U	0.52 U	0.52 U	0.52 U								

Appendix D2.
Summary of Analytical Results - Small 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	EW-7-020819	EW-7-090619	EW-7-021420	EW-7-0902020	EW-7-030821	
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	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	
Analyte	Units																					
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	1.2 U	1.2 U	2.5 U	1.2 U	1.2 U	1.2 U	2.5 U		2.5 U		1.2 U	2.5 U	2.5 U	2.5 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
1,1,1-Trichloroethane	ug/m3	41	30	15	52	6.1	25	14	63	40	1.1 U	160	30	1.2	20	7.9	8.7	8.3	9.4	8.7	42	
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	0.69 U	0.69 U	0.69 U	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 U	1.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	
1,1,2-Trichloroethane	ug/m3	0.55 U	0.55 U	0.55 U	1.1 U	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 U	1.1 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	
1,1-Dichloroethane	ug/m3	12	6.9	5.4	20	1.8	4.9	3.7	16	6.5	0.81 U	30	6.3	0.81 U	2.2	1.3	0.4 U	1.3	0.81	0.4 U	2.7	
1,1-Dichloroethene	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.79 U	0.79 U	4 U	0.4 U	0.79 U	0.79 U	0.79 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	
1,2,4-Trichlorobenzene	ug/m3	0.74 U	0.74 U	0.74 U	1.5 U	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 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U	
1,2,4-Trimethylbenzene	ug/m3	0.58	0.49 U	0.49 U	0.98 U	0.49 U	1.4	0.44 J	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.98 U	0.49 U	0.49 U					
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	0.77 U	0.77 U	0.77 U	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 U	1.5 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	
1,2-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	1.2 U	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 U	1.2 U	0.6 U	0.6 U					
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.16 J	0.81 U	0.81 U	4 U	0.4 U	0.81 U	0.81 U	0.81 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	0.92 U	0.92 U	0.46 U	0.46 U					
1,2-Dichlorotetrafluoroethane	ug/m3								1.4 U		7 U											
1,3,5-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.69	0.23 J	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.98 U	0.49 U	0.49 U					
1,3-Butadiene	ug/m3	0.22 U	0.22 U	0.22 U	0.44 U	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 U	0.42 J	0.22 U	0.22 U					
1,3-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	1.2 U	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 U	1.2 U	0.6 U	0.6 U					
1,4-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	0.6 U	0.17 J	1.2 U	1.2 U	6 U	0.6 U	1.2 U	1.2 U	1.2 U	0.6 U	0.6 U					
1,4-Dioxane	ug/m3									7.2 U		36 U										
2-Butanone	ug/m3	5.9 J	3.8 J	9.3 J	7.2 J	35	9.7 J	8.3 J	5 J	4.6 J	67	35 J	6 J	180	17 J	21 J	12 U	22	32	18	21	
2-Hexanone	ug/m3	0.41 U	0.41 U	0.49	0.82 U	0.41 U	1	0.38 J	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U					
4-Ethyltoluene	ug/m3	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U	0.33 J	0.12 J	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.98 U	0.49 U	0.49 U					
4-Methyl-2-pentanone	ug/m3	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.46	0.41 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U					
Acetone	ug/m3	14	6.9 J	19	18 J	9.4 J	13	7.4 J	8.2 J	19 U	29	81 J	25	51	10 J	23	21	17	26	15	11	
Benzene	ug/m3	0.86	1.3	1.1	0.59 J	0.49	2.1	2.3	2.3	1.3	1.2	3.2 U	0.44	0.42 J	0.74	1.6	2.1	1.4	1	0.32 U	1.2	
Benzyl chloride	ug/m3	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	1 U	1 U	1 U	5.2 U	0.52 U	1 U	1 U	1 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	
Bromodichloromethane	ug/m3	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	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 U	1 J	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	
Bromoform	ug/m3	1 U	1 U	1 U	2.1 U	1 U	1 U	2.1 U	2.1 U	2.1 U	10 U	1 U	2.1 U	2.1 U	2.1 U	1 U	1 U	1 U	1 U	1 U	1 U	
Bromomethane	ug/m3	0.39 U	0.39 U	0.39 U	0.78 U	0.39 U	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 U	0.78 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	
Carbon disulfide	ug/m3	4.6	7.4	12	6.2 U	3.7	10	16	6.2 U	6.2 U	6.2 U	31 U	3.1 U	1.9 J	17	47	30 J	47	25	3.1 U	3.1 U	
Carbon tetrachloride	ug/m3	0.63 U	0.63 U	0.63 U	0.63 U	0.36 J	0.21 J	0.33 J	0.38 J	1												



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												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/m ³	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/m ³	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	0.24	0.27 U												
1,1,2,2-Tetrachloroethane	ug/m ³	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	0.34 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/m ³	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	0.27 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/m ³	430	0.182	0.321	0.233	0.224	0.218	0.235	0.71	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	0.2 U	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/m ³	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																	
1,2,4-Trichlorobenzene	ug/m ³	NA							0.37 U	0.37 U	0.37 U	0.37 U	0.37 U																			
1,2,4-Trimethylbenzene	ug/m ³	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	0.18 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/m ³	0.038	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	0.38 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/m ³	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	0.21 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			
1,2-Dichloroethane	ug/m ³	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	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	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/m ³	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	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	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/m ³	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	0.35 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/m ³	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	0.25 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/m ³	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	0.11 U	0.11 U	0.11 U															
1,3-Dichlorobenzene	ug/m ³	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	0.21 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			
1,4-Dichlorobenzene	ug/m ³	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	0.21 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			
1,4-Dioxane	ug/m ³	NA																														
2-Butanone	ug/m ³	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/m ³	NA								0.2 U	0.2 U	0.6	0.42	0.2 U	0.23	0.2 U	0.14 U	0.48</td														

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/m ³	1.1																							
1,1,1-Trichloroethane	ug/m ³	500	0.3	0.88	0.27 U	1.2	0.33	0.27 U	0.27 U	0.27 U	0.27 U	0.12 J	0.082 U	0.16 U	0.19 U	0.11 J	0.19 U	0.2							
1,1,2,2-Tetrachloroethane	ug/m ³	0.14	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.1 U																	
1,1,2-Trichloroethane	ug/m ³	12	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.16 U																	
1,1-Dichloroethane	ug/m ³	430	0.2 U	0.12 U	0.061 U	0.12 U	0.14 U	0.061 U																	
1,1-Dichloroethene	ug/m ³	20	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.059 U																	
1,2,4-Trichlorobenzene	ug/m ³	NA	0.37 U	0.37 U	0.75 U	0.37 U	0.74 U	0.45 U	0.45 U	0.52 U	0.52 U	0.26 U	0.22 U												
1,2,4-Trimethylbenzene	ug/m ³	52	0.25 U	0.25 U	0.25 U	0.25 U	0.4	0.43	0.56	0.25 U	0.25 U	0.25 J	0.1 J	0.15 U	0.16	0.55	0.17 U	0.17 U	0.21	0.32	0.17 U	0.52	0.25	0.14 J	
1,2-Dibromoethane (EDB)	ug/m ³	0.038	0.38 U	0.23 U	0.12 U	0.27 U	0.12 U																		
1,2-Dichloroethene	ug/m ³	410	0.3 U	0.18 U	0.18 U	0.21 U	0.18 U																		
1,2-Dichloroethane	ug/m ³	0.31	0.2 U	0.056 J	0.061 U	0.12 U	0.14 U	0.061 U																	
1,2-Dichloropropane	ug/m ³	0.42	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.069 U																	
1,2-Dichlortetrafluoroethane	ug/m ³	NA	0.35 U																						
1,3,5-Trimethylbenzene	ug/m ³	52	0.25 U	0.25 J	0.044 J	0.15 U	0.059 J	0.32	0.17 U	0.16 J	0.17 U	0.068 J													
1,3-Butadiene	ug/m ³	NA	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U	0.066 U	0.066 U	0.078 U	0.55	0.078 U	0.066 U												
1,3-Dichlorobenzene	ug/m ³	410	0.3 U	0.18 U	0.18 U	0.21 U	0.18 U																		
1,4-Dichlorobenzene	ug/m ³	24	0.3 U	0.18 U	0.18 U	0.21 U	0.18 U																		
1,4-Dioxane	ug/m ³	NA																							
2-Butanone	ug/m ³	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 J	1.2 J	1.4 J	3 J	4.1 J	0.64 J	2.9 J	2 J	0.92 J	1.6 J	3.1 J	2.8 J
2-Hexanone	ug/m ³	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	0.26	0.12 U	0.28	0.14 U	0.14 U	0.38	0.27	0.14 U	0.3	0.45	0.25
4-Ethyltoluene	ug/m ³	NA	0.25 U	0.15 U	0.15 U	0.071 J	0.19	0.17 U	0.15 U																
4-Isopropyltoluene	ug/m ³	370																							
4-Methyl-2-pentanone	ug/m ³	200	0.22	0.2 U	0.2 U	0.2 U	0.28	0.35	0.35	0.2 U	0.2 U	0.23	0.39	0.13	0.093 J	0.26	0.14 U	0.14 U	0.24	0.52	0.14 U	0.23	0.49	0.33	
Acetone	ug/m ³	500	7.3	8.5	7	6.5	18	11	12 B	15 B	11 B	18	8	6	12	16 B	3.3	5	21	35	19	13	23	13	
Acrylonitrile	ug/m ³	NA																							
Benzene	ug/m ³	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	0.34	0.19	0.67	0.11	0.72	0.28	0.75	0.54	2.3</td		

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

Area:		Large Retail Space																				IA-2									
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-1-020819	IA-1-090619	IA-1-021420	IA-1-09092020	IA-1-030821	IA-2	IA-2-020309	IA-2-021109	IA-2-021809	IA-2-022609	IA-2-041409	IA-2-042409							
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	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	4/14/2009	4/24/2009							
Analyte	Units	CT IACTIND 2003																													
1,1,1,2-Tetrachloroethane	ug/m ³	1.1	0.44 U	0.44 U	0.44 U	0.44 U		0.44 U	0.37 U																						
1,1,1-Trichloroethane	ug/m ³	500	0.16 J	0.05 J	0.19 U	0.28	0.19 U	0.16 U	9.9	0.63	1.1	1.1	0.44	1.4	2.1																
1,1,2,2-Tetrachloroethane	ug/m ³	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	0.24 U	0.24 U	0.24 U	0.24 U	0.21 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U									
1,1,2-Trichloroethane	ug/m ³	12	0.19 U	0.19 U	0.19 U	0.065 J	0.19 U	0.16 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/m ³	430	0.14 U	0.14 U	0.082 J	0.14 U	0.12 U	0.72	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/m ³	20	0.14 U	0.14 U	0.078 J	0.14 U	0.12 U	0.41	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/m ³	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	0.22 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.26 U								
1,2,4-Trimethylbenzene	ug/m ³	52	0.17 U	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	0.57	0.29	0.17 U	0.2	0.15 U	0.25 U	0.37	0.7	0.65	0.3	0.18 U	0.25 U						
1,2-Dibromoethane (EDB)	ug/m ³	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	0.27 U	0.27 U	0.27 U	0.27 U	0.23 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/m ³	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	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.21 U							
1,2-Dichloroethane	ug/m ³	0.31	0.14 U	0.14 U	0.06 J	0.099 J	0.14 U	0.12 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/m ³	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	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.14 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/m ³	NA																													
1,3,5-Trimethylbenzene	ug/m ³	52	0.17 U	0.041 J	0.069 J	0.059 J	0.17 U	0.11 J	0.17 U	0.17 U	0.062 J	0.15 U	0.25 U	0.25	0.25	0.25	0.25	0.25	0.25	0.25											
1,3-Butadiene	ug/m ³	NA	0.078 U	0.048 J	0.078 U	0.13	0.16	0.078 U	0.077 U	0.066 U	0.11 U	0.11 U	0.3	0.66	0.11 U	0.08 U	0.11 U														
1,3-Dichlorobenzene	ug/m ³	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	0.21 U	0.21 U	0.21 U	0.21 U	0.18 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/m ³	24	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.21 U							
1,4-Dioxane	ug/m ³	NA																													
2-Butanone	ug/m ³	500	0.84 J	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	0.88 J	0.73 J	1.1 J	2 J	2 J	21	4.1	4.6	3	2.9	0.95	1.6						
2-Hexanone	ug/m ³	NA	0.14 U	0.3	0.14 U	0.14 U	0.16	0.14 U	0.14 U	0.32	0.44	0.14 U	0.14 U	0.14 U	0.14 U	0.29 U	0.25 U	0.2 U	0.2 U	0.35	0.26	0.2 U	0.2 U	0.14 U	0.2 U						
4-Ethyltoluene	ug/m ³	NA	0.17 U	0.045 J	0.17 U	0.055 J	0.17 U	0.15 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/m ³ </td																														

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-2-091709	IA-2-092409	IA-2-100109	IA-2-100809	IA-2-012810	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	
Sample Date:	9/17/2009	9/24/2009	10/1/2009	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			
Analyte	Units	CT IACTIND 2003																								
1,1,1,2-Tetrachloroethane	ug/m ³	1.1																								
1,1,1-Trichloroethane	ug/m ³	500	0.27 U	0.27 U	0.27 U	0.44	0.73	0.27 U	0.27 U	1	0.27 U	0.28	0.27 U	0.13 J	0.082 U	0.16 U	0.08 J	0.19 U	0.19 U							
1,1,2,2-Tetrachloroethane	ug/m ³	0.14	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.24 U	0.24 U																	
1,1,2-Trichloroethane	ug/m ³	12	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U																	
1,1-Dichloroethane	ug/m ³	430	0.2 U	0.12 U	0.061 U	0.12 U	0.043 J	0.14 U	0.14 U																	
1,1-Dichloroethene	ug/m ³	20	0.2 U	0.12 U	0.059 U	0.12 U	0.045 J	0.14 U	0.14 U																	
1,2,4-Trichlorobenzene	ug/m ³	NA	0.37 U	0.75 U	0.37 U	0.74 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U															
1,2,4-Trimethylbenzene	ug/m ³	52	0.29	0.39	0.27	0.52	0.55	0.25 U	0.25 U	0.31	0.35	0.48	0.52	0.25 U	0.25 J	0.088 J	0.15 U	0.19	0.48	0.17						
1,2-Dibromoethane (EDB)	ug/m ³	0.038	0.38 U	0.23 U	0.27 U																					
1,2-Dichlorobenzene	ug/m ³	410	0.3 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U																		
1,2-Dichloroethane	ug/m ³	0.31	0.2 U	0.063 J	0.061 U	0.051 J	0.08 J	0.14	0.14 U																	
1,2-Dichloropropane	ug/m ³	0.42	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.11 J																	
1,2-Dichlorotetrafluoroethane	ug/m ³	NA	0.35 U																							
1,3,5-Trimethylbenzene	ug/m ³	52	0.25 U	0.25 U	0.25 U	0.25 U	0.59	0.25 U	0.25 J	0.15 U	0.15 U	0.08 J	0.26	0.17	0.17 U											
1,3-Butadiene	ug/m ³	NA	0.23 U	0.11 U	0.23 U	0.11 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U															
1,3-Dichlorobenzene	ug/m ³	410	0.3 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U																		
1,4-Dichlorobenzene	ug/m ³	24	0.3 U	0.34	0.3 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U																
1,4-Dioxane	ug/m ³	NA																								
2-Butanone	ug/m ³	500	1.1	2.3	0.81	1	2.1	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 J	0.84 J	1.4 J	2.8 J	4.1	2.4 J	
2-Hexanone	ug/m ³	NA	0.25	0.54	0.2 U	0.26	0.51	0.2 U	0.2 U	0.2 U	0.26	0.84	0.68	0.2 U	0.24	4.1 U	0.5	0.12 U	0.16	0.15	0.32	0.14	0.22			
4-Ethyltoluene	ug/m ³	NA	0.25 U	0.15 U	0.15 U	0.086 J	0.19	0.17	0.17 U																	
4-Isopropyltoluene	ug/m ³	370																								
4-Methyl-2-pentanone	ug/m ³	200	0.2 U	0.39	0.2 U	0.24	0.1 J	0.11 J	0.12 J	0.19	0.14	0.14 U														
Acetone	ug/m ³	500	6.2	17	11	8.8	17	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	5.4	14	17 B	3.3	46	
Acrylonitrile	ug/m ³	NA																								
Benzene	ug/m ³	3.3	0.41	0.47	0.39	0.54	1.2	0.86	0.67	0.16 U	0															

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-2-060713	IA-2-090613	IA-2-121313	IA-2-030714	IA-2-061314	IA-2-091214	IA-2-121914	IA-02-032715	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-2-020819	IA-2-041119	IA-2-090619	IA-2-021420	IA-2-090920	IA-2-102920		
Sample Date:		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	2/8/2019	4/11/2019	9/6/2019	2/14/2020	9/9/2020	10/29/2020		
Analyte	Units	CT IACTIND 2003																								
1,1,1,2-Tetrachloroethane	ug/m ³	1.1	0.44 U	0.44 U	0.44 U	0.44 U	0.25 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/m ³	500	0.19 U	0.19 U	0.19 U	0.19 U	0.055 U	0.16 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	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/m ³	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.069 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/m ³	12	0.19 U	0.19 U	0.19 U	0.19 U	0.11 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/m ³	430	0.14 U	0.14 U	0.14 U	0.14 U	0.04 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/m ³	20	0.14 U	0.14 U	0.14 U	0.14 U	0.15	0.04 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/m ³	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.15 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/m ³	52	0.43	0.2	0.17 U	0.57	0.27	0.2	0.17 U	0.25	0.23	0.17 U	0.48	0.27	0.21	0.17 U	0.17	0.42	0.17 U	0.62	0.17 U	0.31	0.17 U	0.17 U	0.17 U	0.62
1,2-Dibromoethane (EDB)	ug/m ³	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.077 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-Dichloroethene	ug/m ³	410	0.21 U	0.21 U	0.21 U	0.21 U	0.12 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/m ³	0.31	0.14 U	0.14 U	0.14 U	0.14 U	0.04	0.14 U	0.065 J	0.051 J	0.14 U	0.14 U														
1,2-Dichloropropane	ug/m ³	0.42	0.16 U	0.16 U	0.16 U	0.16 U	0.046 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-Dichlortetrafluoroethane	ug/m ³	NA																								
1,3,5-Trimethylbenzene	ug/m ³	52	0.17 U	0.17 U	0.17 U	0.17 J	0.17 U	0.059 J	0.17 U	0.079 J	0.069 J	0.17 U	0.17 U													
1,3-Butadiene	ug/m ³	NA	0.078 U	0.078 U	0.078 U	0.44	0.11	0.044 U	0.078 U	0.078 U	0.15	0.2	0.078 U	0.078 U	0.087	0.078 U	0.078 U	0.07 J	0.078 U	0.077 U	0.077 U					
1,3-Dichlorobenzene	ug/m ³	410	0.21 U	0.21 U	0.21 U	0.21 U	0.12 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/m ³	24	0.21 U	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.21 U	0.063 J	0.097 J	0.21 U	0.21 U													
1,4-Dioxane	ug/m ³	NA																								
2-Butanone	ug/m ³	500	4.2	2.1 J	1.2 J	1.8 J	1.6 J	4.9	0.92 J	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	2.5 J	0.78 J	0.68 J	1.3 J	4.1 U	4.1 U	
2-Hexanone	ug/m ³	NA	0.51	0.41	0.14 U	0.39	0.14 U	0.16	0.14 U	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	0.29 U	0.29 U					
4-Ethyltoluene	ug/m ³	NA	0.17 U	0.17 U	0.17 U	0.18	0.17 U	0.049 J	0.17 U	0.072 J	0.17 U	0.17 U														
4-Isopropyltoluene	ug/m ³	370																								
4-Methyl-2-pentanone	ug/m ³	200	0.54	0.46	0.18	0.57	1.1	1.3	0.14 U	0.84	0.9	1.2	1.1	0.39	1.4	0.14 U	2	0.73	1.6	0.91	0.14 U	0.47</td				

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-2-030821	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	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-3-21711		
Sample Date:		3/8/2021	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	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		
Analyte	Units	CT IACTIND 2003																								
1,1,1,2-Tetrachloroethane	ug/m ³	1.1	0.37 U																							
1,1,1-Trichloroethane	ug/m ³	500	0.16 U	9.8	0.57	1.1	1.1	0.28	1.5	2.2	0.27 U	0.27 U	0.27 U	0.45	0.71	0.29	0.86	0.27 U	1.2	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1,2,2-Tetrachloroethane	ug/m ³	0.14	0.21 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U																	
1,1,2-Trichloroethane	ug/m ³	12	0.16 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U																	
1,1-Dichloroethane	ug/m ³	430	0.12 U	0.68	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	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/m ³	20	0.12 U	0.35	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/m ³	NA	0.22 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.75 U	0.37 U	0.37 U														
1,2,4-Trimethylbenzene	ug/m ³	52	0.15 U	0.25 U	0.36	0.68	0.61	0.25 U	0.18 U	0.25 U	0.29	0.4	0.25 U	0.39	0.44	0.25 U	0.25 U	0.25 U	0.25 U	0.26	0.34	0.46	0.6	0.25 U	0.49	
1,2-Dibromoethane (EDB)	ug/m ³	0.038	0.23 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/m ³	410	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	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/m ³	0.31	0.12 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/m ³	0.42	0.14 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U																	
1,2-Dichlorotetrafluoroethane	ug/m ³	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U																	
1,3,5-Trimethylbenzene	ug/m ³	52	0.15 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U																
1,3-Butadiene	ug/m ³	NA	0.066 U	0.11 U	0.11 U	0.3	0.77	0.11 U	0.08 U	0.11 U	0.23 U	0.11 U	0.11 U													
1,3-Dichlorobenzene	ug/m ³	410	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	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/m ³	24	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	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/m ³	NA																								
2-Butanone	ug/m ³	500	0.77 J	20	4.2	4.6	4	1.7	1.6	2.5	2	2.6	0.7	1.5	1.9	2	1.2	1.6	0.51	1	2.2	3.3	0.95	0.39	0.76 B	
2-Hexanone	ug/m ³	NA	0.25 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	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-Ethyltoluene	ug/m ³	NA	0.15 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U																	
4-Isopropyltoluene	ug/m ³	370																								
4-Methyl-2-pentanone	ug/m ³	200	0.12 U	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	0.2 U											
Acetone	ug/m ³	500	4.8	18	12	17	24	9.7	7.5	50	11	19	6.7	11	14	21	6.7	7.3	3.8	7.7	15	21	11	9.7 B	9.7 B	
Acrylonitrile	ug/m ³ </																									

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

Area: Location:		Large Retail Space																								
		IA-3																								
Sample ID:		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	IA-3-061314	IA-3-091214	IA-3-121914	IA-3-032715	IA-3-061115	IA-3-091615	IA-3-121815	IA-3-021816	IA-3-080516	IA-3-021017	IA-3-090717		
Sample Date:		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	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		
Analyte	Units	CT IACTIND 2003																								
1,1,1,2-Tetrachloroethane	ug/m3	1.1		0.62 U		0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.46	0.44 U	0.44 U	0.44 U	0.25 U	0.44 U										
1,1,1-Trichloroethane	ug/m3	500	0.27 U	0.27 U	0.11 J	0.082 U	0.16 U	0.19 U																		
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.069 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	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.11 U	0.19 U																
1,1-Dichloroethane	ug/m3	430	0.2 U	0.2 U	0.061 U	0.12 U	0.14 U	0.04 U	0.14 U																	
1,1-Dichloroethene	ug/m3	20	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.04 U	0.14 U																
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.74 U	0.45 U	0.45 U	0.52 U	0.52 U	0.26 U	0.15 U	0.26 U															
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.25 J	0.071 J	0.1 J	0.19	0.47	0.17 U	0.076 J	0.26	0.33	0.17 U	0.53	0.23	0.32	0.12 J	0.12 J	0.13 J	0.13 J	0.17 U	0.17 U	0.26	0.17 U	0.21	
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.077 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	0.3 U	0.3 U	0.18 U	0.18 U	0.21 U	0.12 U	0.21 U																	
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.056 J	0.061 U	0.051 J	0.14 U	0.032 J	0.14 U	0.14 U	0.057 J	0.14 U	0.14 U												
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.046 U	0.16 U	0.16 U	0.066 J	0.17 U	0.17 U												
1,2-Dichlorotetrafluoroethane	ug/m3	NA																								
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.25 J	0.15 U	0.15 U	0.074 J	0.22	0.17 U	0.069 J	0.17 U	0.038 J	0.079 J	0.041 J	0.17 U	0.17 U	0.17 U									
1,3-Butadiene	ug/m3	NA	0.11 U	0.11 U	0.066 U	0.066 U	0.078 U	0.055	0.078 U	0.044 U	0.078 U	0.045 J	0.078 U	0.062 J	0.17	0.078 U	0.078 U	0.078 U								
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.18 U	0.18 U	0.21 U	0.12 U	0.21 U																	
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.18 U	0.18 U	0.059 J	0.21 U	0.12 U	0.21 U	0.21 U	0.068 J	0.21 U	0.21 U												
1,4-Dioxane	ug/m3	NA																								
2-Butanone	ug/m3	500	2.9 U	5.9 J	1.2 J	0.45 J	2.4 J	2.7 J	4.1 J	2.2 J	2 J	2.9 J	0.66 J	1.1 J	1.5 J	2.1 J	1.1 J	1.4 J	1.5 J	0.96 J	0.99 J	0.8 J	2.3 J	0.62 J	2.5 J	
2-Hexanone	ug/m3	NA	4.1 U	0.24	0.093 J	0.12 U	0.33	0.22	0.14 U	0.32	0.28	0.31	0.14 U	0.14 U	0.21	0.14 U	0.27	0.14	0.14 U	0.47	0.14 U	0.31				
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.15 U	0.15 U	0.074 J	0.15 J	0.17 U	0.051 J	0.17 U	0.086 J	0.045 J	0.066 J	0.17 U	0.17 U	0.17 U									
4-Isopropyltoluene	ug/m3	370																								
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.084 J	0.12 U	0.19	0.21	0.14 U	0.14 U	0.19	0.36	0.14 U	0.17	0.35	0.26	0.27	0.15	0.13 J	0.14 U	0.24	0.14 U	0.14 U	0.14 U	0.14 U	0.39
Acetone	ug/m3	500	11 B	13	7.2	3.9	13	12 B	3.3	12	28	16	14	11	15	42	29	11	10	15	9.9	8.5	19	4.9	14	
Acrylonitrile	ug/m3	NA																								
Benzene	ug/m3	3.3	0.29	0.3	0.39	0.35	0.23	0.66	0.11	0.75	0.23	0.75	0.54	2.4	0.41	0.29	0.5	0.5	0.28	0.43	1.1	0.55	0.62	0.43	0.5	
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.16 U	0.16 U	0.18 U	0.052 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								
Bromodichloromethane	ug/m3	0.46	0.34 U	0.34 U	0.2 U	0.1 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.067 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	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.21 U	0.36 U																
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.12 U	0.12 U	0.31	0.14 U	0.14 U	0.14																

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 conc.

Prepared By: AKN, 4/5/2021
Checked By: MM, 4/5/2021

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-3-022818	IA-3-091218	IA-3-020819	IA-3-090619	IA-3-021420	IA-3-0902020	IA-3-030821	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	IA-4-100809	IA-4-012810	IA-4-020510	IA-4-021210	IA-4-021910	IA-4-032610			
Sample Date:		2/28/2018	9/12/2018	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	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	2/5/2010	2/12/2010	2/19/2010	3/26/2010			
Analyte	Units	CT IACTIND 2003																									
1,1,1,2-Tetrachloroethane	ug/m ³	1.1	0.44 U	0.37 U																							
1,1,1-Trichloroethane	ug/m ³	500	0.19 U	0.19 U	0.49	0.19 U	0.19 U	0.16 U	10	0.62	1.1	1.1	0.45	1.5	2.2	0.27 U	0.29	0.89	0.27 U								
1,1,2,2-Tetrachloroethane	ug/m ³	0.14	0.24 U	0.21 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/m ³	12	0.19 U	0.19 U	0.55	0.19 U	0.19 U	0.16 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U												
1,1-Dichloroethane	ug/m ³	430	0.14 U	0.12 U	0.73	0.2 U	0.2 U	0.31	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U					
1,1-Dichloroethene	ug/m ³	20	0.14 U	0.12 U	0.42	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					
1,2,4-Trichlorobenzene	ug/m ³	NA	0.26 U	0.26 U	0.52 U	0.26 U	0.26 U	0.22 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U												
1,2,4-Trimethylbenzene	ug/m ³	52	0.17 U	0.17 U	0.39	0.17 U	0.17 U	0.15 U	0.26	0.37	0.74	0.65	0.29	0.18 U	0.25 U	0.25 U	0.41	0.28	0.41	0.25 U	0.25 U	0.25 U	0.25 U				
1,2-Dibromoethane (EDB)	ug/m ³	0.038	0.27 U	0.27 U	0.72	0.27 U	0.27 U	0.23 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/m ³	410	0.21 U	0.21 U	0.84 U	0.21 U	0.21 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	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/m ³	0.31	0.14 U	0.057 J	0.14 U	0.14 U	0.14 U	0.12 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	
1,2-Dichloropropane	ug/m ³	0.42	0.16 U	0.16 U	1.3	0.16 U	0.16 U	0.14 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U												
1,2-Dichlortetrafluoroethane	ug/m ³	NA							0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U												
1,3,5-Trimethylbenzene	ug/m ³	52	0.17 U	0.32	0.17 U	0.17 U	0.17 U	0.15 U	0.25	0.25	0.25	0.25	0.18 U	0.25 U	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
1,3-Butadiene	ug/m ³	NA	0.078 U	0.066 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														
1,3-Dichlorobenzene	ug/m ³	410	0.21 U	0.21 U	0.58 J	0.21 U	0.21 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	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/m ³	24	0.21 U	0.21 U	0.62 J	0.21 U	0.21 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	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/m ³	NA																									
2-Butanone	ug/m ³	500	1.2 J	2 J	2.7 J	1.2 J	0.71 J	4.1 U	3.1 J	21	4.4	6	3.2	2.5	1.1	1.6	1.5	2	1.3	1.2	0.3 U	0.69	1.2	0.5	1.6		
2-Hexanone	ug/m ³	NA	0.28	0.14 U	0.14 U	0.14 U	0.14 U	0.29 U	0.25 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	0.27	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
4-Ethyltoluene	ug/m ³	NA	0.17 U	0.11 J	0.17 U	0.4	0.17 U	0.15 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U												
4-Isopropyltoluene	ug/m ³	370																									
4-Methyl-2-pentanone	ug/m ³	200	0.086 J	0.47	0.14 U	0.87	0.14 U	0.14 U	0.12 U	0.2 U	0.2 U	0.43	0.28	0.2 U	0.14 U	0.2 U	0.2 U	0.32	0.2 U	0.2 U	0.2 U</td						

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-4-043010	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	IA-4-030714	IA-4-061314	IA-4-091214	IA-4-121914	IA-04-032715	IA-4-061115					
Sample Date:		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	12/19/2014	3/27/2015	6/11/2015					
Analyte	Units	CT IACTIND 2003																											
1,1,1,2-Tetrachloroethane	ug/m3	1.1								0.62 U		0.37 U	0.37 U	0.44 U	0.25 U	0.44 U	0.44 U												
1,1,1-Trichloroethane	ug/m3	500	1.1	0.28	0.27 U	0.14 J	0.082 U	0.16 U	0.19 U	0.055 U	0.28	0.19 U	0.19 U																
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.21 U	0.1 U	0.21 U	0.24 U	0.069 U	0.24 U	0.24 U	0.24 U																		
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.11 U	0.19 U	0.19 U	0.19 U																		
1,1-Dichloroethane	ug/m3	430	0.2 U	0.12 U	0.061 U	0.12 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U																		
1,1-Dichloroethene	ug/m3	20	0.2 U	0.059 U	0.12 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U																			
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.74 U	0.45 U	0.45 U	0.52 U	0.52 U	0.26 U	0.15 U	0.26 U	0.26 U	0.26 U																
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.34	0.41	0.44	0.25 U	0.49	0.25 U	0.25 J	0.094 J	0.15 U	0.19	0.38	0.17	0.13 J	0.47	0.2	0.17 U	0.56	0.26	0.17	0.14 J	0.25	0.2				
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.077 U	0.27 U	0.27 U	0.27 U																		
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.18 U	0.18	0.18 U	0.21 U	0.21 U	0.21 U																				
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.063 U	0.061 U	0.12 U	0.14 U	0.04 U	0.14 U	0.14 U	0.051 J																		
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.046 U	0.16 U	0.16 U	0.16 U																		
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.35 U																										
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.25 J	0.15 U	0.15 U	0.08 J	0.12 J	0.17	0.17 U	0.098 U	0.17 U	0.066 J	0.066 J															
1,3-Butadiene	ug/m3	NA	0.23 U	0.11 U	0.066 U	0.066 U	0.078 U	0.47	0.11	0.044 U	0.078 U	0.078 U	0.078 U																
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U																			
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.12 U	0.08 J	0.063 J	0.12 J	0.12 J	0.12 J																
1,4-Dioxane	ug/m3	NA																											
2-Butanone	ug/m3	500	1.5	2.2	4.8	2.4	0.96	1 B	2.9 U	5.9 J	1 J	1.5 J	0.97 J	2.3 J	4.1	2.3 J	3.9 J	0.95 J	1.2 J	1.1 J	2.9 J	4.6	1.1 J	1.9 J	1.9 J	1.9 J	1.9 J		
2-Hexanone	ug/m3	NA	0.39	0.54	1	0.59	0.2 U	0.2 U	0.21 J	0.35	0.086 J	0.32	0.098 J	0.18	0.14	0.25	0.51	0.14 U	0.14 U	0.15	0.36	0.2	0.14 U	0.25	0.14 U	0.14 U	0.14 U	0.14 U	
4-Ethyltoluene	ug/m3	NA	0.25 U	0.15 U	0.15 U	0.068 J	0.12 J	0.17	0.17 U	0.098 U	0.055 J	0.069 J	0.041 J																
4-Isopropyltoluene	ug/m3	370																											
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.43	0.45	0.2 U	0.2 U	0.2 U	0.2 J	0.098 J	0.15	0.13	0.14 U	0.14	0.28	0.56	0.47	0.16	0.48	1.3	1	0.34	0.89	0.97				
Acetone	ug/m3	500	8.7	15	31	19	13 B	12 B	12 B	15	7.4	6.8	9.1	12 B	3.3	44	36	18	29	29	37	38	27	42	28				
Acrylonitrile	ug/m3	NA																											
Benzene	ug/m3	3.3	0.64	0.48	0.47	0.66	0.49	1.4	0.31	0.3	0.38	0.35	0.23	0.64	0.11	0.82	0.55	0.47	0.56	2.2	0.68	0.39	0.47	0.69	0.36				
Benzyl chloride	ug/m3	NA	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.052 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U															
Bromodichloromethane	ug/m3	0.46	0.33 U	0.34 U	0.34 U	0.34 U	0.2 U	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.067 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U							
Bromoform	ug/m3	7.3	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.36 U	0.21 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U												
Bromomethane	ug/m3	NA																											

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 conc.

Prepared By: AKN, 4/5/2021
Checked By: MM, 4/5/2021

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	
Sample ID:		IA-4-091615	IA-4-121815	IA-4-021816	IA-4080516	IA-4-021017	IA-4-090717	IA-4-022818	IA-4-091218	IA-4-020819	IA-4-041119	IA-4-090619	IA-4-021420	IA-4-0902020	IA-4-10292020	IA-4-030821	LRAIR01	LRAIR02	LRAIR03	LRAIR04	LRAIR05	LRAIR06	LRAIR07	LRAIR08							
Sample Date:		9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	4/11/2019	9/6/2019	2/14/2020	9/9/2020	10/29/2020	3/8/2021	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	5/15/2009	5/15/2009	5/15/2009	5/15/2009		
Analyte	Units	CT IACTIND 2003																													
1,1,1,2-Tetrachloroethane	ug/m ³	1.1	0.44 U		0.44 U		0.44 U	0.5 U	0.44 U	0.44 U	0.44 U	0.44 U	0.37 U																		
1,1,1-Trichloroethane	ug/m ³	500	0.054 J	0.19 U	0.19 U	0.19 U	0.19 U	0.14 J	0.19 U	8	0.78	0.22 U	0.19 U	0.19 U	0.19 U	0.16 U	0.45	0.52	0.65	0.57	0.51	0.44	0.69	0.5							
1,1,2,2-Tetrachloroethane	ug/m ³	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	0.27 U	0.24 U	0.24 U	0.21 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/m ³	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	0.22 U	0.19 U	0.19 U	0.16 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/m ³	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	0.16 U	0.14 U	0.14 U	0.12 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	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/m ³	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	0.16 U	0.14 U	0.14 U	0.12 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	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/m ³	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	0.22 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/m ³	52	0.22	0.45	0.24	0.2	0.17 U	0.18	0.36	0.21	0.6	0.17 U	0.27	0.17 U	0.61	0.15 U	0.25 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		
1,2-Dibromoethane (EDB)	ug/m ³	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.66	0.27 U	0.31 U	0.27 U	0.27 U	0.23 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/m ³	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	0.21 U	0.21 U	0.21 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	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/m ³	0.31	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	0.16 U	0.14 U	0.14 U	0.12 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	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/m ³	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	0.16 U	0.16 U	0.16 U	0.16 U	0.14 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	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/m ³	NA	0.25 U	0.25 U													0.35 U	0.35 U													
1,3,5-Trimethylbenzene	ug/m ³	52	0.066 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.44	0.17 U	0.2 U	0.17 U	0.17 U	0.15 U	0.25 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/m ³	NA	0.16	0.1	0.078 U	0.078 U	0.093	0.078 U	0.078 U	0.078 U	0.078 U	0.088 U	0.078 U	0.077 U	0.066 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/m ³	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	0.21 U	0.21 U	0.21 U	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	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/m ³	24	0.084 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	0.18 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	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/m ³	NA																													
2-Butanone	ug/m ³	500	1.8 J	2.5 J	1.1 J	1.6 J	0.98 J	1.9 J	2.1 J	1.6 J	4.1 U	0.35 J	0.52 J	1.6 J	1.9 J	0.98 J	3.5 U	3.3	3.4	2.1	2.6	2	1.6	3.1	2.5						
2-Hexanone	ug/m ³	NA	0.14 U	0.22	0																										

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:		LRAIR09	LRAIR10	
Sample ID:		LRAIR09	LRAIR10	
Sample Date:		5/15/2009	5/15/2009	
Analyte	Units	CT IACTIND 2003		
1,1,1,2-Tetrachloroethane	ug/m ³	1.1		
1,1,1-Trichloroethane	ug/m ³	500	0.49	0.53
1,1,2,2-Tetrachloroethane	ug/m ³	0.14	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/m ³	12	0.27 U	0.27 U
1,1-Dichloroethane	ug/m ³	430	0.2 U	0.2 U
1,1-Dichloroethene	ug/m ³	20	0.2 U	0.2 U
1,2,4-Trichlorobenzene	ug/m ³	NA	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m ³	52	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	ug/m ³	0.038	0.38 U	0.38 U
1,2-Dichlorobenzene	ug/m ³	410	0.3 U	0.3 U
1,2-Dichloroethane	ug/m ³	0.31	0.2 U	0.2 U
1,2-Dichloropropane	ug/m ³	0.42	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	ug/m ³	NA	0.35 U	0.35 U
1,3,5-Trimethylbenzene	ug/m ³	52	0.25 U	0.25 U
1,3-Butadiene	ug/m ³	NA	0.11 U	0.11 U
1,3-Dichlorobenzene	ug/m ³	410	0.3 U	0.3 U
1,4-Dichlorobenzene	ug/m ³	24	0.3 U	0.3 U
1,4-Dioxane	ug/m ³	NA		
2-Butanone	ug/m ³	500	2.6	1.4
2-Hexanone	ug/m ³	NA	0.43	0.29
4-Ethyltoluene	ug/m ³	NA	0.25 U	0.25 U
4-Isopropyltoluene	ug/m ³	370		
4-Methyl-2-pentanone	ug/m ³	200	0.61	0.23
Acetone	ug/m ³	500	9.8	6.9
Acrylonitrile	ug/m ³	NA		
Benzene	ug/m ³	3.3	0.51	0.57
Benzyl chloride	ug/m ³	NA	0.26 U	0.26 U
Bromodichloromethane	ug/m ³	0.46	0.33 U	0.33 U
Bromoform	ug/m ³	7.3	0.51 U	0.51 U
Bromomethane	ug/m ³	NA	0.19 U	0.19 U
Carbon disulfide	ug/m ³	NA	0.16 U	0.16 U
Carbon tetrachloride	ug/m ³	0.54	0.64	0.66
Chlorobenzene	ug/m ³	200	0.23 U	0.23 U
Chloroethane	ug/m ³	500	0.13 U	0.13 U
Chloroform	ug/m ³	0.5	0.24 U	0.24 U
Chloromethane	ug/m ³	80	0.91	1.2
cis-1,2-Dichloroethene	ug/m ³	100	0.2 U	0.2 U
cis-1,3-Dichloropropene	ug/m ³	NA	0.22 U	0.22 U
Cyclohexane	ug/m ³	NA	0.17 U	0.17 U
Dibromochloromethane	ug/m ³	NA	0.43 U	0.43 U
Dichlorodifluoromethane	ug/m ³	500	2.3	2.7
Ethanol	ug/m ³	NA	44	14
Ethyl acetate	ug/m ³	NA	0.18 U	0.18 U
Ethylbenzene	ug/m ³	290	0.27	0.22 U
Hexachlorobutadiene	ug/m ³	NA	1.1 U	1.1 U
Hexane	ug/m ³	NA	0.2	0.18 U
Isopropyl alcohol	ug/m ³	NA	2.8	3.2
Isopropylbenzene	ug/m ³	120		
m,p-Xylene	ug/m ³	NA	1	0.5
Methyl methacrylate	ug/m ³	NA		
Methylene chloride	ug/m ³	17	1.6	1.4
Methyl-t-butyl ether	ug/m ³	190	0.18 U	0.18 U
Naphthalene	ug/m ³	NA		
n-Butylbenzene	ug/m ³	410		
n-Heptane	ug/m ³	NA	0.2 U	0.2 U
o-Xylene	ug/m ³	NA	0.34	0.26
Propylene (Propene)	ug/m ³	NA	0.09 U	0.09 U
sec-Butylbenzene	ug/m ³	410		
Styrene	ug/m ³	290	0.21 U	0.21 U
Tetrachloroethene	ug/m ³	5	0.46	0.46
Tetrahydrofuran	ug/m ³	NA	0.15 U	0.15 U
Toluene	ug/m ³	500	0.54	0.47
trans-1,2-Dichloroethene	ug/m ³	200	0.2 U	0.2 U
trans-1,3-Dichloropropene	ug/m ³	NA	0.22 U	0.22 U
Trichloroethene	ug/m ³	1	0.27 U	0.27 U
Trichlorofluoromethane	ug/m ³	500	1	1.4
Trichlorotrifluoroethane	ug/m ³	NA	0.62	0.58
Vinyl acetate	ug/m ³	NA	0.18 U	0.18 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, 4/5/2021
Checked By: MM, 4/5/2021

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																						
Vinyl chloride	ug/m3	1.9	0.352	0.174	0.202	0.146	0.133	0.191	0.26	0.13 U	0.22	0.21	0.13 U	0.19	0.13 U	0.1 U	0.16	0.13 U	0.13 U	0.17	0.13 U	0.1 U	0.13 U	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
Bolted and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 4/5/2021
Checked By: MM, 4/5/2021

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																							
Vinyl chloride	ug/m3	1.9	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.14	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.038 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
Bolted and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 4/5/2021
Checked By: MM, 4/5/2021

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-1-020819	IA-1-090619	IA-1-021420	IA-1-09092020	IA-1-030821	IA-2	IA-2-020309	IA-2-021109	IA-2-021809	IA-2-022609	IA-2-041409	IA-2-042409	
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	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	4/14/2009	4/24/2009	
Analyte	Units	CT IACTIND 2003																								
Vinyl chloride	ug/m3	1.9	0.09 U	0.09 U	0.09 U	0.075 J	0.09 U	0.21	0.09 U	0.09 U	0.089 U	0.077 U	0.27	0.13 U	0.18	0.2	0.13 U	0.1 U	0.18							

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

Prepared By: AKN, 4/5/2021
Checked By: MM, 4/5/2021

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-2-091709	IA-2-092409	IA-2-100109	IA-2-100809	IA-2-012810	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
Sample Date:			9/17/2009	9/24/2009	10/1/2009	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
Analyte	Units	CT IACTIND 2003																							
Vinyl chloride	ug/m3	1.9	0.13 U	0.13 U	0.16	0.13 U	0.14	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 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
Bolted and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 4/5/2021
Checked By: MM, 4/5/2021

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-2-060713	IA-2-090613	IA-2-121313	IA-2-030714	IA-2-061314	IA-2-091214	IA-2-121914	IA-02-032715	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-2-020819	IA-2-041119	IA-2-090619	IA-2-021420	IA-2-09092020	IA-2-10292020
Sample Date:			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	2/8/2019	4/11/2019	9/6/2019	2/14/2020	9/9/2020	10/29/2020
Analyte	Units	CT IACTIND 2003																							
Vinyl chloride	ug/m3	1.9	0.09 U	0.026 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	0.09 U	0.09 U	0.09 U	1	0.09 U	0.09 U	0.09 U	0.089 U	0.089 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
Bolted and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 4/5/2021
Checked By: MM, 4/5/2021

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-2-030821	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	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
Sample Date:		3/8/2021	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	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
Analyte	Units	CT IACTIND 2003																						
Vinyl chloride	ug/m3	1.9	0.077 U	0.23	0.13 U	0.19	0.21	0.13 U	0.1 U	0.17	0.13 U	0.13 U	0.18	0.13 U	0.14	0.13 U	0.13 U	0.13	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
Bolted and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 4/5/2021
Checked By: MM, 4/5/2021

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-3-060211	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	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
Sample Date:			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	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
Analyte	Units	CT IACTIND 2003																							
Vinyl chloride	ug/m3	1.9	0.13 U	0.13 U	0.077 U	0.038 U	0.077 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	0.026 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
Bolted and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 4/5/2021
Checked By: MM, 4/5/2021

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-3-022818	IA-3-091218	IA-3-020819	IA-3-090619	IA-3-021420	IA-3-09092020	IA-3-030821	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	IA-4-100809	IA-4-012810	IA-4-020510	IA-4-021210	IA-4-021910	IA-4-032610
Sample Date:			2/28/2018	9/12/2018	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	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	2/5/2010	2/12/2010	2/19/2010	3/26/2010
Analyte	Units	CT IACTIND 2003																							
Vinyl chloride	ug/m3	1.9	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.089 U	0.077 U	0.29	0.13 U	0.2	0.22	0.13 U	0.1 U	0.2	0.13 U	0.13 U	0.16	0.13 U					

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

Prepared By: AKN, 4/5/2021
Checked By: MM, 4/5/2021

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-4-043010	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	IA-4-030714	IA-4-061314	IA-4-091214	IA-4-121914	IA-04-032715	IA-4-061115
Sample Date:			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	12/19/2014	3/27/2015	6/11/2015
Analyte	Units	CT IACTIND 2003																							
Vinyl chloride	ug/m3	1.9	0.13 U	0.13 U	0.13 U	0.13 U	0.16	0.13 U	0.13 U	0.13 U	0.077 U	0.038 U	0.077 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	0.026 U	0.072 J	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
Bolted and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 4/5/2021
Checked By: MM, 4/5/2021

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						
Sample ID:		IA-4-091615	IA-4-121815	IA-4-021816	IA-4080516	IA-4-021017	IA-4-090717	IA-4-022818	IA-4-091218	IA-4-020819	IA-4-041119	IA-4-090619	IA-4-021420	IA-4-09092020	IA-4-10292020	IA-4-030821	LRAIR01	LRAIR02	LRAIR03	LRAIR04	LRAIR05	LRAIR06	LRAIR07	LRAIR08
Sample Date:		9/16/2015	12/18/2015	2/18/2016	8/5/2016	2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	4/11/2019	9/6/2019	2/14/2020	9/9/2020	10/29/2020	3/8/2021	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																						
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	0.12	0.1 U	0.09 U	0.089 U	0.089 U	0.077 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	

Notes:
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
Bolted and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 4/5/2021
Checked By: MM, 4/5/2021

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:	LRAIR09	LRAIR10	
Sample ID:	LRAIR09	LRAIR10	
Sample Date:	5/15/2009	5/15/2009	
Analyte	Units	CT IACTIND 2003	
Vinyl chloride	ug/m ³	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
Boldest and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios

Prepared By: AKN, 4/5/2021
Checked By: MM, 4/5/2021
Boldest and shaded values are above the CT target indoor air concentration for industrial/commercial scenarios



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	EW-COMBINED-052810		
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	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	2/5/2010	2/12/2010	2/19/2010	4/30/2010	5/28/2010		
Analyte	Units																										
1,1,1,2-Tetrachloroethane	ug/m3	59000	66000	26000	30000	54000	72000	11000	14000	190000	91000	73000	32000	3500	19000	11000	8100	7900	6800	1500	2500	150	1200	1400	1700		
1,1,1-Trichloroethane	ug/m3	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	6.8 U		
1,1,2,2-Tetrachloroethane	ug/m3	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	5.4 U		
1,1-Dichloroethane	ug/m3	4100	4400	5700	7000	1600	2300	690	1400	19000	7800	5300	4800	390	2200	1600	1900	1700	280	370	31	310	200	270			
1,1-Dichloroethene	ug/m3	570	1200	330	640	340	560	97	210	7800	1800	1000	630	73	420	310	250	260	52	66	7.3	62	30	40			
1,2,4-Trichlorobenzene	ug/m3	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	7.4 U		
1,2,4-Trimethylbenzene	ug/m3	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	5 U		
1,2-Dibromoethane (EDB)	ug/m3	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	7.6 U		
1,2-Dichlorobenzene	ug/m3	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	6 U		
1,2-Dichloroethane	ug/m3	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	4 U		
1,2-Dichloropropane	ug/m3	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	4.6 U		
1,2-Dichlorotetrafluoroethane	ug/m3	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	7 U		
1,3,5-Trimethylbenzene	ug/m3	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	5 U		
1,3-Butadiene	ug/m3	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	2.2 U		
1,3-Dichlorobenzene	ug/m3	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	6 U		
1,4-Dichlorobenzene	ug/m3	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	6 U		
1,4-Dioxane	ug/m3																										
2-Butanone	ug/m3	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	22		
2-Hexanone	ug/m3	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 U		
4-Ethyltoluene	ug/m3	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	5 U		
4-Methyl-2-pentanone	ug/m3	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	4 U		
Acetone	ug/m3	35	16	9.6 U	9.6 U	53	24	26	12	1600	31	75	63	4.8 U	0.24 U	20	9.6 U	20 U	20 U	31	9.6 U	13	0.96 U	16	24		
Benzene	ug/m3	5.3	11	5.6	7.8	3.2 U	6.8	1.4	3.2 U	14	7.3	8.4	6.4 U	3.2 U	2.5	2.7	3.2 U	6.4 U	6.4 U	0.61	3.2 U	0.63	0.43	0.74	5.5		
Benzyl chloride	ug/m3	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	5.2 U		
Bromodichloromethane	ug/m3	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	6.6 U		
Bromoform	ug/m3	11 U	11 U	11 U	11 U	11																					

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-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-030714	EW-Combined-061314	EW-Combined-091214	EW-Combined-121914	EW-Combined-032715	EW-Combined-061115	EW-Combined-091615	EW-Combined-121815	EW-Combined-021816	EW-Combined-080516		
Sample Date:		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	2/18/2016	8/5/2016			
Analyte	Units																											
1,1,1,2-Tetrachloroethane	ug/m3																											
1,1,1-Trichloroethane	ug/m3	2000	4700	280	2500	2400	340	1100	1800	2800	5.5	610	850	1900	1500	780	770	1300	420	500	1200	3400 E	1600	320	4000			
1,1,2,2-Tetrachloroethane	ug/m3	0.68 U	0.68 U	0.69 U	0.69 U	1.4 U	0.69 U	3.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	1.4 U	1.4 U	1.4 U	6.9 U		
1,1,2-Trichloroethane	ug/m3	0.54 U	0.55	0.55 U	0.55 U	1.1 U	0.55 U	2.7 U	0.55 U	0.26 J	0.55 U	0.55 U	0.19 U	0.55 U	0.28 J	1.1 U	1.1 U	1.1 U	5.5 U									
1,1-Dichloroethane	ug/m3	290	330	36	170	200	70	78	130	200	0.4	59	68	150	62	53	68	130	55	49	100	190	69	25	360			
1,1-Dichloroethene	ug/m3	52	81	7.3	58	44	21	34	42	15	0.4	24	38	56	24	27	40	52	14	22	46	160	21	9	160			
1,2,4-Trichlorobenzene	ug/m3	0.74 U	0.74 U	0.74 U	0.74 U	3 U	1.5 U	3800	1.5 U	1.5 U	1.5 U	0.74 U	0.26 U	0.74 U	1.5 U	1.5 U	1.5 U	7.4 U										
1,2,4-Trimethylbenzene	ug/m3	0.5 U	0.5 U	0.49 U	0.49 U	0.98 U	1.2	4.9 U	0.57	0.24 J	0.49 U	14	0.49 U	0.21	0.49 U	0.98 U	0.98 U	0.98 U	4.9 U									
1,2-Dibromoethane (EDB)	ug/m3	0.76 U	0.76 U	0.77 U	0.77 U	1.5 U	0.77 U	3.8 U	0.77 U	0.77 U	0.77 U	0.77 U	0.27 U	0.77 U	1.5 U	1.5 U	1.5 U	7.7 U										
1,2-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	7.3	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.81 U	0.4 U	2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.81 U	0.81 U	0.81 U	4 U	
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	0.46 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	0.92 U	0.92 U	0.92 U	4.6 U										
1,2-Dichlortetrafluoroethane	ug/m3	0.7 U	0.7 U																							1.4 U	7 U	
1,3,5-Trimethylbenzene	ug/m3	0.5 U	0.5 U	0.49 U	0.49 U	0.98 U	0.29 J	4.9 U	0.15 J	0.49 U	0.49 U	3.9	0.49 U	0.17 U	0.49 U	0.98 U	0.98 U	0.98 U	4.9 U									
1,3-Butadiene	ug/m3	0.22 U	0.22 U	0.22 U	0.22 U	0.44 U	0.22 U	2.2 U	0.22 U	0.22 U	0.22 U	0.22 U	0.078 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	0.44 U	0.44 U	0.44 U	2.2 U	
1,3-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	
1,4-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	1.2 U	0.6 U	6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	
1,4-Dioxane	ug/m3							0.72 U																		7.2 U	36 U	
2-Butanone	ug/m3	22	10	4.5	4.5 B	24 J	1.3 J	120 U	110	16	12 J	22	5.3 J	7.6	0.97 J	2.5 J	5.1 J	3.3 J	1.4 J	1.2 J	1.2 J	1.2 J	1.3 J	1.5 J	24 U	14 J		
2-Hexanone	ug/m3	0.4 U	0.4 U	0.41 U	0.41 U	0.82 J	0.16 J	4.1 U	0.31 J	0.41 U	0.41 U	1.4	0.41 U	0.26	0.41 U	0.82 U	0.82 U	0.82 U	4.1 U									
4-Ethyltoluene	ug/m3	0.5 U	0.5 U	0.49 U	0.49 U	0.98 U	0.27 J	4.9 U	0.49 U	0.49 U	3.4	0.49 U	0.17 U	0.49 U	0.98 U	0.98 U	0.98 U	4.9 U										
4-Methyl-2-pentanone	ug/m3	0.4 U	0.4 U	0.41 U	0.41 U	0.82 U	0.16 J	4.1 U	0.38 J	0.41 U	0.41 U	8.7	0.41 U	0.14 U	0.41 U	0.82 U	0.82 U	0.82 U	4.1 U									
Acetone	ug/m3	16	6.6	11 B	6.3 B	19 J	6.6 J	22 J	19	14 B	9.5	75	12	11	6.6 J	15	9.8	19 U	6.2 J	6.1 J	9.5 U	12 J	6.7 J	19 U	39 J			

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-021017	EW-Combined-090717	EW-Combined-022818	EW-Combined-091218	EW-Combined-020819	EW-Combined-090619	EW-Combined-021420	EW-Combined-030821	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	Post Carbon-020819	Post Carbon-090619	Post Carbon-021420	Post Carbon-09092020	Post Carbon-030821				
Sample Date:		2/10/2017	9/7/2017	2/28/2018	9/12/2018	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	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	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021			
Analyte	Units																										
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	2.5 U	2.5 U	2.5 U	1.2 U	1.2 U	1.2 U	1.2 U										1.2 U	2.5 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U		
1,1,1-Trichloroethane	ug/m3	260	530	150	690	62	670	200	470	97	1	15	45	1.9	13000	0.56	450	380	740	0.55 U	2.3	2.4	840	730			
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	1.4 U	1.4 U	1.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.34 U	1.7 U	0.68 U	0.68 U	68 U	0.34 U	0.34 U	0.69 U	1.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U			
1,1,2-Trichloroethane	ug/m3	0.55 U	1.1 U	1.1 U	1.1 U	0.55 U	0.55 U	0.55 U	0.55 U	0.27 U	1.4 U	0.54 U	0.54 U	54 U	0.27 U	0.27 U	0.55 U	1.1 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U			
1,1-Dichloroethane	ug/m3	25	67	19	73	13	45	19	29	9	0.2 U	1 U	5.4	11000	490	370	610	21	80	0.4 U	2.8	17	62	16			
1,1-Dichloroethene	ug/m3	11	24	10	27	10	24	10	27	7.4	0.2 U	1 U	0.4 U	6400	96	78	87	3.8	30	0.4 U	9.8	9.1	41	9.8			
1,2,4-Trichlorobenzene	ug/m3	0.74 U	1.5 U	1.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	0.37 U	1.9 U	0.74 U	0.74 U	74 U	0.37 U	0.37 U	0.74 U	1.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	0.74 U			
1,2,4-Trimethylbenzene	ug/m3	0.49 U	0.98 U	0.98 U	1.2	0.49 U	0.49 U	0.49 U	0.49 U	0.25 U	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U	0.49 U	0.98 U	0.49 U	8.1	0.49 U	0.49 U	0.49 U	0.49 U			
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	1.5 U	1.5 U	0.77 U	0.77 U	0.77 U	0.77 U	0.38 U	1.9 U	0.76 U	0.76 U	76 U	0.38 U	0.38 U	0.77 U	1.5 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U			
1,2-Dichlorobenzene	ug/m3	0.6 U	1.2 U	1.2 U	1.2 U	2 J	0.6 U	0.6 U	0.6 U	0.3 U	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U	0.6 U	1.2 U	2.4 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U		
1,2-Dichloroethane	ug/m3	0.4 U	0.81 U	0.81 U	0.81 U	0.4 U	0.4 U	0.4 U	0.4 U	0.2 U	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U	0.4 U	0.81 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U		
1,2-Dichloropropane	ug/m3	0.46 U	0.92 U	0.92 U	0.92 U	0.46 U	0.46 U	0.46 U	0.46 U	0.23 U	1.2 U	0.46 U	0.46 U	46 U	0.23 U	0.23 U	0.46 U	0.92 U	0.46 U	110	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U		
1,2-Dichlortetrafluoroethane	ug/m3									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	0.49 U	0.98 U	0.98 U	1.2	0.49 U	0.49 U	0.49 U	0.49 U	2.1	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U	0.49 U	0.98 U	0.49 U	2.9	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U		
1,3-Butadiene	ug/m3	0.22 U	0.44 U	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.11 U	0.55 U	0.22 U	0.22 U	22 U	0.23 U	0.23 U	0.22 U	0.44 U	0.22 U	0.22 U	0.22 U							
1,3-Dichlorobenzene	ug/m3	0.6 U	1.2 U	1.2 U	1.2 U	0.6 U	0.6 U	0.6 U	0.6 U	0.29	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U	0.6 U	1.2 U	1.4 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U		
1,4-Dichlorobenzene	ug/m3	0.6 U	1.2 U	1.2 U	1.2 U	0.6 U	0.6 U	0.6 U	0.6 U	0.3 U	1.5 U	0.6 U	0.6 U	60 U	0.3 U	0.3 U	0.6 U	1.2 U	1.5 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U		
1,4-Dioxane	ug/m3																										
2-Butanone	ug/m3	0.59 J	2.5 J	1.3 J	1.9 J	3.1 J	1.6 J	2 J	8 J	12 U	10	6.3	9.4	5.5	330	1.9	2	2.5 J	0.52 J	12 U	27	1.9 J	12 U	12 U			
2-Hexanone	ug/m3	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.82 U	0.2 U	1 U	0.4 U	0.4 U	13000	0.27	0.34	0.41 U	0.82 U	0.41 U	0.41 U	0.41 U	0.82 U	0.82 U			
4-Ethyltoluene	ug/m3	0.49 U	0.98 U	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	2.1	1.3 U	0.5 U	0.5 U	50 U	0.25 U	0.25 U	0.49 U	0.98 U	0.49 U	9.5	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U		
4-Methyl-2-pentanone	ug/m3	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	5	1 U	0.4 U	0.4 U	40 U	0.2 U	0.2 U	0.41 U	0.82 U	0.41 U	28	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U					
Acetone	ug/m3	3.7 J	8.7 J	19 U	19 U	9.4 J	4.9 J	4.9 J	12	9.5 U	1200	11	19	12	430	3.6	5.7	21	19 U	3.5 J	71	10	9.5 U	6.8 J			
Benzene	ug/m3	0.33	0.51 J	0.4 J	0.49 J	1.4	0.4	0.33	0.32 U	0.4	1.3	0.8 U	0.32 U	32 U	0.16 U	0.16 U	0.33	0.55 J	1.2	1.6	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U		
Benzyl chloride	ug/m3	0.52 U	1 U	1 U	1 U	0.52 U	0.52 U	0.52 U	0.52 U	0.26 U</																	