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April 2024

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
February 2024 Sub-Slab Soil Gas Monitoring
Retail Complex, Active Sub-Slab Depressurization System
Former Gorham Manufacturing Facility
333 Adelaide Avenue, Providence, Rhode Island
WSP Project No. 3652220351

Dear Mr. Martella:

This letter report presents the results of sub-slab soil gas sampling and analysis conducted by WSP USA, Inc. (WSP), at the retail complex located at the Former Gorham Manufacturing Facility, 333 Adelaide Avenue, Providence, Rhode Island (Site) in February 2024. This monitoring report includes the results of the semi-annual compliance vapor intrusion sampling event that was conducted on February 7 and February 20, 2024, following the completion of the major interior renovations at the retail complex.

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).

1.0 Background

The active sub-slab depressurization (ASD) system, also called a vapor mitigation system, consists of four extraction wells (EW-1 through EW-4) located in the former large retail space 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). A small mitigation system located at the far western portion of the former large retail space consists of one extraction well (EW-5) connected to an individual radon type fan that is located at the north, or rear exterior, of the building.

The former 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 (EW-6 and EW-7) in each space connected to an individual radon-type fan, located at the north, or rear exterior, of the small retail spaces.

1.1 Current Site Status

The May 2023 semi-annual compliance report documented that all units throughout the building had been vacated in March 2023 just before the sampling event (on March 17, 2023) for future interior renovations. The property owners, Paolino Properties, communicated with WSP and Textron that the retail building would be fully renovated for occupancy by one tenant. Renovations were contained to the interior of the building and construction stayed in compliance with the ELUR. The parking lot area of Parcel A was repaved. Renovations included the demolition of interior walls, removal of flooring and associated mastics from the concrete slab, painting of ceilings and walls, and installation of new lighting, HVAC equipment, bathrooms, and office spaces that includes new furniture and carpeting.

As part of the building's renovations, covers at select extraction and vacuum monitoring wells were damaged/abandoned and well piping from extraction wells associated with the ASD and radon fan vapor mitigation systems was damaged. With WSPs guidance, Paolino Properties replaced the monitoring well covers and repaired the vapor mitigation system piping in accordance with the original system installation As-Built Plans (Wood, 2019). The As-Built Plans are included as Appendix E of the March 2019 Closure Report for Parcel A, Former Gorham Manufacturing Facility. Repairs to the monitoring locations and mitigation system components were completed by January 2024.

At the time of the sample collection (on February 7 and 20, 2024), several employees belonging to the new company/ tenant were on Site unpacking boxes and completing final renovations for full occupancy and use; metal shelving filled with car parts, electronic car lifts, and several pallets were present throughout the building.

2.0 Current Monitoring Results

The following provides a discussion of results from sampling conducted on February 7 and 20, 2024. The sampling was performed consistent with the requirements of the Orders of Approval and conversations with RIDEM in January 2024. RIDEM requested that sub-slab soil gas monitoring and sampling be conducted from all viable extraction wells since the building renovations had been completed and it had been 11 months since the last sampling event. However, RIDEM concurred with WSP and Textron that due to the recent introduction of solvents and vapors from the recent renovations (that could cause a sampling bias), indoor air monitoring would not be conducted at this time.

This is the fifteenth 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 reports for the February 2024 analyses are provided in Appendix A, and the laboratory's detection limits are provided in Appendix B.

2.1 Small Retail Spaces

As depicted in Figure 1, the small retail space includes two extraction wells (EW-6 and EW-7); however, since the building renovations, interior walls have been razed, therefore, this western portion of the building will now be referred to as the former small retail space. The February 2024 sampling event included sample collection from the two vapor extraction wells within those spaces (EW-6 and EW-7). The sub-slab vacuum monitoring (pressure differential measurements) was conducted at locations VMW-6 and VMW-7 on February 7, 2024, in conjunction with the semi-annual sampling program. The vapor extraction sampling and sub-slab vacuum monitoring locations are shown in Figure 1.

At the time of sampling, this former small retail space had been recently renovated, but vacant – WSP observed dust, some cardboard boxes, and newly painted walls and ceiling. Following the receipt of the laboratory analytical data and report, WSP validated the data and concluded that all the data reported were representative.

Grab samples were collected from EW-6 and EW-7 in 6-liter Summa Canisters with 30-minute sample duration flow control for the laboratory analysis of Volatile Organic Compounds (VOCs) via USEPA Method TO-15.

Analytical results for the former small retail spaces are summarized in Table 2a (indoor air, two most recent sampling events, September 2022 and March 2023), and Table 2b (sub-slab soil gas/extraction wells, former small retail, two most recent sampling events, March 2023 and February 2024). A second sample was collected from EW-7 (sample ID: EW-7-2-020724) during the February 2024 sampling event as a result of an error observed in the field with the flow controller connection on the summa canister during the initial sample collection. The analytical data from both samples collected at EW-7 were validated; however, due to the uncertainty with the flow controller, WSP assumes the data collected from EW-7-2-020724 is more representative of the Site's sub-slab soil gas conditions.

For reference, all analytical results for the former 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 (sub-slab soil gas/extraction wells, small retail). The vacuum monitoring results for the former small retail spaces are presented in Table 3. Based on the analytical data, the mitigation systems appear to be functioning correctly, as no significant changes were readily observed.

The following conclusions are based on site observations and the February 2024 analytical results:

- The analytical data reported from sample locations, EW-6, and EW-7 show a significant decrease in total VOCs detected, and in particular a decrease in the contaminants of concern (COCs), specifically trichloroethene (TCE) (primarily in EW-6), tetrachloroethene (PCE), 1,1-dichloroethane and 1,1-dichloroethene, and 1,1,1-trichloroethane. WSP attributes the decrease in COCs to the elevated rainfall and precipitation amounts from December 2023 to February 2024.
 - Select VOCs not consistent with the historic data and contaminant release were detected and/or show an increase when compared to previous sampling events. The select VOCs that were detected from EW-6 and EW-7 in February 2024 include: 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, xylenes, and ethylbenzene. These VOCs are not related to the contaminant release and were most likely detected as a result of the recent building renovations.
 - 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene are commonly found in paints, degreasers, polishes, plastics, adhesives, rubber, waxes. 1,2,4-Trimethylbenzene is used in the production of construction materials such as flooring, bathroom fixtures, drywall, carpeting, and insulation.
 - Xylenes and ethylbenzene are found in solvents, coatings, rubber, paints, carpet glues, cigarettes and gasoline. During renovations, workers smoked cigarettes and generators were utilized to provide heat inside the building during the HVAC upgrades.
- Review of the analytical data and the vacuum monitoring indicates that the mitigation systems in the small retail areas were functioning correctly during the sampling event. To note, the vacuum measurement collected from VMW-7 was positive (+0.008 inches of water); however, WSP opines that this is consistent with normal fluctuations since the installation of the system (see Table 3).

2.3 Large Retail Space

The February 2024 sampling event included collection of samples from the five vapor extraction wells (EW-1 through EW-5). Since the building renovations, interior walls have been razed, therefore, this eastern and primary portion of the building will now be referred to as the former large retail space. The sub-slab vacuum monitoring (pressure differential measurements) was conducted at locations VMW-1, EW-3, EW-4, VMW-4, and VMW-5 on February 7, 2024. Due to the location of the new tenant's shelving and box storage, VMW-2 and VMW-3 could not be accessed. The vapor extraction well sampling and sub-slab vacuum monitoring locations are shown in Figure 1.

In addition, one sample of exhaust from the carbon treatment system (Post Carbon) was collected on February 20, 2024. The sampling locations are shown in Figure 1. At the time of sampling, this former large retail space had been recently renovated, but was not at full occupancy – WSP observed dust, some cardboard boxes, and newly painted walls and ceiling. Following the receipt of the laboratory analytical data and report, WSP validated the data and concluded that all the data reported were representative.

Grab samples were collected from EW-1, EW-2, EW-3, EW-4, and EW-5 in 6-liter Summa Canisters with 30-minute sample duration flow control for the laboratory analysis of VOCs via USEPA Method TO-15.

Analytical results for the large retail spaces are summarized in Table 4a ((indoor air, two most recent sampling events, September 2022 and March 2023) and Table 4b (former large retail space sub-slab soil gas/extraction wells, two most recent sampling events, March 2023 and February 2024). For reference, the analytical results for the former 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 former large retail spaces are presented in Table 5.

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

- The analytical data reported from sample locations, EW-1 through EW-5 show a significant decrease in total VOCs detected, specifically a decrease in the contaminants of concern (COCs), specifically trichloroethene (TCE), tetrachloroethene (PCE), 1,1-dichloroethane and 1,1-dichloroethene, and 1,1,1-trichloroethane. WSP attributes the decrease in COCs as a result of the elevated rainfall and precipitation amounts from December 2023 to February 2024.
- The analytical data also revealed select VOCs not consistent with the historic data and contaminant release were detected and/or show an increase when compared to previous sampling events.
 - The select VOCs that were detected in EW-1 through EW-5 include, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, xylenes, styrene, and ethylbenzene. These VOCs are not related to the contaminant release and were most likely detected as a result of the recent building renovations.
 - 1,2,4-Trimethylbenzene and 1,3,5-trimethylbenzene are commonly found in paints, degreasers, polishes, plastics, adhesives, rubber, waxes. 1,2,4-Trimethylbenzene is used in the production of construction materials such as flooring, bathroom fixtures, drywall, carpeting, and insulation.
 - Xylenes and ethylbenzene are found in solvents, coatings, rubber, paints, carpet glues, cigarettes and gasoline. During renovations, workers smoked cigarettes and generators were utilized to provide heat inside the building during the HVAC upgrades.

- Styrene is found in plastics, rubber, resins, used to make packaging, building insulation and cigarette smoke.
- Review of the analytical data and vacuum measurements indicates that the mitigation system in the large retail area was functioning correctly during the sampling event. As previously mentioned, the monitoring locations, VMW-2 and VMW-3 could not be accessed, the vacuum measurements recorded at EW-2 and EW-4 were elevated negative values of inches of water indicating a significant vacuum is present at the sub-slab.
- A sample (Post Carbon) was collected from the exhaust air of the treatment system. The concentrations of total VOCs are higher than the total VOC concentrations in the previous sampling rounds from March 2022 through March 2023. However, the result from February 2024 is lower than other historical total VOC concentrations in the post-carbon samples.

3.0 ASD System Monitoring/Maintenance

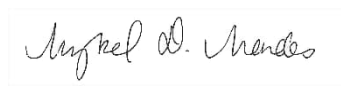
The ASD system performance is monitored monthly by Clean Harbors Environmental Services (Clean Harbors). In the summer of 2023, during the building renovations, the system was shut down as a result of the fan blower failure and replacement and installation of a new power meter. In November 2023, the system was shut down for the piping repairs as noted in section 1.0. The system was restarted in January 2024 and has been operating without issues or additional shutdowns. However, following discussions with Clean Harbors about the elevated VOC concentrations from the Post Carbon sample and the age of the current carbon being utilized (since a carbon change hasn't been conducted in several years), WSP recommends that a carbon changeout be conducted for the ASD system.

4.0 Next Reporting Period

Following submission of this report, WSP would like to request that RIDEM revise the Orders of Approval that require the semi-annual vapor intrusion monitoring at the Site. WSP requests that the monitoring frequency be updated such that sub-slab soil gas and vacuum monitoring is conducted annually and that the indoor air sampling/monitoring is no longer required because of the Site's new building occupancy and use as an electric automobile service center. The Site has a significant data set demonstrating indoor air compliance and the ASD system will continue to be operated and maintained.

Please contact Amy Fiorellino, Textron, (401-457-6009) or Mykel Mendes, WSP, (951-312-8756) if we can provide additional information or answer any questions concerning these monitoring events and system adjustments.

Sincerely,
WSP USA, Inc.



Mykel Mendes, PE
Project Manager, Senior Consultant



Jane Parkin Kullmann, PhD, CPH
Lead Consultant - Risk Assessor

Attachments:	Table 1.	Summary of Analytical Results - Outdoor Air Reference Sampling
	Table 2a.	Summary of Analytical Results – Indoor Air Sampling for Small Retail Space
	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 Reports
	Appendix B.	Analytical Laboratory Detection Limits
	Appendix C.	Outdoor Reference Sample Results
	Appendix D1.	Summary of All Analytical Results – Indoor Air Sampling for Small Retail Space
	Appendix D2.	Summary of Analytical Results – Small Extraction Wells
	Appendix E1.	Summary of All Analytical Results – Indoor Air Sampling 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 (Electronic)
A. Fiorellino, Textron, Inc. (Electronic)
G. Simpson, Textron, Inc. (Electronic)
Knight Memorial Library Repository
Shane Brackett, Paolino Properties (including tenants)

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	AA-1
Sample Date:		9/15/2022	3/17/2023
Analyte	Units		
1,1,1,2-Tetrachloroethane	ug/m3	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	0.51	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.24 U	0.24 U
1,1,2-Trichloroethane	ug/m3	0.19 U	0.19 U
1,1-Dichloroethane	ug/m3	0.14 U	0.14 U
1,1-Dichloroethene	ug/m3	0.14 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	0.26 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	0.17 U	0.15 J
1,2-Dibromoethane (EDB)	ug/m3	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	0.21 U	0.21 U
1,2-Dichloroethane	ug/m3	0.14 U	0.14 U
1,2-Dichloropropane	ug/m3	0.16 U	0.16 U
1,3,5-Trimethylbenzene	ug/m3	0.17 U	0.17 U
1,3-Butadiene	ug/m3	0.077 U	0.078 U
1,3-Dichlorobenzene	ug/m3	0.21 U	0.21 U
1,4-Dichlorobenzene	ug/m3	0.21 U	0.21 U
2-Butanone	ug/m3	1.6 J	4.1 U
2-Hexanone	ug/m3	0.14 U	0.17
4-Ethyltoluene	ug/m3	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	0.14 U	0.14 U
Acetone	ug/m3	8.3	6.7
Benzene	ug/m3	0.15	0.37
Benzyl chloride	ug/m3	0.36 U	0.18 U
Bromodichloromethane	ug/m3	0.23 U	0.24 U
Bromoform	ug/m3	0.36 U	0.36 U
Bromomethane	ug/m3	0.14 U	0.14 U
Carbon Disulfide	ug/m3	1.1 U	1.1 U
Carbon Tetrachloride	ug/m3	0.61	0.45
Chlorobenzene	ug/m3	0.16 U	0.16 U
Chloroethane	ug/m3	0.092 U	0.093 U
Chloroform	ug/m3	0.17 U	0.17 U
Chloromethane	ug/m3	1.2	0.97
cis-1,2-Dichloroethene	ug/m3	0.14 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	0.16 U	0.16 U
Cyclohexane	ug/m3	0.12 U	0.12 U
Dibromochloromethane	ug/m3	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	2.5	1.1
Ethanol	ug/m3	5.5	4.5
Ethyl Acetate	ug/m3	1.3 U	1.7
Ethylbenzene	ug/m3	0.15 U	0.15 U
Hexachlorobutadiene	ug/m3	0.37 U	0.37 U
Hexane	ug/m3	0.96 J	4.9 U
Isopropyl alcohol	ug/m3	3.4 U	3.4 U
m,p-Xylene	ug/m3	0.3 U	0.3 U
Methyl methacrylate	ug/m3	0.14 U	0.14 U
Methylene Chloride	ug/m3	1.2 U	1.2 U
Methyl-t-butyl ether	ug/m3	0.13 U	0.13 U
n-Heptane	ug/m3	0.14 U	0.14 U
o-Xylene	ug/m3	0.15 U	0.15 U
Propylene (Propene)	ug/m3	2.4 U	2.4 U
Styrene	ug/m3	0.15 U	0.15 U
Tetrachloroethene	ug/m3	0.24 U	0.24 U
Tetrahydrofuran	ug/m3	0.49 J	1 U
Toluene	ug/m3	0.29	0.23
Total VOCs	ug/m3	24.13	17.88
trans-1,2-Dichloroethene	ug/m3	0.14 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	0.16 U	0.16 U
Trichloroethene	ug/m3	0.2	0.19 U
Trichlorofluoromethane	ug/m3	1.3	1.1
Trichlorotrifluoroethane	ug/m3	0.52 J	0.44 J
Vinyl Acetate	ug/m3	2.5 U	2.5 U
Vinyl Chloride	ug/m3	0.089 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
-- Compound not analyzed.

Prepared By: AKN, 4/12/2023

Checked By: MM, 4/12/2023

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	IA-5	IA-6	IA-6	IA-7	IA-7
Sample Date:			9/15/2022	3/17/2023	9/15/2022	3/17/2023	9/15/2022	3/17/2023
Analyte	Units	CT IACTIND 2003						
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	0.19 U	5.4	0.18 J	4.6	0.21	0.44
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.15 J	0.083 J	0.17 U	0.13 J	0.099 J	0.12 J
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,3-Butadiene	ug/m3	NA	0.077 U	0.078 U	0.077 U	0.078 U	0.077 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.2 J	0.21 U	0.18 J	0.21 U	0.16 J	0.21 U
2-Butanone	ug/m3	500	1.2 J	4.1 U	1.1 J	1.1 J	2.1 J	2.2 J
2-Hexanone	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.16	0.14 U	0.24
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.14 U	0.14 U	0.089 J	0.29	0.37
Acetone	ug/m3	500	19	7.2	14	10	17	23
Benzene	ug/m3	3.3	0.25	0.52	0.23	0.53	0.18	0.56
Benzyl chloride	ug/m3	NA	0.36 U	0.18 U	0.36 U	0.18 U	0.36 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.23 U	0.24 U	0.23 U	0.24 U	0.23 U	0.24 U
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Bromomethane	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Carbon Disulfide	ug/m3	NA	1.1 U	1.1 U	0.14 J	1.1 U	1.1 U	1.1 U
Carbon Tetrachloride	ug/m3	0.54	0.48	0.35	0.51	0.46	0.53	0.45
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Chloroethane	ug/m3	500	0.092 U	0.093 U	0.092 U	0.093 U	0.092 U	0.093 U
Chloroform	ug/m3	0.5	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Chloromethane	ug/m3	80	1.2	1.1	1.1	1.1	1.1	1
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	2.6	1.2	2.5	1.1	2.5	1.1
Ethanol	ug/m3	NA	270	9.9	300	13	430	21
Ethyl Acetate	ug/m3	NA	1.9	1.3 U	1.3 U	1.3 U	1.3 U	1.2 J
Ethylbenzene	ug/m3	290	0.15 J	0.15 U	0.14 J	0.1 J	0.12 J	0.11 J
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Hexane	ug/m3	NA	2.5 J	4.9 U	1 J	4.9 U	1 J	4.9 U
Isopropyl alcohol	ug/m3	NA	5.1	2.3 J	2.6 J	1.4 J	3.4 U	1.6 J
m,p-Xylene	ug/m3	NA	0.45	0.24 J	0.4	0.27 J	0.35	0.32
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Methylene Chloride	ug/m3	17	0.79 J	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
n-Heptane	ug/m3	NA	0.29	0.13 J	0.26	0.15	0.14 U	0.14
o-Xylene	ug/m3	NA	0.24	0.11 J	0.19	0.13 J	0.15	0.14 J
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Styrene	ug/m3	290	0.15 J	0.15 U	0.16	0.15 U	0.11 J	0.15 U
Tetrachloroethene	ug/m3	5	0.42	0.38	0.31	0.41	0.24 U	0.49
Tetrahydrofuran	ug/m3	NA	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	ug/m3	500	1.2	0.54	1.3	0.6	0.6	0.71
Total VOCs	ug/m3	NA	310.23	32.443	328.14	39.039	458.249	58.64
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	ug/m3	1	0.19 U	0.34	0.19 U	0.49	0.19 U	0.23
Trichlorofluoromethane	ug/m3	500	1.5	2.2	1.4	1.8	1.3	1.5
Trichlorotrifluoroethane	ug/m3	NA	0.46 J	0.45 J	0.44 J	0.42 J	0.45 J	0.42 J
Vinyl Acetate	ug/m3	NA	2.5 U	2.5 U	2.5 U	1 J	2.5 U	1.3 J
Vinyl Chloride	ug/m3	1.9	0.089 U	0.09 U	0.089 U	0.09 U	0.089 U	0.09 U

Notes:

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

Prepared By: AKN, 4/12/2023

Checked By: MM, 4/12/2023

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

Area:		Extraction Well - Center Small		Extraction Well - Western Small Retail Space		
Location:		EW-6		EW-7		
Sample ID:		EW-6	EW-6-020724	EW-7	EW-7-020724	EW-7-2-020724
Sample Date:		3/17/2023	2/7/2024	3/17/2023	2/7/2024	2/7/2024
Analyte	Units					
1,1,1,2-Tetrachloroethane	ug/m3	37 U	--	2.5 U	--	--
1,1,1-Trichloroethane	ug/m3	19000	0.55 U	42	25	15
1,1,2,2-Tetrachloroethane	ug/m3	21 U	0.69 U	1.4 U	0.69 U	0.69 U
1,1,2-Trichloroethane	ug/m3	16 U	0.55 U	1.1 U	0.55 U	0.55 U
1,1-Dichloroethane	ug/m3	350	0.4 U	1.8	1.8	1.1
1,1-Dichloroethene	ug/m3	290	0.4 U	0.79 U	0.4 U	0.4 U
1,2,4-Trichlorobenzene	ug/m3	22 U	0.74 U	1.5 U	0.74 U	0.74 U
1,2,4-Trimethylbenzene	ug/m3	15 U	17	0.98 U	24	21
1,2-Dibromoethane (EDB)	ug/m3	23 U	0.77 U	1.5 U	0.77 U	0.77 U
1,2-Dichlorobenzene	ug/m3	18 U	0.6 U	1.2 U	0.6 U	0.6 U
1,2-Dichloroethane	ug/m3	12 U	0.4 U	0.81 U	0.4 U	0.4 U
1,2-Dichloropropane	ug/m3	14 U	0.46 U	0.92 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m ³	--	0.7 U	--	0.7 U	0.7 U
1,3,5-Trimethylbenzene	ug/m3	15 U	11	0.98 U	13	12
1,3-Butadiene	ug/m3	6.6 U	0.22 U	0.44 U	0.22 U	0.22 U
1,3-Dichlorobenzene	ug/m3	18 U	0.6 U	1.2 U	0.6 U	0.6 U
1,4-Dichlorobenzene	ug/m3	18 U	0.6 U	1.2 U	0.6 U	0.6 U
1,4-Dioxane	ug/m ³	--	3.6 U	--	3.6 U	3.6 U
2-Butanone	ug/m3	350 U	12 U	24 U	12 U	12 U
2-Hexanone	ug/m3	12 U	0.41 U	0.82 U	0.41 U	0.41 U
4-Ethyltoluene	ug/m3	15 U	1.1	0.98 U	2.7	2
4-Methyl-2-pentanone	ug/m3	12 U	0.41 U	0.82 U	0.41 U	0.41 U
Acetone	ug/m3	290 U	12	19 U	10	9.5 U
Benzene	ug/m3	9.6 U	0.51	0.87	1.1	0.95
Benzyl chloride	ug/m3	16 U	0.52 U	1 U	0.52 U	0.52 U
Bromodichloromethane	ug/m3	20 U	0.67 U	1.3 U	0.67 U	0.67 U
Bromoform	ug/m3	31 U	1 U	2.1 U	1 U	1 U
Bromomethane	ug/m3	12 U	0.39 U	0.78 U	0.39 U	0.39 U
Carbon Disulfide	ug/m3	93 U	3.1 U	14	19	3.1 U
Carbon Tetrachloride	ug/m3	19 U	0.63 U	1.3 U	0.63 U	0.63 U
Chlorobenzene	ug/m3	14 U	0.46 U	0.92 U	0.46 U	0.46 U
Chloroethane	ug/m3	7.9 U	0.3	0.53 U	0.33	0.26 U
Chloroform	ug/m3	15 U	0.6	1.9	2.5	1.5
Chloromethane	ug/m3	12 U	1.7	0.83 U	0.41 U	0.41 U
cis-1,2-Dichloroethene	ug/m3	29	0.4 U	0.79 U	0.98	0.75
cis-1,3-Dichloropropene	ug/m3	14 U	0.45 U	0.91 U	0.45 U	0.45 U
Cyclohexane	ug/m3	10 U	0.34 U	0.69 U	0.34 U	0.34 U
Dibromochloromethane	ug/m3	26 U	0.85 U	1.7 U	0.85 U	0.85 U
Dichlorodifluoromethane	ug/m3	15 U	2.9	1.9	2.4	2.4
Ethanol	ug/m3	230 U	15	9.9 J	7.5 U	14
Ethyl Acetate	ug/m3	110 U	3.6 U	7.2 U	3.6 U	3.6 U
Ethylbenzene	ug/m3	13 U	4.1	0.87 U	16	11
Hexachlorobutadiene	ug/m3	32 U	1.1 U	2.1 U	1.1 U	1.1 U
Hexane	ug/m3	420 U	14 U	28 U	14 U	14 U
Isopropyl alcohol	ug/m3	290 U	9.8 U	20 U	9.8 U	9.8 U
m,p-Xylene	ug/m3	26 U	20	1.7 U	79	48
Methyl methacrylate	ug/m3	12 U	--	0.82 U	--	--
Methylene Chloride	ug/m3	100 U	3.5 U	6.9 U	3.5 U	3.5 U
Methyl-t-butyl ether	ug/m3	11 U	0.36 U	0.72 U	0.36 U	0.36 U
Naphthalene	ug/m ³	--	0.52 U	--	0.7	0.52 U
n-Heptane	ug/m3	12 U	0.65	0.82 U	0.41 U	0.56
o-Xylene	ug/m3	13 U	13	0.87 U	30	21
Propylene (Propene)	ug/m3	210 U	6.9 U	14 U	6.9 U	6.9 U
Styrene	ug/m3	13 U	0.43 U	0.85 U	0.54	0.43 U
Tetrachloroethene	ug/m3	240	1.6	220	88	45
Tetrahydrofuran	ug/m3	88 U	2.9 U	73	140	57
Toluene	ug/m3	11 U	1.2	0.48 J	1.1	1.1
Total VOCs	ug/m3	26909	103.34	1097.7	820.55	401.86
trans-1,2-Dichloroethene	ug/m3	12 U	0.4 U	1.3	2.4	1.5
trans-1,3-Dichloropropene	ug/m3	14 U	0.45 U	0.91 U	0.45 U	0.45 U
Trichloroethene	ug/m3	5700	0.68	160	210	110
Trichlorofluoromethane	ug/m3	1300	2.2 U	570	150	36
Trichlorotrifluoroethane	ug/m3	92 U	3.1 U	6.1 U	3.1 U	3.1 U
Vinyl Acetate	ug/m3	210 U	7 U	14 U	7 U	7 U
Vinyl Chloride	ug/m3	7.7 U	0.26 U	0.55	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
 -- Compound not analyzed.

Prepared By: AKN, 2/28/2024

Checked By: MM, 2/28/2024

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
9/8/2021	-0.227	-0.392	-0.027
3/29/2022	-0.016	-0.041	-0.021
9/15/2022****	NM	NM	NM
3/17/2023	-0.035	-0.029	-0.016
2/7/2024	-0.327	-0.133	+0.008

** 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.

**** The manometer instrument was not working properly and vacuum measurements were not collected.

Prepared by/Date: MM 04/2024

Checked by/Date: JPK 04/2024

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

Area:			Large Retail Space							
Location:			IA-1		IA-2		IA-3		IA-4	
Sample ID:			IA-1	IA-1	IA-2	IA-2	IA-3	IA-3	IA-4	IA-4
Sample Date:			9/15/2022	3/17/2023	9/15/2022	3/17/2023	9/15/2022	3/17/2023	9/15/2022	3/17/2023
Analyte	Units	CT IACTIND 2003								
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.73	0.19 U	0.19 U	0.19 U	0.64	0.19 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	52	0.17 U	0.21	0.17 U	0.086 J	0.17 U	0.21	0.17 U	0.09 J
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
1,3-Butadiene	ug/m3	NA	0.077 U	0.078 U	0.077 U	0.078 U	0.077 U	0.078 U	0.077 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
2-Butanone	ug/m3	500	4.1 U	4.1 U	1.5 J	4.1 U	4.1 U	2.5 J	2 J	4.1 U
2-Hexanone	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.35	0.14 U	0.14 U
4-Ethyltoluene	ug/m3	NA	0.17 U	0.11 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	200	0.27	0.089 J	0.37	0.14 U	0.21	0.18	0.59	0.1 J
Acetone	ug/m3	500	12	8.9	10	6.6	9.3	15	11	5.8
Benzene	ug/m3	3.3	0.24	1	0.13	0.46	0.17	1.1	0.12	0.48
Benzyl chloride	ug/m3	NA	0.36 U	0.18 U	0.36 U	0.18 U	0.36 U	0.18 U	0.36 U	0.18 U
Bromodichloromethane	ug/m3	0.46	0.23 U	0.24 U	0.23 U	0.24 U	0.23 U	0.24 U	0.23 U	0.24 U
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Bromomethane	ug/m3	NA	0.095 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Carbon Disulfide	ug/m3	NA	0.14 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Carbon Tetrachloride	ug/m3	0.54	0.5	0.45	0.48	0.43	0.41	0.22 U	0.5	0.44
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Chloroethane	ug/m3	500	0.092 U	0.093 U	0.092 U	0.093 U	0.092 U	0.093 U	0.092 U	0.093 U
Chloroform	ug/m3	0.5	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Chloromethane	ug/m3	80	1.5	1	1	1	1.2	1	1	0.99
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/m3	NA	0.12 U	0.14	0.12 U	0.12 U	0.12 U	0.16	0.12 U	0.12 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	500	2.6	1.1	2.6	1.1	2.6	1.2	2.5	1.1
Ethanol	ug/m3	NA	30	12	4.9	10	16	15	9.1	9.2
Ethyl Acetate	ug/m3	NA	0.83 J	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
Ethylbenzene	ug/m3	290	0.097 J	0.21	0.15 U	0.15 U	0.15 U	0.23	0.15 U	0.15 U
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Hexane	ug/m3	NA	1.8 J	0.72 J	4.9 U	4.9 U	1.2 J	0.82 J	0.97 J	4.9 U
Isopropyl alcohol	ug/m3	NA	1.8 J	2.2 J	0.65 J	0.79 J	0.91 J	2.2 J	0.84 J	0.65 J
m,p-Xylene	ug/m3	NA	0.32	0.63	0.3 U	0.3 U	0.23 J	0.71	0.21 J	0.21 J
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Methylene Chloride	ug/m3	17	0.59 J	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
n-Heptane	ug/m3	NA	0.11 J	0.26	0.14 U	0.1 J	0.13 J	0.32	0.14 U	0.12 J
o-Xylene	ug/m3	NA	0.11 J	0.23	0.15 U	0.082 J	0.11 J	0.29	0.094 J	0.091 J
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Styrene	ug/m3	290	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Tetrachloroethene	ug/m3	5	0.24 U	0.5	0.24 U	0.42	0.24 U	0.51	0.24 U	0.46
Tetrahydrofuran	ug/m3	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	ug/m3	500	0.42	1.4	0.29	0.39	0.39	1.7	0.32	0.48
Total VOCs	ug/m3	NA	55.302	33.889	23.7	22.998	34.69	46.07	31.124	21.731
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	ug/m3	1	0.19 U	0.16 J	0.19 U	0.19 U	0.19 U	0.21	0.19 U	0.19 U
Trichlorofluoromethane	ug/m3	500	1.4	1.4	1.3	1.1	1.3	1.3	1.3	1.1
Trichlorotrifluoroethane	ug/m3	NA	0.48 J	0.45 J	0.48 J	0.44 J	0.53 J	0.44 J	0.58 J	0.42 J
Vinyl Acetate	ug/m3	NA	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl Chloride	ug/m3	1.9	0.089 U	0.09 U	0.089 U	0.09 U	0.089 U	0.09 U	0.089 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
- D - Indicates compound was detected at an estimated value.
- J - 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
- Compound not analyzed.

Prepared By: AKN, 4/12/2023

Checked By: MM, 4/12/2023

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

Area:		Extraction Well - Large Retail Space									
Location:		EW-1		EW-2		EW-3		EW-4		EW-5	
Sample ID:		EW-1-033109	EW-1-020724	EW-2-033109	EW-2-020724	EW-3-033109	EW-3-020724	EW-4-033109	EW-4-020724	EW-5	EW-5-020724
Sample Date:		3/31/2009	2/7/2024	3/31/2009	2/7/2024	3/31/2009	2/7/2024	3/31/2009	2/7/2024	3/17/2023	2/7/2024
Analyte	Units										
1,1,1,2-Tetrachloroethane	ppbv	--	--	--	--	--	--	--	--	5.5 U	--
1,1,1-Trichloroethane	ug/m3	66000	230	30000	0.98	72000	0.62	14000	0.79	3700	64
1,1,2,2-Tetrachloroethane	ug/m3	6.8 U	0.69 U	6.8 U	0.69 U	6.8 U	0.69 U	6.8 U	0.69 U	3 U	0.1 U
1,1,2-Trichloroethane	ug/m3	10	0.55 U	5.4 U	0.55 U	5.4 U	0.55 U	5.4 U	0.55 U	3 U	0.1 U
1,1-Dichloroethane	ug/m3	4400	23	7000	0.4 U	2300	0.4 U	1400	0.4 U	210	7
1,1-Dichloroethene	ug/m3	1200	4.5	640	0.4 U	560	0.4 U	210	0.4 U	110	5.8
1,2,4-Trichlorobenzene	ug/m3	7.4 U	0.74 U	7.4 U	0.74 U	7.4 U	0.74 U	7.4 U	0.74 U	3 U	0.1 U
1,2,4-Trimethylbenzene	ug/m3	5 U	10	5 U	18	5 U	15	5 U	18	3 U	0.53
1,2-Dibromoethane (EDB)	ug/m3	7.6 U	0.77 U	7.6 U	0.77 U	7.6 U	0.77 U	7.6 U	0.77 U	3 U	0.1 U
1,2-Dichlorobenzene	ug/m3	6 U	0.6 U	6 U	0.6 U	6 U	0.6 U	6 U	0.6 U	3 U	0.1 U
1,2-Dichloroethane	ug/m3	4 U	0.4 U	4 U	0.4 U	4 U	0.4 U	4 U	0.4 U	3 U	0.1 U
1,2-Dichloropropane	ug/m3	4.6 U	0.46 U	4.6 U	0.46 U	4.6 U	0.46 U	4.6 U	0.46 U	3 U	0.1 U
1,2-Dichlorotetrafluoroethane	ug/m3	7 U	0.7 U	7 U	0.7 U	7 U	0.7 U	7 U	0.7 U	--	0.1 U
1,3,5-Trimethylbenzene	ug/m3	5 U	6.3	5 U	11	5 U	8.9	5 U	11	3 U	0.27
1,3-Butadiene	ug/m3	2.2 U	0.22 U	2.2 U	0.22 U	2.2 U	0.22 U	2.2 U	0.22 U	3 U	0.1 U
1,3-Dichlorobenzene	ug/m3	6 U	0.6 U	6 U	0.6 U	6 U	0.6 U	6 U	0.6 U	3 U	0.1 U
1,4-Dichlorobenzene	ug/m3	6 U	0.6 U	6 U	0.6 U	6 U	0.6 U	6 U	0.6 U	3 U	0.1 U
1,4-Dioxane	ug/m3	--	3.6 U	--	3.6 U	--	3.6 U	--	3.6 U	--	1 U
2-Butanone	ug/m3	8.9	12 U	11	12 U	10	12 U	6.4	12 U	120 U	4 U
2-Hexanone	ug/m3	4 U	0.41 U	4 U	0.41 U	4 U	0.41 U	4 U	0.41 U	3 U	0.1 U
4-Ethyltoluene	ug/m3	5 U	0.69	5 U	9.3	5 U	1.1	5 U	0.8	3 U	0.1 U
4-Methyl-2-pentanone	ug/m3	4 U	0.41 U	4 U	0.71	4 U	0.5	4 U	0.84	3 U	0.1 U
Acetone	ug/m3	16	9.6	9.6 U	15	24	9.8	12	9.5 U	120 U	4 U
Benzene	ug/m3	11	0.61	7.8	0.62	6.8	0.59	3.2 U	0.59	3 U	0.78
Benzyl chloride	ug/m3	5.2 U	0.52 U	5.2 U	0.52 U	5.2 U	0.52 U	5.2 U	0.52 U	3 U	0.1 U
Bromodichloromethane	ug/m3	6.6 U	0.67 U	6.6 U	0.67 U	6.6 U	0.67 U	6.6 U	0.67 U	3 U	0.1 U
Bromoform	ug/m3	11 U	1 U	11 U	1 U	11 U	1 U	11 U	1 U	3 U	0.1 U
Bromomethane	ug/m3	3.8 U	0.39 U	3.8 U	0.39 U	3.8 U	0.39 U	3.8 U	0.39 U	3 U	0.1 U
Carbon disulfide	ug/m3	3.2 U	3.1 U	25	3.1 U	3.2 U	3.1 U	3.2 U	3.1 U	8.6 J	1 U
Carbon tetrachloride	ug/m3	6.2 U	0.63 U	6.2 U	0.63 U	6.2 U	0.63 U	6.2 U	0.63 U	3 U	0.1 U
Chlorobenzene	ug/m3	4.6 U	0.46 U	4.6 U	0.46 U	4.6 U	0.46 U	4.6 U	0.46 U	3 U	0.1 U
Chloroethane	ug/m3	250	0.3	590	0.26 U	44	0.26 U	33	0.26 U	3 U	0.1 U
Chloroform	ug/m3	34	0.88	15	0.49 U	23	0.49 U	7.5	0.71	3 U	0.61
Chloromethane	ug/m3	2 U	1.6	2 U	1.2	2 U	1.1	2 U	1.2	6 U	0.2 U
cis-1,2-Dichloroethene	ug/m3	2200	4.2	7600	0.76	1200	0.43	1300	0.69	5.1	2.1
cis-1,3-Dichloropropene	ug/m3	4.4 U	0.45 U	4.4 U	0.45 U	4.4 U	0.45 U	4.4 U	0.45 U	3 U	0.1 U
Cyclohexane	ug/m3	5.7	0.34 U	8.8	0.34 U	3.4 U	0.34 U	3.4 U	0.34 U	3 U	0.65
Dibromochloromethane	ug/m3	8.6 U	0.85 U	8.6 U	0.85 U	8.6 U	0.85 U	8.6 U	0.85 U	3 U	0.1 U
Dichlorodifluoromethane	ug/m3	170	2.7	5 U	3.1	7	2.9	5 U	2.9	3 U	0.47
Ethanol	ug/m3	40	60	8.3	58	1.8 U	130	1.8 U	77	120 U	7
Ethyl acetate	ug/m3	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	6.3	3.6 U	3.6 U	30 U	2.5
Ethylbenzene	ug/m3	4.4 U	2.7	4.4 U	5.5	4.4 U	4.2	4.4 U	6.9	3 U	0.38
Hexachlorobutadiene	ug/m3	22 U	1.1 U	22 U	1.1 U	22 U	1.1 U	22 U	1.1 U	3 U	0.1 U
Hexane	ug/m3	3.6 U	14 U	6.6	14 U	3.6 U	14 U	3.6 U	14 U	120 U	4 U
Isopropyl alcohol	ug/m3	2.4 U	9.8 U	2.4 U	9.8 U	5.9	9.8 U	7.1	9.8 U	120 U	4 U
m,p-Xylene	ug/m3	8.6 U	11	8.6 U	24	8.6 U	18	8.6 U	31	6 U	1.5
Methyl methacrylate	ppbv	--	--	--	--	--	--	--	--	3 U	--
Methylene chloride	ug/m3	19	3.5 U	17	3.5 U	13	3.5 U	12	3.5 U	30 U	1 U
Methyl-t-butyl ether	ug/m3	3.6 U	0.36 U	3.6 U	0.36 U	3.6 U	0.36 U	3.6 U	0.36 U	3 U	0.1 U
Naphthalene	ug/m3	--	0.52 U	--	0.52 U	--	0.52 U	--	0.52 U	--	0.1 U
n-Heptane	ug/m3	4 U	0.41 U	4 U	1.5	4 U	0.41 U	4 U	0.88	3 U	0.51
o-Xylene	ug/m3	4.4 U	6.8	4.4 U	12	4.4 U	9.5	4.4 U	14	3 U	0.68
Propylene (Propene)	ug/m3	1.8 U	6.9 U	1.8 U	6.9 U	1.8 U	6.9 U	1.8 U	6.9 U	120 U	4 U
Styrene	ug/m3	4.2 U	0.43 U	4.2 U	0.43 U	4.2 U	0.44	4.2 U	0.43 U	3 U	0.1 U
Tetrachloroethene	ug/m3	1200	22	2500	4.7	310	2.8	170	4.1	29	19
Tetrahydrofuran	ug/m3	21	2.9 U	3 U	2.9 U	14	2.9 U	5.1	2.9 U	120	31
Toluene	ug/m3	3.8 U	1.1	3.8 U	1.5	3.8 U	1.8	3.8 U	1.6	3 U	0.13
Total VOCs	ug/m3	118153.4	844.98	75417.6	170.57	96366.5	215.58	23041.1	175.2	6382.7	337.61
trans-1,2-Dichloroethene	ug/m3	23	0.4 U	180	0.4 U	8.8	0.4 U	8	0.4 U	3 U	0.1 U
trans-1,3-Dichloropropene	ug/m3	4.4 U	0.45 U	4.4 U	0.45 U	4.4 U	0.45 U	4.4 U	0.45 U	3 U	0.1 U
Trichloroethene	ug/m3	42000	420	25000	2.7	19000	1.6	5500	2.2	2000	190
Trichlorofluoromethane	ug/m3	540	27	1800	2.2 U	840	2.2 U	370	2.2 U	200	2.7
Trichlorotrifluoroethane	ug/m3	7.6 U	3.1 U	7.6 U	3.1 U	7.6 U	3.1 U	7.6 U	3.1 U	12 U	0.4 U
Vinyl acetate	ug/m3	3.6 U	7 U	3.6 U	7 U	3.6 U	7 U	3.6 U	7 U	60 U	2 U
Vinyl chloride	ug/m3	4.8	0.26 U	8.1	0.26 U	2.6 U	0.26 U	2.6 U	0.26 U	3 U	0.1 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
 -- Compound not analyzed.

Prepared By: AKN, 4/11/2024

Checked By: MM, 4/11/2024

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

Area:		Extraction Well - Large Retail		Post Treatment - Large Retail	
Location:		EW-Combined		PostCarbon	
Sample ID:		EW-Combined	EW-Combined	Post Carbon	POST-CARBON
Sample Date:		9/15/2022	3/17/2023	3/17/2023	2/20/2024
Analyte	Units				
1,1,1,2-Tetrachloroethane	ppbv	1.2 U	2.5 U	2.5 U	--
1,1,1-Trichloroethane	ug/m3	42	2.1	1.1 U	76
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	1.4 U	1.4 U	0.69 U
1,1,2-Trichloroethane	ug/m3	0.55 U	1.1 U	1.1 U	0.55 U
1,1-Dichloroethane	ug/m3	3.2	0.81 U	6.5	46
1,1-Dichloroethene	ug/m3	2.1	0.79 U	3	34
1,2,4-Trichlorobenzene	ug/m3	0.74 U	1.5 U	1.5 U	0.74 U
1,2,4-Trimethylbenzene	ug/m3	0.49 U	0.98 U	0.98 U	0.49 U
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	1.5 U	1.5 U	0.77 U
1,2-Dichlorobenzene	ug/m3	0.6 U	1.2 U	1.2 U	0.6 U
1,2-Dichloroethane	ug/m3	0.4 U	0.81 U	0.81 U	0.4 U
1,2-Dichloropropane	ug/m3	0.46 U	0.92 U	0.92 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	0.7 U
1,3,5-Trimethylbenzene	ug/m3	0.49 U	0.98 U	0.98 U	0.49 U
1,3-Butadiene	ug/m3	0.22 U	0.44 U	0.44 U	0.22 U
1,3-Dichlorobenzene	ug/m3	0.6 U	1.2 U	1.2 U	0.6 U
1,4-Dichlorobenzene	ug/m3	0.6 U	1.2 U	1.2 U	0.6 U
1,4-Dioxane	ug/m3	--	--	--	3.6 U
2-Butanone	ug/m3	19	24 U	24 U	12 U
2-Hexanone	ug/m3	0.41 U	0.82 U	0.82 U	0.41 U
4-Ethyltoluene	ug/m3	0.49 U	0.98 U	0.98 U	0.49 U
4-Methyl-2-pentanone	ug/m3	0.41 U	0.82 U	0.82 U	0.41 U
Acetone	ug/m3	17	13 J	19 U	9.5 U
Benzene	ug/m3	0.32 U	0.64 U	0.64 U	0.32 U
Benzyl chloride	ug/m3	1 U	1 U	1 U	0.52 U
Bromodichloromethane	ug/m3	0.67 U	1.3 U	1.3 U	0.67 U
Bromoform	ug/m3	1 U	2.1 U	2.1 U	1 U
Bromomethane	ug/m3	0.39 U	0.78 U	0.78 U	0.39 U
Carbon disulfide	ug/m3	0.69 J	6.2 U	6.2 U	3.1 U
Carbon tetrachloride	ug/m3	0.63 U	1.3 U	1.3 U	0.63 U
Chlorobenzene	ug/m3	0.46 U	0.92 U	0.92 U	0.46 U
Chloroethane	ug/m3	0.26 U	0.53 U	0.53 U	0.26 U
Chloroform	ug/m3	0.49 U	0.98 U	0.98 U	4.5
Chloromethane	ug/m3	2	1.2	0.83 U	1.1
cis-1,2-Dichloroethene	ug/m3	0.47	0.79 U	3.3	19
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.91 U	0.91 U	0.45 U
Cyclohexane	ug/m3	0.34 U	0.69 U	0.69 U	0.34 U
Dibromochloromethane	ug/m3	0.85 U	1.7 U	1.7 U	0.85 U
Dichlorodifluoromethane	ug/m3	2.4	1.9	0.99 U	1.5
Ethanol	ug/m3	18	9.5 J	12 J	7.5 U
Ethyl acetate	ug/m3	3.6 U	7.2 U	7.2 U	3.6 U
Ethylbenzene	ug/m3	0.43 U	0.87 U	0.87 U	0.43 U
Hexachlorobutadiene	ug/m3	1.1 U	2.1 U	2.1 U	1.1 U
Hexane	ug/m3	3.2 J	28 U	28 U	14 U
Isopropyl alcohol	ug/m3	9.8 U	20 U	20 U	9.8 U
m,p-Xylene	ug/m3	0.87 U	1.7 U	1.7 U	0.87 U
Methyl methacrylate	ppbv	0.41 U	0.82 U	0.82 U	--
Methylene chloride	ug/m3	3.5 U	6.9 U	6.9 U	3.5 U
Methyl-t-butyl ether	ug/m3	0.36 U	0.72 U	0.72 U	0.36 U
Naphthalene	ug/m3	--	--	--	0.52 U
n-Heptane	ug/m3	0.41 U	0.82 U	0.82 U	0.41 U
o-Xylene	ug/m3	0.43 U	0.87 U	0.87 U	0.43 U
Propylene (Propene)	ug/m3	6.9 U	14 U	14 U	6.9 U
Styrene	ug/m3	0.43 U	0.85 U	0.85 U	0.43 U
Tetrachloroethene	ug/m3	1.1	1.4 U	1.4 U	0.75
Tetrahydrofuran	ug/m3	17	5.9 U	5.9 U	2.9 U
Toluene	ug/m3	0.41	0.75 U	0.75 U	0.38 U
Total VOCs	ug/m3	152.37	30.33	54.8	343.29
trans-1,2-Dichloroethene	ug/m3	0.4 U	0.79 U	0.79 U	0.44
trans-1,3-Dichloropropene	ug/m3	0.45 U	0.91 U	0.91 U	0.45 U
Trichloroethene	ug/m3	15	0.73 J	1.1 U	0.54 U
Trichlorofluoromethane	ug/m3	8.8	1.9 J	30	160
Trichlorotrifluoroethane	ug/m3	3.1 U	6.1 U	6.1 U	3.1 U
Vinyl acetate	ug/m3	7 U	14 U	14 U	7 U
Vinyl chloride	ug/m3	0.26 U	0.51 U	0.51 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
 -- Compound not analyzed.

Prepared By: AKN, 4/11/2024

Checked By: MM, 4/11/2024

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
9/8/2021	-0.459	-0.572	-0.418	-0.080
3/29/2022	-0.05	-1.032	-0.183	-0.047
9/15/2022****	NM	NM	NM	NM
3/17/2023	+0.041	+0.038	-0.059	+0.019
2/7/2024 [§]	-0.275	-12.540	-14.245	-0.239

* 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

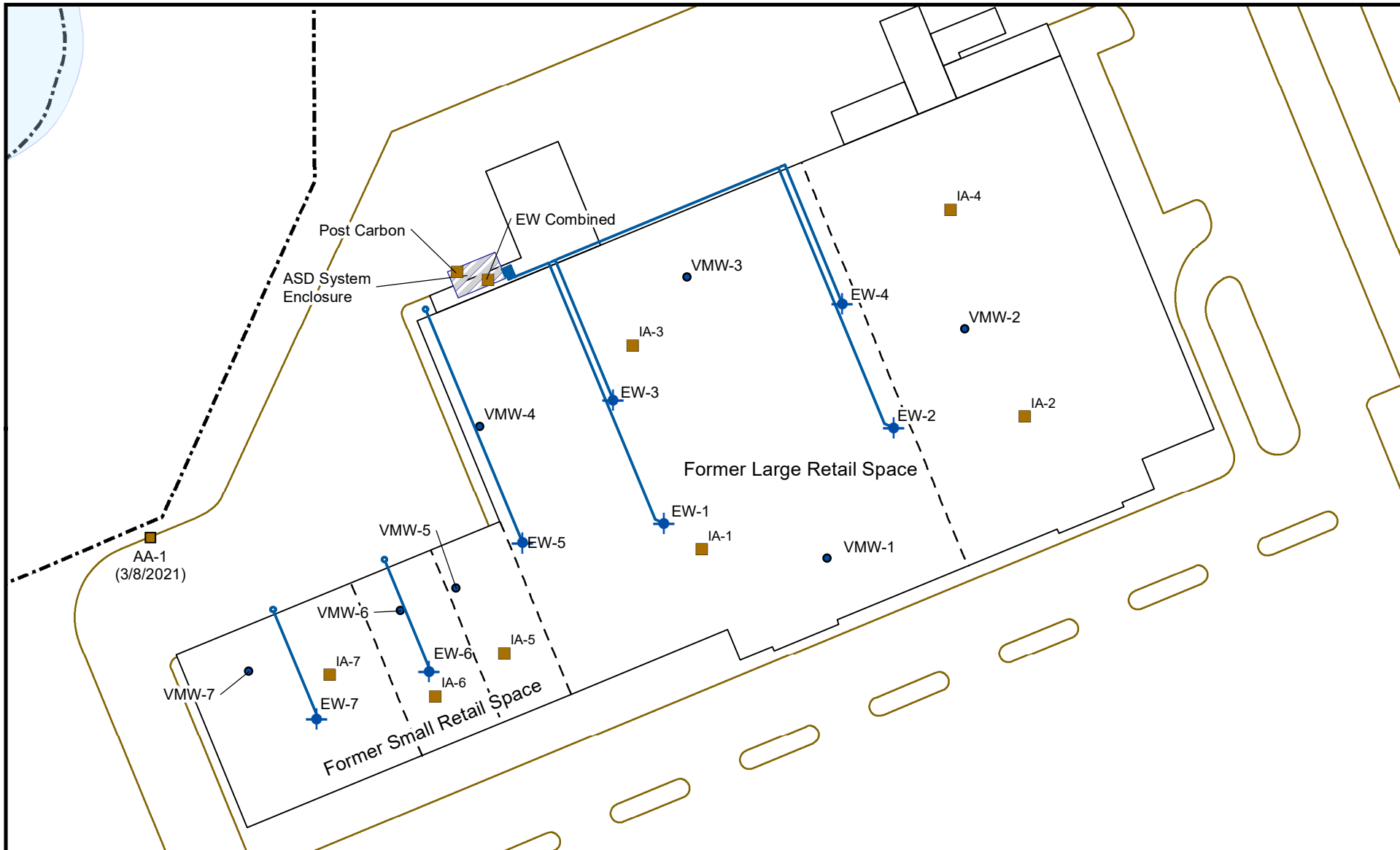
§ The manometer instrument was not working properly and vacuum measurements were not collected.

§ VMW-2 and VMW-3 could not be accessed, instead EW-4 and EW-3, respectively, were measured.

Prepared by/Date: MM 04/2024

Checked by/Date: JPK 04/2024

Figures



All locations are approximate.

Prepared/Date: JMM 04/04/24 Checked/Date: MM 04/04/24

Legend

- Air Sample Location
- Vacuum Monitoring Well
- ◆ Extraction Well/Sample Location
- Extraction Well Piping
- Current Building
- Former Interior Wall
- Pavement Outline
- Effluent Location

Figure 1
Vapor Mitigation
Sample Locations

Former Gorham Manufacturing Facility
333 Adelaide Avenue
Providence, Rhode Island



Appendix A

Laboratory Report

February 20, 2024

Mykel Mendes
WOOD PLC - Chelmsford
271 Mill Road, 3rd Floor
Chelmsford, MA 01824

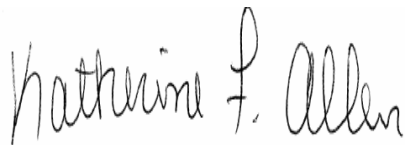
Project Location: Providence, RI
Client Job Number:
Project Number: 3652210306.0004 GL Code 573000 ORG Code 3652
Laboratory Work Order Number: 24B1178

Enclosed are results of analyses for samples as received by the laboratory on February 9, 2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Rebecca Faust
Project Manager



QA Officer
Katherine Allen



Laboratory Manager
Daren Damboragian

WOOD PLC - Chelmsford
271 Mill Road, 3rd Floor
Chelmsford, MA 01824
ATTN: Mykel Mendes

REPORT DATE: 2/20/2024

PURCHASE ORDER NUMBER: C012206368

PROJECT NUMBER: 3652210306.0004 GL Code 573000 ORG Code :

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 24B1178

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
EW-1	24B1178-01	Soil Gas		- EPA TO-15	
EW-2	24B1178-02	Soil Gas		- EPA TO-15	
EW-3	24B1178-03	Soil Gas		- EPA TO-15	
EW-4	24B1178-04	Soil Gas		- EPA TO-15	
EW-5	24B1178-05	Soil Gas		- EPA TO-15	
EW-6	24B1178-06	Soil Gas		- EPA TO-15	
EW-7	24B1178-07	Soil Gas		- EPA TO-15	
EW-7-2	24B1178-08	Soil Gas		- EPA TO-15	

CASE NARRATIVE SUMMARY

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

EPA TO-15

Qualifications:

V-05 Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

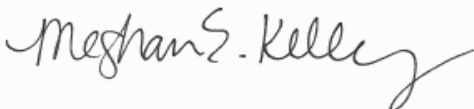
Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene, Naphthalene

24B1178-01[EW-1], 24B1178-02[EW-2], 24B1178-03[EW-3], 24B1178-04[EW-4], 24B1178-05[EW-5], 24B1178-06[EW-6], 24B1178-07[EW-7], 24B1178-08[EW-7-2], B366269-BLK1, B366269-BS1, S100584-CCV1

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.



Meghan E. Kelley
Reporting Specialist

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-1
Sample ID: 24B1178-01
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 13:26

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2438
 Canister Size: 3 liter
 Flow Controller ID: 4283
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -7
 Receipt Vacuum(in Hg): -5.6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	4.0	4.0	0.94		9.6	9.5	2.2	2	2/17/24	3:12	TPH
Benzene	0.19	0.10	0.031		0.61	0.32	0.099	2	2/17/24	3:12	TPH
Benzyl chloride	ND	0.10	0.054		ND	0.52	0.28	2	2/17/24	3:12	TPH
Bromodichloromethane	ND	0.10	0.027		ND	0.67	0.18	2	2/17/24	3:12	TPH
Bromoform	ND	0.10	0.036		ND	1.0	0.37	2	2/17/24	3:12	TPH
Bromomethane	ND	0.10	0.053		ND	0.39	0.21	2	2/17/24	3:12	TPH
1,3-Butadiene	ND	0.10	0.084		ND	0.22	0.19	2	2/17/24	3:12	TPH
2-Butanone (MEK)	ND	4.0	1.1		ND	12	3.3	2	2/17/24	3:12	TPH
Carbon Disulfide	ND	1.0	0.19		ND	3.1	0.60	2	2/17/24	3:12	TPH
Carbon Tetrachloride	ND	0.10	0.029		ND	0.63	0.18	2	2/17/24	3:12	TPH
Chlorobenzene	ND	0.10	0.025		ND	0.46	0.12	2	2/17/24	3:12	TPH
Chloroethane	0.11	0.10	0.063		0.30	0.26	0.17	2	2/17/24	3:12	TPH
Chloroform	0.18	0.10	0.026		0.88	0.49	0.13	2	2/17/24	3:12	TPH
Chloromethane	0.77	0.20	0.041		1.6	0.41	0.084	2	2/17/24	3:12	TPH
Cyclohexane	ND	0.10	0.044		ND	0.34	0.15	2	2/17/24	3:12	TPH
Dibromochloromethane	ND	0.10	0.027		ND	0.85	0.23	2	2/17/24	3:12	TPH
1,2-Dibromoethane (EDB)	ND	0.10	0.033		ND	0.77	0.26	2	2/17/24	3:12	TPH
1,2-Dichlorobenzene	ND	0.10	0.035		ND	0.60	0.21	2	2/17/24	3:12	TPH
1,3-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	3:12	TPH
1,4-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	3:12	TPH
Dichlorodifluoromethane (Freon 12)	0.54	0.10	0.042		2.7	0.49	0.21	2	2/17/24	3:12	TPH
1,1-Dichloroethane	5.7	0.10	0.032		23	0.40	0.13	2	2/17/24	3:12	TPH
1,2-Dichloroethane	ND	0.10	0.038		ND	0.40	0.15	2	2/17/24	3:12	TPH
1,1-Dichloroethylene	1.1	0.10	0.029		4.5	0.40	0.11	2	2/17/24	3:12	TPH
cis-1,2-Dichloroethylene	1.1	0.10	0.031		4.2	0.40	0.12	2	2/17/24	3:12	TPH
trans-1,2-Dichloroethylene	ND	0.10	0.033		ND	0.40	0.13	2	2/17/24	3:12	TPH
1,2-Dichloropropane	ND	0.10	0.027		ND	0.46	0.13	2	2/17/24	3:12	TPH
cis-1,3-Dichloropropene	ND	0.10	0.045		ND	0.45	0.20	2	2/17/24	3:12	TPH
trans-1,3-Dichloropropene	ND	0.10	0.052		ND	0.45	0.23	2	2/17/24	3:12	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10	0.040		ND	0.70	0.28	2	2/17/24	3:12	TPH
1,4-Dioxane	ND	1.0	0.49		ND	3.6	1.8	2	2/17/24	3:12	TPH
Ethanol	32	4.0	2.7		60	7.5	5.0	2	2/17/24	3:12	TPH
Ethyl Acetate	ND	1.0	0.29		ND	3.6	1.0	2	2/17/24	3:12	TPH
Ethylbenzene	0.62	0.10	0.029		2.7	0.43	0.13	2	2/17/24	3:12	TPH
4-Ethyltoluene	0.14	0.10	0.043		0.69	0.49	0.21	2	2/17/24	3:12	TPH
Heptane	ND	0.10	0.063		ND	0.41	0.26	2	2/17/24	3:12	TPH
Hexachlorobutadiene	ND	0.10	0.058		ND	1.1	0.61	2	2/17/24	3:12	TPH
Hexane	ND	4.0	1.3		ND	14	4.7	2	2/17/24	3:12	TPH
2-Hexanone (MBK)	ND	0.10	0.043		ND	0.41	0.18	2	2/17/24	3:12	TPH
Isopropanol	ND	4.0	1.3		ND	9.8	3.1	2	2/17/24	3:12	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.049		ND	0.36	0.18	2	2/17/24	3:12	TPH
Methylene Chloride	ND	1.0	0.27		ND	3.5	0.93	2	2/17/24	3:12	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.053		ND	0.41	0.22	2	2/17/24	3:12	TPH
Naphthalene	ND	0.10	0.067	V-05	ND	0.52	0.35	2	2/17/24	3:12	TPH
Propene	ND	4.0	1.1		ND	6.9	1.9	2	2/17/24	3:12	TPH
Styrene	ND	0.10	0.054		ND	0.43	0.23	2	2/17/24	3:12	TPH
1,1,2,2-Tetrachloroethane	ND	0.10	0.025		ND	0.69	0.17	2	2/17/24	3:12	TPH

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-1
Sample ID: 24B1178-01
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 13:26

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2438
 Canister Size: 3 liter
 Flow Controller ID: 4283
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -7
 Receipt Vacuum(in Hg): -5.6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrachloroethylene	3.2	0.10	0.037		22	0.68	0.25	2	2/17/24	3:12	TPH
Tetrahydrofuran	ND	1.0	0.21		ND	2.9	0.61	2	2/17/24	3:12	TPH
Toluene	0.30	0.10	0.036		1.1	0.38	0.14	2	2/17/24	3:12	TPH
1,2,4-Trichlorobenzene	ND	0.10	0.054	V-05	ND	0.74	0.40	2	2/17/24	3:12	TPH
1,1,1-Trichloroethane	41	0.10	0.031		230	0.55	0.17	2	2/17/24	3:12	TPH
1,1,2-Trichloroethane	ND	0.10	0.026		ND	0.55	0.14	2	2/17/24	3:12	TPH
Trichloroethylene	78	0.10	0.041		420	0.54	0.22	2	2/17/24	3:12	TPH
Trichlorofluoromethane (Freon 11)	4.7	0.40	0.041		27	2.2	0.23	2	2/17/24	3:12	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.022		ND	3.1	0.17	2	2/17/24	3:12	TPH
1,2,4-Trimethylbenzene	2.1	0.10	0.046		10	0.49	0.23	2	2/17/24	3:12	TPH
1,3,5-Trimethylbenzene	1.3	0.10	0.052		6.3	0.49	0.25	2	2/17/24	3:12	TPH
Vinyl Acetate	ND	2.0	0.36		ND	7.0	1.3	2	2/17/24	3:12	TPH
Vinyl Chloride	ND	0.10	0.046		ND	0.26	0.12	2	2/17/24	3:12	TPH
m&p-Xylene	2.6	0.20	0.070		11	0.87	0.30	2	2/17/24	3:12	TPH
o-Xylene	1.6	0.10	0.037		6.8	0.43	0.16	2	2/17/24	3:12	TPH

Surrogates	% Recovery	% REC Limits		
4-Bromofluorobenzene (1)	98.5	70-130	2/17/24	3:12

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-2
Sample ID: 24B1178-02
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 13:17

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2381
 Canister Size: 3 liter
 Flow Controller ID: 4298
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -4.6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	6.1	4.0	0.94		15	9.5	2.2	2	2/17/24	0:23	TPH
Benzene	0.19	0.10	0.031		0.62	0.32	0.099	2	2/17/24	0:23	TPH
Benzyl chloride	ND	0.10	0.054		ND	0.52	0.28	2	2/17/24	0:23	TPH
Bromodichloromethane	ND	0.10	0.027		ND	0.67	0.18	2	2/17/24	0:23	TPH
Bromoform	ND	0.10	0.036		ND	1.0	0.37	2	2/17/24	0:23	TPH
Bromomethane	ND	0.10	0.053		ND	0.39	0.21	2	2/17/24	0:23	TPH
1,3-Butadiene	ND	0.10	0.084		ND	0.22	0.19	2	2/17/24	0:23	TPH
2-Butanone (MEK)	ND	4.0	1.1		ND	12	3.3	2	2/17/24	0:23	TPH
Carbon Disulfide	ND	1.0	0.19		ND	3.1	0.60	2	2/17/24	0:23	TPH
Carbon Tetrachloride	ND	0.10	0.029		ND	0.63	0.18	2	2/17/24	0:23	TPH
Chlorobenzene	ND	0.10	0.025		ND	0.46	0.12	2	2/17/24	0:23	TPH
Chloroethane	ND	0.10	0.063		ND	0.26	0.17	2	2/17/24	0:23	TPH
Chloroform	ND	0.10	0.026		ND	0.49	0.13	2	2/17/24	0:23	TPH
Chloromethane	0.58	0.20	0.041		1.2	0.41	0.084	2	2/17/24	0:23	TPH
Cyclohexane	ND	0.10	0.044		ND	0.34	0.15	2	2/17/24	0:23	TPH
Dibromochloromethane	ND	0.10	0.027		ND	0.85	0.23	2	2/17/24	0:23	TPH
1,2-Dibromoethane (EDB)	ND	0.10	0.033		ND	0.77	0.26	2	2/17/24	0:23	TPH
1,2-Dichlorobenzene	ND	0.10	0.035		ND	0.60	0.21	2	2/17/24	0:23	TPH
1,3-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	0:23	TPH
1,4-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	0:23	TPH
Dichlorodifluoromethane (Freon 12)	0.62	0.10	0.042		3.1	0.49	0.21	2	2/17/24	0:23	TPH
1,1-Dichloroethane	ND	0.10	0.032		ND	0.40	0.13	2	2/17/24	0:23	TPH
1,2-Dichloroethane	ND	0.10	0.038		ND	0.40	0.15	2	2/17/24	0:23	TPH
1,1-Dichloroethylene	ND	0.10	0.029		ND	0.40	0.11	2	2/17/24	0:23	TPH
cis-1,2-Dichloroethylene	0.19	0.10	0.031		0.76	0.40	0.12	2	2/17/24	0:23	TPH
trans-1,2-Dichloroethylene	ND	0.10	0.033		ND	0.40	0.13	2	2/17/24	0:23	TPH
1,2-Dichloropropane	ND	0.10	0.027		ND	0.46	0.13	2	2/17/24	0:23	TPH
cis-1,3-Dichloropropene	ND	0.10	0.045		ND	0.45	0.20	2	2/17/24	0:23	TPH
trans-1,3-Dichloropropene	ND	0.10	0.052		ND	0.45	0.23	2	2/17/24	0:23	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10	0.040		ND	0.70	0.28	2	2/17/24	0:23	TPH
1,4-Dioxane	ND	1.0	0.49		ND	3.6	1.8	2	2/17/24	0:23	TPH
Ethanol	31	4.0	2.7		58	7.5	5.0	2	2/17/24	0:23	TPH
Ethyl Acetate	ND	1.0	0.29		ND	3.6	1.0	2	2/17/24	0:23	TPH
Ethylbenzene	1.3	0.10	0.029		5.5	0.43	0.13	2	2/17/24	0:23	TPH
4-Ethyltoluene	1.9	0.10	0.043		9.3	0.49	0.21	2	2/17/24	0:23	TPH
Heptane	0.36	0.10	0.063		1.5	0.41	0.26	2	2/17/24	0:23	TPH
Hexachlorobutadiene	ND	0.10	0.058		ND	1.1	0.61	2	2/17/24	0:23	TPH
Hexane	ND	4.0	1.3		ND	14	4.7	2	2/17/24	0:23	TPH
2-Hexanone (MBK)	ND	0.10	0.043		ND	0.41	0.18	2	2/17/24	0:23	TPH
Isopropanol	ND	4.0	1.3		ND	9.8	3.1	2	2/17/24	0:23	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.049		ND	0.36	0.18	2	2/17/24	0:23	TPH
Methylene Chloride	ND	1.0	0.27		ND	3.5	0.93	2	2/17/24	0:23	TPH
4-Methyl-2-pentanone (MIBK)	0.17	0.10	0.053		0.71	0.41	0.22	2	2/17/24	0:23	TPH
Naphthalene	ND	0.10	0.067	V-05	ND	0.52	0.35	2	2/17/24	0:23	TPH
Propene	ND	4.0	1.1		ND	6.9	1.9	2	2/17/24	0:23	TPH
Styrene	ND	0.10	0.054		ND	0.43	0.23	2	2/17/24	0:23	TPH
1,1,2,2-Tetrachloroethane	ND	0.10	0.025		ND	0.69	0.17	2	2/17/24	0:23	TPH

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-2
Sample ID: 24B1178-02
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 13:17

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2381
 Canister Size: 3 liter
 Flow Controller ID: 4298
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -4.6
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrachloroethylene	0.70	0.10	0.037		4.7	0.68	0.25	2	2/17/24	0:23	TPH
Tetrahydrofuran	ND	1.0	0.21		ND	2.9	0.61	2	2/17/24	0:23	TPH
Toluene	0.39	0.10	0.036		1.5	0.38	0.14	2	2/17/24	0:23	TPH
1,2,4-Trichlorobenzene	ND	0.10	0.054	V-05	ND	0.74	0.40	2	2/17/24	0:23	TPH
1,1,1-Trichloroethane	0.18	0.10	0.031		0.98	0.55	0.17	2	2/17/24	0:23	TPH
1,1,2-Trichloroethane	ND	0.10	0.026		ND	0.55	0.14	2	2/17/24	0:23	TPH
Trichloroethylene	0.50	0.10	0.041		2.7	0.54	0.22	2	2/17/24	0:23	TPH
Trichlorofluoromethane (Freon 11)	ND	0.40	0.041		ND	2.2	0.23	2	2/17/24	0:23	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.022		ND	3.1	0.17	2	2/17/24	0:23	TPH
1,2,4-Trimethylbenzene	3.6	0.10	0.046		18	0.49	0.23	2	2/17/24	0:23	TPH
1,3,5-Trimethylbenzene	2.2	0.10	0.052		11	0.49	0.25	2	2/17/24	0:23	TPH
Vinyl Acetate	ND	2.0	0.36		ND	7.0	1.3	2	2/17/24	0:23	TPH
Vinyl Chloride	ND	0.10	0.046		ND	0.26	0.12	2	2/17/24	0:23	TPH
m&p-Xylene	5.5	0.20	0.070		24	0.87	0.30	2	2/17/24	0:23	TPH
o-Xylene	2.8	0.10	0.037		12	0.43	0.16	2	2/17/24	0:23	TPH

Surrogates	% Recovery	% REC Limits
4-Bromofluorobenzene (1)	101	70-130

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-3
Sample ID: 24B1178-03
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 13:24

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2614
 Canister Size: 3 liter
 Flow Controller ID: 4197
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -3
 Receipt Vacuum(in Hg): -1.2
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	4.1	4.0	0.94		9.8	9.5	2.2	2	2/17/24	0:51	TPH
Benzene	0.19	0.10	0.031		0.59	0.32	0.099	2	2/17/24	0:51	TPH
Benzyl chloride	ND	0.10	0.054		ND	0.52	0.28	2	2/17/24	0:51	TPH
Bromodichloromethane	ND	0.10	0.027		ND	0.67	0.18	2	2/17/24	0:51	TPH
Bromoform	ND	0.10	0.036		ND	1.0	0.37	2	2/17/24	0:51	TPH
Bromomethane	ND	0.10	0.053		ND	0.39	0.21	2	2/17/24	0:51	TPH
1,3-Butadiene	ND	0.10	0.084		ND	0.22	0.19	2	2/17/24	0:51	TPH
2-Butanone (MEK)	ND	4.0	1.1		ND	12	3.3	2	2/17/24	0:51	TPH
Carbon Disulfide	ND	1.0	0.19		ND	3.1	0.60	2	2/17/24	0:51	TPH
Carbon Tetrachloride	ND	0.10	0.029		ND	0.63	0.18	2	2/17/24	0:51	TPH
Chlorobenzene	ND	0.10	0.025		ND	0.46	0.12	2	2/17/24	0:51	TPH
Chloroethane	ND	0.10	0.063		ND	0.26	0.17	2	2/17/24	0:51	TPH
Chloroform	ND	0.10	0.026		ND	0.49	0.13	2	2/17/24	0:51	TPH
Chloromethane	0.52	0.20	0.041		1.1	0.41	0.084	2	2/17/24	0:51	TPH
Cyclohexane	ND	0.10	0.044		ND	0.34	0.15	2	2/17/24	0:51	TPH
Dibromochloromethane	ND	0.10	0.027		ND	0.85	0.23	2	2/17/24	0:51	TPH
1,2-Dibromoethane (EDB)	ND	0.10	0.033		ND	0.77	0.26	2	2/17/24	0:51	TPH
1,2-Dichlorobenzene	ND	0.10	0.035		ND	0.60	0.21	2	2/17/24	0:51	TPH
1,3-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	0:51	TPH
1,4-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	0:51	TPH
Dichlorodifluoromethane (Freon 12)	0.59	0.10	0.042		2.9	0.49	0.21	2	2/17/24	0:51	TPH
1,1-Dichloroethane	ND	0.10	0.032		ND	0.40	0.13	2	2/17/24	0:51	TPH
1,2-Dichloroethane	ND	0.10	0.038		ND	0.40	0.15	2	2/17/24	0:51	TPH
1,1-Dichloroethylene	ND	0.10	0.029		ND	0.40	0.11	2	2/17/24	0:51	TPH
cis-1,2-Dichloroethylene	0.11	0.10	0.031		0.43	0.40	0.12	2	2/17/24	0:51	TPH
trans-1,2-Dichloroethylene	ND	0.10	0.033		ND	0.40	0.13	2	2/17/24	0:51	TPH
1,2-Dichloropropane	ND	0.10	0.027		ND	0.46	0.13	2	2/17/24	0:51	TPH
cis-1,3-Dichloropropene	ND	0.10	0.045		ND	0.45	0.20	2	2/17/24	0:51	TPH
trans-1,3-Dichloropropene	ND	0.10	0.052		ND	0.45	0.23	2	2/17/24	0:51	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10	0.040		ND	0.70	0.28	2	2/17/24	0:51	TPH
1,4-Dioxane	ND	1.0	0.49		ND	3.6	1.8	2	2/17/24	0:51	TPH
Ethanol	69	4.0	2.7		130	7.5	5.0	2	2/17/24	0:51	TPH
Ethyl Acetate	1.7	1.0	0.29		6.3	3.6	1.0	2	2/17/24	0:51	TPH
Ethylbenzene	0.96	0.10	0.029		4.2	0.43	0.13	2	2/17/24	0:51	TPH
4-Ethyltoluene	0.22	0.10	0.043		1.1	0.49	0.21	2	2/17/24	0:51	TPH
Heptane	ND	0.10	0.063		ND	0.41	0.26	2	2/17/24	0:51	TPH
Hexachlorobutadiene	ND	0.10	0.058		ND	1.1	0.61	2	2/17/24	0:51	TPH
Hexane	ND	4.0	1.3		ND	14	4.7	2	2/17/24	0:51	TPH
2-Hexanone (MBK)	ND	0.10	0.043		ND	0.41	0.18	2	2/17/24	0:51	TPH
Isopropanol	ND	4.0	1.3		ND	9.8	3.1	2	2/17/24	0:51	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.049		ND	0.36	0.18	2	2/17/24	0:51	TPH
Methylene Chloride	ND	1.0	0.27		ND	3.5	0.93	2	2/17/24	0:51	TPH
4-Methyl-2-pentanone (MIBK)	0.12	0.10	0.053		0.50	0.41	0.22	2	2/17/24	0:51	TPH
Naphthalene	ND	0.10	0.067	V-05	ND	0.52	0.35	2	2/17/24	0:51	TPH
Propene	ND	4.0	1.1		ND	6.9	1.9	2	2/17/24	0:51	TPH
Styrene	0.10	0.10	0.054		0.44	0.43	0.23	2	2/17/24	0:51	TPH
1,1,2,2-Tetrachloroethane	ND	0.10	0.025		ND	0.69	0.17	2	2/17/24	0:51	TPH

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-3
Sample ID: 24B1178-03
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 13:24

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2614
 Canister Size: 3 liter
 Flow Controller ID: 4197
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -28
 Final Vacuum(in Hg): -3
 Receipt Vacuum(in Hg): -1.2
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrachloroethylene	0.41	0.10	0.037		2.8	0.68	0.25	2	2/17/24	0:51	TPH
Tetrahydrofuran	ND	1.0	0.21		ND	2.9	0.61	2	2/17/24	0:51	TPH
Toluene	0.47	0.10	0.036		1.8	0.38	0.14	2	2/17/24	0:51	TPH
1,2,4-Trichlorobenzene	ND	0.10	0.054	V-05	ND	0.74	0.40	2	2/17/24	0:51	TPH
1,1,1-Trichloroethane	0.11	0.10	0.031		0.62	0.55	0.17	2	2/17/24	0:51	TPH
1,1,2-Trichloroethane	ND	0.10	0.026		ND	0.55	0.14	2	2/17/24	0:51	TPH
Trichloroethylene	0.29	0.10	0.041		1.6	0.54	0.22	2	2/17/24	0:51	TPH
Trichlorofluoromethane (Freon 11)	ND	0.40	0.041		ND	2.2	0.23	2	2/17/24	0:51	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.022		ND	3.1	0.17	2	2/17/24	0:51	TPH
1,2,4-Trimethylbenzene	3.0	0.10	0.046		15	0.49	0.23	2	2/17/24	0:51	TPH
1,3,5-Trimethylbenzene	1.8	0.10	0.052		8.9	0.49	0.25	2	2/17/24	0:51	TPH
Vinyl Acetate	ND	2.0	0.36		ND	7.0	1.3	2	2/17/24	0:51	TPH
Vinyl Chloride	ND	0.10	0.046		ND	0.26	0.12	2	2/17/24	0:51	TPH
m&p-Xylene	4.2	0.20	0.070		18	0.87	0.30	2	2/17/24	0:51	TPH
o-Xylene	2.2	0.10	0.037		9.5	0.43	0.16	2	2/17/24	0:51	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	97.6	70-130	2/17/24 0:51

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-4
Sample ID: 24B1178-04
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 13:18

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2755
 Canister Size: 3 liter
 Flow Controller ID: 4091
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -4.1
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	ND	4.0	0.94		ND	9.5	2.2	2	2/17/24	1:19	TPH
Benzene	0.18	0.10	0.031		0.59	0.32	0.099	2	2/17/24	1:19	TPH
Benzyl chloride	ND	0.10	0.054		ND	0.52	0.28	2	2/17/24	1:19	TPH
Bromodichloromethane	ND	0.10	0.027		ND	0.67	0.18	2	2/17/24	1:19	TPH
Bromoform	ND	0.10	0.036		ND	1.0	0.37	2	2/17/24	1:19	TPH
Bromomethane	ND	0.10	0.053		ND	0.39	0.21	2	2/17/24	1:19	TPH
1,3-Butadiene	ND	0.10	0.084		ND	0.22	0.19	2	2/17/24	1:19	TPH
2-Butanone (MEK)	ND	4.0	1.1		ND	12	3.3	2	2/17/24	1:19	TPH
Carbon Disulfide	ND	1.0	0.19		ND	3.1	0.60	2	2/17/24	1:19	TPH
Carbon Tetrachloride	ND	0.10	0.029		ND	0.63	0.18	2	2/17/24	1:19	TPH
Chlorobenzene	ND	0.10	0.025		ND	0.46	0.12	2	2/17/24	1:19	TPH
Chloroethane	ND	0.10	0.063		ND	0.26	0.17	2	2/17/24	1:19	TPH
Chloroform	0.15	0.10	0.026		0.71	0.49	0.13	2	2/17/24	1:19	TPH
Chloromethane	0.59	0.20	0.041		1.2	0.41	0.084	2	2/17/24	1:19	TPH
Cyclohexane	ND	0.10	0.044		ND	0.34	0.15	2	2/17/24	1:19	TPH
Dibromochloromethane	ND	0.10	0.027		ND	0.85	0.23	2	2/17/24	1:19	TPH
1,2-Dibromoethane (EDB)	ND	0.10	0.033		ND	0.77	0.26	2	2/17/24	1:19	TPH
1,2-Dichlorobenzene	ND	0.10	0.035		ND	0.60	0.21	2	2/17/24	1:19	TPH
1,3-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	1:19	TPH
1,4-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	1:19	TPH
Dichlorodifluoromethane (Freon 12)	0.59	0.10	0.042		2.9	0.49	0.21	2	2/17/24	1:19	TPH
1,1-Dichloroethane	ND	0.10	0.032		ND	0.40	0.13	2	2/17/24	1:19	TPH
1,2-Dichloroethane	ND	0.10	0.038		ND	0.40	0.15	2	2/17/24	1:19	TPH
1,1-Dichloroethylene	ND	0.10	0.029		ND	0.40	0.11	2	2/17/24	1:19	TPH
cis-1,2-Dichloroethylene	0.17	0.10	0.031		0.69	0.40	0.12	2	2/17/24	1:19	TPH
trans-1,2-Dichloroethylene	ND	0.10	0.033		ND	0.40	0.13	2	2/17/24	1:19	TPH
1,2-Dichloropropane	ND	0.10	0.027		ND	0.46	0.13	2	2/17/24	1:19	TPH
cis-1,3-Dichloropropene	ND	0.10	0.045		ND	0.45	0.20	2	2/17/24	1:19	TPH
trans-1,3-Dichloropropene	ND	0.10	0.052		ND	0.45	0.23	2	2/17/24	1:19	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10	0.040		ND	0.70	0.28	2	2/17/24	1:19	TPH
1,4-Dioxane	ND	1.0	0.49		ND	3.6	1.8	2	2/17/24	1:19	TPH
Ethanol	41	4.0	2.7		77	7.5	5.0	2	2/17/24	1:19	TPH
Ethyl Acetate	ND	1.0	0.29		ND	3.6	1.0	2	2/17/24	1:19	TPH
Ethylbenzene	1.6	0.10	0.029		6.9	0.43	0.13	2	2/17/24	1:19	TPH
4-Ethyltoluene	0.16	0.10	0.043		0.80	0.49	0.21	2	2/17/24	1:19	TPH
Heptane	0.21	0.10	0.063		0.88	0.41	0.26	2	2/17/24	1:19	TPH
Hexachlorobutadiene	ND	0.10	0.058		ND	1.1	0.61	2	2/17/24	1:19	TPH
Hexane	ND	4.0	1.3		ND	14	4.7	2	2/17/24	1:19	TPH
2-Hexanone (MBK)	ND	0.10	0.043		ND	0.41	0.18	2	2/17/24	1:19	TPH
Isopropanol	ND	4.0	1.3		ND	9.8	3.1	2	2/17/24	1:19	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.049		ND	0.36	0.18	2	2/17/24	1:19	TPH
Methylene Chloride	ND	1.0	0.27		ND	3.5	0.93	2	2/17/24	1:19	TPH
4-Methyl-2-pentanone (MIBK)	0.20	0.10	0.053		0.84	0.41	0.22	2	2/17/24	1:19	TPH
Naphthalene	ND	0.10	0.067	V-05	ND	0.52	0.35	2	2/17/24	1:19	TPH
Propene	ND	4.0	1.1		ND	6.9	1.9	2	2/17/24	1:19	TPH
Styrene	ND	0.10	0.054		ND	0.43	0.23	2	2/17/24	1:19	TPH
1,1,2,2-Tetrachloroethane	ND	0.10	0.025		ND	0.69	0.17	2	2/17/24	1:19	TPH

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-4
Sample ID: 24B1178-04
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 13:18

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2755
 Canister Size: 3 liter
 Flow Controller ID: 4091
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -6
 Receipt Vacuum(in Hg): -4.1
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrachloroethylene	0.60	0.10	0.037		4.1	0.68	0.25	2	2/17/24	1:19	TPH
Tetrahydrofuran	ND	1.0	0.21		ND	2.9	0.61	2	2/17/24	1:19	TPH
Toluene	0.43	0.10	0.036		1.6	0.38	0.14	2	2/17/24	1:19	TPH
1,2,4-Trichlorobenzene	ND	0.10	0.054	V-05	ND	0.74	0.40	2	2/17/24	1:19	TPH
1,1,1-Trichloroethane	0.14	0.10	0.031		0.79	0.55	0.17	2	2/17/24	1:19	TPH
1,1,2-Trichloroethane	ND	0.10	0.026		ND	0.55	0.14	2	2/17/24	1:19	TPH
Trichloroethylene	0.41	0.10	0.041		2.2	0.54	0.22	2	2/17/24	1:19	TPH
Trichlorofluoromethane (Freon 11)	ND	0.40	0.041		ND	2.2	0.23	2	2/17/24	1:19	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.022		ND	3.1	0.17	2	2/17/24	1:19	TPH
1,2,4-Trimethylbenzene	3.7	0.10	0.046		18	0.49	0.23	2	2/17/24	1:19	TPH
1,3,5-Trimethylbenzene	2.2	0.10	0.052		11	0.49	0.25	2	2/17/24	1:19	TPH
Vinyl Acetate	ND	2.0	0.36		ND	7.0	1.3	2	2/17/24	1:19	TPH
Vinyl Chloride	ND	0.10	0.046		ND	0.26	0.12	2	2/17/24	1:19	TPH
m&p-Xylene	7.0	0.20	0.070		31	0.87	0.30	2	2/17/24	1:19	TPH
o-Xylene	3.3	0.10	0.037		14	0.43	0.16	2	2/17/24	1:19	TPH

Surrogates	% Recovery	% REC Limits		
4-Bromofluorobenzene (1)	101	70-130	2/17/24	1:19

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-5
Sample ID: 24B1178-05
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 13:37

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2418
 Canister Size: 3 liter
 Flow Controller ID: 4365
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -9
 Receipt Vacuum(in Hg): -8.1
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	ND	4.0	0.94		ND	9.5	2.2	2	2/17/24	4:07	TPH
Benzene	0.78	0.10	0.031		2.5	0.32	0.099	2	2/17/24	4:07	TPH
Benzyl chloride	ND	0.10	0.054		ND	0.52	0.28	2	2/17/24	4:07	TPH
Bromodichloromethane	ND	0.10	0.027		ND	0.67	0.18	2	2/17/24	4:07	TPH
Bromoform	ND	0.10	0.036		ND	1.0	0.37	2	2/17/24	4:07	TPH
Bromomethane	ND	0.10	0.053		ND	0.39	0.21	2	2/17/24	4:07	TPH
1,3-Butadiene	ND	0.10	0.084		ND	0.22	0.19	2	2/17/24	4:07	TPH
2-Butanone (MEK)	ND	4.0	1.1		ND	12	3.3	2	2/17/24	4:07	TPH
Carbon Disulfide	ND	1.0	0.19		ND	3.1	0.60	2	2/17/24	4:07	TPH
Carbon Tetrachloride	ND	0.10	0.029		ND	0.63	0.18	2	2/17/24	4:07	TPH
Chlorobenzene	ND	0.10	0.025		ND	0.46	0.12	2	2/17/24	4:07	TPH
Chloroethane	ND	0.10	0.063		ND	0.26	0.17	2	2/17/24	4:07	TPH
Chloroform	0.61	0.10	0.026		3.0	0.49	0.13	2	2/17/24	4:07	TPH
Chloromethane	ND	0.20	0.041		ND	0.41	0.084	2	2/17/24	4:07	TPH
Cyclohexane	0.65	0.10	0.044		2.3	0.34	0.15	2	2/17/24	4:07	TPH
Dibromochloromethane	ND	0.10	0.027		ND	0.85	0.23	2	2/17/24	4:07	TPH
1,2-Dibromoethane (EDB)	ND	0.10	0.033		ND	0.77	0.26	2	2/17/24	4:07	TPH
1,2-Dichlorobenzene	ND	0.10	0.035		ND	0.60	0.21	2	2/17/24	4:07	TPH
1,3-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	4:07	TPH
1,4-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	4:07	TPH
Dichlorodifluoromethane (Freon 12)	0.47	0.10	0.042		2.3	0.49	0.21	2	2/17/24	4:07	TPH
1,1-Dichloroethane	7.0	0.10	0.032		28	0.40	0.13	2	2/17/24	4:07	TPH
1,2-Dichloroethane	ND	0.10	0.038		ND	0.40	0.15	2	2/17/24	4:07	TPH
1,1-Dichloroethylene	5.8	0.10	0.029		23	0.40	0.11	2	2/17/24	4:07	TPH
cis-1,2-Dichloroethylene	2.1	0.10	0.031		8.2	0.40	0.12	2	2/17/24	4:07	TPH
trans-1,2-Dichloroethylene	ND	0.10	0.033		ND	0.40	0.13	2	2/17/24	4:07	TPH
1,2-Dichloropropane	ND	0.10	0.027		ND	0.46	0.13	2	2/17/24	4:07	TPH
cis-1,3-Dichloropropene	ND	0.10	0.045		ND	0.45	0.20	2	2/17/24	4:07	TPH
trans-1,3-Dichloropropene	ND	0.10	0.052		ND	0.45	0.23	2	2/17/24	4:07	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10	0.040		ND	0.70	0.28	2	2/17/24	4:07	TPH
1,4-Dioxane	ND	1.0	0.49		ND	3.6	1.8	2	2/17/24	4:07	TPH
Ethanol	7.0	4.0	2.7		13	7.5	5.0	2	2/17/24	4:07	TPH
Ethyl Acetate	2.5	1.0	0.29		9.1	3.6	1.0	2	2/17/24	4:07	TPH
Ethylbenzene	0.38	0.10	0.029		1.7	0.43	0.13	2	2/17/24	4:07	TPH
4-Ethyltoluene	ND	0.10	0.043		ND	0.49	0.21	2	2/17/24	4:07	TPH
Heptane	0.51	0.10	0.063		2.1	0.41	0.26	2	2/17/24	4:07	TPH
Hexachlorobutadiene	ND	0.10	0.058		ND	1.1	0.61	2	2/17/24	4:07	TPH
Hexane	ND	4.0	1.3		ND	14	4.7	2	2/17/24	4:07	TPH
2-Hexanone (MBK)	ND	0.10	0.043		ND	0.41	0.18	2	2/17/24	4:07	TPH
Isopropanol	ND	4.0	1.3		ND	9.8	3.1	2	2/17/24	4:07	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.049		ND	0.36	0.18	2	2/17/24	4:07	TPH
Methylene Chloride	ND	1.0	0.27		ND	3.5	0.93	2	2/17/24	4:07	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.053		ND	0.41	0.22	2	2/17/24	4:07	TPH
Naphthalene	ND	0.10	0.067	V-05	ND	0.52	0.35	2	2/17/24	4:07	TPH
Propene	ND	4.0	1.1		ND	6.9	1.9	2	2/17/24	4:07	TPH
Styrene	ND	0.10	0.054		ND	0.43	0.23	2	2/17/24	4:07	TPH
1,1,2,2-Tetrachloroethane	ND	0.10	0.025		ND	0.69	0.17	2	2/17/24	4:07	TPH

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-5
Sample ID: 24B1178-05
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 13:37

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2418
 Canister Size: 3 liter
 Flow Controller ID: 4365
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -9
 Receipt Vacuum(in Hg): -8.1
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrachloroethylene	19	0.10	0.037		130	0.68	0.25	2	2/17/24	4:07	TPH
Tetrahydrofuran	31	1.0	0.21		90	2.9	0.61	2	2/17/24	4:07	TPH
Toluene	0.13	0.10	0.036		0.47	0.38	0.14	2	2/17/24	4:07	TPH
1,2,4-Trichlorobenzene	ND	0.10	0.054	V-05	ND	0.74	0.40	2	2/17/24	4:07	TPH
1,1,1-Trichloroethane	64	0.10	0.031		350	0.55	0.17	2	2/17/24	4:07	TPH
1,1,2-Trichloroethane	ND	0.10	0.026		ND	0.55	0.14	2	2/17/24	4:07	TPH
Trichloroethylene	190	0.50	0.20		1000	2.7	1.1	10	2/17/24	4:34	TPH
Trichlorofluoromethane (Freon 11)	2.7	0.40	0.041		15	2.2	0.23	2	2/17/24	4:07	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.022		ND	3.1	0.17	2	2/17/24	4:07	TPH
1,2,4-Trimethylbenzene	0.53	0.10	0.046		2.6	0.49	0.23	2	2/17/24	4:07	TPH
1,3,5-Trimethylbenzene	0.27	0.10	0.052		1.3	0.49	0.25	2	2/17/24	4:07	TPH
Vinyl Acetate	ND	2.0	0.36		ND	7.0	1.3	2	2/17/24	4:07	TPH
Vinyl Chloride	ND	0.10	0.046		ND	0.26	0.12	2	2/17/24	4:07	TPH
m&p-Xylene	1.5	0.20	0.070		6.7	0.87	0.30	2	2/17/24	4:07	TPH
o-Xylene	0.68	0.10	0.037		3.0	0.43	0.16	2	2/17/24	4:07	TPH

Surrogates	% Recovery	% REC Limits		
4-Bromofluorobenzene (1)	94.2	70-130	2/17/24	4:07
4-Bromofluorobenzene (1)	89.4	70-130	2/17/24	4:34

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-6
Sample ID: 24B1178-06
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 14:35

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2368
 Canister Size: 3 liter
 Flow Controller ID: 4104
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -4
 Receipt Vacuum(in Hg): -3.8
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	4.9	4.0	0.94		12	9.5	2.2	2	2/17/24	1:47	TPH
Benzene	0.16	0.10	0.031		0.51	0.32	0.099	2	2/17/24	1:47	TPH
Benzyl chloride	ND	0.10	0.054		ND	0.52	0.28	2	2/17/24	1:47	TPH
Bromodichloromethane	ND	0.10	0.027		ND	0.67	0.18	2	2/17/24	1:47	TPH
Bromoform	ND	0.10	0.036		ND	1.0	0.37	2	2/17/24	1:47	TPH
Bromomethane	ND	0.10	0.053		ND	0.39	0.21	2	2/17/24	1:47	TPH
1,3-Butadiene	ND	0.10	0.084		ND	0.22	0.19	2	2/17/24	1:47	TPH
2-Butanone (MEK)	ND	4.0	1.1		ND	12	3.3	2	2/17/24	1:47	TPH
Carbon Disulfide	ND	1.0	0.19		ND	3.1	0.60	2	2/17/24	1:47	TPH
Carbon Tetrachloride	ND	0.10	0.029		ND	0.63	0.18	2	2/17/24	1:47	TPH
Chlorobenzene	ND	0.10	0.025		ND	0.46	0.12	2	2/17/24	1:47	TPH
Chloroethane	0.11	0.10	0.063		0.30	0.26	0.17	2	2/17/24	1:47	TPH
Chloroform	0.12	0.10	0.026		0.60	0.49	0.13	2	2/17/24	1:47	TPH
Chloromethane	0.85	0.20	0.041		1.7	0.41	0.084	2	2/17/24	1:47	TPH
Cyclohexane	ND	0.10	0.044		ND	0.34	0.15	2	2/17/24	1:47	TPH
Dibromochloromethane	ND	0.10	0.027		ND	0.85	0.23	2	2/17/24	1:47	TPH
1,2-Dibromoethane (EDB)	ND	0.10	0.033		ND	0.77	0.26	2	2/17/24	1:47	TPH
1,2-Dichlorobenzene	ND	0.10	0.035		ND	0.60	0.21	2	2/17/24	1:47	TPH
1,3-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	1:47	TPH
1,4-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	1:47	TPH
Dichlorodifluoromethane (Freon 12)	0.59	0.10	0.042		2.9	0.49	0.21	2	2/17/24	1:47	TPH
1,1-Dichloroethane	ND	0.10	0.032		ND	0.40	0.13	2	2/17/24	1:47	TPH
1,2-Dichloroethane	ND	0.10	0.038		ND	0.40	0.15	2	2/17/24	1:47	TPH
1,1-Dichloroethylene	ND	0.10	0.029		ND	0.40	0.11	2	2/17/24	1:47	TPH
cis-1,2-Dichloroethylene	ND	0.10	0.031		ND	0.40	0.12	2	2/17/24	1:47	TPH
trans-1,2-Dichloroethylene	ND	0.10	0.033		ND	0.40	0.13	2	2/17/24	1:47	TPH
1,2-Dichloropropane	ND	0.10	0.027		ND	0.46	0.13	2	2/17/24	1:47	TPH
cis-1,3-Dichloropropene	ND	0.10	0.045		ND	0.45	0.20	2	2/17/24	1:47	TPH
trans-1,3-Dichloropropene	ND	0.10	0.052		ND	0.45	0.23	2	2/17/24	1:47	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10	0.040		ND	0.70	0.28	2	2/17/24	1:47	TPH
1,4-Dioxane	ND	1.0	0.49		ND	3.6	1.8	2	2/17/24	1:47	TPH
Ethanol	8.0	4.0	2.7		15	7.5	5.0	2	2/17/24	1:47	TPH
Ethyl Acetate	ND	1.0	0.29		ND	3.6	1.0	2	2/17/24	1:47	TPH
Ethylbenzene	0.95	0.10	0.029		4.1	0.43	0.13	2	2/17/24	1:47	TPH
4-Ethyltoluene	0.23	0.10	0.043		1.1	0.49	0.21	2	2/17/24	1:47	TPH
Heptane	0.16	0.10	0.063		0.65	0.41	0.26	2	2/17/24	1:47	TPH
Hexachlorobutadiene	ND	0.10	0.058		ND	1.1	0.61	2	2/17/24	1:47	TPH
Hexane	ND	4.0	1.3		ND	14	4.7	2	2/17/24	1:47	TPH
2-Hexanone (MBK)	ND	0.10	0.043		ND	0.41	0.18	2	2/17/24	1:47	TPH
Isopropanol	ND	4.0	1.3		ND	9.8	3.1	2	2/17/24	1:47	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.049		ND	0.36	0.18	2	2/17/24	1:47	TPH
Methylene Chloride	ND	1.0	0.27		ND	3.5	0.93	2	2/17/24	1:47	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.053		ND	0.41	0.22	2	2/17/24	1:47	TPH
Naphthalene	ND	0.10	0.067	V-05	ND	0.52	0.35	2	2/17/24	1:47	TPH
Propene	ND	4.0	1.1		ND	6.9	1.9	2	2/17/24	1:47	TPH
Styrene	ND	0.10	0.054		ND	0.43	0.23	2	2/17/24	1:47	TPH
1,1,2,2-Tetrachloroethane	ND	0.10	0.025		ND	0.69	0.17	2	2/17/24	1:47	TPH

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-6
Sample ID: 24B1178-06
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 14:35

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2368
 Canister Size: 3 liter
 Flow Controller ID: 4104
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -4
 Receipt Vacuum(in Hg): -3.8
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrachloroethylene	0.24	0.10	0.037		1.6	0.68	0.25	2	2/17/24	1:47	TPH
Tetrahydrofuran	ND	1.0	0.21		ND	2.9	0.61	2	2/17/24	1:47	TPH
Toluene	0.31	0.10	0.036		1.2	0.38	0.14	2	2/17/24	1:47	TPH
1,2,4-Trichlorobenzene	ND	0.10	0.054	V-05	ND	0.74	0.40	2	2/17/24	1:47	TPH
1,1,1-Trichloroethane	ND	0.10	0.031		ND	0.55	0.17	2	2/17/24	1:47	TPH
1,1,2-Trichloroethane	ND	0.10	0.026		ND	0.55	0.14	2	2/17/24	1:47	TPH
Trichloroethylene	0.13	0.10	0.041		0.68	0.54	0.22	2	2/17/24	1:47	TPH
Trichlorofluoromethane (Freon 11)	ND	0.40	0.041		ND	2.2	0.23	2	2/17/24	1:47	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.022		ND	3.1	0.17	2	2/17/24	1:47	TPH
1,2,4-Trimethylbenzene	3.5	0.10	0.046		17	0.49	0.23	2	2/17/24	1:47	TPH
1,3,5-Trimethylbenzene	2.1	0.10	0.052		11	0.49	0.25	2	2/17/24	1:47	TPH
Vinyl Acetate	ND	2.0	0.36		ND	7.0	1.3	2	2/17/24	1:47	TPH
Vinyl Chloride	ND	0.10	0.046		ND	0.26	0.12	2	2/17/24	1:47	TPH
m&p-Xylene	4.6	0.20	0.070		20	0.87	0.30	2	2/17/24	1:47	TPH
o-Xylene	3.0	0.10	0.037		13	0.43	0.16	2	2/17/24	1:47	TPH

Surrogates	% Recovery	% REC Limits		
4-Bromofluorobenzene (1)	104	70-130	2/17/24	1:47

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-7
Sample ID: 24B1178-07
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 14:36

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2588
 Canister Size: 3 liter
 Flow Controller ID: 4196
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -1
 Receipt Vacuum(in Hg): -2.0
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	4.4	4.0	0.94		10	9.5	2.2	2	2/17/24	2:15	TPH
Benzene	0.36	0.10	0.031		1.1	0.32	0.099	2	2/17/24	2:15	TPH
Benzyl chloride	ND	0.10	0.054		ND	0.52	0.28	2	2/17/24	2:15	TPH
Bromodichloromethane	ND	0.10	0.027		ND	0.67	0.18	2	2/17/24	2:15	TPH
Bromoform	ND	0.10	0.036		ND	1.0	0.37	2	2/17/24	2:15	TPH
Bromomethane	ND	0.10	0.053		ND	0.39	0.21	2	2/17/24	2:15	TPH
1,3-Butadiene	ND	0.10	0.084		ND	0.22	0.19	2	2/17/24	2:15	TPH
2-Butanone (MEK)	ND	4.0	1.1		ND	12	3.3	2	2/17/24	2:15	TPH
Carbon Disulfide	5.9	1.0	0.19		19	3.1	0.60	2	2/17/24	2:15	TPH
Carbon Tetrachloride	ND	0.10	0.029		ND	0.63	0.18	2	2/17/24	2:15	TPH
Chlorobenzene	ND	0.10	0.025		ND	0.46	0.12	2	2/17/24	2:15	TPH
Chloroethane	0.13	0.10	0.063		0.33	0.26	0.17	2	2/17/24	2:15	TPH
Chloroform	0.51	0.10	0.026		2.5	0.49	0.13	2	2/17/24	2:15	TPH
Chloromethane	ND	0.20	0.041		ND	0.41	0.084	2	2/17/24	2:15	TPH
Cyclohexane	ND	0.10	0.044		ND	0.34	0.15	2	2/17/24	2:15	TPH
Dibromochloromethane	ND	0.10	0.027		ND	0.85	0.23	2	2/17/24	2:15	TPH
1,2-Dibromoethane (EDB)	ND	0.10	0.033		ND	0.77	0.26	2	2/17/24	2:15	TPH
1,2-Dichlorobenzene	ND	0.10	0.035		ND	0.60	0.21	2	2/17/24	2:15	TPH
1,3-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	2:15	TPH
1,4-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	2:15	TPH
Dichlorodifluoromethane (Freon 12)	0.49	0.10	0.042		2.4	0.49	0.21	2	2/17/24	2:15	TPH
1,1-Dichloroethane	0.44	0.10	0.032		1.8	0.40	0.13	2	2/17/24	2:15	TPH
1,2-Dichloroethane	ND	0.10	0.038		ND	0.40	0.15	2	2/17/24	2:15	TPH
1,1-Dichloroethylene	ND	0.10	0.029		ND	0.40	0.11	2	2/17/24	2:15	TPH
cis-1,2-Dichloroethylene	0.25	0.10	0.031		0.98	0.40	0.12	2	2/17/24	2:15	TPH
trans-1,2-Dichloroethylene	0.60	0.10	0.033		2.4	0.40	0.13	2	2/17/24	2:15	TPH
1,2-Dichloropropane	ND	0.10	0.027		ND	0.46	0.13	2	2/17/24	2:15	TPH
cis-1,3-Dichloropropene	ND	0.10	0.045		ND	0.45	0.20	2	2/17/24	2:15	TPH
trans-1,3-Dichloropropene	ND	0.10	0.052		ND	0.45	0.23	2	2/17/24	2:15	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10	0.040		ND	0.70	0.28	2	2/17/24	2:15	TPH
1,4-Dioxane	ND	1.0	0.49		ND	3.6	1.8	2	2/17/24	2:15	TPH
Ethanol	ND	4.0	2.7		ND	7.5	5.0	2	2/17/24	2:15	TPH
Ethyl Acetate	ND	1.0	0.29		ND	3.6	1.0	2	2/17/24	2:15	TPH
Ethylbenzene	3.8	0.10	0.029		16	0.43	0.13	2	2/17/24	2:15	TPH
4-Ethyltoluene	0.55	0.10	0.043		2.7	0.49	0.21	2	2/17/24	2:15	TPH
Heptane	ND	0.10	0.063		ND	0.41	0.26	2	2/17/24	2:15	TPH
Hexachlorobutadiene	ND	0.10	0.058		ND	1.1	0.61	2	2/17/24	2:15	TPH
Hexane	ND	4.0	1.3		ND	14	4.7	2	2/17/24	2:15	TPH
2-Hexanone (MBK)	ND	0.10	0.043		ND	0.41	0.18	2	2/17/24	2:15	TPH
Isopropanol	ND	4.0	1.3		ND	9.8	3.1	2	2/17/24	2:15	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.049		ND	0.36	0.18	2	2/17/24	2:15	TPH
Methylene Chloride	ND	1.0	0.27		ND	3.5	0.93	2	2/17/24	2:15	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.053		ND	0.41	0.22	2	2/17/24	2:15	TPH
Naphthalene	0.13	0.10	0.067	V-05	0.70	0.52	0.35	2	2/17/24	2:15	TPH
Propene	ND	4.0	1.1		ND	6.9	1.9	2	2/17/24	2:15	TPH
Styrene	0.13	0.10	0.054		0.54	0.43	0.23	2	2/17/24	2:15	TPH
1,1,2,2-Tetrachloroethane	ND	0.10	0.025		ND	0.69	0.17	2	2/17/24	2:15	TPH

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-7
Sample ID: 24B1178-07
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 14:36

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2588
 Canister Size: 3 liter
 Flow Controller ID: 4196
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -1
 Receipt Vacuum(in Hg): -2.0
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrachloroethylene	13	0.10	0.037		88	0.68	0.25	2	2/17/24	2:15	TPH
Tetrahydrofuran	46	1.0	0.21		140	2.9	0.61	2	2/17/24	2:15	TPH
Toluene	0.28	0.10	0.036		1.1	0.38	0.14	2	2/17/24	2:15	TPH
1,2,4-Trichlorobenzene	ND	0.10	0.054	V-05	ND	0.74	0.40	2	2/17/24	2:15	TPH
1,1,1-Trichloroethane	4.5	0.10	0.031		25	0.55	0.17	2	2/17/24	2:15	TPH
1,1,2-Trichloroethane	ND	0.10	0.026		ND	0.55	0.14	2	2/17/24	2:15	TPH
Trichloroethylene	39	0.10	0.041		210	0.54	0.22	2	2/17/24	2:15	TPH
Trichlorofluoromethane (Freon 11)	26	0.40	0.041		150	2.2	0.23	2	2/17/24	2:15	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.022		ND	3.1	0.17	2	2/17/24	2:15	TPH
1,2,4-Trimethylbenzene	5.0	0.10	0.046		24	0.49	0.23	2	2/17/24	2:15	TPH
1,3,5-Trimethylbenzene	2.7	0.10	0.052		13	0.49	0.25	2	2/17/24	2:15	TPH
Vinyl Acetate	ND	2.0	0.36		ND	7.0	1.3	2	2/17/24	2:15	TPH
Vinyl Chloride	ND	0.10	0.046		ND	0.26	0.12	2	2/17/24	2:15	TPH
m&p-Xylene	18	0.20	0.070		79	0.87	0.30	2	2/17/24	2:15	TPH
o-Xylene	6.9	0.10	0.037		30	0.43	0.16	2	2/17/24	2:15	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	101	70-130	2/17/24 2:15

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-7-2
Sample ID: 24B1178-08
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 15:49

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2262
 Canister Size: 3 liter
 Flow Controller ID: 4201
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -4
 Receipt Vacuum(in Hg): -4.1
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	ND	4.0	0.94		ND	9.5	2.2	2	2/17/24	2:43	TPH
Benzene	0.30	0.10	0.031		0.95	0.32	0.099	2	2/17/24	2:43	TPH
Benzyl chloride	ND	0.10	0.054		ND	0.52	0.28	2	2/17/24	2:43	TPH
Bromodichloromethane	ND	0.10	0.027		ND	0.67	0.18	2	2/17/24	2:43	TPH
Bromoform	ND	0.10	0.036		ND	1.0	0.37	2	2/17/24	2:43	TPH
Bromomethane	ND	0.10	0.053		ND	0.39	0.21	2	2/17/24	2:43	TPH
1,3-Butadiene	ND	0.10	0.084		ND	0.22	0.19	2	2/17/24	2:43	TPH
2-Butanone (MEK)	ND	4.0	1.1		ND	12	3.3	2	2/17/24	2:43	TPH
Carbon Disulfide	ND	1.0	0.19		ND	3.1	0.60	2	2/17/24	2:43	TPH
Carbon Tetrachloride	ND	0.10	0.029		ND	0.63	0.18	2	2/17/24	2:43	TPH
Chlorobenzene	ND	0.10	0.025		ND	0.46	0.12	2	2/17/24	2:43	TPH
Chloroethane	ND	0.10	0.063		ND	0.26	0.17	2	2/17/24	2:43	TPH
Chloroform	0.31	0.10	0.026		1.5	0.49	0.13	2	2/17/24	2:43	TPH
Chloromethane	ND	0.20	0.041		ND	0.41	0.084	2	2/17/24	2:43	TPH
Cyclohexane	ND	0.10	0.044		ND	0.34	0.15	2	2/17/24	2:43	TPH
Dibromochloromethane	ND	0.10	0.027		ND	0.85	0.23	2	2/17/24	2:43	TPH
1,2-Dibromoethane (EDB)	ND	0.10	0.033		ND	0.77	0.26	2	2/17/24	2:43	TPH
1,2-Dichlorobenzene	ND	0.10	0.035		ND	0.60	0.21	2	2/17/24	2:43	TPH
1,3-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	2:43	TPH
1,4-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/17/24	2:43	TPH
Dichlorodifluoromethane (Freon 12)	0.48	0.10	0.042		2.4	0.49	0.21	2	2/17/24	2:43	TPH
1,1-Dichloroethane	0.27	0.10	0.032		1.1	0.40	0.13	2	2/17/24	2:43	TPH
1,2-Dichloroethane	ND	0.10	0.038		ND	0.40	0.15	2	2/17/24	2:43	TPH
1,1-Dichloroethylene	ND	0.10	0.029		ND	0.40	0.11	2	2/17/24	2:43	TPH
cis-1,2-Dichloroethylene	0.19	0.10	0.031		0.75	0.40	0.12	2	2/17/24	2:43	TPH
trans-1,2-Dichloroethylene	0.37	0.10	0.033		1.5	0.40	0.13	2	2/17/24	2:43	TPH
1,2-Dichloropropane	ND	0.10	0.027		ND	0.46	0.13	2	2/17/24	2:43	TPH
cis-1,3-Dichloropropene	ND	0.10	0.045		ND	0.45	0.20	2	2/17/24	2:43	TPH
trans-1,3-Dichloropropene	ND	0.10	0.052		ND	0.45	0.23	2	2/17/24	2:43	TPH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10	0.040		ND	0.70	0.28	2	2/17/24	2:43	TPH
1,4-Dioxane	ND	1.0	0.49		ND	3.6	1.8	2	2/17/24	2:43	TPH
Ethanol	7.5	4.0	2.7		14	7.5	5.0	2	2/17/24	2:43	TPH
Ethyl Acetate	ND	1.0	0.29		ND	3.6	1.0	2	2/17/24	2:43	TPH
Ethylbenzene	2.5	0.10	0.029		11	0.43	0.13	2	2/17/24	2:43	TPH
4-Ethyltoluene	0.40	0.10	0.043		2.0	0.49	0.21	2	2/17/24	2:43	TPH
Heptane	0.14	0.10	0.063		0.56	0.41	0.26	2	2/17/24	2:43	TPH
Hexachlorobutadiene	ND	0.10	0.058		ND	1.1	0.61	2	2/17/24	2:43	TPH
Hexane	ND	4.0	1.3		ND	14	4.7	2	2/17/24	2:43	TPH
2-Hexanone (MBK)	ND	0.10	0.043		ND	0.41	0.18	2	2/17/24	2:43	TPH
Isopropanol	ND	4.0	1.3		ND	9.8	3.1	2	2/17/24	2:43	TPH
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.049		ND	0.36	0.18	2	2/17/24	2:43	TPH
Methylene Chloride	ND	1.0	0.27		ND	3.5	0.93	2	2/17/24	2:43	TPH
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.053		ND	0.41	0.22	2	2/17/24	2:43	TPH
Naphthalene	ND	0.10	0.067	V-05	ND	0.52	0.35	2	2/17/24	2:43	TPH
Propene	ND	4.0	1.1		ND	6.9	1.9	2	2/17/24	2:43	TPH
Styrene	ND	0.10	0.054		ND	0.43	0.23	2	2/17/24	2:43	TPH
1,1,2,2-Tetrachloroethane	ND	0.10	0.025		ND	0.69	0.17	2	2/17/24	2:43	TPH

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/9/2024
Field Sample #: EW-7-2
Sample ID: 24B1178-08
 Sample Matrix: Soil Gas
 Sampled: 2/7/2024 15:49

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2262
 Canister Size: 3 liter
 Flow Controller ID: 4201
 Sample Type: 15 min

Work Order: 24B1178
 Initial Vacuum(in Hg): -29
 Final Vacuum(in Hg): -4
 Receipt Vacuum(in Hg): -4.1
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrachloroethylene	6.6	0.10	0.037		45	0.68	0.25	2	2/17/24	2:43	TPH
Tetrahydrofuran	19	1.0	0.21		57	2.9	0.61	2	2/17/24	2:43	TPH
Toluene	0.30	0.10	0.036		1.1	0.38	0.14	2	2/17/24	2:43	TPH
1,2,4-Trichlorobenzene	ND	0.10	0.054	V-05	ND	0.74	0.40	2	2/17/24	2:43	TPH
1,1,1-Trichloroethane	2.7	0.10	0.031		15	0.55	0.17	2	2/17/24	2:43	TPH
1,1,2-Trichloroethane	ND	0.10	0.026		ND	0.55	0.14	2	2/17/24	2:43	TPH
Trichloroethylene	21	0.10	0.041		110	0.54	0.22	2	2/17/24	2:43	TPH
Trichlorofluoromethane (Freon 11)	6.4	0.40	0.041		36	2.2	0.23	2	2/17/24	2:43	TPH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.022		ND	3.1	0.17	2	2/17/24	2:43	TPH
1,2,4-Trimethylbenzene	4.2	0.10	0.046		21	0.49	0.23	2	2/17/24	2:43	TPH
1,3,5-Trimethylbenzene	2.4	0.10	0.052		12	0.49	0.25	2	2/17/24	2:43	TPH
Vinyl Acetate	ND	2.0	0.36		ND	7.0	1.3	2	2/17/24	2:43	TPH
Vinyl Chloride	ND	0.10	0.046		ND	0.26	0.12	2	2/17/24	2:43	TPH
m&p-Xylene	11	0.20	0.070		48	0.87	0.30	2	2/17/24	2:43	TPH
o-Xylene	4.8	0.10	0.037		21	0.43	0.16	2	2/17/24	2:43	TPH

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	101	70-130	2/17/24 2:43

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
24B1178-01 [EW-1]	B366269	1.5	1	N/A	1000	200	150	02/16/24
24B1178-01 [EW-1]	B366269	1.5	1	N/A	1000	200	75	02/16/24
24B1178-02 [EW-2]	B366269	1.5	1	N/A	1000	200	150	02/16/24
24B1178-02 [EW-2]	B366269	1.5	1	N/A	1000	200	75	02/16/24
24B1178-03 [EW-3]	B366269	1.5	1	N/A	1000	200	150	02/16/24
24B1178-03 [EW-3]	B366269	1.5	1	N/A	1000	200	75	02/16/24
24B1178-04 [EW-4]	B366269	1.5	1	N/A	1000	200	150	02/16/24
24B1178-04 [EW-4]	B366269	1.5	1	N/A	1000	200	75	02/16/24
24B1178-05 [EW-5]	B366269	1.5	1	N/A	1000	200	150	02/16/24
24B1178-05 [EW-5]	B366269	1.5	1	N/A	1000	200	75	02/16/24
24B1178-05RE1 [EW-5]	B366269	1.5	1	N/A	1000	200	30	02/16/24
24B1178-06 [EW-6]	B366269	1.5	1	N/A	1000	200	150	02/16/24
24B1178-06 [EW-6]	B366269	1.5	1	N/A	1000	200	75	02/16/24
24B1178-07 [EW-7]	B366269	1.5	1	N/A	1000	200	150	02/16/24
24B1178-07 [EW-7]	B366269	1.5	1	N/A	1000	200	75	02/16/24
24B1178-08 [EW-7-2]	B366269	1.5	1	N/A	1000	200	150	02/16/24
24B1178-08 [EW-7-2]	B366269	1.5	1	N/A	1000	200	75	02/16/24

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	

Batch B366269 - TO-15 Prep
Blank (B366269-BLK1)

Prepared & Analyzed: 02/16/24

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
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.020
1,4-Dioxane	ND	0.20
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
4-Methyl-2-pentanone (MIBK)	ND	0.020
Naphthalene	ND	0.020
Propene	ND	0.80
Styrene	ND	0.020

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit	

Batch B366269 - TO-15 Prep
Blank (B366269-BLK1)

Prepared & Analyzed: 02/16/24

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								V-05
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>	<i>7.43</i>				<i>8.00</i>		<i>92.8</i>	<i>70-130</i>		
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LCS (B366269-BS1)

Prepared & Analyzed: 02/16/24

Acetone	5.07				5.00		101	70-130		
Benzene	4.55				5.00		91.0	70-130		
Benzyl chloride	4.64				5.00		92.8	70-130		
Bromodichloromethane	4.79				5.00		95.8	70-130		
Bromoform	5.40				5.00		108	70-130		
Bromomethane	6.17				5.00		123	70-130		
1,3-Butadiene	5.17				5.00		103	70-130		
2-Butanone (MEK)	4.29				5.00		85.9	70-130		
Carbon Disulfide	5.92				5.00		118	70-130		
Carbon Tetrachloride	5.09				5.00		102	70-130		
Chlorobenzene	4.90				5.00		98.1	70-130		
Chloroethane	5.33				5.00		107	70-130		
Chloroform	5.51				5.00		110	70-130		
Chloromethane	5.02				5.00		100	70-130		
Cyclohexane	4.23				5.00		84.6	70-130		
Dibromochloromethane	5.16				5.00		103	70-130		
1,2-Dibromoethane (EDB)	4.79				5.00		95.9	70-130		
1,2-Dichlorobenzene	4.84				5.00		96.8	70-130		
1,3-Dichlorobenzene	5.36				5.00		107	70-130		
1,4-Dichlorobenzene	5.13				5.00		103	70-130		
Dichlorodifluoromethane (Freon 12)	6.26				5.00		125	70-130		
1,1-Dichloroethane	5.75				5.00		115	70-130		
1,2-Dichloroethane	5.15				5.00		103	70-130		
1,1-Dichloroethylene	5.85				5.00		117	70-130		
cis-1,2-Dichloroethylene	4.92				5.00		98.4	70-130		
trans-1,2-Dichloroethylene	5.65				5.00		113	70-130		
1,2-Dichloropropane	4.58				5.00		91.6	70-130		

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
Batch B366269 - TO-15 Prep											
LCS (B366269-BS1)											
Prepared & Analyzed: 02/16/24											
cis-1,3-Dichloropropene	4.63				5.00		92.7	70-130			
trans-1,3-Dichloropropene	4.71				5.00		94.2	70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	5.93				5.00		119	70-130			
1,4-Dioxane	4.82				5.00		96.4	70-130			
Ethanol	5.64				5.00		113	70-130			
Ethyl Acetate	4.06				5.00		81.3	70-130			
Ethylbenzene	4.74				5.00		94.8	70-130			
4-Ethyltoluene	4.74				5.00		94.8	70-130			
Heptane	4.17				5.00		83.4	70-130			
Hexachlorobutadiene	4.61				5.00		92.2	70-130			
Hexane	4.61				5.00		92.1	70-130			
2-Hexanone (MBK)	4.65				5.00		93.1	70-130			
Isopropanol	5.10				5.00		102	70-130			
Methyl tert-Butyl Ether (MTBE)	5.70				5.00		114	70-130			
Methylene Chloride	5.19				5.00		104	70-130			
4-Methyl-2-pentanone (MIBK)	4.26				5.00		85.3	70-130			
Naphthalene	4.25				5.00		85.0	70-130			V-05
Propene	3.87				5.00		77.5	70-130			
Styrene	4.84				5.00		96.8	70-130			
1,1,2,2-Tetrachloroethane	5.11				5.00		102	70-130			
Tetrachloroethylene	4.74				5.00		94.8	70-130			
Tetrahydrofuran	4.38				5.00		87.5	70-130			
Toluene	4.69				5.00		93.8	70-130			
1,2,4-Trichlorobenzene	4.28				5.00		85.7	70-130			V-05
1,1,1-Trichloroethane	4.65				5.00		92.9	70-130			
1,1,2-Trichloroethane	5.17				5.00		103	70-130			
Trichloroethylene	4.58				5.00		91.6	70-130			
Trichlorofluoromethane (Freon 11)	6.13				5.00		123	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	6.13				5.00		123	70-130			
1,2,4-Trimethylbenzene	4.87				5.00		97.5	70-130			
1,3,5-Trimethylbenzene	5.02				5.00		100	70-130			
Vinyl Acetate	5.83				5.00		117	70-130			
Vinyl Chloride	5.78				5.00		116	70-130			
m&p-Xylene	10.2				10.0		102	70-130			
o-Xylene	5.08				5.00		102	70-130			
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>8.03</i>				<i>8.00</i>		<i>100</i>	<i>70-130</i>			

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
m ³	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.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

ANALYST

TPH Thomas P. Hnitecki
 STATION Report Queue Station
 RLF Rebecca Faust
 KMC Kristen M Couture
 CMR Catherine M. Rouleau

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
Initial Cal Check (S091464-ICV1)			Lab File ID: L23A214020.D			Analyzed: 08/02/23 23:42			
Bromochloromethane (1)	300782	2.867	314027	2.871	96	60 - 140	-0.0040	+/-0.50	
1,4-Difluorobenzene (1)	878479	3.54	895773	3.54	98	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	823159	5.202	837397	5.202	98	60 - 140	0.0000	+/-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
Calibration Check (S100584-CCV1)			Lab File ID: L24A047003.D			Analyzed: 02/16/24 13:22			
Bromochloromethane (1)	330976	2.865	314027	2.871	105	60 - 140	-0.0060	+/-0.50	
1,4-Difluorobenzene (1)	1050653	3.534	895773	3.54	117	60 - 140	-0.0060	+/-0.50	
Chlorobenzene-d5 (1)	944423	5.197	837397	5.202	113	60 - 140	-0.0050	+/-0.50	
LCS (B366269-BS1)			Lab File ID: L24A047004.D			Analyzed: 02/16/24 13:48			
Bromochloromethane (1)	333283	2.865	330976	2.865	101	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	1057689	3.539	1050653	3.534	101	60 - 140	0.0050	+/-0.50	
Chlorobenzene-d5 (1)	941904	5.197	944423	5.197	100	60 - 140	0.0000	+/-0.50	
Blank (B366269-BLK1)			Lab File ID: L24A047007.D			Analyzed: 02/16/24 15:21			
Bromochloromethane (1)	329245	2.864	330976	2.865	99	60 - 140	-0.0010	+/-0.50	
1,4-Difluorobenzene (1)	949426	3.538	1050653	3.534	90	60 - 140	0.0040	+/-0.50	
Chlorobenzene-d5 (1)	885540	5.194	944423	5.197	94	60 - 140	-0.0030	+/-0.50	
EW-2 (24B1178-02)			Lab File ID: L24A047022.D			Analyzed: 02/17/24 00:23			
Bromochloromethane (1)	298152	2.864	330976	2.865	90	60 - 140	-0.0010	+/-0.50	
1,4-Difluorobenzene (1)	920907	3.538	1050653	3.534	88	60 - 140	0.0040	+/-0.50	
Chlorobenzene-d5 (1)	848146	5.196	944423	5.197	90	60 - 140	-0.0010	+/-0.50	
EW-3 (24B1178-03)			Lab File ID: L24A047023.D			Analyzed: 02/17/24 00:51			
Bromochloromethane (1)	301547	2.864	330976	2.865	91	60 - 140	-0.0010	+/-0.50	
1,4-Difluorobenzene (1)	936274	3.538	1050653	3.534	89	60 - 140	0.0040	+/-0.50	
Chlorobenzene-d5 (1)	856239	5.195	944423	5.197	91	60 - 140	-0.0020	+/-0.50	
EW-4 (24B1178-04)			Lab File ID: L24A047024.D			Analyzed: 02/17/24 01:19			
Bromochloromethane (1)	304291	2.87	330976	2.865	92	60 - 140	0.0050	+/-0.50	
1,4-Difluorobenzene (1)	929206	3.538	1050653	3.534	88	60 - 140	0.0040	+/-0.50	
Chlorobenzene-d5 (1)	851075	5.195	944423	5.197	90	60 - 140	-0.0020	+/-0.50	
EW-6 (24B1178-06)			Lab File ID: L24A047025.D			Analyzed: 02/17/24 01:47			
Bromochloromethane (1)	309023	2.864	330976	2.865	93	60 - 140	-0.0010	+/-0.50	
1,4-Difluorobenzene (1)	949717	3.538	1050653	3.534	90	60 - 140	0.0040	+/-0.50	
Chlorobenzene-d5 (1)	876208	5.196	944423	5.197	93	60 - 140	-0.0010	+/-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
EW-7 (24B1178-07)									
Lab File ID: L24A047026.D					Analyzed: 02/17/24 02:15				
Bromochloromethane (1)	317762	2.875	330976	2.865	96	60 - 140	0.0100	+/-0.50	
1,4-Difluorobenzene (1)	1035677	3.544	1050653	3.534	99	60 - 140	0.0100	+/-0.50	
Chlorobenzene-d5 (1)	950730	5.196	944423	5.197	101	60 - 140	-0.0010	+/-0.50	
EW-7-2 (24B1178-08)									
Lab File ID: L24A047027.D					Analyzed: 02/17/24 02:43				
Bromochloromethane (1)	316318	2.88	330976	2.865	96	60 - 140	0.0150	+/-0.50	
1,4-Difluorobenzene (1)	1064223	3.549	1050653	3.534	101	60 - 140	0.0150	+/-0.50	
Chlorobenzene-d5 (1)	959596	5.201	944423	5.197	102	60 - 140	0.0040	+/-0.50	
EW-1 (24B1178-01)									
Lab File ID: L24A047028.D					Analyzed: 02/17/24 03:12				
Bromochloromethane (1)	304260	2.87	330976	2.865	92	60 - 140	0.0050	+/-0.50	
1,4-Difluorobenzene (1)	943159	3.538	1050653	3.534	90	60 - 140	0.0040	+/-0.50	
Chlorobenzene-d5 (1)	878005	5.195	944423	5.197	93	60 - 140	-0.0020	+/-0.50	
EW-5 (24B1178-05)									
Lab File ID: L24A047030.D					Analyzed: 02/17/24 04:07				
Bromochloromethane (1)	297653	2.875	330976	2.865	90	60 - 140	0.0100	+/-0.50	
1,4-Difluorobenzene (1)	1026902	3.544	1050653	3.534	98	60 - 140	0.0100	+/-0.50	
Chlorobenzene-d5 (1)	966969	5.197	944423	5.197	102	60 - 140	0.0000	+/-0.50	
EW-5 (24B1178-05RE1)									
Lab File ID: L24A047031.D					Analyzed: 02/17/24 04:34				
Bromochloromethane (1)	299218	2.875	330976	2.865	90	60 - 140	0.0100	+/-0.50	
1,4-Difluorobenzene (1)	978591	3.543	1050653	3.534	93	60 - 140	0.0090	+/-0.50	
Chlorobenzene-d5 (1)	913530	5.195	944423	5.197	97	60 - 140	-0.0020	+/-0.50	

CONTINUING CALIBRATION CHECK

EPA TO-15

S100584-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	5.00	4.99	1.122255	1.119085		-0.3	30
Benzene	A	5.00	4.63	0.7254293	0.6712686		-7.5	30
Benzyl chloride	A	5.00	4.22	0.65192	0.5500315		-15.6	30
Bromodichloromethane	A	5.00	4.94	0.5567047	0.5501112		-1.2	30
Bromoform	A	5.00	4.97	0.4926101	0.489767		-0.6	30
Bromomethane	A	5.00	6.15	0.6308676	0.776298		23.1	30
1,3-Butadiene	A	5.00	5.47	0.551149	0.6029344		9.4	30
2-Butanone (MEK)	A	5.00	4.10	1.381604	1.133868		-17.9	30
Carbon Disulfide	A	5.00	5.88	2.063757	2.429111		17.7	30
Carbon Tetrachloride	A	5.00	4.98	0.5110368	0.509131		-0.4	30
Chlorobenzene	A	5.00	4.91	0.7219812	0.7088993		-1.8	30
Chloroethane	A	5.00	5.42	0.411751	0.4467659		8.5	30
Chloroform	A	5.00	5.60	1.439332	1.611225		11.9	30
Chloromethane	A	5.00	5.43	0.6101459	0.6622112		8.5	30
Cyclohexane	A	5.00	4.25	0.3030286	0.2575237		-15.0	30
Dibromochloromethane	A	5.00	5.03	0.5644122	0.5678439		0.6	30
1,2-Dibromoethane (EDB)	A	5.00	4.81	0.5076449	0.4881711		-3.8	30
1,2-Dichlorobenzene	A	5.00	4.18	0.6234765	0.5217069		-16.3	30
1,3-Dichlorobenzene	A	5.00	4.67	0.6267236	0.5851056		-6.6	30
1,4-Dichlorobenzene	A	5.00	4.90	0.5801365	0.5691297		-1.9	30
Dichlorodifluoromethane (Freon 12)	A	5.00	6.48	1.768079	2.292826		29.7	30
1,1-Dichloroethane	A	5.00	5.85	1.392824	1.62946		17.0	30
1,2-Dichloroethane	A	5.00	5.23	0.9772927	1.021599		4.5	30
1,1-Dichloroethylene	A	5.00	5.88	1.127187	1.324843		17.5	30
cis-1,2-Dichloroethylene	A	5.00	4.95	0.908952	0.8997583		-1.0	30
trans-1,2-Dichloroethylene	A	5.00	5.75	1.128232	1.296486		14.9	30
1,2-Dichloropropane	A	5.00	4.63	0.2601948	0.2411377		-7.3	30
cis-1,3-Dichloropropene	A	5.00	4.90	0.3962271	0.3881335		-2.0	30
trans-1,3-Dichloropropene	A	5.00	4.37	0.3522842	0.3081802		-12.5	30
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	A	5.00	6.39	1.784687	2.28206		27.9	30
1,4-Dioxane	A	5.00	4.13	0.1742852	0.1438161		-17.5	30
Ethanol	A	5.00	5.49	0.1732414	0.1902736		9.8	30
Ethyl Acetate	A	5.00	3.91	0.2390169	0.1869429		-21.8	30
Ethylbenzene	A	5.00	4.78	1.176902	1.12525		-4.4	30
4-Ethyltoluene	A	5.00	4.35	1.247069	1.085431		-13.0	30
Heptane	A	5.00	4.10	0.2286847	0.1873623		-18.1	30
Hexachlorobutadiene	A	5.00	3.74	0.4755616	0.3559168		-25.2	30
Hexane	A	5.00	4.55	0.7442178	0.6772261		-9.0	30

CONTINUING CALIBRATION CHECK

EPA TO-15

S100584-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
2-Hexanone (MBK)	A	5.00	4.53	0.5993899	0.5434226		-9.3	30
Isopropanol	A	5.00	5.13	1.180699	1.211288		2.6	30
Methyl tert-Butyl Ether (MTBE)	A	5.00	5.77	2.130891	2.460128		15.5	30
Methylene Chloride	A	5.00	5.18	0.8716214	0.902156		3.5	30
4-Methyl-2-pentanone (MIBK)	A	5.00	4.37	0.2414371	0.2110961		-12.6	30
Naphthalene	A	5.00	3.19	0.954618	0.6082901		-36.3	30 *
Propene	A	5.00	3.94	0.4075236	0.3213381		-21.1	30
Styrene	A	5.00	4.75	0.6680173	0.6348867		-5.0	30
1,1,2,2-Tetrachloroethane	A	5.00	4.94	0.6838293	0.6758429		-1.2	30
Tetrachloroethylene	A	5.00	4.95	0.4174566	0.4134266		-1.0	30
Tetrahydrofuran	A	5.00	3.82	0.9111963	0.6958233		-23.6	30
Toluene	A	5.00	4.67	0.9385805	0.8760481		-6.7	30
1,2,4-Trichlorobenzene	A	5.00	3.27	0.3693275	0.2416155		-34.6	30 *
1,1,1-Trichloroethane	A	5.00	4.91	0.5075792	0.4985456		-1.8	30
1,1,2-Trichloroethane	A	5.00	5.19	0.309655	0.3216847		3.9	30
Trichloroethylene	A	5.00	4.54	0.3356598	0.3049395		-9.2	30
Trichlorofluoromethane (Freon 11)	A	5.00	6.28	1.816743	2.282099		25.6	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	A	5.00	6.23	1.436582	1.789752		24.6	30
1,2,4-Trimethylbenzene	A	5.00	4.62	1.021302	0.9440278		-7.6	30
1,3,5-Trimethylbenzene	A	5.00	4.87	1.055296	1.028088		-2.6	30
Vinyl Acetate	A	5.00	6.14	1.463541	1.798516		22.9	30
Vinyl Chloride	A	5.00	5.77	0.7105757	0.8197573		15.4	30
m&p-Xylene	A	10.0	10.0	0.9711506	0.9750682		0.4	30
o-Xylene	A	5.00	4.92	0.9550518	0.9396925		-1.6	30

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
<i>EPA TO-15 in Air</i>	
Acetone	NY,ME,NH
Benzene	FL,NJ,NY,ME,NH,VA
Benzyl chloride	FL,NJ,NY,ME,NH,VA
Bromodichloromethane	NJ,NY,ME,NH,VA
Bromoform	NJ,NY,ME,NH,VA
Bromomethane	FL,NJ,NY,ME,NH
1,3-Butadiene	NJ,NY,ME,NH,VA
2-Butanone (MEK)	FL,NJ,NY,ME,NH,VA
Carbon Disulfide	NJ,NY,ME,NH,VA
Carbon Tetrachloride	FL,NJ,NY,ME,NH,VA
Chlorobenzene	FL,NJ,NY,ME,NH,VA
Chloroethane	FL,NJ,NY,ME,NH,VA
Chloroform	FL,NJ,NY,ME,NH,VA
Chloromethane	FL,NJ,NY,ME,NH,VA
Cyclohexane	NJ,NY,ME,NH,VA
Dibromochloromethane	NY,ME,NH
1,2-Dibromoethane (EDB)	NJ,NY,ME,NH
1,2-Dichlorobenzene	FL,NJ,NY,ME,NH,VA
1,3-Dichlorobenzene	NJ,NY,ME,NH
1,4-Dichlorobenzene	FL,NJ,NY,ME,NH,VA
Dichlorodifluoromethane (Freon 12)	NY,ME,NH
1,1-Dichloroethane	FL,NJ,NY,ME,NH,VA
1,2-Dichloroethane	FL,NJ,NY,ME,NH,VA
1,1-Dichloroethylene	FL,NJ,NY,ME,NH,VA
cis-1,2-Dichloroethylene	FL,NY,ME,NH,VA
trans-1,2-Dichloroethylene	NJ,NY,ME,NH,VA
1,2-Dichloropropane	FL,NJ,NY,ME,NH,VA
cis-1,3-Dichloropropene	FL,NJ,NY,ME,NH,VA
trans-1,3-Dichloropropene	NY,ME,NH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	NJ,NY,ME,NH,VA
1,4-Dioxane	NJ,NY,ME,NH,VA
Ethylbenzene	FL,NJ,NY,ME,NH,VA
Heptane	NJ,NY,ME,NH,VA
Hexachlorobutadiene	NJ,NY,ME,NH,VA
Hexane	FL,NJ,NY,ME,NH,VA
Isopropanol	NY,ME,NH
Methyl tert-Butyl Ether (MTBE)	FL,NJ,NY,ME,NH,VA
Methylene Chloride	FL,NJ,NY,ME,NH,VA
4-Methyl-2-pentanone (MIBK)	FL,NJ,NY,ME,NH
Naphthalene	NY,ME,NH
Styrene	FL,NJ,NY,ME,NH,VA
1,1,2,2-Tetrachloroethane	FL,NJ,NY,ME,NH,VA
Tetrachloroethylene	FL,NJ,NY,ME,NH,VA
Toluene	FL,NJ,NY,ME,NH,VA
1,2,4-Trichlorobenzene	NJ,NY,ME,NH,VA
1,1,1-Trichloroethane	FL,NJ,NY,ME,NH,VA
1,1,2-Trichloroethane	FL,NJ,NY,ME,NH,VA

CERTIFICATIONS
Certified Analyses included in this Report

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

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

Code	Description	Number	Expires
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2025
NJ	New Jersey DEP	MA007 NELAP	06/30/2024
FL	Florida Department of Health	E871027 NELAP	06/30/2024
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2024

Phone: 413-525-2332
 Fax: 413-525-6405
 www.pacelabs.com

CHAIN OF CUSTODY RECORD (AIR)
 Requested Turnaround Time
 7-Day 10-Day
 Due Date: _____
 Rush-Approval Required
 1-Day 3-Day
 2-Day 4-Day
 Data Delivery
 Format: PDF EXCEL
 Other: _____
 CLP Like Data Pkg Required:
 Email To: MYKEL.MENDES@WSP.COM
 Fax To #: _____

Company Name: Pace Analytical
 24B1178
 Address: 100 APOLLON DR
 Phone: (951) 312 8756
 Project Name: PROVIDENCE, RI
 Project Location: 3652210366
 Project Number: Mykel Mendes
 Project Manager: Mykel Mendes
 Pace Quote Name/Number: _____
 Invoice Recipient: _____
 Sampled By: Ryan Thibault

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

Lab Use	Pace Work Order#	Client Use	Collection Data		Duration	Flow Rate	Matrix	Volume	Lab Receipt Pressure		Summa Can ID	Flow Controller ID
			Beginning Date/Time	Ending Date/Time					Initial Pressure	Final Pressure		
1	Ew-1		02/07/1311	02/07/1326	15min	SG	3L	0.15		2438	4283	
2	Ew-2		02/07/1302	02/07/1317	15min	SG	1			2381	4298	
3	Ew-3		02/07/1309	02/07/1324	15min	SG	1			2614	4197	
4	Ew-4		02/07/1303	02/07/1318	15min	SG	1			2755	4091	
5	Ew-5		02/07/1322	02/07/1337	15min	SG	1			2418	4365	
6	Ew-6		02/07/1420	02/07/1435	15min	SG	1			2365	4104	
7	Ew-7		02/07/1421	02/07/1436	15min	SG	1			2588	4196	
8	Ew-Combined		02/07/1531	02/07/1549	15min	SG	3L			2262	4201	
8	Ew-7-2		02/07/1531	02/07/1549	15min	SG	3L					

Relinquished by: (signature) Ryan Thibault
 Date/Time: 02/07/14 1733
 Received by: (signature) Carole Carburst
 Date/Time: 02/07/14 1733
 Relinquished by: (signature) Paul B...
 Date/Time: 2/8/24 1708
 Received by: (signature) Paul B...
 Date/Time: 2/8/24 9:55
 Relinquished by: (signature) Paul B...
 Date/Time: 2/8/24 0955
 Received by: (signature) Kara Coan
 Date/Time: 2/8/24 0955

Comments:
 Please use the following codes to indicate possible sample concentration within the Conc Code column above:
 H - High; M - Medium; L - Low; C - Clean; U - Unknown
 Matrix Codes:
 SG = SOIL GAS
 IA = INDOOR AIR
 AMB = AMBIENT
 SS = SUB SLAB
 D = DUP
 BL = BLANK
 O = Other

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

Detection Limit Requirements
 MA
 CT
 Other

Project Entity
 Government
 Federal
 City
 Municipality
 21 J
 Brownfield
 MWRA
 School
 MBTA
 WRTA
 Chromatogram
 AIHA-LAP, LLC
 PCB ONLY
 Soxhlet
 Non Soxhlet

Other
 NELAC and AIHA-LAP, LLC Accredited



DC#_Title: ENV-FRM-ELON-0009 v04_Air Sample Receiving Checklist

Effective Date: 07/13/2023

Log In Back-Sheet

Client WSP
 Project _____
 MCP/RCP Required _____
 Deliverable Package Requirement _____
 Location Providence, RI
 PWSID# (When Applicable) _____
 Arrival Method Courier
 Received By / Date / Time KMC 2/8/24 1708
 Back-Sheet By / Date / Time KMC 2/9/24 1205
 Temperature Method _____ # _____
 Temp $\leq 6^{\circ}$ C Actual Temperature _____
 Rush Samples: Yes / No _____ Notify _____
 Short Hold: Yes / No _____ Notify _____

Login Sample Receipt Checklist – (Rejection Criteria Listing – Using Acceptance Policy)
 Any False statement will be brought to the attention of the Client – True or False

	True	False
Received on Ice	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Received in Cooler	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Custody Seal: DATE TIME	<input type="checkbox"/>	<input checked="" type="checkbox"/>
COC Relinquished	<input checked="" type="checkbox"/>	<input type="checkbox"/>
COC/Samples Labels Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>
All Samples in Good Condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Samples Received within Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is there enough Volume	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proper Media/Container Used	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Individually Certified Cans	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Trip Blanks	<input type="checkbox"/>	<input checked="" type="checkbox"/>
COC Legible	<input checked="" type="checkbox"/>	<input type="checkbox"/>
COC Included: (Check all included)		
Client <input type="checkbox"/>	Analysis <input checked="" type="checkbox"/>	Sampler Name <input checked="" type="checkbox"/>
Project <input type="checkbox"/>	IDs <input checked="" type="checkbox"/>	Collection Date/Time <input checked="" type="checkbox"/>

Notes regarding Samples/COC outside of SOP:

Container	#	Size	Regulator	Duration	Accessories		
Summa Cans	8	3L	8	15min	Nut/Ferrule		IC Train
Tedlar Bags					Tubing		
TO-17 Tubes					T-Connector		Shipping Charges
Radiello					Syringe		
Pufs/ TO-11					Tedlar		

Can #'s	5	2418	10	15	Regs #'s	5	4365	10	15		
1	2438	6	2368	11	16	1	4283	6	4104	11	16
2	2381	7	2588	12	17	2	4298	7	4196	12	17
3	2614	8	2262	13	18	3	4197	8	4201	13	18
4	2755	9		14	19	4	4091	9		14	19
Unused Media	4		9	14	Pufs/TO-17's	5		10	15		
1		5		10	15	1		6		11	16
2		6		11	16	2		7		12	17
3		7		12	17	3		8		13	18
4		8		13	18	4		9		14	19

February 29, 2024

Mykel Mendes
WOOD PLC - Chelmsford
271 Mill Road, 3rd Floor
Chelmsford, MA 01824

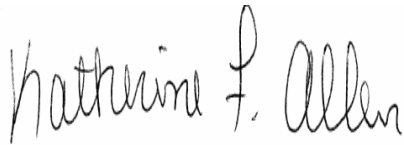
Project Location: Providence, RI
Client Job Number:
Project Number: 3652210306.0004 GL Code 573000 ORG Code 3652
Laboratory Work Order Number: 24B2236

Enclosed are results of analyses for samples as received by the laboratory on February 21, 2024. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Rebecca Faust
Project Manager



QA Officer
Katherine Allen



Laboratory Manager
Daren Damboragian

WOOD PLC - Chelmsford
271 Mill Road, 3rd Floor
Chelmsford, MA 01824
ATTN: Mykel Mendes

REPORT DATE: 2/29/2024

PURCHASE ORDER NUMBER: C012206368

PROJECT NUMBER: 3652210306.0004 GL Code 573000 ORG Code :

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 24B2236

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
POST-CARBON	24B2236-01	Air		- EPA TO-15	

CASE NARRATIVE SUMMARY

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

EPA TO-15

Qualifications:

V-05 Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

1,2,4-Trichlorobenzene, Acetone, Hexachlorobutadiene

24B2236-01[POST-CARBON], B367117-BLK1, B367117-BS1, S101039-CCV1

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: 2/21/2024
Field Sample #: POST-CARBON
Sample ID: 24B2236-01
 Sample Matrix: Air
 Sampled: 2/20/2024 11:17

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2267
 Canister Size: 3 liter
 Flow Controller ID: 4368
 Sample Type: 15 min

Work Order: 24B2236
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -3.2
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Acetone	ND	4.0	0.94	V-05	ND	9.5	2.2	2	2/27/24 17:30	CMR	
Benzene	ND	0.10	0.031		ND	0.32	0.099	2	2/27/24 17:30	CMR	
Benzyl chloride	ND	0.10	0.054		ND	0.52	0.28	2	2/27/24 17:30	CMR	
Bromodichloromethane	ND	0.10	0.027		ND	0.67	0.18	2	2/27/24 17:30	CMR	
Bromoform	ND	0.10	0.036		ND	1.0	0.37	2	2/27/24 17:30	CMR	
Bromomethane	ND	0.10	0.053		ND	0.39	0.21	2	2/27/24 17:30	CMR	
1,3-Butadiene	ND	0.10	0.084		ND	0.22	0.19	2	2/27/24 17:30	CMR	
2-Butanone (MEK)	ND	4.0	1.1		ND	12	3.3	2	2/27/24 17:30	CMR	
Carbon Disulfide	ND	1.0	0.19		ND	3.1	0.60	2	2/27/24 17:30	CMR	
Carbon Tetrachloride	ND	0.10	0.029		ND	0.63	0.18	2	2/27/24 17:30	CMR	
Chlorobenzene	ND	0.10	0.025		ND	0.46	0.12	2	2/27/24 17:30	CMR	
Chloroethane	ND	0.10	0.063		ND	0.26	0.17	2	2/27/24 17:30	CMR	
Chloroform	0.92	0.10	0.026		4.5	0.49	0.13	2	2/27/24 17:30	CMR	
Chloromethane	0.55	0.20	0.041		1.1	0.41	0.084	2	2/27/24 17:30	CMR	
Cyclohexane	ND	0.10	0.044		ND	0.34	0.15	2	2/27/24 17:30	CMR	
Dibromochloromethane	ND	0.10	0.027		ND	0.85	0.23	2	2/27/24 17:30	CMR	
1,2-Dibromoethane (EDB)	ND	0.10	0.033		ND	0.77	0.26	2	2/27/24 17:30	CMR	
1,2-Dichlorobenzene	ND	0.10	0.035		ND	0.60	0.21	2	2/27/24 17:30	CMR	
1,3-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/27/24 17:30	CMR	
1,4-Dichlorobenzene	ND	0.10	0.037		ND	0.60	0.22	2	2/27/24 17:30	CMR	
Dichlorodifluoromethane (Freon 12)	0.30	0.10	0.042		1.5	0.49	0.21	2	2/27/24 17:30	CMR	
1,1-Dichloroethane	11	0.10	0.032		46	0.40	0.13	2	2/27/24 17:30	CMR	
1,2-Dichloroethane	ND	0.10	0.038		ND	0.40	0.15	2	2/27/24 17:30	CMR	
1,1-Dichloroethylene	8.5	0.10	0.029		34	0.40	0.11	2	2/27/24 17:30	CMR	
cis-1,2-Dichloroethylene	4.7	0.10	0.031		19	0.40	0.12	2	2/27/24 17:30	CMR	
trans-1,2-Dichloroethylene	0.11	0.10	0.033		0.44	0.40	0.13	2	2/27/24 17:30	CMR	
1,2-Dichloropropane	ND	0.10	0.027		ND	0.46	0.13	2	2/27/24 17:30	CMR	
cis-1,3-Dichloropropene	ND	0.10	0.045		ND	0.45	0.20	2	2/27/24 17:30	CMR	
trans-1,3-Dichloropropene	ND	0.10	0.052		ND	0.45	0.23	2	2/27/24 17:30	CMR	
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.10	0.040		ND	0.70	0.28	2	2/27/24 17:30	CMR	
1,4-Dioxane	ND	1.0	0.49		ND	3.6	1.8	2	2/27/24 17:30	CMR	
Ethanol	ND	4.0	2.7		ND	7.5	5.0	2	2/27/24 17:30	CMR	
Ethyl Acetate	ND	1.0	0.29		ND	3.6	1.0	2	2/27/24 17:30	CMR	
Ethylbenzene	ND	0.10	0.029		ND	0.43	0.13	2	2/27/24 17:30	CMR	
4-Ethyltoluene	ND	0.10	0.043		ND	0.49	0.21	2	2/27/24 17:30	CMR	
Heptane	ND	0.10	0.063		ND	0.41	0.26	2	2/27/24 17:30	CMR	
Hexachlorobutadiene	ND	0.10	0.058	V-05	ND	1.1	0.61	2	2/27/24 17:30	CMR	
Hexane	ND	4.0	1.3		ND	14	4.7	2	2/27/24 17:30	CMR	
2-Hexanone (MBK)	ND	0.10	0.043		ND	0.41	0.18	2	2/27/24 17:30	CMR	
Isopropanol	ND	4.0	1.3		ND	9.8	3.1	2	2/27/24 17:30	CMR	
Methyl tert-Butyl Ether (MTBE)	ND	0.10	0.049		ND	0.36	0.18	2	2/27/24 17:30	CMR	
Methylene Chloride	ND	1.0	0.27		ND	3.5	0.93	2	2/27/24 17:30	CMR	
4-Methyl-2-pentanone (MIBK)	ND	0.10	0.053		ND	0.41	0.22	2	2/27/24 17:30	CMR	
Naphthalene	ND	0.10	0.067		ND	0.52	0.35	2	2/27/24 17:30	CMR	
Propene	ND	4.0	1.1		ND	6.9	1.9	2	2/27/24 17:30	CMR	
Styrene	ND	0.10	0.054		ND	0.43	0.23	2	2/27/24 17:30	CMR	
1,1,2,2-Tetrachloroethane	ND	0.10	0.025		ND	0.69	0.17	2	2/27/24 17:30	CMR	

ANALYTICAL RESULTS

 Project Location: Providence, RI
 Date Received: 2/21/2024
Field Sample #: POST-CARBON
Sample ID: 24B2236-01
 Sample Matrix: Air
 Sampled: 2/20/2024 11:17

 Sample Description/Location:
 Sub Description/Location:
 Canister ID: 2267
 Canister Size: 3 liter
 Flow Controller ID: 4368
 Sample Type: 15 min

Work Order: 24B2236
 Initial Vacuum(in Hg): -30
 Final Vacuum(in Hg): -5
 Receipt Vacuum(in Hg): -3.2
 Flow Controller Type: Fixed-Orifice
 Flow Controller Calibration
 RPD Pre and Post-Sampling:

EPA TO-15

Analyte	ppbv			Flag/Qual	ug/m3			Dilution	Date/Time		Analyst
	Results	RL	MDL		Results	RL	MDL		Analyzed		
Tetrachloroethylene	0.11	0.10	0.037		0.75	0.68	0.25	2	2/27/24 17:30	CMR	
Tetrahydrofuran	ND	1.0	0.21		ND	2.9	0.61	2	2/27/24 17:30	CMR	
Toluene	ND	0.10	0.036		ND	0.38	0.14	2	2/27/24 17:30	CMR	
1,2,4-Trichlorobenzene	ND	0.10	0.054	V-05	ND	0.74	0.40	2	2/27/24 17:30	CMR	
1,1,1-Trichloroethane	14	0.10	0.031		76	0.55	0.17	2	2/27/24 17:30	CMR	
1,1,2-Trichloroethane	ND	0.10	0.026		ND	0.55	0.14	2	2/27/24 17:30	CMR	
Trichloroethylene	ND	0.10	0.041		ND	0.54	0.22	2	2/27/24 17:30	CMR	
Trichlorofluoromethane (Freon 11)	29	0.40	0.041		160	2.2	0.23	2	2/27/24 17:30	CMR	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.40	0.022		ND	3.1	0.17	2	2/27/24 17:30	CMR	
1,2,4-Trimethylbenzene	ND	0.10	0.046		ND	0.49	0.23	2	2/27/24 17:30	CMR	
1,3,5-Trimethylbenzene	ND	0.10	0.052		ND	0.49	0.25	2	2/27/24 17:30	CMR	
Vinyl Acetate	ND	2.0	0.36		ND	7.0	1.3	2	2/27/24 17:30	CMR	
Vinyl Chloride	ND	0.10	0.046		ND	0.26	0.12	2	2/27/24 17:30	CMR	
m&p-Xylene	ND	0.20	0.070		ND	0.87	0.30	2	2/27/24 17:30	CMR	
o-Xylene	ND	0.10	0.037		ND	0.43	0.16	2	2/27/24 17:30	CMR	

Surrogates	% Recovery	% REC Limits	
4-Bromofluorobenzene (1)	96.3	70-130	2/27/24 17:30

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
24B2236-01 [POST-CARBON]	B367117	1.5	1	N/A	1000	200	150	02/27/24

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit	

Batch B367117 - TO-15 Prep
Blank (B367117-BLK1)

Prepared & Analyzed: 02/27/24

Acetone	ND	0.80								V-05
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								
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	ND	0.020								
1,4-Dioxane	ND	0.20								
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								V-05
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								
4-Methyl-2-pentanone (MIBK)	ND	0.020								
Naphthalene	ND	0.020								
Propene	ND	0.80								
Styrene	ND	0.020								

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit	

Batch B367117 - TO-15 Prep
Blank (B367117-BLK1)

Prepared & Analyzed: 02/27/24

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								V-05
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>	<i>7.73</i>				<i>8.00</i>		<i>96.6</i>	<i>70-130</i>		

LCS (B367117-BS1)

Prepared & Analyzed: 02/27/24

Acetone	3.55				5.00		70.9	70-130		V-05
Benzene	4.89				5.00		97.8	70-130		
Benzyl chloride	5.45				5.00		109	70-130		
Bromodichloromethane	4.21				5.00		84.2	70-130		
Bromoform	4.96				5.00		99.1	70-130		
Bromomethane	5.74				5.00		115	70-130		
1,3-Butadiene	4.48				5.00		89.6	70-130		
2-Butanone (MEK)	4.64				5.00		92.7	70-130		
Carbon Disulfide	5.62				5.00		112	70-130		
Carbon Tetrachloride	4.29				5.00		85.7	70-130		
Chlorobenzene	5.18				5.00		104	70-130		
Chloroethane	4.78				5.00		95.7	70-130		
Chloroform	5.77				5.00		115	70-130		
Chloromethane	4.19				5.00		83.8	70-130		
Cyclohexane	5.19				5.00		104	70-130		
Dibromochloromethane	4.85				5.00		97.0	70-130		
1,2-Dibromoethane (EDB)	4.98				5.00		99.5	70-130		
1,2-Dichlorobenzene	5.12				5.00		102	70-130		
1,3-Dichlorobenzene	5.20				5.00		104	70-130		
1,4-Dichlorobenzene	5.42				5.00		108	70-130		
Dichlorodifluoromethane (Freon 12)	4.81				5.00		96.2	70-130		
1,1-Dichloroethane	4.58				5.00		91.6	70-130		
1,2-Dichloroethane	4.69				5.00		93.9	70-130		
1,1-Dichloroethylene	4.87				5.00		97.3	70-130		
cis-1,2-Dichloroethylene	5.60				5.00		112	70-130		
trans-1,2-Dichloroethylene	4.44				5.00		88.9	70-130		
1,2-Dichloropropane	4.84				5.00		96.7	70-130		

QUALITY CONTROL
Air Toxics by EPA Compendium Methods - Quality Control

Analyte	ppbv		ug/m3		Spike Level	Source	%REC	%REC	RPD	RPD	Flag/Qual
	Results	RL	Results	RL	ppbv	Result	Limits	RPD	Limit		
Batch B367117 - TO-15 Prep											
LCS (B367117-BS1)					Prepared & Analyzed: 02/27/24						
cis-1,3-Dichloropropene	5.04				5.00		101	70-130			
trans-1,3-Dichloropropene	5.06				5.00		101	70-130			
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	5.00				5.00		100	70-130			
1,4-Dioxane	5.34				5.00		107	70-130			
Ethanol	4.78				5.00		95.7	70-130			
Ethyl Acetate	4.38				5.00		87.7	70-130			
Ethylbenzene	5.44				5.00		109	70-130			
4-Ethyltoluene	5.64				5.00		113	70-130			
Heptane	4.53				5.00		90.6	70-130			
Hexachlorobutadiene	4.67				5.00		93.5	70-130			V-05
Hexane	4.36				5.00		87.3	70-130			
2-Hexanone (MBK)	4.50				5.00		89.9	70-130			
Isopropanol	4.28				5.00		85.6	70-130			
Methyl tert-Butyl Ether (MTBE)	4.96				5.00		99.3	70-130			
Methylene Chloride	4.02				5.00		80.4	70-130			
4-Methyl-2-pentanone (MIBK)	4.93				5.00		98.6	70-130			
Naphthalene	5.38				5.00		108	70-130			
Propene	5.19				5.00		104	70-130			
Styrene	5.70				5.00		114	70-130			
1,1,2,2-Tetrachloroethane	5.13				5.00		103	70-130			
Tetrachloroethylene	5.22				5.00		104	70-130			
Tetrahydrofuran	3.96				5.00		79.1	70-130			
Toluene	5.41				5.00		108	70-130			
1,2,4-Trichlorobenzene	5.11				5.00		102	70-130			V-05
1,1,1-Trichloroethane	4.23				5.00		84.5	70-130			
1,1,2-Trichloroethane	5.44				5.00		109	70-130			
Trichloroethylene	4.71				5.00		94.1	70-130			
Trichlorofluoromethane (Freon 11)	4.79				5.00		95.8	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5.67				5.00		113	70-130			
1,2,4-Trimethylbenzene	5.54				5.00		111	70-130			
1,3,5-Trimethylbenzene	5.42				5.00		108	70-130			
Vinyl Acetate	4.98				5.00		99.7	70-130			
Vinyl Chloride	5.14				5.00		103	70-130			
m&p-Xylene	10.7				10.0		107	70-130			
o-Xylene	5.18				5.00		104	70-130			
<i>Surrogate: 4-Bromofluorobenzene (1)</i>	<i>8.07</i>				<i>8.00</i>		<i>101</i>	<i>70-130</i>			

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
m ³	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.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

ANALYST

STATION Report Queue Station
 RLF Rebecca Faust
 KMC Kristen M Couture
 CMR Catherine M. Rouleau

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
Initial Cal Check (S091464-ICV1)			Lab File ID: L23A214020.D			Analyzed: 08/02/23 23:42			
Bromochloromethane (1)	300782	2.867	314027	2.871	96	60 - 140	-0.0040	+/-0.50	
1,4-Difluorobenzene (1)	878479	3.54	895773	3.54	98	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	823159	5.202	837397	5.202	98	60 - 140	0.0000	+/-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
Calibration Check (S101039-CCV1)			Lab File ID: L24A058003.D			Analyzed: 02/27/24 10:15			
Bromochloromethane (1)	311623	2.866	314027	2.871	99	60 - 140	-0.0050	+/-0.50	
1,4-Difluorobenzene (1)	1143638	3.54	895773	3.54	128	60 - 140	0.0000	+/-0.50	
Chlorobenzene-d5 (1)	1006778	5.198	837397	5.202	120	60 - 140	-0.0040	+/-0.50	
LCS (B367117-BS1)			Lab File ID: L24A058004.D			Analyzed: 02/27/24 10:40			
Bromochloromethane (1)	306761	2.866	311623	2.866	98	60 - 140	0.0000	+/-0.50	
1,4-Difluorobenzene (1)	1108814	3.535	1143638	3.54	97	60 - 140	-0.0050	+/-0.50	
Chlorobenzene-d5 (1)	978679	5.198	1006778	5.198	97	60 - 140	0.0000	+/-0.50	
Blank (B367117-BLK1)			Lab File ID: L24A058007.D			Analyzed: 02/27/24 12:13			
Bromochloromethane (1)	315599	2.865	311623	2.866	101	60 - 140	-0.0010	+/-0.50	
1,4-Difluorobenzene (1)	1133632	3.534	1143638	3.54	99	60 - 140	-0.0060	+/-0.50	
Chlorobenzene-d5 (1)	998176	5.197	1006778	5.198	99	60 - 140	-0.0010	+/-0.50	
POST-CARBON (24B2236-01)			Lab File ID: L24A058017.D			Analyzed: 02/27/24 17:30			
Bromochloromethane (1)	284050	2.876	311623	2.866	91	60 - 140	0.0100	+/-0.50	
1,4-Difluorobenzene (1)	1104807	3.544	1143638	3.54	97	60 - 140	0.0040	+/-0.50	
Chlorobenzene-d5 (1)	978863	5.196	1006778	5.198	97	60 - 140	-0.0020	+/-0.50	

CONTINUING CALIBRATION CHECK

EPA TO-15

S101039-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	5.00	3.33	1.122255	0.7482888		-33.3	30 *
Benzene	A	5.00	4.82	0.7254293	0.7000817		-3.5	30
Benzyl chloride	A	5.00	4.22	0.65192	0.5506135		-15.5	30
Bromodichloromethane	A	5.00	4.22	0.5567047	0.4695108		-15.7	30
Bromoform	A	5.00	4.48	0.4926101	0.4411984		-10.4	30
Bromomethane	A	5.00	5.64	0.6308676	0.7117421		12.8	30
1,3-Butadiene	A	5.00	4.52	0.551149	0.4979247		-9.7	30
2-Butanone (MEK)	A	5.00	4.38	1.381604	1.211474		-12.3	30
Carbon Disulfide	A	5.00	5.34	2.063757	2.204726		6.8	30
Carbon Tetrachloride	A	5.00	4.24	0.5110368	0.4337778		-15.1	30
Chlorobenzene	A	5.00	4.94	0.7219812	0.7138336		-1.1	30
Chloroethane	A	5.00	4.51	0.411751	0.3713102		-9.8	30
Chloroform	A	5.00	5.62	1.439332	1.619192		12.5	30
Chloromethane	A	5.00	4.25	0.6101459	0.5187396		-15.0	30
Cyclohexane	A	5.00	4.91	0.3030286	0.2977823		-1.7	30
Dibromochloromethane	A	5.00	4.58	0.5644122	0.5172842		-8.3	30
1,2-Dibromoethane (EDB)	A	5.00	4.70	0.5076449	0.4777061		-5.9	30
1,2-Dichlorobenzene	A	5.00	4.17	0.6234765	0.5195934		-16.7	30
1,3-Dichlorobenzene	A	5.00	4.55	0.6267236	0.5704392		-9.0	30
1,4-Dichlorobenzene	A	5.00	4.77	0.5801365	0.5538921		-4.5	30
Dichlorodifluoromethane (Freon 12)	A	5.00	4.82	1.768079	1.704306		-3.6	30
1,1-Dichloroethane	A	5.00	4.49	1.392824	1.250645		-10.2	30
1,2-Dichloroethane	A	5.00	4.60	0.9772927	0.9000979		-7.9	30
1,1-Dichloroethylene	A	5.00	4.74	1.127187	1.068655		-5.2	30
cis-1,2-Dichloroethylene	A	5.00	5.53	0.908952	1.006118		10.7	30
trans-1,2-Dichloroethylene	A	5.00	4.38	1.128232	0.9879168		-12.4	30
1,2-Dichloropropane	A	5.00	4.67	0.2601948	0.2432322		-6.5	30
cis-1,3-Dichloropropene	A	5.00	5.18	0.3962271	0.4108265		3.7	30
trans-1,3-Dichloropropene	A	5.00	4.35	0.3522842	0.3062997		-13.1	30
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	A	5.00	5.39	1.784687	1.924063		7.8	30
1,4-Dioxane	A	5.00	4.61	0.1742852	0.1607642		-7.8	30
Ethanol	A	5.00	4.28	0.1732414	0.1483844		-14.3	30
Ethyl Acetate	A	5.00	4.28	0.2390169	0.2043598		-14.5	30
Ethylbenzene	A	5.00	5.23	1.176902	1.231793		4.7	30
4-Ethyltoluene	A	5.00	4.99	1.247069	1.244321		-0.2	30
Heptane	A	5.00	5.94	0.2286847	0.2718511		18.9	30
Hexachlorobutadiene	A	5.00	3.11	0.4755616	0.2958348		-37.8	30 *
Hexane	A	5.00	4.32	0.7442178	0.6424121		-13.7	30

CONTINUING CALIBRATION CHECK
 EPA TO-15

S101039-CCV1

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
2-Hexanone (MBK)	A	5.00	3.97	0.5993899	0.4763457		-20.5	30
Isopropanol	A	5.00	4.17	1.180699	0.9837528		-16.7	30
Methyl tert-Butyl Ether (MTBE)	A	5.00	4.88	2.130891	2.081007		-2.3	30
Methylene Chloride	A	5.00	3.97	0.8716214	0.6924572		-20.6	30
4-Methyl-2-pentanone (MIBK)	A	5.00	4.52	0.2414371	0.2180732		-9.7	30
Naphthalene	A	5.00	3.87	0.954618	0.7395426		-22.5	30
Propene	A	5.00	5.16	0.4075236	0.4204362		3.2	30
Styrene	A	5.00	5.24	0.6680173	0.700465		4.9	30
1,1,2,2-Tetrachloroethane	A	5.00	4.59	0.6838293	0.6276387		-8.2	30
Tetrachloroethylene	A	5.00	5.05	0.4174566	0.421341		0.9	30
Tetrahydrofuran	A	5.00	4.35	0.9111963	0.7924807		-13.0	30
Toluene	A	5.00	5.18	0.9385805	0.9727412		3.6	30
1,2,4-Trichlorobenzene	A	5.00	2.93	0.3693275	0.2161891		-41.5	30 *
1,1,1-Trichloroethane	A	5.00	4.32	0.5075792	0.4389487		-13.5	30
1,1,2-Trichloroethane	A	5.00	5.19	0.309655	0.3214071		3.8	30
Trichloroethylene	A	5.00	4.54	0.3356598	0.3048783		-9.2	30
Trichlorofluoromethane (Freon 11)	A	5.00	4.77	1.816743	1.732324		-4.6	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	A	5.00	5.64	1.436582	1.619778		12.8	30
1,2,4-Trimethylbenzene	A	5.00	4.91	1.021302	1.002344		-1.9	30
1,3,5-Trimethylbenzene	A	5.00	4.91	1.055296	1.036668		-1.8	30
Vinyl Acetate	A	5.00	4.63	1.463541	1.356511		-7.3	30
Vinyl Chloride	A	5.00	4.99	0.7105757	0.7097653		-0.1	30
m&p-Xylene	A	10.0	9.97	0.9711506	0.967844		-0.3	30
o-Xylene	A	5.00	4.94	0.9550518	0.943795		-1.2	30

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
<i>EPA TO-15 in Air</i>	
Acetone	NY,ME,NH
Benzene	FL,NJ,NY,ME,NH,VA
Benzyl chloride	FL,NJ,NY,ME,NH,VA
Bromodichloromethane	NJ,NY,ME,NH,VA
Bromoform	NJ,NY,ME,NH,VA
Bromomethane	FL,NJ,NY,ME,NH
1,3-Butadiene	NJ,NY,ME,NH,VA
2-Butanone (MEK)	FL,NJ,NY,ME,NH,VA
Carbon Disulfide	NJ,NY,ME,NH,VA
Carbon Tetrachloride	FL,NJ,NY,ME,NH,VA
Chlorobenzene	FL,NJ,NY,ME,NH,VA
Chloroethane	FL,NJ,NY,ME,NH,VA
Chloroform	FL,NJ,NY,ME,NH,VA
Chloromethane	FL,NJ,NY,ME,NH,VA
Cyclohexane	NJ,NY,ME,NH,VA
Dibromochloromethane	NY,ME,NH
1,2-Dibromoethane (EDB)	NJ,NY,ME,NH
1,2-Dichlorobenzene	FL,NJ,NY,ME,NH,VA
1,3-Dichlorobenzene	NJ,NY,ME,NH
1,4-Dichlorobenzene	FL,NJ,NY,ME,NH,VA
Dichlorodifluoromethane (Freon 12)	NY,ME,NH
1,1-Dichloroethane	FL,NJ,NY,ME,NH,VA
1,2-Dichloroethane	FL,NJ,NY,ME,NH,VA
1,1-Dichloroethylene	FL,NJ,NY,ME,NH,VA
cis-1,2-Dichloroethylene	FL,NY,ME,NH,VA
trans-1,2-Dichloroethylene	NJ,NY,ME,NH,VA
1,2-Dichloropropane	FL,NJ,NY,ME,NH,VA
cis-1,3-Dichloropropene	FL,NJ,NY,ME,NH,VA
trans-1,3-Dichloropropene	NY,ME,NH
1,2-Dichloro-1,1,2,2-tetrafluoroethane (Freon 114)	NJ,NY,ME,NH,VA
1,4-Dioxane	NJ,NY,ME,NH,VA
Ethylbenzene	FL,NJ,NY,ME,NH,VA
Heptane	NJ,NY,ME,NH,VA
Hexachlorobutadiene	NJ,NY,ME,NH,VA
Hexane	FL,NJ,NY,ME,NH,VA
Isopropanol	NY,ME,NH
Methyl tert-Butyl Ether (MTBE)	FL,NJ,NY,ME,NH,VA
Methylene Chloride	FL,NJ,NY,ME,NH,VA
4-Methyl-2-pentanone (MIBK)	FL,NJ,NY,ME,NH
Naphthalene	NY,ME,NH
Styrene	FL,NJ,NY,ME,NH,VA
1,1,2,2-Tetrachloroethane	FL,NJ,NY,ME,NH,VA
Tetrachloroethylene	FL,NJ,NY,ME,NH,VA
Toluene	FL,NJ,NY,ME,NH,VA
1,2,4-Trichlorobenzene	NJ,NY,ME,NH,VA
1,1,1-Trichloroethane	FL,NJ,NY,ME,NH,VA
1,1,2-Trichloroethane	FL,NJ,NY,ME,NH,VA

CERTIFICATIONS
Certified Analyses included in this Report

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

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

Code	Description	Number	Expires
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2025
NJ	New Jersey DEP	MA007 NELAP	06/30/2024
FL	Florida Department of Health	E871027 NELAP	06/30/2024
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2024



DC#_Title: ENV-FRM-ELON-0009 v04_Air Sample Receiving Checklist

Effective Date: 07/13/2023

Log In Back-Sheet

Client WSP USA
 Project TEXTRON
 MCP/RCP Required _____
 Deliverable Package Requirement _____
 Location Providence, RI
 PWSID# (When Applicable) _____
 Arrival Method COURIER
 Received By / Date / Time KMC 2/21/24 1953
 Back-Sheet By / Date / Time KMC 2/22/24 0855
 Temperature Method _____ # _____
 Temp ≤ 6° C Actual Temperature _____
 Rush Samples: Yes / No _____ Notify _____
 Short Hold: Yes / No _____ Notify _____

Login Sample Receipt Checklist – (Rejection Criteria Listing – Using Acceptance Policy)
 Any False statement will be brought to the attention of the Client – True or False

	True	False
Received on Ice	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Received in Cooler	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Custody Seal: DATE TIME	<input type="checkbox"/>	<input checked="" type="checkbox"/>
COC Relinquished	<input checked="" type="checkbox"/>	<input type="checkbox"/>
COC/Samples Labels Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>
All Samples in Good Condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Samples Received within Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is there enough Volume	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proper Media/Container Used	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Individually Certified Cans	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Trip Blanks	<input type="checkbox"/>	<input checked="" type="checkbox"/>
COC Legible	<input checked="" type="checkbox"/>	<input type="checkbox"/>
COC Included: (Check all included)		
Client	<input checked="" type="checkbox"/>	Sampler Name <input checked="" type="checkbox"/>
Project	<input checked="" type="checkbox"/>	Collection Date/Time <input checked="" type="checkbox"/>
Analysis	<input checked="" type="checkbox"/>	IDs
	<input checked="" type="checkbox"/>	

Notes regarding Samples/COC outside of SOP:

Container	#	Size	Regulator	Duration	Accessories		
Summa Cans	1	3L	1	15min	Nut/Ferrule		IC Train
Tedlar Bags					Tubing		
TO-17 Tubes					T-Connector		Shipping Charges
Radiello					Syringe		
Pufs/ TO-11					Tedlar		

Can #'s	5	10	15	Regs #'s	5	10	15
1 2267	6	11	16	1 4368	6	11	16
2	7	12	17	2	7	12	17
3	8	13	18	3	8	13	18
4	9	14	19	4	9	14	19
Unused Media	4	9	14	Pufs/TO-17's	5	10	15
1	5	10	15	1	6	11	16
2	6	11	16	2	7	12	17
3	7	12	17	3	8	13	18
4	8	13	18	4	9	14	19



WORK ORDER

Printed: 2/23/2024 9:48:36AM

24B2236

Pace New England

Client: WOOD PLC - Chelmsford
Project: Textron Gorham

Project Manager: Rebecca Faust
Project Number: 3652210306.0004 GL Code 573000 ORG Code 3652

Below please find the login confirmation including the CoC and draft invoice.

To ensure that your needs are met, **please review** these documents to verify that:

1. The number of samples received and matrix are correct.
2. The methods are correct as well as any specific regulatory requirements.
3. The due date for the final report is correct.
4. The contact information is correct.
5. The pricing is correct.

Thank-you for choosing Pace New England. If you need further assistance, please contact your project manager.

24B2236

Pace New England

Client: WOOD PLC - Chelmsford
Project: Textron Gorham

Project Manager: Rebecca Faust
Project Number: 3652210306.0004 GL Code 573000 ORG Code 3652

Report To:
WOOD PLC - Chelmsford
Mykel Mendes
271 Mill Road, 3rd Floor
Chelmsford, MA 01824
Phone: (978) 692-9090
Fax: (781) 245-5060

Invoice To:
WOOD PLC - Chelmsford
Accounts Payable
271 Mill Road, 3rd Floor
Chelmsford, MA 01824
Phone : (978) 692-9090
Fax: (781) 245-5060

Analysis	Due	TAT	Expires	Comments
24B2236-01 POST-CARBON [Air] Sampled 02/20/24 11:17 (GMT-05:00)				
Eastern Time (US &				
TO-15 ppbv low level	03/01/24 14:00	7	03/21/24 23:59	
Flow Controller Rental	03/01/24 14:00	7	02/14/25 11:17	
Canister Rental	03/01/24 14:00	7	02/14/25 11:17	

24B2236

Pace New England

Client: WOOD PLC - Chelmsford
Project: Textron Gorham

Project Manager: Rebecca Faust
Project Number: 3652210306.0004 GL Code 573000 ORG Code 3652

DRAFT INVOICE

Item	Qty	Surcharge	Unit Price	Test Total
Canister Rental	1	0.00	\$35.00	\$35.00
Flow Controller Rental	1	0.00	\$25.00	\$25.00
TO-15 ppbv low level	1	0.00	\$241.50	\$241.50
				\$301.50

Reviewed By _____

Date _____



DC#_Title: ENV-FRM-ELON-0009 v04_Air Sample Receiving Checklist

Effective Date: 07/13/2023

Log In Back-Sheet

Client WSP USA
 Project TEXTRON
 MCP/RCP Required _____
 Deliverable Package Requirement _____
 Location Providence, RI
 PWSID# (When Applicable) _____
 Arrival Method COURIER
 Received By / Date / Time KMC 2/21/24 1953
 Back-Sheet By / Date / Time KMC 2/22/24 0855
 Temperature Method _____ # _____
 Temp ≤ 6° C Actual Temperature _____
 Rush Samples: Yes / No _____ Notify _____
 Short Hold: Yes / No _____ Notify _____

Login Sample Receipt Checklist – (Rejection Criteria Listing – Using Acceptance Policy)
 Any False statement will be brought to the attention of the Client – True or False

	True	False
Received on Ice	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Received in Cooler	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Custody Seal: DATE TIME	<input type="checkbox"/>	<input checked="" type="checkbox"/>
COC Relinquished	<input checked="" type="checkbox"/>	<input type="checkbox"/>
COC/Samples Labels Agree	<input checked="" type="checkbox"/>	<input type="checkbox"/>
All Samples in Good Condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Samples Received within Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is there enough Volume	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proper Media/Container Used	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Individually Certified Cans	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Trip Blanks	<input type="checkbox"/>	<input checked="" type="checkbox"/>
COC Legible	<input checked="" type="checkbox"/>	<input type="checkbox"/>
COC Included: (Check all included)		
Client	<input checked="" type="checkbox"/>	Sampler Name <input checked="" type="checkbox"/>
Project	<input checked="" type="checkbox"/>	IDs <input checked="" type="checkbox"/> Collection Date/Time <input checked="" type="checkbox"/>

Notes regarding Samples/COC outside of SOP:

Container	#	Size	Regulator	Duration	Accessories		
Summa Cans	1	3L	1	15min	Nut/Ferrule		IC Train
Tedlar Bags					Tubing		
TO-17 Tubes					T-Connector		Shipping Charges
Radiello					Syringe		
Pufs/ TO-11					Tedlar		

Can #'s	5	10	15	Regs #'s	5	10	15
1 2267	6	11	16	1 4368	6	11	16
2	7	12	17	2	7	12	17
3	8	13	18	3	8	13	18
4	9	14	19	4	9	14	19
Unused Media	4	9	14	Pufs/TO-17's	5	10	15
1	5	10	15	1	6	11	16
2	6	11	16	2	7	12	17
3	7	12	17	3	8	13	18
4	8	13	18	4	9	14	19

24B2236

Pace New England

Client: WOOD PLC - Chelmsford
Project: Textron Gorham

Project Manager: Rebecca Faust
Project Number: 3652210306.0004 GL Code 573000 ORG Code 3652

[Empty rectangular box]



Appendix B

Analytical Laboratory Detection Limits

Analytical Method Information

Analyte	MDL	Reporting	Surrogate	Duplicate	Matrix Spike		Blank Spike / LCS	
		Limit	%R	RPD	%R	RPD	%R	RPD
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 (Fr	0.012	0.050 ppbv		25				70 - 130
1,4-Dioxane	0.32	0.50 ppbv		25				70 - 130
Ethanol	0.89	2.0 ppbv		25				70 - 130
Ethyl Acetate	0.037	0.050 ppbv		25				70 - 130
Ethylbenzene	0.014	0.050 ppbv		25				70 - 130
4-Ethyltoluene	0.011	0.050 ppbv		25				70 - 130
Heptane	0.016	0.050 ppbv		25				70 - 130
Hexachlorobutadiene	0.019	0.050 ppbv		25				70 - 130
Hexane	0.088	2.0 ppbv		25				70 - 130
2-Hexanone (MBK)	0.013	0.050 ppbv		25				70 - 130
Isopropanol	0.061	2.0 ppbv		25				70 - 130
Methyl tert-Butyl Ether (MTBE)	0.015	0.050 ppbv		25				70 - 130
Methylene Chloride	0.061	0.50 ppbv		25				70 - 130
4-Methyl-2-pentanone (MIBK)	0.012	0.050 ppbv		25				70 - 130
Naphthalene	0.027	0.050 ppbv		25				70 - 130
Propene	0.15	2.0 ppbv		25				70 - 130
Styrene	0.0097	0.050 ppbv		25				70 - 130

Analytical Method Information

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



Appendix C

Outdoor Reference Sample Results

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

Area:		Outdoor Air Reference Location																							
Location:		AA-1																							
Sample ID:	AA-1	AA-1-020309	AA-1-021109	AA-1-021809	AA-1-022609	AA-1-030609	AA-1-033109	AA-1-041409	AA-1-042409	AA-1-051509	AA-1-061109	AA-1-091709	AA-1-092409	AA-1-100109	AA-1-100809	AA-1-122909	AA-1-012810	AA-1-020510	AA-1-021210	AA-1-021910	AA-1-032610	AA-1-043010	AA-1-052810	AA-1-070110	
Sample Date:	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	3/31/2009	4/14/2009	4/24/2009	5/15/2009	6/11/2009	9/17/2009	9/24/2009	10/1/2009	10/8/2009	12/29/2009	1/28/2010	2/5/2010	2/12/2010	2/19/2010	3/26/2010	4/30/2010	5/28/2010	7/1/2010	
Analyte	Units																								
1,1,1,2-Tetrachloroethane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1,2,2-Tetrachloroethane	ug/m3	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	ug/m3	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	0.25 U	0.28	0.52	1.8	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.29	0.3	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	ug/m3	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	ug/m3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	ug/m3	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	ug/m3	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	ug/m3	0.25 U	0.25 U	0.25 U	0.5	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-Butadiene	ug/m3	0.11 U	0.11 U	0.17	1.3	0.11 U	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.11 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.23 U	0.11 U
1,3-Dichlorobenzene	ug/m3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	ug/m3	0.3 U	0.3 U	0.3 U	0.53	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	0.58	1.2	2.4	3.2	1.6	0.67	1.7	0.11 U	1.6	1.6	1.1	1.7	0.84	1.2	2	0.81	1.6	1.6	0.88	1.5	1.4	2.4	2.3	
2-Hexanone	ug/m3	0.2 U	0.22	0.57	0.35	0.2 U	0.2 U	0.2 U	0.14 U	0.26	0.39	0.2 U	0.34	0.2 U	0.33	0.23	0.2 U	0.32	0.2 U	0.2 U	0.29	0.29	0.49	0.49	
4-Ethyltoluene	ug/m3	0.25 U	0.25 U	0.25 U	0.6	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Methyl-2-pentanone	ug/m3	0.2 U	0.2 U	0.27	0.63	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.34	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Acetone	ug/m3	7.3	8	15	22	8.4	5.9	12	1.1	27	9.5	10	10	9.6	5.4	17	11	3.5	7.6	5	3.7	9.5	12	13	
Benzene	ug/m3	0.69	0.62	1.3	4.7	0.43	0.69	0.46	0.12 U	0.3	0.4	0.49	0.38	0.35	0.25	0.2	0.42	0.79	0.68	0.63	0.41	0.69	0.35	0.19	0.16 U
Benzyl chloride	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	ug/m3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	ug/m3	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.28	0.16 U	0.44	0.16 U	0.44	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	ug/m3	0.38	0.44	0.52	0.56	0.43	0.61	0.47	0.22 U	0.41	0.78	0.43	0.4	0.4	0.43	0.46	0.39	0.42	0.39	0.31 U	0.43	0.49	0.47	0.52	0.51
Chlorobenzene	ug/m3	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	ug/m3	1.1	0.9	1.4	1.5	1.1	1.1	1.3	1.1	1.2	1.1	1.2	0.85	1.1	0.97	0.96	1.6	1.1	1.2	1.3	1.1	1.4	0.78	1.1	0.96
cis-1,2-Dichloroethene	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	ug/m3	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	0.17 U	0.17 U	0.35	1.1	0.17 U	0.17 U	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	ug/m3	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	ug/m3	2	2.2	2.6	2.7	2.6	2.8	2	2.5	2.7	2.6	2.1	2.1	2.2	2.1	2.1	2.3	2.4	2.5	2.9	1.8	2.1	2.5	2.4	
Ethanol	ug/m3	4	5.4	10	47	4.3	3.5	4.7	0.81	4.9	4.8	8.6	6.6	4.6	3.9	4.9	3.8	5.4	5.1	7.2	1.2	4.9	4	3.3	4
Ethyl acetate	ug/m3	0.37 U	0.37 U	0.18 U	0.31	0.37 U	0.18 U	0.18 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	ug/m3	0.22 U	0.25	0.52	2	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.24	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.82
Hexachlorobutadiene	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U
Hexane	ug/m3	1.5	0.																						

**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/m3	--	--	--	--	0.62 U	--	0.37 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.42 U	0.44 U	0.44 U	0.44 U	0.25 U	0.44 U	0.44 U	0.44 U	0.44 U	--	0.44 U	
1,1,1-Trichloroethane	ug/m3	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	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	0.19 U	0.19 U	0.055 U	0.19 U	0.19 U	0.19 U	0.073 J	0.19 U	0.19 U	
1,1,2,2-Tetrachloroethane	ug/m3	0.34 U	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	0.24 U	0.24 U	0.23 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
1,1,2-Trichloroethane	ug/m3	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	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
1,1-Dichloroethane	ug/m3	0.2 U	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	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
1,1-Dichloroethene	ug/m3	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	0.14 U	0.13 U	0.14 U	0.14 U	0.16	0.04 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	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	0.25 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
1,2,4-Trimethylbenzene	ug/m3	0.94	0.25 U	1.1	0.25 U	0.25 U	0.16	0.15 U	0.15 U	0.26	0.17 U	0.069 J	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/m3	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.26 U	0.27 U	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
1,2-Dichlorobenzene	ug/m3	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	0.2 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
1,2-Dichloroethane	ug/m3	0.2 U	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	0.14 U	0.14 U	0.14 U	0.14 U	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
1,2-Dichloropropane	ug/m3	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	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
1,2-Dichlorotetrafluoroethane	ug/m3	0.35 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.25 U	--	
1,3,5-Trimethylbenzene	ug/m3	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	0.17 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	
1,3-Butadiene	ug/m3	0.29	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.075 U	0.078 U	0.078 U	0.078 U	0.044 U	0.078 U	0.078 U	0.078 U	0.078 U	0.18	0.23	0.078 U
1,3-Dichlorobenzene	ug/m3	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	0.21 U	0.21 U	0.21 U	0.2 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
1,4-Dichlorobenzene	ug/m3	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	0.21 U	0.21 U	0.21 U	0.2 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
1,4-Dioxane	ug/m3	--	--	--	--	0.18 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3 U	--
2-Butanone	ug/m3	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/m3	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	0.14 U	0.17	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
4-Ethyltoluene	ug/m3	0.3	0.25 U	0.34	0.25 U	0.25 U	0.053 J	0.15 U	0.15 U	0.093 J	0.17 U	0.17 U	0.17 U	0.17 U	0.063 J	0.17 U	0.17 U	0.18	0.098 U	0.17 U	0.079 J	0.17 U	0.093 J	0.17 U	0.17 U	
4-Methyl-2-pentanone	ug/m3	2.8	0.2 U	0.2 U	0.2 U	0.2 J	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	
Acetone	ug/m3	14	5.7 B	19 B	8.7 B	20	4.9	9.4	10	12 B	3.3	18	28	16	12	26	9.3	22	25	10	8.7	10	13	18	6.3	
Benzene	ug/m3	1.2	0.28	2.3	0.16 U	0.19	0.4	0.29	0.2	0.68	0.11	1	0.31	0.7	0.95	0.43	1	0.94	0.2	0.58	0.67	0.41	0.82	1.4	0.45	
Benzyl chloride	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 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
Bromodichloromethane	ug/m3	0.33 U	0.34 U	0.34 U	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	0.23 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
Bromoform	ug/m3	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.35 U	0.36 U	0.36 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	0.36 U
Bromomethane	ug/m3	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.078 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Carbon disulfide	ug/m3	0.16 U	0.38	0.16 U	0.16 U	1.6 U	0.058 J	0.93 U	0.11 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.098 J	1.1 U	1.1 U	0.057 J	1.1 U	0.09 J	1.1 U	1.1 U	
Carbon tetrachloride	ug/m3	0.43	0.42	0.48	0.53	0.48	0.49	0.43	0.43	0.36	0.22	0.41	0.55	0.47	0.43	0.45	0.22	0.42	0.45	0.36	0.34	0.36	0.43	0.55	0.38	
Chlorobenzene	ug/m3	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	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
Chloroethane	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.089 U	0.093 U	0.093 U	0.11	0.053 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	
Chloroform	ug/m3	0.24 U	0.24 U	0.24 U	0.24 U	0.24 J	0.094 J	0.073 U	0.067 J	0.096 J	0.17 U	0.21	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.082	0.082 J	0.065 J	0.11 J	0.18	0.31	0.17 U	
Chloromethane	ug/m3	0.99	0.94	1	0.96	1.4	0.062 U	1.1	1.5	1.1	0.072	1.6	1.4	1.1	0.96	1.1	1.3	1.4	0.64	0.96	1.1	1.2	1.1	1.2	1	
cis-1,2-Dichloroethene	ug/m3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12	0.059 U	0.12 U	0.14 U	0.14 U	0.092 J	0.14 U	0.16	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	
cis-1,3-Dichloropropene	ug/m3	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U	0.16 U	0.16 U	0.045 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Cyclohexane	ug/m3	0.46	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 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	0.31	0.069 U	0.12 U	0.12 U	0.12 U	0.12 U	0.59	0.12 U	
Dibromochloromethane	ug/m3	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.29 U	0.3 U	0.3 U	0.3 U	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
Dichlorodifluoromethane	ug/m3	2.9	1.9	3.1	1.9	1.7	2.5	2	2.4	2.8	0.17	1.7	3	2	1.7	2.7	1.4	2	2.2	2.1	1.4	2.3	1.7	2.7	1.6	
Ethanol	ug/m3	14	2.3	12	2.7	5.8	1.5 J	4.1	7.4	5.2	2.6	1.2 J	6.1	6.7	6.7	5.4	9	17	2.9	2.7	2 J	4.8	12	7.3	2.5 J	
Ethyl acetate	ug/m3	0.18 U	0.18 U																							

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

Area:		Outdoor Air Reference Location															
Location:		AA-1															
Sample ID:		AA-1-080516	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-1-09092020	AA-1-10292020	AA-1-030821	AA-1	AA-1	AA-1	AA-1
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	9/8/2021	3/29/2022	9/15/2022	3/17/2023
Analyte	Units																
1,1,1,2-Tetrachloroethane	ug/m3	--	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	0.44 U	0.44 U	0.44 U	0.44 U
1,1,1-Trichloroethane	ug/m3	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	0.19 U	0.19 U	0.51	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	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	0.24 U	0.24 U	0.24 U	0.24 U
1,1,2-Trichloroethane	ug/m3	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.42	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1-Dichloroethane	ug/m3	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	0.14 U	0.14 U	0.14 U	0.14 U
1,1-Dichloroethene	ug/m3	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	0.14 U	0.14 U	0.14 U	0.14 U
1,2,4-Trichlorobenzene	ug/m3	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.22 U	0.52 U	0.52 U	0.26 U	0.26 U
1,2,4-Trimethylbenzene	ug/m3	0.17 U	0.17 U	0.17 U	0.12 J	0.18	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.73	0.15 U	0.17	0.15 J	0.17 U	0.15 J
1,2-Dibromoethane (EDB)	ug/m3	0.27 U	0.27 U	0.27 U	0.27 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	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dichlorobenzene	ug/m3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.84 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloroethane	ug/m3	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	0.14 U	0.14 U	0.14 U	0.14 U
1,2-Dichloropropane	ug/m3	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	0.16 U	0.16 U	0.16 U	0.16 U
1,2-Dichlorotetrafluoroethane	ug/m3	0.25 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	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	0.058 J	0.17 U	0.17 U	0.17 U
1,3-Butadiene	ug/m3	0.078 U	0.078 U	0.9	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.077 U	0.077 U	0.066 U	0.077 U	0.077 U	0.077 U	0.078 U
1,3-Dichlorobenzene	ug/m3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.49 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dichlorobenzene	ug/m3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.5 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U
1,4-Dioxane	ug/m3	1.3 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	1.2 J	0.91 J	2.4 J	1.8 J	1.2 J	2.1 J	0.71 J	0.63 J	1.6 J	1.4 J	0.73 J	0.71 J	1.7 J	4.1 U	1.6 J	4.1 U
2-Hexanone	ug/m3	0.14 U	0.14 U	0.14 U	0.43	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.29 U	0.29 U	0.25 U	0.29 U	0.29 U	0.14 U	0.17
4-Ethyltoluene	ug/m3	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.15 U	0.17 U	0.17 U	0.17 U	0.17 U
4-Methyl-2-pentanone	ug/m3	0.14 U	0.14 U	0.3	0.072 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U
Acetone	ug/m3	11	3.1 J	16	24	6.2	10	6.9	5.1	9.8	8.2	15	7.8	11	5.2	8.3	6.7
Benzene	ug/m3	0.35	0.37	2.2	0.47	0.39	1.4	0.22	0.24	0.34	0.15	1.2	0.68	0.51	0.39	0.15	0.37
Benzyl chloride	ug/m3	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.16 U	0.18 U	0.18 U	0.36 U	0.18 U
Bromodichloromethane	ug/m3	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	0.23 U	0.23 U	0.23 U	0.24 U
Bromoform	ug/m3	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	0.36 U	0.36 U	0.36 U	0.36 U
Bromomethane	ug/m3	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	1.4 U	0.27 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U
Carbon disulfide	ug/m3	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	1.1 U	1.1 U	1.1 U	1.1 U
Carbon tetrachloride	ug/m3	0.39	0.44	0.4	0.39	0.49	0.91	0.44	0.39	0.41	0.43	0.39	0.71	0.43	0.22 U	0.61	0.45
Chlorobenzene	ug/m3	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	0.16 U	0.16 U	0.16 U	0.16 U
Chloroethane	ug/m3	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	0.092 U	0.092 U	0.092 U	0.093 U
Chloroform	ug/m3	0.17 U	0.17 U	0.17 U	0.086 J	0.11 J	0.53	0.17 U	0.17 U	0.17 U	0.13 J	0.31	0.11 J	0.089 J	0.17 U	0.17 U	0.17 U
Chloromethane	ug/m3	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	1.2	1.3	1.2	0.97
cis-1,2-Dichloroethene	ug/m3	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.33	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	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	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/m3	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	0.12 U	0.12 U	0.12 U	0.12 U
Dibromochloromethane	ug/m3	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.64	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U
Dichlorodifluoromethane	ug/m3	0.64	1	1.5	1.7	2.1	2.2	1.3	1.7	1.6	2	2.5	2.9	2.4	2.1	2.5	1.1
Ethanol	ug/m3	5.5	2.5 J	2.2 J	6.7	2.1 J	12	4	5.9	3.9	6.3	14	11	7.4	3.3	5.5	4.5
Ethyl acetate	ug/m3	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	1.3 U	1.3 U	1.3 U	1.7
Ethylbenzene	ug/m3	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	0.18	0.15 U	0.15 U	0.15 U
Hexachlorobutadiene	ug/m3	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U
Hexane	ug/m3	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	4.9 U	4.9 U	0.96 J	4.9 U
Isopropyl alcohol	ug/m3	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	3.4 U	0.74 J	3.4 U	3.4 U
m,p-Xylene	ug/m3	0.46	0.14 U	2.4	0.56	0.48	1.7	0.3 U	0.57	0.3 U	0.18 J	1.8	0.31	0.4	0.19 J	0.3 U	0.3 U
Methyl methacrylate	ug/m3	--	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
Methylene chloride	ug/m3	3.5	1 J	0.26 J	0.39 J	0.28 J	0.94 J	0.29 J	0.28 J	0.42 J	1.2 U	1 J	5.8	0.38 J	1.2 U	1.2 U	1.2 U
Methyl-t-butyl ether	ug/m3	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U
Naphthalene	ug/m3	0.18 U	--	--	--	--	--	--	--	--	--	--	0.16 U	--	--	--	--
n-Heptane	ug/m3	0.24	0.14 U	0.47	0.18	0.31	1.1	0.14 U	0.14 U	0.14 U	0.14 U	0.65	0.12 U	0.18	0.14 U	0.14 U	0.14 U
o-Xylene	ug/m3	0.17	0.12 J	0.67	0.21	0.2	0.72	0.15 U	0.22	0.15 U	0.15 U	0.71	0.17	0.15	0.082 J	0.15 U	0.15 U
Propylene (Propene)	ug/m3	2.4 U	0.63 J	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.1 U	2.4 U	2.4 U	2.4 U	2.4 U
Styrene	ug/m3	0.15 U	0.15 U	0.46	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.13 U	0.15 U	0.15 U	0.15 U	0.15 U
Tetrachloroethene	ug/m3	0.41	0.24 U	0.24 U	0.24 U	0.24 U	1.1	0.24 U	0.68	0.24 U	0.1 J	0.44	0.11 J	0.24 U	0.24 U	0.24 U	0.24 U
Tetrahydrofuran	ug/m3	0.1 U	0.1 U	0.21 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U	1 U	0.88 U	1 U	1 U	0.49 J	1 U
Toluene	ug/m3	1.1	2.4	2.2	0.77	1.1	2.8	0.31	0.68	0.26	0.52	3.4	0.45	0.86	0.21	0.29	0.23
Total VOCs	ug/m3	40.72	9.36	30.47	38.15	13.76	40.95	16.87	18.06	20.61	21.069	43.63	37.921	28.897	15.382	24.13	17.88
trans-1,2-Dichloroethene	ug/m3	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.058 J	0.33 J	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U
trans-1,3-Dichloropropene	ug/m3	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	0.16 U	0.16 U	0.16 U	0.16 U
Trichloroethene	ug/m3	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.34	0.19 U	0.19 U	0.19	0.16 U	0.19 U	0.19 U	0.2	0.19 U
Trichlorofluoromethane	ug/m3	1.4	1.3	1.1	1.2	1.2	1.8	1.6	1.2	1.5	1.1	1.3	1.6	1.2	1.1	1.3	1.1
Trichlorotrifluoroethane	ug/m3	0.47 J	0.55 J	0.46 J	0.48 J	0.53 J	1.1 U	0.52 J	1.1 U	1.3	0.48 J	1.1 U	0.57 J	0.59 J	0.62 J	0.52 J	0.44 J
Vinyl acetate	ug/m3	1.6 J	2.5 U	2.5 U	0.99 J	0.72 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.1 U	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl chloride	ug/m3	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	0.089 U	0.089 U	0.077 U	0.089 U	0.089 U	0.089 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
 -- Compound not analyzed.

Prepared By: AKN, 4/12/2023
 Checked By: MM, 4/12/2023



Appendix D1

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

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

Area:		Eastern Small Retail Space																								
Location:		IA-5																								
Sample ID:		IA-5	IA-5-020309	IA-5-021109	IA-5-021809	IA-5-022609	IA-5-030609	IA-5-041409	IA-5-051509	IA-5-061109	IA-5-091709	IA-5-122909	IA-5-032610	IA-5-070110	IA-5-091610	IA-5-120810	IA-5-021711	IA-5-060211	IA-5-091511	IA-5-120811	IA-5-030812	IA-5-061412	IA-5-091312	IA-5-010313		
Sample Date:		1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	4/14/2009	5/15/2009	6/11/2009	9/17/2009	12/29/2009	3/26/2010	7/1/2010	9/16/2010	12/8/2010	2/17/2011	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013		
Analyte	Units	CT IACTIND 2003																								
1,1,1,2-Tetrachloroethane	ug/m3	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.62 U	--	0.37 U	0.37 U	0.44 U	0.44 U	
1,1,1-Trichloroethane	ug/m3	500	48	0.92	0.27 U	0.27 U	0.27 U	0.27 U	0.98	0.27 U	0.27 U	0.27 U	0.27 U	0.38	0.27 U	0.27 U	0.27 U	0.27 U	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/m3	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.14 J	0.082 U	0.16 U	0.19 U	0.19 U	
1,1-Dichloroethane	ug/m3	430	1.8	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,1-Dichloroethene	ug/m3	20	0.58	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	0.14 U	0.14 U	
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	22	0.45 U	0.45 U	0.52 U	0.52 U	
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.32	0.33	0.36	0.36	0.25 U	0.25 U	0.2	0.25 U	0.35	0.25 U	0.25 U	0.25 U	0.25 U	0.73	0.25 U	0.25 U	0.25 U	0.25 J	1.3	0.15 U	0.16	0.29	0.17 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.066 J	0.061 U	0.044 J	0.14 U	0.14 U	
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 J	0.39	0.15 U	0.077 J	0.11 J	0.17 U	
1,3-Butadiene	ug/m3	NA	0.11 U	0.11 U	0.11 U	0.25	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 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/m3	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	0.18 U	--	--	0.18 U	--	--	--	--	--	--	
2-Butanone	ug/m3	500	7.2	2.4	2.7	2.6	0.75	0.45	3.8	1.9	5.3	2.1	0.79	1.5	2.1	1.4	0.78	0.78 B	3.6	5.9 J	0.98 J	2 J	0.94 J	2.3 J	4.1 J	
2-Hexanone	ug/m3	NA	0.2 U	0.48	0.38	0.27	0.2 U	0.2 U	0.47	0.45	1.1	0.48	0.2 U	0.23	0.44	0.2 U	0.2 U	0.2 U	4.1 U	0.2 J	0.13	0.32	0.081 J	0.17	0.14	
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.18	0.2 U	0.68	0.23	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.31	0.2 U	0.13	0.18	0.34	0.22	0.14 U	
Acetone	ug/m3	500	32	11	21	20	9.5	6.5	14	14	46	16	15	11	18	17	6.4 B	9.5 B	24 B	15	6.6	11	13	13 B	3.3	
Benzene	ug/m3	3.3	0.79	0.6	0.99	1.6	0.41	0.55	0.62	0.49	0.53	0.35	0.45	0.65	0.16 U	1.1	0.26	1.1	0.33	0.29	0.38	0.34	0.2	0.53	0.11	
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	
Bromodichloromethane	ug/m3	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	0.34 U	0.2 U	0.1 U	0.24 U	0.24 U
Bromoform	ug/m3	7.3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.23	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.14 U	0.14 U
Carbon disulfide	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.27	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.93 U	0.11 J	1.1 U	1.1 U	
Carbon tetrachloride	ug/m3	0.54	0.33	0.44	0.5	0.55	0.47	0.61	0.44	0.64	0.46	0.39	0.41	0.48	0.53	0.44	0.54	0.6	0.59	0.48	0.49	0.46	0.42	0.38	0.22	
Chlorobenzene	ug/m3	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.48	0.14 U	0.14 U	0.16 U	0.16 U	
Chloroethane	ug/m3	500	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.059 J	0.093 U	
Chloroform	ug/m3	0.5	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.55	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 J	0.49	0.073 U	0.14 J	0.17	0.17 U	
Chloromethane	ug/m3	80	1.1	1	1.5	1.4	1.1	1.1	1.1	1.1	1.4	1	2	1.2	1	1	0.76	0.96	1.1	1.3	1	1.1	1.4	1.2	0.072	
cis-1,2-Dichloroethene	ug/m3	100	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.18	0.059 U	0.12 U	0.14 U	0.14 U	
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.38	0.41	0.17 U	0.17 U	0.12 U	0.17 U	0.4	0.17 U	0.17 U	0.17 U	0.45	0.17 U	0.17 U	0.46	0.17 U	0.17 U	0.46	0.17 U	0.1 U	0.12	0.21	0.12 U
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.3 U	
Dichlorodifluoromethane	ug/m3	500	2	2.2	2.5	2.7	2.6	2.6	1.9	2.5	2.2	2.1	1.9	1.8	2.4	1.9	2.3	3.1	1.7	2	2.6	2	2.9	2.8	0.17	
Ethanol	ug/m3	NA	590	12	23	140	85	32	41	180	500	62	51	25	58	150	2.4	14	7.7	7.9	5.4	14	43	11	2.6	
Ethyl acetate	ug/m3	NA	0.75	0.37 U	0.18 U	0.18 U	0.37 U	0.18 U	0.26 U	0.18 U	0.31	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.48	0.21	0.66	0.13	
Ethylbenzene	ug/m3	290	0.22 U	0.25	0.33	0.43	0.22 U	0.22 U	0.24	0.22 U	0.3	0.23	0.22 U	0.44	0.91	0.22 U	0.3	0.36	0.22 J	1.2	0.13 U	0.16	0.31	0.31	0.15 J	
Hexachlorobutadiene	ug/m3	NA	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.17 J	0.32 U	0.32 U	0.37 U	0.37 U	
Hexane	ug/m3	NA	0.84	0.54	1.1	0.99	0.39	0.5	0.71	0.58	1	0.52	0.57	0.43	0.48	1	0.3	1.3	1.7	7 J	0.36 J	0.48 J	0.57 J	1.2 J	4.9 J	
Isopropyl alcohol	ug/m3	NA	3.8	3.5	580	2.9	3	1.3	1.7	2	19	3.5	3.8	3.8	1.9	8.2	0.12 U	1.7	1.2 U	6.4	2.9 U	2.9 U	3.3 J	3.4 J	3.4 J	
m,p-Xylene	ug/m3	NA	0.6	0.74	0.91	1.2	0.43 U	0.43 U	0.68	0.51	0.88	0.59	0.43 U	0.46	1.2	2.4	0.43 U	0.85	0.57	0.53	3	0.12 J	0.36	0.97	0.3	
Methyl methacrylate	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U					

**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-5-09092020	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																									
			1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.25 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
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	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	0.16 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	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/m3	12	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	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/m3	430	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	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/m3	20	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	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/m3	NA	0.52 U	0.26 U	0.26 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	0.26 U	0.22 U
1,2,4-Trimethylbenzene	ug/m3	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	0.17 U	0.035 J
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.077 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/m3	410	0.21 U	0.21 U	0.21 U	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	0.18 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04	0.14 U	0.045 J	0.065 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.057 J	0.08 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	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	0.14 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	0.25 U	--	0.25 U	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.17 U	0.19	0.17 U	0.057 J	0.17 U	0.038 J	0.038 J	0.066 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.15 U
1,3-Butadiene	ug/m3	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	0.078 U	0.19	0.14	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.066 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.12 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	0.18 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	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	0.18 U
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	1.3 U	--	1.3 U	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	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 J	1.3 J	1.3 J	
2-Hexanone	ug/m3	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	0.14 U	0.25 U	
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.22	0.17 U	0.09 J	0.17 U	0.17 U	0.041 J	0.079 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.15 U	
4-Methyl-2-pentanone	ug/m3	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	0.14 U	0.14 U	0.14 U	0.14 U	0.37	0.078 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	
Acetone	ug/m3	500	9.7	24	19	40	12	25	14	10	14	12	18	23	7.1	18	5.4	24	10	18	12	6.1	12	7.2	11	11	
Benzene	ug/m3	3.3	0.8	0.27	0.68	0.55	2.9	0.55	0.25	0.4	0.54	0.33	0.76	0.93	0.45	0.29	0.45	0.53	0.57	0.44	1.1	0.41	0.38	0.15	0.63		
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 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	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.16 U	
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.067 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	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.21 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.31 U	
Bromomethane	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.078 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	0.12 U	
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	0.13 J	1.1 U	1.1 U	1.1 U	0.041 J	1.1 U	1.1 U	0.096 J	0.098 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.063 J	0.19 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.93 U	
Carbon tetrachloride	ug/m3	0.54	0.37	0.59	0.47	0.5	0.43	0.45	0.45	0.36	0.35	0.37	0.44	0.47	0.33	0.42	0.43	0.41	0.39	0.49	0.88	0.37	0.44	0.45	0.34		
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	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	0.14 U	
Chloroethane	ug/m3	500	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.053 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.079 U	
Chloroform	ug/m3	0.5	0.069 J	0.17 U	0.17	0.17 U	0.17 U	0.17 U	0.12	0.099 J	0.062 J	0.14 J	0.19	0.17	0.17 U	0.19	0.17	0.84	0.11 J	0.36	0.55	0.24	0.17 U	0.12 J	0.15 U		
Chloromethane	ug/m3	80	1.2	1.5	1.2	1.3	1.3	1.2	0.67	0.81	0.97	1.3	1.1	1.3	0.91	1.1	1.2	2.4	1.2	1.2	1.3	0.97	1	0.14 U	0.12 U		
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.18	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	0.075 J	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	
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.045 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	0.14 U	
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.4	0.12 U	0.069 U	0.12 U	0.12 U	0.12 U	0.18	0.39	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.1 U	
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.26 U	
Dichlorodifluoromethane	ug/m3	500	1.6	3.4	1.9	2.5	1.3	2.2	2	1.9	1.3	2	1.7	2.4	2.5	0.54	1.1	1.3	1.7	2.1	2.3	1.6					

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

Area:		Small Center Retail Space										Western Small Retail Space													
Location:		IA-6										IA-7													
Sample ID:		IA-6-090619	IA-6-021420	IA-6-09092020	IA-6-030821	IA-6	IA-6	IA-6	IA-6	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	
Sample Date:		9/6/2019	2/14/2020	9/9/2020	3/8/2021	9/8/2021	3/29/2022	9/15/2022	3/17/2023	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	
Analyte	Units	CT IACTIND 2003																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U	0.44 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1,1-Trichloroethane	ug/m3	500	0.39	0.19 U	0.19 U	0.16 U	0.19 U	0.16 J	0.18 J	4.6	44	2.4	0.4	1.3	0.27 U	0.27 U	0.87	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	1.3	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.52	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.22 U	0.22 U	0.52 U	0.52 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.75 U	0.75 U	0.37 U	0.37 U	0.37 U	
1,2,4-Trimethylbenzene	ug/m3	52	0.29	0.17 U	0.17 U	0.15 U	0.25	0.17 U	0.17 U	0.13 J	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	
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.3	0.23 U	0.23 U	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	--	--	--	--	--	--	--	--	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	--	
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.15 U	0.089 J	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
1,3-Butadiene	ug/m3	NA	0.078 U	0.078 U	0.077 U	0.066 U	0.077 U	0.077 U	0.077 U	0.078 U	0.11 U	0.11 U	0.14	0.97	0.11 U	0.11 U	0.08 U	0.11 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.21 U	0.18 U	0.2 J	0.21 U	0.18 J	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Butanone	ug/m3	500	0.85 J	0.59 J	0.63 J	0.53 J	1.6 J	4.1 U	1.1 J	1.1 J	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
2-Hexanone	ug/m3	NA	0.14 U	0.14 U	0.29 U	0.25 U	0.29 U	0.29 U	0.14 U	0.16	0.2 U	0.29	0.2 U	0.2 U	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	
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.15 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.27	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.089 J	0.2 U	0.2 U	0.2 U	0.42	0.2 U	0.2 U	0.14 U	0.22	0.79	0.24	0.2 U	0.2 U	0.43	0.61	0.2 U
Acetone	ug/m3	500	11	7.7	11	6	15	7.7	14	10	29	12	13	32	7.8	6.6	6.5	10	31	22	31	12	41	27	12 B
Benzene	ug/m3	3.3	0.48	0.4	0.11 U	0.62	0.78	0.8	0.23	0.53	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
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U	0.23 U	0.2 U	0.23 U	0.23 U	0.24 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	
Bromomethane	ug/m3	NA	1.4 U	0.27 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	0.38 J	0.93 U	1.1 U	1.1 U	0.14 J	1.1 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.26	0.16 U	0.16 U	0.26	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Carbon tetrachloride	ug/m3	0.54	0.35	0.45	0.44	0.46	0.4	0.48	0.51	0.46	0.32	0.44	0.52	0.56	0.48	0.6	0.43	0.65	0.43	0.42	0.44	0.43	0.5	0.47	0.45
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	500	0.093 U	0.093 U	0.092 U	0.079 U	0.092 U	0.092 U	0.092 U	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.5	0.17 U	0.17 U	0.22	0.15 U	0.17 U	0.17 U	0.17 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.38	0.24 U
Chloromethane	ug/m3	80	1	1.1	0.14 U	0.12 U	1.3	1.4	1.1	1.1	1.7	0.98	1.4	1.5	1	1.2	1.1	0.93	1.8	1.2	2.1	1.2	1.3	1.4	0.99
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.29	0.2 U	0.2 U	0.2 U	0.2 U	0.14	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.32	0.7	0.17 U	0.17 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	ug/m3	500	1.7	1.5	0.17 U	0.15 U	2.4	2	2.5	1.1	2.1	2.2	2.6	2.7	2.6	2	2.4	2.7	2.3	2.1	1.8	2.7	1.7	2	2
Ethanol	ug/m3	NA	30	41	1500	390	140	4500	300	13	7.3	16	11	26	7.9	8.4	7.1	11	14	11	10	13	39	240	13
Ethyl acetate	ug/m3	NA	0.13 U	0.13 U	1.3 U	1.1 U	27	1.3 U	1.3 U	1.3 U	0.37 U	0.37 U	0.18 U	0.21	0.37 U	0.18 U	0.26 U	0.18 U	0.24	2.6	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	ug/m3	290	0.31	0.15 U	0.15 J	0.13	0.24	0.15 U	0.14 J	0.1 J	0.23	0.29	0.36	0.95	0.24	0.22 U	0.16 U	0.22 U	0.25	0.32	0.68	0.32	0.45	0.45	0.22 U
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	1.1 U	0.53 U	1.1 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U
Hexane	ug/m3	NA	0.35 J	4.9 U	4.9 U	0.54 J	4.9 U	4.9 U	1 J	4.9 U	0.9	0.87	0.91	2	1.1	0.6	0.69	0.33	1.5	0.88	0.25	0.33	0.7	0.64	0.5
Isopropyl alcohol	ug/m3	NA	3.9	2 J	3.4 U	1.8 J	3.2 J	1.9 J	2.6 J	1.4 J	3.7	6.2	8.3	0.25 U	2.7	0.18 U	7	14	4	1.9	18	5.8	28	2.8	2.8
m,p-Xylene	ug/m3	NA	0.9	0.3 U	0.39	0.29	0.65	0.32	0.4	0.27 J	0.61	0.82	0.94	2.8	0.73	0.43 U	0.31 U	0.43 U	0.72	0.86	2.8	0.82	1.2	1.2	0.43 U
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.2 U
Methylene chloride	ug/m3	17	0.39 J	0.56 J	1.2 U	2.4	2.4	0.61 J	1.2 U	1.2 U															

**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-7-021711	IA-7-060211	IA-7-091511	IA-7-120811	IA-7-030812	IA-7-061412	IA-7-091312	IA-7-010313	IA-7-031513	IA-7-060713	IA-7-090613	IA-7-100313	IA-7-121313	IA-7-030714	IA-7-061314	IA-7-091214	IA-7-121914	IA-07-032715	IA-7-061115	IA-7-091615	IA-7-121815	IA-7-021816	IA-7-080516	
Sample Date:			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	8/5/2016	
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	0.44 U	0.44 U	0.42 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	--
1,1,1-Trichloroethane	ug/m3	500	0.27 U	0.27 U	0.27 U	0.069 J	0.082 U	0.088 J	0.19 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	0.055 U	0.19 U	0.19 U	0.19 U	0.054 J	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	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	0.24 U	0.24 U	0.23 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
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	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
1,1-Dichloroethane	ug/m3	430	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	0.14 U	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
1,1-Dichloroethene	ug/m3	20	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	0.14 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
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U	0.17 J	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.25 U	0.26 U	0.26 U	0.26 U	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
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.56	0.41	0.32	0.36	0.21	0.46	0.17 U	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	
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.26 U	0.27 U	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
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	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
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.07 J	0.061 U	0.051 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.11 J	0.14 U	0.14 U	0.14 U	0.15	0.14 U	0.065 J	0.19	0.18	0.14 U	0.14 U	0.14 U	
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.63	0.23 J	0.14 U	0.069 U	0.14 U	0.094 J	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.085	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.25 U	--	0.25 U	
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.25 J	0.1 J	0.15	0.083 J	0.26	0.17 U	0.17 U	0.17 U	0.17 U	0.23	0.17 U	0.17 U	0.17 U	0.057 J	0.17 U	0.083 J	0.083 J	0.048 J	0.17 U	0.17 U	0.17 U	
1,3-Butadiene	ug/m3	NA	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.075 U	0.078 U	0.48	0.078 U	0.044 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.14	0.078 U	0.078 U
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U	0.21 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
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.065 J	0.063 J	0.21 U	0.21 U	0.21 U	0.21 U	0.086 J	0.21 U	0.21 U	0.21 U	0.12 U	0.21 U	0.16 J	0.15 J	0.055 J	0.21 U	0.21 U	0.21 U	
1,4-Dioxane	ug/m3	NA	--	--	0.18 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3 U	--	1.3 U	
2-Butanone	ug/m3	500	1.7 B	4.7	5.9 J	2.1 J	0.97 J	1.1 J	2.8 J	4.1 J	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	
2-Hexanone	ug/m3	NA	0.2 U	1.4 J	0.73	0.12 U	0.081 J	0.23	0.41	0.14	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	
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 J	0.074 J	0.097 J	0.065 J	0.16 J	0.17 U	0.17 U	0.17 U	0.17 U	0.2	0.17 U	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/m3	200	0.2 U	0.53	0.36	0.15	0.13	1.4	0.29	0.14	0.14 U	0.21	0.2	0.44	0.14 U	0.14 U	0.34	0.18	0.14 U	0.18	0.15	0.14 U	0.18	0.14 U	0.14 U	
Acetone	ug/m3	500	15 B	48 B	38	17	13	18	24 B	3.3	15	49	46	46	20	15	30	41	12	16	24	39	15	9.1	33	
Benzene	ug/m3	3.3	1.1	0.41	0.34	0.44	0.36	0.2	0.49	0.11	0.87	0.32	0.43	1.8	0.54	1.9	0.57	0.36	0.4	0.57	0.27	0.91	0.97	0.43	0.27	
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 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	
Bromodichloromethane	ug/m3	0.46	0.34 U	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	0.23 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	
Bromoform	ug/m3	7.3	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.35 U	0.36 U	0.36 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	0.36 U	
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.056 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
Carbon disulfide	ug/m3	NA	0.16 U	0.27	1.6 J	0.93 U	0.93 U	0.93 U	0.09 J	1.1 U	1.1 U	0.16 J	0.6 J	0.14 J	1.1 U	1.1 U	0.15 J	0.11 J	1.1 U	0.042 J	0.1 J	0.15 J	1.1 U	1.1 U	1.1 U	
Carbon tetrachloride	ug/m3	0.54	0.56	0.69	0.5	0.45	0.46	0.43	0.38	0.22	0.39	0.55	0.46	0.45	0.49	0.42	0.45	0.46	0.33	0.34	0.36	0.39	0.51	0.37	0.45	
Chlorobenzene	ug/m3	200	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	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	
Chloroethane	ug/m3	500	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.089 U	0.093 U	0.093 U	0.093 U	0.053 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	
Chloroform	ug/m3	0.5	0.24 U	0.24 U	0.34	0.12 J	0.073 U	0.13 J	0.2	0.17 U	0.082 J	0.21	0.47	0.17	0.24	0.17 U	0.18	0.12	0.096 J	0.079 J	0.19	0.23	0.17 U	0.17 U	0.2	
Chloromethane	ug/m3	80	1	1.6	1.6	1.3	1.6	1.2	1.3	0.072	1.4	1.5	1.3	1.2	1.2	1.4	1.4	0.76	0.86	1	1.3	1.3	1.4	1	1.4	
cis-1,2-Dichloroethene	ug/m3	100	0.2 U	0.2 U	0.2 U	0.064 J	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.13 U	0.14 U	0.14 U	0.14 U	0.04 U	0.14 U	0.14 U	0.14 U	0.086 J	0.14 U	0.14 U	0.14 U	
cis-1,3-Dichloropropene	ug/m3	NA	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U	0.16 U	0.16 U	0.16 U	0.045 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.23	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.3	0.12 U	0.069 U	0.12 U	0.12 U	0.12 U	0.12 U	0.46	0.12 U	0.12 U	
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.29 U	0.3 U	0.3 U	0.3 U	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
Dichlorodifluoromethane	ug/m3	500	3.1	2.5	1.8	2.8	2.1	2.7	2.9	0.17	1.7	3.1	2.1	1.5	2.7	1.5	2.1	2.2	1.8	1.3	1.9	1.8	2.3	1.6	0.57	
Ethanol	ug/m3	NA	14	28	76	60	70	110	60	2.6	11	45	21	40	25	50	79	96	39	110	110	360	33	13	23	
Ethyl acetate	ug/m3	NA	0.18 U	0.7	0.21	1.8	0.94	0.39	0.57	0.13	0.13 U	5.5	1.3	1.9	0.34	0.56	0.41	0.37	0.13 U	0.64	0.39	1.1	0.31			

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-7-021017	IA-7-090717	IA-7-022818	IA-7-091218	IA-7-020819	IA-7-090619	IA-7-021420	IA-7-09092020	IA-7-030821	IA-7	IA-7	IA-7	IA-7	
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	9/8/2021	3/29/2022	9/15/2022	3/17/2023	
Analyte	Units	CT IACTIND 2003													
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.16 U	0.19 U	0.19 U	0.21	0.44	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.19 U	0.4	0.19 U	0.19 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.52 U	0.26 U	0.26 U	0.22 U	0.52 U	0.52 U	0.26 U	0.26 U	
1,2,4-Trimethylbenzene	ug/m3	52	0.17 U	0.21	0.17 U	0.29	0.54	0.17 U	0.17 U	0.17 U	0.15 U	0.17	0.099 J	0.12 J	
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.65 J	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.062 J	0.34	0.14 U	0.46	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.097 J	0.4	0.8	0.16 U	0.16 U	0.14 U	0.16 U	0.09 J	0.16 U	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.17 U	0.39	0.17 U	0.17 U	0.15 U	0.058 J	0.17 U	0.17 U	0.17 U	
1,3-Butadiene	ug/m3	NA	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.077 U	0.066 U	0.077 U	0.077 U	0.077 U	0.078 U	
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.5	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.21 U	0.21 U	0.57	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.16 J	0.21 U	
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	
2-Butanone	ug/m3	500	0.81 J	2.4 J	1.9 J	1.3 J	2.1 J	1.1 J	0.91 J	1.5 J	2 J	1.5 J	4.1 U	2.1 J	
2-Hexanone	ug/m3	NA	0.14 U	0.43	0.37	0.14 U	0.14 U	0.14 U	0.14 U	0.25 U	0.29 U	0.29 U	0.14 U	0.24	
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.49	0.17 U	0.17 U	0.15 U	0.17 U	0.17 U	0.17 U	0.17 U	
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.28	0.1 J	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.29	0.37	
Acetone	ug/m3	500	7.5	37	14	23	13	18	26	16	13	10	17	23	
Benzene	ug/m3	3.3	0.47	0.47	0.53	0.5	0.85	0.4	0.41	0.11 U	0.63	0.43	0.63	0.18	
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.16 U	0.18 U	0.18 U	0.36 U	0.18 U	
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.2 U	0.23 U	0.23 U	0.23 U	0.24 U	
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	
Bromomethane	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	1.4 U	0.27 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.93 U	1.1 U	1.1 U	1.1 U	1.1 U	
Carbon tetrachloride	ug/m3	0.54	0.42	0.4	0.37	0.5	0.83	0.43	0.43	0.22 U	0.26	0.4	0.22 U	0.53	
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	
Chloroethane	ug/m3	500	0.093 U	0.19 U	0.093 U	0.076 J	0.19 U	0.093 U	0.093 U	0.079 U	0.092 U	0.092 U	0.092 U	0.093 U	
Chloroform	ug/m3	0.5	0.15 J	0.31	0.13 J	0.23	0.57	0.34	0.17 U	0.17 U	0.15 U	0.17 U	0.17 U	0.17 U	
Chloromethane	ug/m3	80	1.2	1.5	1.3	1.9	0.14 U	0.14 U	1	0.14 U	0.12 U	1.2	1.4	1.1	
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U	0.12 U	0.12 U	
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	
Dichlorodifluoromethane	ug/m3	500	0.88	1.4	1.7	2.1	2.5	0.17 U	1.4	0.17 U	0.15 U	2.3	2	2.5	
Ethanol	ug/m3	NA	15	95	46	28	45	200	190	990	570	150	220	430	
Ethyl acetate	ug/m3	NA	3.5	1.7	0.17	0.35	0.13 U	0.13 U	0.13 U	1.3	3.8	1.3 U	1.3 U	1.2 J	
Ethylbenzene	ug/m3	290	0.15 U	0.29	0.14 J	0.37	0.48	0.48	0.15 U	0.15 U	0.14	0.18	0.15 U	0.12 J	
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.75 U	0.37 U	0.37 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	
Hexane	ug/m3	NA	0.36 J	0.65 J	0.29 J	0.78 J	4.9 U	4.9 U	4.9 U	4.9 U	4.2 U	4.9 U	4.9 U	1 J	
Isopropyl alcohol	ug/m3	NA	8.5	3.4 U	3.8	92	5.6	18	8.9	33	18	6.1	3.4 J	1.6 J	
m,p-Xylene	ug/m3	NA	0.16 J	0.82	0.3 J	1.1	1.1	1.5	0.23 J	0.3 U	0.45	0.47	0.3 U	0.35	
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	
Methylene chloride	ug/m3	17	0.49 J	0.59 J	0.46 J	0.39 J	0.66 J	0.4 J	0.56 J	1.2 U	5.2	0.57 J	0.61 J	1.2 U	
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.11 U	0.13 U	0.13 U	0.13 U	
Naphthalene	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	
n-Heptane	ug/m3	NA	0.14 U	0.29	0.17	0.44	0.14 U	0.43	0.14 U	0.14 U	0.12 U	0.23	0.21	0.14 U	
o-Xylene	ug/m3	NA	0.15 U	0.29	0.12 J	0.38	0.48	0.51	0.15 U	0.15 U	0.17	0.2	0.085 J	0.15	
Propylene (Propene)	ug/m3	NA	0.78 J	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U	2.1 U	2.4 U	2.4 U	2.4 U	
Styrene	ug/m3	290	0.15 U	0.59	0.13 J	0.42	0.15 U	0.33	0.15 U	0.15 U	0.13 U	0.08 J	0.15 U	0.11 J	
Tetrachloroethene	ug/m3	5	0.24 U	0.34	0.24 U	0.6	0.88	1.6	1.9	0.24 U	2	0.74	0.35	0.24 U	
Tetrahydrofuran	ug/m3	NA	0.1 U	0.21 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U	0.88 U	1 U	1 U	1 U	1 U	
Toluene	ug/m3	500	0.51	1.8	0.95	2.6	1.2	3.9	0.42	0.13 U	0.75	1.1	0.24	0.6	
Total VOCs	ug/m3	NA	39.38	144.32	70.56	156.32	77.58	248.81	231.66	1040.5	620.6	180.688	241.605	458.249	
trans-1,2-Dichloroethene	ug/m3	200	0.14 U	0.14 U	0.14 U	0.083 J	0.28 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	
trans-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	
Trichloroethene	ug/m3	1	0.19 U	0.19 U	0.19 U	0.18 J	0.19 U	0.43	0.19 U	0.19 U	0.16 U	0.13 J	0.33	0.19 U	
Trichlorofluoromethane	ug/m3	500	1.4	1.2	1.2	1.2	1.8	1.2	1.2	0.78 U	1.2	1.7	1.3	1.5	
Trichlorotrifluoroethane	ug/m3	NA	0.58 J	0.46 J	0.49 J	0.54 J	1.1 U	1.1 U	0.41 J	1.1 U	0.92 U	0.63 J	0.56 J	0.45 J	
Vinyl acetate	ug/m3	NA	2.5 U	1.6 J	2.5 U	1.2 J	2.5 U	2.5 U	2.5 U	2.1 U	2.5 U	2.5 U	2.5 U	1.3 J	
Vinyl chloride	ug/m3	1.9	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.089 U	0.077 U	0.089 U	0.089 U	0.089 U	0.09 U	

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

Prepared By: AKN, 4/12/2023
 Checked By: MM, 4/12/2023



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-6-090613	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-6-090220	EW-6-030821	EW-6	EW-6
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	9/8/2021	3/29/2022
Analyte	Units																							
1,1,1,2-Tetrachloroethane	ug/m3	0.44 U	1.2 U	1.2 U	1.2 U	2.5 U	1.2 U	1.2 U	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	0.44 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	0.21
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	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	0.24 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	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	0.19 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	0.14 U
1,1-Dichloroethene	ug/m3	1.1	0.4 U	0.4 U	0.4 U	0.52	0.4 U	0.4 U	0.4 U	0.79 U	0.79 U	0.79 U	4 U	0.4 U	0.79 U	0.79 U	0.79 U	1.1	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U
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	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	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	1.5 U	0.52 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	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.17 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	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	0.27 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	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	2.4 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 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	0.4 U	0.81 U	0.81 U	0.81 U	4 U	0.4 U	0.81 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	0.14 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	0.46 U	0.92 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	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	--	--	--	--	--	1.4 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	0.49 U	0.98 U	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	0.49 U	0.49 U	0.49 U	0.49 U	0.17 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	0.22 U	0.44 U	0.44 U	0.44 U	2.2 U	0.22 U	0.44 U	0.44 U	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.077 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	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	1.5 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 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	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	1.6 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 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	4.2 J	4.1 U
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	0.41 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.29 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	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.17 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	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	0.41 U	0.41 U	0.41 U	0.41 U	0.14 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	35	6.4
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	1.4	0.7
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	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	0.52 U	0.18 U
Bromodichloromethane	ug/m3	0.24 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	1.3 U	1.3 U	1.3 U	6.7 U	0.67 U	1.3 U	1.3 U	0.62 J	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.23 U
Bromoform	ug/m3	0.36 U	1 U	1 U	1 U	2.1 U	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	0.36 U
Bromomethane	ug/m3	0.14	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	0.39 U	0.14 U
Carbon disulfide	ug/m3	74	5.6	6.3	31	71	8	15	14	19	6.2 U	6 J	420	3.6	2.3 J	2 J	160	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	1.1 U
Carbon tetrachloride	ug/m3	0.48	0.63 U	0.63 U	0.63 U	0.63 U	0.35 J	0.3 J	0.36 J	0.4 J	1.3 U	1.3 U	6.3 U	0.36 J	1.3 U	1.3 U	0.45 J	2	0.36 J	1.3 U	0.4 J	0.63 U	0.43 J	0.49
Chlorobenzene	ug/m3	0.16 U	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	0.92 U	4.6 U	0.46 U	0.92 U	0.92 U	0.92 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U
Chloroethane	ug/m3	1.7	0.26 U	0.26 U	0.67	1.1	0.26 U	0.26 U	0.26 U	0.53 U	0.53 U	0.53 U	2.6 U	0.26 U	1.1 U	0.53 U	0.53 U	0.53 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.092 U
Chloroform	ug/m3	1.7	0.49 U	0.49 U	0.64	1	0.63	0.49 U	0.37 J	0.45 J	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.74 J	3.3	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.17 U
Chloromethane	ug/m3	35	3.4	1.8	3.3	4.4	1.4	2.4	3.6	3.3	1.2	1.4	38	1.4	3.5	1.2	0.83 U	0.41 U	1.1	0.41 U	0.41 U	0.41 U	1.4	1.3
cis-1,2-Dichloroethene	ug/m3	--	0.4 U	0.4 U	0.71	1.1	0.21 J	0.29 J	0.25 J	0.79 U	0.79 U	0.79 U	4 U	0.4 U	0.79 U	0.79 U	0.4 J	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U
cis-1,3-Dichloropropene	ug/m3	0.16 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.91 U	0.91 U	0.91 U	4.5 U	0.45 U	0.91 U	0.91 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U
Cyclohexane	ug/m3	0.12 U	0.34 U	0.34 U	0.34 U	0.69 U	0.34 U	0.34 U	0.34 U	0.69 U	0.69 U	0.69 U	3.4 U	0.34 U	0.69 U	0.69 U	0.69 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.33
Dibromochloromethane	ug/m3	0.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	1.7 U	1.7 U	1.7 U	8.5 U	0.85 U	1.7 U	1.7 U	1.7 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.3 U
Dichlorodifluoromethane	ug/m3	1.3	2.6	2.3	2	2.3	2.6	1.8	2.7	2.7	3.1	2.5	5.5	1.4	2.2	2.2	0.99 U	0.49 U	2.2	1.7	2	0.49 U	2.4	1.9
Ethanol	ug/m3	14	4.3 J	7.5 U	6.9 J	15 U	3.5 J	5.6 J	27	28	7.2 J	15 U	75 U	24	15	21	9.5 J	39	44	8.8	350	8.2	170	750
Ethyl acetate	ug/m3	0.13 U	0.36 U	0.36 U	0.36 U	0.72 U	0.36 U	0.37	0.36 U	0.72 U	0.72 U	0.72 U	9.4	140	5.9	0.72 U	1.4 U	59	0.36 U	0.36 U	9.1	3.6 U	3.6 U	0.69 J
Ethylbenzene	ug/m3	0.38	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U	0.34 J	0.43 U	0.87 U	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	0.87 U	0.87 U	1.4	0.43 U	0.43 U	0.25 J	0.43 U	0.22 J	0.094 J
Hexachlorobutadiene	ug/m3	0.37 U	1.1 U	1.1 U	1.1 U	2.1 U	1.1 U	1.1 U	1.1 U	2.1 U	2.1 U	2.1 U	11 U	1.1 U	2.1 U	2.1 U	2.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U
Hexane	ug/m3	0.89 J	14 U	14 U	14 U	28 U	14 U	7.3 J	14 U	28 U	28 U	28 U	16 J	5.3 J	28 U	28 U	28 U	14 U	14 U	14 U	14 U	14 U	14 U	4.9 U
Isopropyl alcohol	ug/m3	3.4 U	9.8 U	9.8 U	1.1 J	5.9 J	9.8 U	1.8 J	5 J	4.4 J	20 U	20 U	11 J	4.5 J	3.3 J	5.9 J	20 U	9.1 J	0.83 J	9.8 U	9.8 U	3 J	1.6 J	1.6 J
m,p-Xylene	ug/m3	0.76	0.87 U	0.87 U	0.52 J	1.7 U	0.87 U	0.35 J	0.87 U	0.35 J	1.7 U	1.7 U	8.7 U	0.87 U	1.7 U	1.7 U	1.7 U	2.9	0.87 U	0.87 U	0.54 J	0.87 U	0.56 J	0.35
Methyl methacrylate	ug/m3	0.14 U	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U	--	0.82 U	--	0.82 U	--	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	--	0.41 U	0.14 U
Methylene chloride	ug/m3	0.84 J	0.99 J	0.89 J	1.2 J	1.6 J	3.5 U	0.43 J	3.5 U	6.9 U	6.9 U	6.9 U	24 J	4.4	1.2 J	6.9 U	6.9 U	1.8 J	0.68 J	0.69 J	1.6 J	3.5 U	1 J	0.66 J
Methyl-t-butyl ether	ug/m3	0.13 U	0.36 U	0.36 U	0.36 U	0.72 U	0.36 U	0.36 U	0.36 U	0.72 U	0.72 U	0.72 U	3.6 U	0.36 U	0.72 U	0.72 U	0.72 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.13 U
Naphthalene	ug/m3	--	--	--	--																			

**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 - Large Retail Space																					
	Location:	EW-6			EW-5																				
		Sample ID:	EW-6	EW-6	EW-6-020724	EW-5-020309	EW-5-021109	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
Sample Date:	9/15/2022	3/17/2023	2/7/2024	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		
Analyte	Units																								
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	37 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	25 U	--	12 U	1.2 U	
1,1,1-Trichloroethane	ug/m3	1300	19000	0.55 U	190000	41000	17000	7100	1800	2600	3100	1900	3500	920	540	550	460	210	400	340	430	130	81	100	
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	21 U	0.69 U	6.8 U	6.8 U	6.8 U	6.8 U	1.7 U	6.8 U	3.4 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	
1,1,2-Trichloroethane	ug/m3	0.55 U	16 U	0.55 U	5.4 U	5.4 U	5.4 U	5.4 U	1.4 U	5.4 U	2.7 U	2.7 U	2.7 U	1.4 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	
1,1-Dichloroethane	ug/m3	21	350	0.4 U	11000	1900	890	770	190	360	450	430	230	100	50	53	42	29	34	33	44	16	11	12	
1,1-Dichloroethene	ug/m3	15	290	0.4 U	2500	290	130	190	61	160	160	160	98	30	18	21	15	13	15	11	14	5	4.5	4.5	
1,2,4-Trichlorobenzene	ug/m3	0.74 U	22 U	0.74 U	7.4 U	7.4 U	7.4 U	7.4 U	1.9 U	7.4 U	3.7 U	3.7 U	3.7 U	1.9 U	7.4 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	
1,2,4-Trimethylbenzene	ug/m3	0.49 U	15 U	17	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.2 J	
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	23 U	0.77 U	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	7.6 U	3.8 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	
1,2-Dichlorobenzene	ug/m3	0.6 U	18 U	0.6 U	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 U	1.2 U	6 U	12 U	3 U	6 U	0.6 U	
1,2-Dichloroethane	ug/m3	0.4 U	12 U	0.4 U	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.81 U	0.81 U	4 U	8.1 U	2 U	2 U	0.17 J	
1,2-Dichloropropane	ug/m3	0.46 U	14 U	0.46 U	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	46 U	2.3 U	2.3 U	2.3 U	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	
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	0.7 U	7 U	7 U	7 U	7 U	1.8 U	70 U	3.5 U	3.5 U	3.5 U	3.5 U	7 U	3.5 U	7 U	--	--	--	--	--	--	--	
1,3,5-Trimethylbenzene	ug/m3	0.49 U	15 U	11	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.49 U	
1,3-Butadiene	ug/m3	0.22 U	6.6 U	0.22 U	2.2 U	2.2 U	2.2 U	2.2 U	0.55 U	22 U	1.1 U	1.1 U	2.3 U	1.1 U	2.2 U	1.1 U	2.2 U	0.44 U	0.44 U	2.2 U	4.4 U	1.1 U	2.2 U	0.22 U	
1,3-Dichlorobenzene	ug/m3	0.6 U	18 U	0.6 U	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 U	1.2 U	6 U	12 U	3 U	6 U	0.6 U	
1,4-Dichlorobenzene	ug/m3	0.6 U	18 U	0.6 U	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	3 U	6 U	3 U	6 U	1.2 U	1.2 U	6 U	12 U	3 U	6 U	0.6 U	
1,4-Dioxane	ug/m3	--	--	3.6 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.2 U	--	--	--	
2-Butanone	ug/m3	70	350 U	12 U	6.3	89	75	170	3700	64000	100000	230000	110000	7800	18000	28000	15000	4000	7200 B	17000	13000	2700	1800	870	
2-Hexanone	ug/m3	0.41 U	12 U	0.41 U	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.82 U	0.82 U	4 U	8.2 U	2 U	4.1 U	0.43	
4-Ethyltoluene	ug/m3	0.49 U	15 U	1.1	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	5 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.49 U	
4-Methyl-2-pentanone	ug/m3	0.41 U	12 U	0.41 U	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.82 U	0.82 U	4.1 U	8.2 U	2 U	4.1 U	0.27 J	
Acetone	ug/m3	43	290 U	12	530	32	52	29	460	5600	14000	6900	9200	1700	3200	6000	4500	2000 B	1800 B	2200 B	3400	710	400	440	
Benzene	ug/m3	1.5	9.6 U	0.51	13	12	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	
Benzyl chloride	ug/m3	1 U	16 U	0.52 U	5.2 U	5.2 U	5.2 U	5.2 U	1.3 U	52 U	2.6 U	2.6 U	2.6 U	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	
Bromodichloromethane	ug/m3	0.67 U	20 U	0.67 U	6.6 U	6.6 U	6.6 U	6.6 U	1.7 U	66 U	3.3 U	3.3 U	3.3 U	3.3 U	6.6 U	3.3 U	6.6 U	1.3 U	1.3 U	6.7 U	13 U	3.4 U	3.4 U	0.67 U	
Bromoform	ug/m3	1 U	31 U	1 U	11 U	11 U	11 U	11 U	2.6 U	110 U	5.1 U	5.1 U	5.1 U	5.1 U	11 U	5.1 U	11 U	2.1 U	2.1 U	10 U	21 U	5.2 U	10 U	1 U	
Bromomethane	ug/m3	0.39 U	12 U	0.39 U	3.8 U	3.8 U	3.8 U	3.8 U	0.95 U	38 U	1.9 U	1.9 U	1.9 U	1.9 U	3.8 U	1.9 U	3.8 U	0.78 U	0.78 U	3.9 U	7.8 U	1.9 U	3.9 U	0.39 U	
Carbon disulfide	ug/m3	3.3	93 U	3.1 U	3.2 U	3.2 U	3.2 U	3.2 U	0.8 U	230	4	5.4	8.2	2.9	5.7	12	14	8	15	22	62 J	13 J	11 J	25	
Carbon tetrachloride	ug/m3	0.63 U	19 U	0.63 U	6.2 U	6.2 U	6.2 U	6.2 U	1.6 U	62 U	3.1 U	3.1 U	3.1 U	3.1 U	6.2 U	3.1 U	6.2 U	1.3 U	1.3 U	6.3 U	13 U	1.2 J	3.1 U	0.4 J	
Chlorobenzene	ug/m3	0.46 U	14 U	0.46 U	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	46 U	2.3 U	2.3 U	2.3 U	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	4.6 U	0.46 U	
Chloroethane	ug/m3	0.26 U	7.9 U	0.3	260	23	16	11	4.5	26 U	11	15	7	6.5	3.5	3.6	5.5	3.1	3.4	2.6 U	7.5	1.3 U	2.6 U	2.9	
Chloroform	ug/m3	1.2	15 U	0.6	83	32	20	16	2.8	48 U	7.2	6.5	5.8	2.6	4.8 U	2.4 U	4.8 U	1.1	1.2	4.9 U	9.8 U	1.1 J	2.4 U	0.98	
Chloromethane	ug/m3	0.41 U	12 U	1.7	2 U	2 U	2 U	2 U	0.5 U	20 U	1 U	1 U	1 U	1 U	2 U	1 U	2 U	0.41 U	0.41 U	2.1 U	4.1 U	1 U	2.1 U	0.21 U	
cis-1,2-Dichloroethene	ug/m3	6.1	29	0.4 U	2900	710	400	410	100	150	270	250	170	58	32	43	31	17	27	27	35	11	6.9	8.6	
cis-1,3-Dichloropropene	ug/m3	0.45 U	14 U	0.45 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.91 U	0.91 U	4.5 U	9.1 U	2.3 U	2.3 U	0.45 U	
Cyclohexane	ug/m3	0.34 U	10 U	0.34 U	3.4 U	3.4 U	3.4 U	3.4 U	0.85 U	34 U	1.7 U	1.7 U	1.7 U	1.7 U	3.4 U	1.7 U	3.4 U	0.69 U	0.69 U	3.4 U	6.9 U	1.7 U	3.4 U	0.34 U	
Dibromochloromethane	ug/m3	0.85 U	26 U	0.85 U	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	86 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	4.3 U	8.6 U	1.7 U	1.7 U	8.5 U	17 U	4.3 U	4.3 U	0.85 U	
Dichlorodifluoromethane	ug/m3	0.49 U	15 U	2.9	5 U	5 U	5 U	5 U	2.7	50 U	3	3.2	2.5 U	2.5 U	5 U	2.5	5 U	2.4	3.7	4.9 U	9.9 U	2.8	4.9 U	2.9	
Ethanol	ug/m3	170	230 U	15	320	36	46	33	22	130	30	26	3.8 U	45	28	68	89	23	19	24 J	150 J	12 J	290	14	
Ethyl acetate	ug/m3	3.6 U	110 U	3.6 U	7.3 U	3.6 U	3.6 U	7.3 U	0.9 U	73 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	3.6 U	6.8	3.4	7.2 U	3.8	7.2 U	3.6	26	4.2
Ethylbenzene	ug/m3	0.43 U	13 U	4.1	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 U	0.87 U	4.3 U	8.7 U	2.2 U	4.3 U	0.12 J	
Hexachlorobutadiene	ug/m3	1.1 U	32 U	1.1 U	22 U	22 U	22 U	22 U	5.4 U	220 U	22 U	11 U	11 U	22 U	11 U	22 U	5.3 U	1.1 U	2.1 U	11 U	21 U	4.2 J	11 U	1.1 U	
Hexane	ug/m3	14 U	420 U	14 U	5	3.6 U	3.6 U	3.6 U	2.3	36 U	3.3	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	7.1 U	1.4 U	0.7 U	3.5 U	280 U	70 U	9.4 J	4.3 J	
Isopropyl alcohol	ug/m3	6.2 J	290 U	9.8 U	190	5.1	4.6	5 U	4.6	290	24	57	35	2.5 U	20	54	59	11	13	25 U	200 J	49 U	13 J	9.8 U	
m,p-Xylene	ug/m3	0.87 U	26 U	20	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	86 U	4.3 U	4.3 U	4.3 U	4.3 U	8.6 U	4.3 U	8.6 U	1.7 U	1.7 U	8.7 U	17 U	4.3 U	4.3 U	0.87 U	
Methyl methacrylate	ug/m3	0.41 U	12 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.82 U	4.1 U	8.2 U	2 U	4.1 U	0.41 U	
Methylene chloride	ug/m3	3.5 U	100 U	3.5 U	7.8	7 U	9.6	7 U	12	720	21	15	7 U	25	14 U	8.6	7 U	1.4 U	2	6.9 U	69 U	4.2 J	15 J	11	
Methyl-t-butyl ether	ug/m3	0.36 U	11 U	0.36 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	36 U	1.8 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	3.6 U	0.72 U	0.72 U	3.6 U	7.2 U	1.8 U	3.6 U	0.36 U	
Naphthalene	ug/m3	--	--	0.52 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	0.41 U	12 U	0.65	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	2 U	4 U	2 U	4 U	0.82 U	0.82 U	4.1 U	8.2 U	2 U	4.1 U	0.41 U	
o-Xylene	ug/m3	0.43 U	13 U	13	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U	0.87 U	0.87 U	4.3 U	8.7 U	2.2 U	4.3 U	0.14 J	
Propylene (Propene)	ug/m3	6.9 U	210 U	6.9 U	3.5 U	1.8 U	1.8 U	3.5 U	0.45 U	35 U	0.9 U	0.9 U	3.5 U	3.5 U	6.9 U	8.7 U	6.9 U	1.4 U	3.4 U	17 U	140 U	4.			

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

Area:		Extraction Well - Large Retail Space																							
Location:		EW-5																							
Sample ID:		EW-5-091312	EW-5-010313	EW-5-031513	EW-5-060713	EW-5-090613	EW-5-121313	EW-5-030714	EW-5-061314	EW-5-091214	EW-5-121914	EW-05-032715	EW-5-061115	EW-5-091615	EW-5-121815	EW-5-021816	EW-5-080516	EW-5-021017	EW-5-090717	EW-5-022818	EW-5-091218	EW-5-020819	EW-5-090619	EW-5-021420	
Sample Date:		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	2/28/2018	9/12/2018	2/8/2019	9/6/2019	2/14/2020	
Analyte	Units																								
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	1.2 U	1.2 U	1.2 U	0.39 J	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	12 U	2.5 U	1.2 U	1.2 U	1.2 U	
1,1,1-Trichloroethane	ug/m3	190	0.55 U	0.55 U	59	180	40	68	54	74	25	14	0.19 J	55	32	15	68	7.4	42	17	49	11	40	11	
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	0.69 U	0.69 U	0.69 U	0.32 U	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	
1,1,2-Trichloroethane	ug/m3	0.55 U	0.55 U	0.55 U	0.55 U	0.26 U	0.55 U	0.55 U	0.55 U	0.55 U	1.1 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	
1,1-Dichloroethane	ug/m3	21	0.4 U	0.4 U	6.4	20	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	
1,1-Dichloroethene	ug/m3	6.9	0.4 U	0.4 U	1.7	4.7	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	
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	1.5 U	0.74 U	0.35 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	7.4 U	1.5 U	7.4 U	1.5 U	7.4 U	1.5 U	1.5 U	1.5 U	7.4 U	
1,2,4-Trimethylbenzene	ug/m3	0.63	0.49 U	0.49 U	0.49 U	0.37	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	
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	0.77 U	0.77 U	0.77 U	0.36 U	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	
1,2-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.28 U	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	2.4 U	0.6 U	0.6 U	
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.4 U	0.4 U	0.19 U	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	
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U	0.22 U	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	
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4 U	--	7 U	--	--	--	--	--	--	--	
1,3,5-Trimethylbenzene	ug/m3	0.19 J	0.49 U	0.49 U	0.49 U	0.23 U	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	
1,3-Butadiene	ug/m3	0.22 U	0.22 U	0.22 U	0.22 U	0.1 U	0.22 U	0.22 U	0.22 U	0.44 U	0.22 U	0.22 U	0.22 U	1.1 U	0.44 U	0.44 U	2.2 U	0.22 U	0.44 U	2.2 U	0.42 J	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	0.28 U	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	1.6 J	0.6 U	0.6 U	
1,4-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.6 U	0.28 U	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	1.6 J	0.6 U	0.6 U	
1,4-Dioxane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	7.2 U	--	36 U	--	--	--	--	--	--	--	
2-Butanone	ug/m3	840	12 J	1.7 J	1900	31000	680	1200	2100	3800	260	91	9.1 J	1700 E	410	130	4800	29	4500	750	5500	110	7300	160	
2-Hexanone	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U	0.49	0.41 U	0.41 U	0.53	0.41 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	
4-Ethyltoluene	ug/m3	0.18 J	0.49 U	0.49 U	0.49 U	0.23 U	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	
4-Methyl-2-pentanone	ug/m3	0.34 J	0.41 U	0.41 U	0.41 U	0.56	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	
Acetone	ug/m3	670 B	9.5	8.5 J	610	6800	210	380	610	500	98	49	21	550	120	58	570	11	700	320	710	47	1700	66	
Benzene	ug/m3	3.7	0.32	0.47	1	7.1	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	
Benzyl chloride	ug/m3	0.52 U	0.52 U	0.52 U	0.52 U	0.24 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	0.52 U	1 U	5.2 U	1 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	0.31 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	3.4 U	1.3 U	1.3 U	6.7 U	0.67 U	1.3 U	6.7 U	1.2 J	0.67 U	0.67 U	0.67 U	
Bromoform	ug/m3	1 U	1 U	1 U	1 U	0.48 U	1 U	1 U	1 U	1 U	2.1 U	1 U	1 U	5.2 U	2.1 U	2.1 U	10 U	1 U	2.1 U	10 U	2.1 U	1 U	1 U	1 U	
Bromomethane	ug/m3	0.39 U	0.39 U	0.39 U	0.39 U	0.18 U	0.39 U	0.39 U	0.39 U	0.78 U	0.39 U	0.39 U	0.39 U	1.9 U	0.78 U	0.78 U	3.9 U	0.39 U	0.78 U	3.9 U	0.78 U	0.39 U	0.39 U	0.78 U	
Carbon disulfide	ug/m3	49	3.1 U	3.1 U	19	77	8.9	26	35	46	13	7.4	0.98 J	56	19	6.1 J	100	1.2 J	120	62	200	66 J	210	44	
Carbon tetrachloride	ug/m3	0.38 J	0.63 U	0.39 J	0.63 U	0.47	0.63 U	0.63 U	0.39 J	0.63 U	0.63 U	0.33 J	1.3 U	1.3 U	0.33 J	3.1 U	1.3 U	6.3 U	0.63 U	1.3 U	6.3 U	0.63 U	6	0.63 U	
Chlorobenzene	ug/m3	0.46 U	0.46 U	0.46 U	0.46 U	0.22 U	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	
Chloroethane	ug/m3	5.3	0.26 U	0.26 U	1.5	4	0.86	1.9	1.9	1.6	0.95	0.26 U	0.26 U	1.3 U	0.53 U	0.53 U	2.6 U	0.26 U	1.3	2.6 U	1.2	0.53 U	0.26 U	0.26 U	
Chloroform	ug/m3	1.1	0.49 U	0.49 U	0.59	1.6	0.49 U	0.59	0.49 U	0.76	0.82	0.53	0.18 J	0.17 J	0.63 J	0.98 U	0.98 U	4.9 U	0.49 U	1	4.9 U	0.84 J	15	0.49 U	
Chloromethane	ug/m3	0.21 U	0.21	1.1	0.41 U	0.19 U	0.41 U	0.41 U	0.41 U	61	0.41 U	0.41 U	0.41 U	2.1 U	83	0.83 U	4.1 U	0.41 U	76	4.1 U	0.83 U	0.41 U	0.41 U	0.41 U	
cis-1,2-Dichloroethene	ug/m3	14	0.4 U	0.4 U	4.3	13	1.9	4.1	4.3	5	1.4	0.78	0.4 U	4	1.3	0.79 U	4 U	0.4 U	2.8	4 U	2.3	1.8	2.1	0.52	
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.45 U	0.21 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	2.3 U	0.91 U	0.91 U	4.5 U	0.45 U	0.91 U	4.5 U	0.91 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	0.16 U	0.34 U	0.34 U	0.34 U	0.69 U	0.34 U	0.34 U	0.34 U	1.7 U	0.69 U	0.69 U	3.4 U	0.34 U	0.69 U	3.4 U	0.69 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	0.4 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	4.3 U	1.7 U	1.7 U	8.5 U	0.85 U	1.7 U	8.5 U	1.7 U	0.85 U	0.85 U	0.85 U	
Dichlorodifluoromethane	ug/m3	2.6	0.49	2.5	2.1	1.7	2.5	2.1	2	2.3	2.5	2	3.3	2.2 J	3.1	2.4	4.9 U	1.5	2.2	4.9 U	2.1	0.49 U	0.49 U	1.8	
Ethanol	ug/m3	100	7.5	3.5 J	13	3.5 U	39	43	32	15	33	31	15	32	17 J	21	28	75 U	6.7 J	13 J	35 J	11 J	36	18	30
Ethyl acetate	ug/m3	30	0.36 U	1.2	2.6	0.17 U	5.5	4.8	3.4	3.6	3.6	2.6	0.36 U	1.8 U	2.8	0.72 U	3.6 U	2.5	5.2	3.6 U	2.6	0.36 U	0.36 U	0.36 U	
Ethylbenzene	ug/m3	0.69	0.43 U	0.43 U	0.43 U	0.41	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U	0.16 J	0.15 J	2.2 U	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	4.3 U	0.87 U	1.2	0.43 U	0.43 U	
Hexachlorobutadiene	ug/m3	1.1 U	1.1 U	1.1 U	1.1 U	0.5 U	1.1 U	1.1 U	1.1 U	5.3 U	1.1 U	1.1 U	1.1 U	5.3 U	2.1 U	2.1 U	11 U	1.1 U	2.1 U	11 U	2.1 U	1.1 U	1.1 U	1.1 U	
Hexane	ug/m3	2 J	14 J	2.2 J	14 U	6.6 U	14 U	14 U	14 U	28 U	14 U	7.4 J	1.4 J	70 U	28 U	28 U	140 U	1.4 J	28 U	140 U	28 U	14 U	14 U	14 U	
Isopropyl alcohol	ug/m3	11	9.8 J	9.8 U	9.8 U	4.6 U	2.9 J	6 J	11	8.4 J	2 J	9.8 J	9.8 U	49 U	3 J	20 U	14 J	2 J	20 U	5.1 J	6.2 J	9.8 U	8.7 J	9.8 U	
m,p-Xylene	ug/m3	1.9	0.87 J	0.87 U	0.87 U	1.2	0.87 U	0.87 U	0.81 J	0.87 U	1.7 U	0.24 J	0.39 J	0.54 J	4.3 U	1.7 U	1.7 U	8.7 U	0.87 U	1.7 U	8.7 U	2.6	0.87 U	0.87 U	
Methyl methacrylate	ug/m3	0.41 U	0.41 U	0.41 U	0.41 U	0.19 U	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U	0.41 U	2 U	--	0.82 U	--	0.41 U	0.82 U	4.1 U	0.82 U	0.41 U	0.41 U	0.41 U	
Methylene chloride	ug/m3	2.5 JB	3.5 J	6.9	1.1 J	3.4	1.1 J	0.79 J	0.99 J	1.6 J	3.5 U	0.44 J	1.9 J	17 U	6.9 U	6.9 U	35 U	1.3 J	6.9 U	35 U	6.9 U	2.6 J	3.5 U	0.5 J	
Methyl-t-butyl ether	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U	0.17 U	0.36 U	0.36 U	0.36 U	0.72 U	0.36 U	0.36 U	0.36 U	1.8 U	0.72 U	0.72 U	3.6 U	0.36 U	0.72 U	3.6 U	0.72 U	0.36 U	0.36 U	0.36 U	
Naphthalene	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--	5.2 U	--	--	--	--	--	--	--	
n-Heptane	ug/m3	0.52	0.41 U	0.41 U</																					

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

Area:	Extraction Well - Large Retail Space								Extraction Well - Western Small Retail Space																
Location:	EW-5								EW-7																
Sample ID:	EW-5-09092020	EW-5-030821	EW-5	EW-5	EW-5	EW-5	EW-5-020724	EW-7-020309	EW-7-021109	EW-7-021809	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-7-021711	EW-7-060211		
Sample Date:	9/9/2020	3/8/2021	9/8/2021	3/29/2022	9/15/2022	3/17/2023	2/7/2024	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		
Analyte	Units																								
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	1.2 U	1.2 U	0.44 U	1.2 U	37 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,1,1-Trichloroethane	ug/m3	73	11	0.55 U	15	4200	20000	350	5600	8500	7800	8200	8100	1600	3600	2600	1400	340	51	250	290	160	110	5.5 U	
1,1,2,2-Tetrachloroethane	ug/m3	0.69 U	0.69 U	0.69 U	0.24 U	1.4 U	21 U	0.69 U	6.8 U	1.4 U	1.7 U	1.7 U	1.7 U	6.8 U	3.4 U	3.4 U	3.4 U	3.4 U	0.68 U	0.68 U	0.68 U	0.69 U	0.69 U	6.9 U	
1,1,2-Trichloroethane	ug/m3	0.55 U	0.55 U	0.55 U	0.19 U	1.1 U	16 U	0.55 U	5.4 U	1.1 U	1.4 U	1.4 U	1.4 U	5.4 U	2.7 U	2.7 U	2.7 U	2.7 U	0.54 U	0.54 U	0.54 U	0.55 U	0.55 U	5.5 U	
1,1-Dichloroethane	ug/m3	0.4 U	1.6	0.4 U	0.32	130	860	28	1700	1800	1600	2100	1700	590	1000	1100	970	470	85	320	340	220	150	45	
1,1-Dichloroethene	ug/m3	0.4 U	0.4 U	0.4 U	0.14 U	77	430	23	14	15	8.5	9.4	6.6	4 U	4.2	4.2	4.5	2 U	0.4 U	0.81	0.94	0.63	0.4 U	4 U	
1,2,4-Trichlorobenzene	ug/m3	0.74 U	0.74 U	1.5 U	0.52 U	1.5 U	22 U	0.74 U	7.4 U	1.9 U	1.9 U	1.9 U	7.4 U	3.7 U	3.7 U	3.7 U	7.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	7.4 U	7.4 U	
1,2,4-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.17 U	0.98 U	15 U	2.6	5 U	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5	0.5 U	0.5 U	0.49 U	0.49 U	4.9 U	
1,2-Dibromoethane (EDB)	ug/m3	0.77 U	0.77 U	0.77 U	0.27 U	1.5 U	23 U	0.77 U	7.6 U	1.6 U	1.9 U	1.9 U	1.9 U	7.6 U	3.8 U	3.8 U	3.8 U	3.8 U	0.76 U	0.76 U	0.76 U	0.77 U	0.77 U	7.7 U	
1,2-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.21 U	1.2 U	18 U	0.6 U	6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.4 U	0.14 U	0.81 U	12 U	0.4 U	4 U	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	4 U	
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	0.46 U	0.16 U	0.92 U	14 U	0.46 U	4.6 U	0.92 U	1.2 U	1.2 U	1.2 U	4.6 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	4.6 U	
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	--	--	--	0.7 U	7 U	1.4 U	1.8 U	1.8 U	1.8 U	7 U	3.5 U	3.5 U	3.5 U	3.5 U	0.7 U	0.7 U	0.7 U	--	--	--	
1,3,5-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.49 U	0.17 U	0.98 U	15 U	1.3	5 U	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	1.1	0.5 U	0.5 U	0.49 U	0.49 U	4.9 U	
1,3-Butadiene	ug/m3	0.22 U	0.22 U	0.22 U	0.077 U	0.44 U	6.6 U	0.22 U	2.2 U	0.44 U	0.55 U	0.55 U	0.55 U	2.2 U	1.1 U	1.1 U	2.3 U	1.1 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	2.2 U	
1,3-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.21 U	1.2 U	18 U	0.6 U	6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	
1,4-Dichlorobenzene	ug/m3	0.6 U	0.6 U	0.6 U	0.21 U	1.2 U	18 U	0.6 U	6 U	1.2 U	1.5 U	1.5 U	1.5 U	6 U	3 U	3 U	3 U	3 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	6 U	
1,4-Dioxane	ug/m3	--	--	--	--	--	--	3.6 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Butanone	ug/m3	12 U	130	3.5 J	1.2 J	5300	350 U	12 U	8.7	12	7.3	8.5	5.5	4.5	7.1	16	4.9	3.5	31	3.8	1.8	4.1	5.3 B	59 U	
2-Hexanone	ug/m3	0.82 U	0.82 U	0.82 U	0.29 U	0.82 U	12 U	0.82 U	8.2 U	1 U	1.2 U	1.2 U	1.2 U	8.2 U	4 U	4 U	4 U	4 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	8.2 U	
4-Ethyltoluene	ug/m3	0.49 U	0.49 U	0.49 U	0.17 U	0.98 U	15 U	0.49 U	5 U	1 U	1.3 U	1.3 U	1.3 U	5 U	2.5 U	2.5 U	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.49 U	0.49 U	4.9 U	
4-Methyl-2-pentanone	ug/m3	0.41 U	0.41 U	0.41 U	0.14 U	0.82 U	12 U	0.41 U	4 U	0.8 U	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.41 U	0.41 U	4.1 U	
Acetone	ug/m3	15	640	16	4	1100	290 U	9.5 U	580	38	4.5	3.9	4.5	1.9	2.3	3.2 U	2.6	2.8	3	2.2	1.5	1.7	2.1	1.6	3.2 U
Benzene	ug/m3	0.32 U	3	0.46	0.41	2	9.6 U	2.5	3.2 U	3.9	4.5	1.9	2.3	3.2 U	2.6	2.8	3	2.2	1.5	1.7	2.1	1.4	1.6	3.2 U	
Benzyl chloride	ug/m3	0.52 U	0.52 U	0.52 U	0.18 U	2.1 U	16 U	0.52 U	5.2 U	1.1 U	1.3 U	1.3 U	1.3 U	5.2 U	2.6 U	2.6 U	2.6 U	2.6 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	5.2 U	
Bromodichloromethane	ug/m3	0.67 U	0.67 U	0.67 U	0.23 U	1.3 U	20 U	0.67 U	6.6 U	1.4 U	1.7 U	1.7 U	1.7 U	6.6 U	3.3 U	3.3 U	3.3 U	3.3 U	0.66 U	0.66 U	0.66 U	0.67 U	0.67 U	6.7 U	
Bromoform	ug/m3	1 U	1 U	1 U	0.36 U	2.1 U	31 U	1 U	11 U	2.1 U	2.6 U	2.6 U	2.6 U	11 U	5.1 U	5.1 U	5.1 U	5.1 U	1.1 U	1.1 U	1.1 U	1 U	1 U	10 U	
Bromomethane	ug/m3	0.39 U	0.39 U	0.39 U	0.14 U	0.78 U	12 U	0.39 U	3.8 U	0.76 U	0.95 U	0.95 U	0.95 U	3.8 U	1.9 U	1.9 U	1.9 U	1.9 U	0.38 U	0.38 U	0.38 U	0.39 U	0.39 U	3.9 U	
Carbon disulfide	ug/m3	3.1 U	3.1 U	3.1 U	0.1 J	270	27 J	3.1 U	5.7	3.4	2.7	3.7	3.3	3.2 U	3.2	2.7	2.1	1.6 U	1.5	0.93	0.9	0.78	0.31 U	3.1 U	
Carbon tetrachloride	ug/m3	0.47 J	0.63 U	0.43 J	0.44	1.3 U	19 U	0.63 U	6.2 U	1.3 U	1.6 U	1.6 U	1.6 U	6.2 U	3.1 U	3.1 U	3.1 U	3.1 U	0.62 U	0.62 U	0.62 U	0.63 U	0.63 U	6.3 U	
Chlorobenzene	ug/m3	0.46 U	0.46 U	0.46 U	0.16 U	0.92 U	14 U	0.46 U	4.6 U	0.92 U	1.2 U	1.2 U	1.2 U	4.6 U	2.3 U	2.3 U	2.3 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	4.6 U	
Chloroethane	ug/m3	0.26 U	0.26 U	0.26 U	0.092 U	3.2	7.9 U	0.26 U	170	150	88	41	33	7.1	9.6	10	8.1	6.5	1.6	2.2	3.6	2	0.26 U	2.6 U	
Chloroform	ug/m3	0.93	0.3 J	0.17 J	0.17 U	4.7	15 U	4.7	4.8 U	1	1.2 U	1.5 U	1.3	1.2 U	4.8 U	1	2.7	2.6	4.6	2.7	1.1	4.2	3.9	3	4.9 U
Chloromethane	ug/m3	0.41 U	0.41 U	1.4	0.14 U	0.83 U	12 U	0.41 U	2 U	0.4 U	0.5 U	0.5 U	0.5 U	2 U	1 U	1 U	1 U	1 U	0.2 U	0.2 U	0.2 U	0.21 U	0.21 U	2.1 U	
cis-1,2-Dichloroethene	ug/m3	0.73	0.52	0.4 U	0.14 U	8.1	20	8.2	1100	1300	1200	1700	1200	520	1100	1200	1300	680	120	660	490	350	250	65	
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.45 U	0.16 U	0.91 U	14 U	0.45 U	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.44 U	0.44 U	0.44 U	0.45 U	0.45 U	4.5 U	
Cyclohexane	ug/m3	0.34 U	0.34 U	0.34 U	0.12 U	0.69 U	10 U	0.34 U	3.4 U	5.6	5	3.7	2.1	3.4 U	1.7 U	1.7 U	1.7 U	1.7 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	3.4 U	
Dibromochloromethane	ug/m3	0.85 U	0.85 U	0.85 U	0.3 U	1.7 U	26 U	0.85 U	8.6 U	1.8 U	2.2 U	2.2 U	2.2 U	8.6 U	4.3 U	4.3 U	4.3 U	4.3 U	0.86 U	0.86 U	0.86 U	0.85 U	0.85 U	8.5 U	
Dichlorodifluoromethane	ug/m3	0.49 U	0.49 U	2.5	2	0.99 U	15 U	2.3	5 U	2.5	3.2	2.6	2.6	5 U	2.9	3.3	2.5 U	2.5 U	1.5	2.2	1.5	2.1	0.49 U	4.9 U	
Ethanol	ug/m3	71	47	94	8.1	27	230 U	47	350	26	29	17	15	3.8 U	19	18	12	18	37	31	1.9 U	1.9 U	18	38 U	
Ethyl acetate	ug/m3	3.6 U	3.6 U	3.6 U	1.3 U	7.2 U	110 U	9.1	7.3 U	0.72 U	0.9 U	0.9 U	0.9 U	7.3 U	1.8 U	1.8 U	1.8 U	1.8 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	3.6 U	
Ethylbenzene	ug/m3	0.16 J	16	0.17 J	0.15 U	0.87 U	13 U	1.7	4.4 U	0.88 U	1.1 U	1.1 U	1.1 U	4.4 U	2.2 U	2.2 U	2.2 U	2.2 U	0.57	0.44 U	0.44 U	0.43 U	0.43 U	4.3 U	
Hexachlorobutadiene	ug/m3	1.1 U	1.1 U	1.1 U	0.37 U	2.1 U	32 U	1.1 U	22 U	4.3 U	5.4 U	5.4 U	5.4 U	22 U	11 U	11 U	11 U	11 U	2.2 U	1.1 U	1.1 U	1.1 U	1.1 U	11 U	
Hexane	ug/m3	14 U	14 U	14 U	4.9 U	28 U	420 U	14 U	10	10	7.6	5.5	3.1	3.6 U	4	2.1	1.8 U	1.8 U	0.36 U	0.97	0.71 U	0.87	0.35 U	3.5 U	
Isopropyl alcohol	ug/m3	9.8 U	9.8 U	2.7 J	3.4 U	9.1 J	290 U	9.8 U	210	18	21	12	8.5	5 U	12	17	2.5 U	2.5 U	80	2.2	2.6	2.8	0.25 U	25 U	
m,p-Xylene	ug/m3	0.51 J	67	0.59 J	0.19 J	1.7 U	26 U	6.7	8.6 U	1.8 U	2.2 U	2.2 U	2.2 U	8.6 U	4.3 U	4.3 U	4.3 U	4.3 U	1.4	0.93	1	0.87 U	0.87 U	8.7 U	
Methyl methacrylate	ug/m3	0.41 U	--	0.41 U	0.14 U	0.82 U	12 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.41 U	4.1 U	
Methylene chloride	ug/m3	3.5 U	1.8 J	0.9 J	1.2 U	6.9 U	100 U	3.5 U	9.3	2.6	8	1.8	1.8 U	20	29	16	7 U	27	1.4 U	2.4	0.81	1.9	2.4	6.9 U	
Methyl-t-butyl ether	ug/m3	0.36 U	0.36 U	0.36 U	0.13 U	0.72 U	11 U	0.36 U	3.6 U	3.5	2.9	4.9	3.1	3.6 U	1.8 U	1.8 U	1.8 U	1.8 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	3.6 U	
Naphthalene	ug/m3	--	3.4	--	--	--	--	0.52 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	0.41 U	0.41 U	0.41 U	0.097 J	0.82 U	12 U	2.1	4 U	1.4	1 U	1 U	1 U	4 U	2 U	2 U	2 U	2 U	0.4 U	0.4 U	0.4 U	0.41 U	0.41 U	4.1 U	
o-Xylene	ug/m3	0.2 J	18	0.24 J	0.082 J	0.87 U	13 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-7-091511	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	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	
Sample Date:		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	8/5/2016	2/10/2017	9/7/2017	
Analyte	Units																								
1,1,1,2-Tetrachloroethane	ug/m3	2.5 U	--	12 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 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	2.5 U	--	2.5 U	--	1.2 U	2.5 U	
1,1,1-Trichloroethane	ug/m3	110	66	11	47	95	0.55 U	3.1	15	76	52	41	30	15	52	6.1	25	14	63	40	1.1 U	160	30	1.2	
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	0.69 U	3.4 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	0.24 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	0.69 U	1.4 U	
1,1,2-Trichloroethane	ug/m3	1.1 U	0.55 U	2.7 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.19 U	0.55 U	0.55 U	0.55 U	0.55 U	0.19 U	0.55 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-Dichloroethane	ug/m3	150	80	6.4	42	100	0.4 U	2	7	51	25	12	6.9	5.4	20	1.8	4.9	3.7	16	6.5	0.81 U	30	6.3	0.81 U	
1,1-Dichloroethene	ug/m3	0.79 J	0.13 J	2 U	0.4 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	0.79 U	0.79 U	0.79 U	4 U	0.4 U	0.79 U	
1,2,4-Trichlorobenzene	ug/m3	3 U	1.5 U	15 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	0.74 U	1.5 U	0.74 U	1.5 U	0.74 U	1.5 U	0.74 U	1.5 U	0.74 U	3 U	1.5 U	1.5 U	7.4 U	0.74 U	1.5 U	
1,2,4-Trimethylbenzene	ug/m3	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	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	0.98 U	4.9 U	0.49 U	0.98 U	
1,2-Dibromoethane (EDB)	ug/m3	1.5 U	0.77 U	3.8 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.27 U	0.77 U	0.77 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	7.7 U	0.77 U	1.5 U	
1,2-Dichlorobenzene	ug/m3	1.2 U	0.6 U	6 U	0.6 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	1.2 U	0.6 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-Dichloroethane	ug/m3	0.81 U	0.4 U	2 U	0.4 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	0.16 J	0.81 U	0.81 U	0.81 U	4 U	0.4 U	0.81 U	
1,2-Dichloropropane	ug/m3	0.92 U	0.46 U	2.3 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	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	0.92 U	4.6 U	0.46 U	0.92 U	
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4 U	--	7 U	--	--	
1,3,5-Trimethylbenzene	ug/m3	0.98 U	0.49 U	4.9 U	0.49 U	0.5	0.49 U	0.49 U	0.49 U	0.24	0.32 J	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	0.98 U	4.9 U	0.49 U	0.98 U	
1,3-Butadiene	ug/m3	0.44 U	0.22 U	2.2 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.078 U	0.22 U	0.22 U	0.22 U	0.22 U	0.44 U	0.22 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	
1,3-Dichlorobenzene	ug/m3	1.2 U	0.6 U	6 U	0.6 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	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	
1,4-Dichlorobenzene	ug/m3	1.2 U	0.6 U	6 U	0.6 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	1.2 U	0.6 U	0.6 U	0.6 U	1.2 U	1.2 U	1.2 U	6 U	0.6 U	1.2 U	
1,4-Dioxane	ug/m3	0.72 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.2 U	--	36 U	--	--	
2-Butanone	ug/m3	24 J	6.2 J	100 J	14	3.6 J	12	210	99	12	8.5 J	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	
2-Hexanone	ug/m3	0.82 J	0.28 J	4.1 U	0.28 J	0.64	0.41 U	0.14 J	0.39 J	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	
4-Ethyltoluene	ug/m3	0.98 U	0.49 U	4.9 U	0.49 U	0.21 J	0.49 U	0.49 U	0.49 U	0.17 U	0.27 J	0.49 U	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	0.98 U	4.9 U	0.49 U	0.98 U
4-Methyl-2-pentanone	ug/m3	0.82 U	0.13 J	4.1 U	1.6	0.31 J	0.41	0.41 U	0.41 U	0.14 U	0.41 U	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	0.82 U	4.1 U	0.41 U	0.82 U	
Acetone	ug/m3	23	12	46 J	31	17 B	9.5	55	28	24	35	14	6.9 J	19	18 J	9.4 J	13	7.4 J	8.2 J	19 U	29	81 J	25	51	
Benzene	ug/m3	2.5	1.6	3.2 U	1.5	1.2	0.32	0.54	0.61	1.9	1.9	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	
Benzyl chloride	ug/m3	1 U	0.52 U	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	1 U	1 U	1 U	5.2 U	0.52 U	1 U	
Bromodichloromethane	ug/m3	1.3 U	0.67 U	3.4 U	3.2	0.67 U	0.67 U	0.67 U	0.67 U	0.24 U	0.67 U	0.67 U	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	
Bromoforn	ug/m3	2.1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	0.36 U	1 U	1 U	1 U	1 U	2.1 U	1 U	1 U	1 U	2.1 U	2.1 U	2.1 U	10 U	1 U	2.1 U	
Bromomethane	ug/m3	0.78 U	0.39 U	3.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.14 U	0.39 U	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	
Carbon disulfide	ug/m3	6.2 J	3.1 U	31 U	0.41 J	3.1 U	3.1 U	0.57 J	7.4	0.42 J	3.1 U	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	
Carbon tetrachloride	ug/m3	1.3 U	0.34 J	3.1 U	0.3 J	0.33 J	0.47 J	0.63 U	0.38	0.33 J	0.4 J	0.63 U	0.63 U	0.63 U	0.63 U	0.36 J	0.21 J	0.33 J	0.38 J	1.3 U	1.3 U	6.3 U	0.63 U	1.3 U	
Chlorobenzene	ug/m3	0.92 U	0.46 U	4.6 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	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	0.92 U	4.6 U	0.46 U	0.92 U	
Chloroethane	ug/m3	1.9	0.26 U	2.6 U	0.82	0.26 U	0.26 U	0.26 U	0.26 U	0.92	0.093 U	0.61	0.63	1.6	1.4	0.53 U	0.26 U	0.97	1.3	0.45 J	0.53 U	2.6 U	0.26 U	1.1 U	
Chloroform	ug/m3	5	3.8	2.4 U	3.1	4.1	0.49 U	0.36 J	2	6.6	2.7	2.6	2	2.4	6.3	3.8	0.91	2.1	2.6	4.1	2.8	0.98 U	9.3	2.2	0.98 U
Chloromethane	ug/m3	0.41 U	0.21 U	2.1 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.14 U	0.21 U	0.21 U	0.21 U	0.21 U	0.83 U	0.41 U	0.41 U	0.41 U	0.83 U	0.83 U	0.83 U	4.1 U	0.41 U	0.83 U	
cis-1,2-Dichloroethene	ug/m3	210	99	5.1	53	120	0.4 U	1.4	5.1	54	24	6	5	4.7	18	0.99	3.1	2.5	9.1	2.7	0.79 U	19	2.7	0.79 U	
cis-1,3-Dichloropropene	ug/m3	0.91 U	0.45 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.91 U	0.91 U	0.91 U	4.5 U	0.45 U	0.91 U	
Cyclohexane	ug/m3	0.69 J	0.34 U	3.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.12 U	0.34 U	0.34 U	0.34 U	0.34 U	0.69 U	0.34 U	0.34 U	0.34 U	0.69 U	0.69 U	0.69 U	3.4 U	0.34 U	0.69 U	
Dibromochloromethane	ug/m3	1.7 U	0.85 U	4.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	1.7 U	1.7 U	1.7 U	8.5 U	0.85 U	1.7 U	
Dichlorodifluoromethane	ug/m3	2.7	2.6	4.9 U	3	0.49 U	0.49	2.5	2	1.5	0.49 U	2.4	2	1.9	2.5	2.6	1.5	2.3	2.9	3.2	2	6.9	1.1	2.2	
Ethanol	ug/m3	22	23	160	31	140	75	27	22	14	140	30	12	32	18	7.5 U	42	93	14 J	18	49 J	13	65		
Ethyl acetate	ug/m3	0.72 U	0.36 U	11	0.63	0.36 U	0.36 U	3	3.6	0.13 U	0.36 U	0.94	0.36 U	0.36 U	0.72 U	1.7	29	0.36 U	0.72 U	0.72 U	0.72 U	3.6 U	0.36 U	0.74 J	
Ethylbenzene	ug/m3	0.87 J	0.26 J	4.3 U	0.21 J	0.47	0.43	0.13 J	0.43 U	0.44	0.56	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U	1.2	0.23 J	0.87 U	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	
Hexachlorobutadiene	ug/m3	2.1 U	1.1 U	11 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	2.1 U	1.1 U	1.1 U	1.1 U	2.1 U	2.1 U	2.1 U	11 U	1.1 U	2.1 U	
Hexane	ug/m3	28 U	14 U	4 J	0.55 J	14 U	14 J	3.5 J	0.78 J	0.9 J	0.9 J	14 U	14 U	14 U	28 U	14 U	8.1 J	14 U	28 U	28 U	28 U	140 U	14 U	28 U	
Isopropyl alcohol	ug/m3	30	9.8 U	98 U	14	9.8 U	9.8	9.8 U	9.8 U	3.4 U	17	13	9.8 U	1.8 J	20 U	4.8 J	12	6.6 J	22	20 U	6.4 J	98 U	5.1 J	11 J	
m,p-Xylene	ug/m3	1.7 J	0.82 J	8.7 U	0.45 J	1.3	0.87	0.33 J	0.5 J	1	1.5	0.87 U	0.49 J	0.9	1.7 U	0.87 U	0.68 J	0.5 J	1.7 U	1.7 U	1.7 U	8.7 U	0.87 U	1.7 U	
Methyl methacrylate	ug/m3	0.82 U	0.41 U	4.1 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.14 U	0.41 U	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U	--	0.82 U	--	0.82 U	--	0.41 U	0.82 U	
Methylene chloride	ug/m3	6.9 J	1.5 J	33 J	2.1 J	5.4 B	3.5	10	1.5 J	1.7	1.7 J	1.1 J	0.82 J	0.85 J	1.3 J	3.5 U	0.49 J	3.5 U	6.9 U	6.9 U	1.4 J	35 U	1.3 J	6.9 U	
Methyl-t-butyl ether	ug/m3	0.72 J	0.36 U	3.6 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.13 U	0.36 U	0.36 U	0.36 U	0.36 U	0.72 U	0.36 U	0.36 U	0.36 U	0.72 U	0.72 U	0.72 U	3.6 U	0.36 U	0.72 U	
Naphthalene	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1 U	--	7.1	--	--	
n-Heptane																									

**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-7-022818	EW-7-091218	EW-7-020819	EW-7-090619	EW-7-021420	EW-7-09092020	EW-7-030821	EW-7	EW-7	EW-7	EW-7	EW-7-020724	EW-7-2-020724
Sample Date:		2/28/2018	9/12/2018	2/8/2019	9/6/2019	2/14/2020	9/9/2020	3/8/2021	9/8/2021	3/29/2022	9/15/2022	3/17/2023	2/7/2024	2/7/2024
Analyte	Units													
1,1,1,2-Tetrachloroethane	ug/m3	2.5 U	2.5 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U	1.2 U	2.5 U	--	--
1,1,1-Trichloroethane	ug/m3	20	7.9	8.7	8.3	9.4	8.7	42	12	0.26	51	42	25	15
1,1,2,2-Tetrachloroethane	ug/m3	1.4 U	1.4 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	1.4 U	0.69 U	0.69 U
1,1,2-Trichloroethane	ug/m3	1.1 U	1.1 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 U	0.55 U	0.55 U
1,1-Dichloroethane	ug/m3	2.2	1.3	0.4 U	1.3	0.81	0.4 U	2.7	1.5	0.14 U	6.2	1.8	1.8	1.1
1,1-Dichloroethene	ug/m3	0.79 U	0.79 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	0.79 U	0.4 U	0.4 U
1,2,4-Trichlorobenzene	ug/m3	1.5 U	1.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	1.5 U	0.52 U	0.74 U	1.5 U	0.74 U	0.74 U
1,2,4-Trimethylbenzene	ug/m3	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.17 U	0.49 U	0.98 U	24	21
1,2-Dibromoethane (EDB)	ug/m3	1.5 U	1.5 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	1.5 U	0.77 U	0.77 U
1,2-Dichlorobenzene	ug/m3	1.2 U	1.2 U	2.4 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U	1.2 U	0.6 U	0.6 U
1,2-Dichloroethane	ug/m3	0.81 U	0.81 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	0.81 U	0.4 U	0.4 U
1,2-Dichloropropane	ug/m3	0.92 U	0.92 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	0.92 U	0.46 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	0.7 U	0.7 U
1,3,5-Trimethylbenzene	ug/m3	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.17 U	0.49 U	0.98 U	13	12
1,3-Butadiene	ug/m3	0.44 U	0.42 J	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.077 U	0.22 U	0.44 U	0.22 U	0.22 U
1,3-Dichlorobenzene	ug/m3	1.2 U	1.2 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 U	0.6 U	0.6 U
1,4-Dichlorobenzene	ug/m3	1.2 U	1.2 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 U	0.6 U	0.6 U
1,4-Dioxane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	3.6 U	3.6 U
2-Butanone	ug/m3	17 J	21 J	12 U	22	32	18	21	25	4.1 U	5.1 J	24 U	12 U	12 U
2-Hexanone	ug/m3	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	0.29 U	0.41 U	0.82 U	0.41 U	0.41 U
4-Ethyltoluene	ug/m3	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.17 U	0.49 U	0.98 U	2.7	2
4-Methyl-2-pentanone	ug/m3	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.14 U	0.41 U	0.82 U	0.41 U	0.41 U
Acetone	ug/m3	10 J	23	21	17	26	15	11	7.8 J	9.6	9.5	19 U	10	9.5 U
Benzene	ug/m3	0.74	1.6	2.1	1.4	1	0.32 U	1.2	0.66	0.6	0.89	0.87	1.1	0.95
Benzyl chloride	ug/m3	1 U	1 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	1 U	1 U	0.52 U	0.52 U
Bromodichloromethane	ug/m3	1.3 U	1 J	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.23 U	0.67 U	1.3 U	0.67 U	0.67 U
Bromoform	ug/m3	2.1 U	2.1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.36 U	1 U	2.1 U	1 U	1 U
Bromomethane	ug/m3	0.78 U	0.78 U	0.39 U	3.9 U	0.78 U	0.39 U	0.39 U	0.39 U	0.14 U	0.39 U	0.78 U	0.39 U	0.39 U
Carbon disulfide	ug/m3	17	47	30 J	47	25	3.1 U	3.1 U	66	1.1 U	3.1 U	14	19	3.1 U
Carbon tetrachloride	ug/m3	1.3 U	0.48 J	0.63 U	0.63 U	0.63 U	0.63 U	0.47 J	0.44 J	0.24	0.52 J	1.3 U	0.63 U	0.63 U
Chlorobenzene	ug/m3	0.92 U	0.92 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	0.92 U	0.46 U	0.46 U
Chloroethane	ug/m3	0.53 U	0.53 U	0.53 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.092 U	0.26 U	0.53 U	0.33	0.26 U
Chloroform	ug/m3	1.5	1.4	2.1	1.7	0.86	1.3	2.9	2.6	0.17 U	2	1.9	2.5	1.5
Chloromethane	ug/m3	0.83 U	0.83 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	1.6	0.41 U	0.83 U	0.41 U	0.41 U
cis-1,2-Dichloroethene	ug/m3	1.3	1.1	1.7	1.2	0.59	1.3	2.1	1.4	0.14 U	2.8	0.79 U	0.98	0.75
cis-1,3-Dichloropropene	ug/m3	0.91 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.91 U	0.45 U	0.45 U
Cyclohexane	ug/m3	0.69 U	0.69 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.12 U	0.34 U	0.69 U	0.34 U	0.34 U
Dibromochloromethane	ug/m3	1.7 U	1.7 U	2.2	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.3 U	0.85 U	1.7 U	0.85 U	0.85 U
Dichlorodifluoromethane	ug/m3	0.99 U	2.2	0.49 U	0.49 U	1.7	0.49 U	0.49 U	0.49 U	2	0.49 U	1.9	2.4	2.4
Ethanol	ug/m3	8.6 J	19	7.5 U	63	140	45	150	12	210	130	9.9 J	7.5 U	14
Ethyl acetate	ug/m3	0.72 U	0.63 J	0.36 U	0.36 U	0.36 U	3.6 U	3.6 U	3.6 U	1.3 U	3.6 U	7.2 U	3.6 U	3.6 U
Ethylbenzene	ug/m3	0.87 U	0.87 U	1.3	0.43 U	0.43 U	0.16 J	0.16 J	0.18 J	0.15 U	0.43 U	0.87 U	16	11
Hexachlorobutadiene	ug/m3	2.1 U	2.1 U	2.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	1.1 U	2.1 U	1.1 U	1.1 U
Hexane	ug/m3	28 U	28 U	14 U	14 U	14 U	14 U	14 U	14 U	4.9 U	14 U	28 U	14 U	14 U
Isopropyl alcohol	ug/m3	3.9 J	47	5.4 J	4.6 J	11	9.8 U	8.5 J	4 J	4.8	9.8 U	20 U	9.8 U	9.8 U
m,p-Xylene	ug/m3	1.7 U	1.7 U	2.6	0.87 U	0.55 J	0.4 J	0.43 J	0.52 J	0.3 U	0.51 J	1.7 U	79	48
Methyl methacrylate	ug/m3	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	--	0.41 U	0.14 U	0.41 U	0.82 U	--	--
Methylene chloride	ug/m3	6.9 U	6.9 U	1.5 J	3.5 U	0.51 J	3.5 U	3.5 U	3.5 U	1.2 U	3.5 U	6.9 U	3.5 U	3.5 U
Methyl-t-butyl ether	ug/m3	0.72 U	0.72 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.13 U	0.36 U	0.72 U	0.36 U	0.36 U
Naphthalene	ug/m3	--	--	--	--	--	--	0.52 U	--	--	--	--	0.7	0.52 U
n-Heptane	ug/m3	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.17	0.41 U	0.82 U	0.41 U	0.56
o-Xylene	ug/m3	0.87 U	0.87 U	1.3	0.43 U	0.43 U	0.43 U	0.2 J	0.17 J	0.15 U	0.43 U	0.87 U	30	21
Propylene (Propene)	ug/m3	14 U	14 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	2.4 U	6.9 U	14 U	6.9 U	6.9 U
Styrene	ug/m3	0.85 U	0.78 J	0.43 U	0.43 U	0.71	0.31 J	0.46	0.21 J	0.15 U	0.43 U	0.85 U	0.54	0.43 U
Tetrachloroethene	ug/m3	95	62	15	93	45	53	190	110	1.8	60	220	88	45
Tetrahydrofuran	ug/m3	880	1100	220	2500	980	1300	1300	1700	1 U	3	73	140	57
Toluene	ug/m3	0.99	2.1	2.4	1.5	0.61	0.81	0.75	1.4	0.29	1	0.48 J	1.1	1.1
Total VOCs	ug/m3	1561.33	1557.3	544.6	3048.8	1526.5	1695.38	2657.07	2337.68	237.33	1219.02	1097.7	820.55	401.86
trans-1,2-Dichloroethene	ug/m3	2.6	1.7	2.2 J	1.4	0.82	1.4	3.2	1.8	0.14 U	5.5	1.3	2.4	1.5
trans-1,3-Dichloropropene	ug/m3	0.91 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.91 U	0.45 U	0.45 U
Trichloroethene	ug/m3	170	120	42	150	81	130	320	210	1.3	190	160	210	110
Trichlorofluoromethane	ug/m3	370	120	190	140	170	120	600	180	4.1	750	570	150	36
Trichlorotrifluoroethane	ug/m3	6.1 U	6.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	0.57 J	1 J	6.1 U	3.1 U	3.1 U
Vinyl acetate	ug/m3	14 U	14 U	7 U	7 U	7 U	7 U	7 U	7 U	2.5 U	7 U	14 U	7 U	7 U
Vinyl chloride	ug/m3	0.51 U	0.51 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.089 U	0.26 U	0.55	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
-- Compound not analyzed.

Prepared By: AKN, 2/28/2024

Checked By: MM, 2/28/2024



Appendix E1

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

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

Area:			Large Retail Space																						
Location:			AIR-13	AIR-4	AIR-5	AIR-6	AIR-7	AIR-8	IA-1																
Sample ID:			AIR-13	AIR-4	AIR-5 DUP	AIR-6	AIR-7	AIR-8	IA-1	IA-1-020309	IA-1-021109	IA-1-021809	IA-1-022609	IA-1-030609	IA-1-033109	IA-1-041409	IA-1-042409	IA-1-091709	IA-1-092409	IA-1-100109	IA-1-100809	IA-1-120209	IA-1-010810	IA-1-012810	IA-1-020510
Sample Date:			9/12/2007	9/12/2007	9/12/2007	9/12/2007	9/12/2007	9/12/2007	1/16/2009	2/3/2009	2/11/2009	2/18/2009	2/26/2009	3/6/2009	3/31/2009	4/14/2009	4/24/2009	9/17/2009	9/24/2009	10/1/2009	10/8/2009	12/2/2009	1/8/2010	1/28/2010	2/5/2010
Analyte	Units	CT IACTIND 2003																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.137 U	0.137 U	0.137 U	0.137 U	0.327 U	0.137 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	ug/m3	500	1.54	2.35	2.11	1.68	1.81	2.11	10	0.56	1.1	0.99	0.35	1.8	1.5	1.4	2	0.27 U	0.27 U	0.27 U	0.27 U	0.24	0.27 U	0.27 U	0.76
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.137 U	0.137 U	0.137 U	0.137 U	0.327 U	0.137 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/m3	12	0.109 U	0.109 U	0.109 U	0.109 U	0.26 U	0.109 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	ug/m3	430	0.182	0.321	0.233	0.224	0.218	0.235	0.71	0.2 U	0.2 U	0.2 U	0.27	0.32	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	ug/m3	20	0.104	0.098	0.091	0.08	0.189 U	0.086	0.38	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	ug/m3	NA	--	--	--	--	--	--	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.176	0.236	0.265	0.212	0.234 U	0.22	0.25 U	0.36	0.7	0.77	0.25 U	0.25 U	0.25 U	0.18 U	0.48	0.29	0.35	0.28	0.51	0.52	0.37	0.25 U	0.26
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.154 U	0.154 U	0.154 U	0.154 U	0.366 U	0.154 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	ug/m3	410	0.12 U	0.12 U	0.12 U	0.12 U	0.287 U	0.12 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.27 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	ug/m3	0.31	0.0809 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	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	ug/m3	0.42	0.0924 U	0.0924 U	0.0924 U	0.0924 U	0.22 U	0.0924 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.349 U	0.349 U	0.349 U	0.349 U	0.834 U	0.349 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	ug/m3	52	0.0982 U	0.103	0.115	0.0982 U	0.234 U	0.0982 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-Butadiene	ug/m3	NA	0.0442 U	0.0442 U	0.0442 U	0.0442 U	0.106 U	0.0442 U	0.11 U	0.11 U	0.34	0.84	0.11 U	0.11 U	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U
1,3-Dichlorobenzene	ug/m3	410	0.12 U	0.12 U	0.12 U	0.12 U	0.287 U	0.12 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	ug/m3	24	0.12 U	0.12 U	0.12 U	0.12 U	0.287 U	0.12 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	500	2.12	1.47 U	2.42	2.47	3.52 U	2.86	20	3.1	5.8	3.4	2.6	2.2	1.3	1.2	4.4	2	2.6	2.7	1.3	2.7	1.6	0.3 U	2.4
2-Hexanone	ug/m3	NA	--	--	--	--	--	--	0.2 U	0.2 U	0.6	0.42	0.2 U	0.23	0.2 U	0.14 U	0.48	0.43	0.52	0.73	0.31	0.71	0.36	0.2 U	0.47
4-Ethyltoluene	ug/m3	NA	--	--	--	--	--	--	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18	0.25 U	0.25 U	0.25 U
4-Isopropyltoluene	ug/m3	370	2.74 U	2.74 U	2.74 U	2.74 U	6.55 U	2.74 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	ug/m3	200	2.05 U	2.05 U	2.05 U	2.05 U	4.88 U	2.05 U	0.2 U	0.2 U	0.43	0.3	0.2 U	0.2 U	0.2 U	0.14 U	0.52	0.21	0.35	0.32	0.2 U	0.34	0.2 U	0.2 U	0.2 U
Acetone	ug/m3	500	7.48	8.88	8.52	8.39	11.3 U	9.34	18	7.7	19	21	10	8.7	14	12	310	11	18	13	10	13	12	2	19
Acrylonitrile	ug/m3	NA	1.08 U	1.08 U	1.08 U	1.08 U	2.59 U	1.08 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	ug/m3	3.3	0.46	0.663	0.731	0.621	0.746	0.707	1	0.68	1.9	3	0.69	0.87	0.71	0.56	0.78	0.49	0.47	0.39	0.48	1.1	1.2	0.16 U	0.98
Benzyl chloride	ug/m3	NA	--	--	--	--	--	--	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.46	0.134 U	0.134 U	0.134 U	0.134 U	0.32 U	0.134 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U
Bromoform	ug/m3	7.3	0.206 U	0.206 U	0.206 U	0.206 U	0.493 U	0.206 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U
Bromomethane	ug/m3	NA	0.092	0.0776 U	0.086	0.0776 U	0.185 U	0.0776 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	NA	--	--	--	--	--	--	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	ug/m3	0.54	0.412	0.414	0.522	0.402	0.408	0.505	0.35	0.41	0.52	0.55	0.46	0.59	0.53	0.31	0.43	0.48	0.38	0.42	0.43	0.48	0.43	0.31 U	0.4
Chlorobenzene	ug/m3	200	0.092 U	0.092 U	0.092 U	0.092 U	0.22 U	0.092 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	500	0.0527 U	0.0527 U	0.0527 U	0.0527 U	0.126 U	0.0527 U	0.13 U	0.13 U	0.42	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.5	0.335	0.163	0.225	0.173	0.233 U	0.204	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.17 U	0.24 U	0.24 U	0.47
Chloromethane	ug/m3	80	2.44 U	2.44 U	2.44 U	2.44 U	5.82 U	2.44 U	1.1	1.1	1.4	1.5	1	1	1.2	1.1	1.3	1.1	1.1	0.98	0.95	1.3	1.1	1.4	1.3
cis-1,2-Dichloroethene	ug/m3	100	2.35	1.21	1.38	1.01	0.787	1.26	2	0.2 U	1	1.1	0.73	1.3	0.5	0.6	1.3	0.2 U	0.2 U	0.83	0.44	0.57	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	ug/m3	NA	0.0907 U	0.0907 U	0.0907 U	0.0907 U	0.216 U	0.0907 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	NA	--	--	--	--	--	--	0.17 U	0.17 U	0.49	0.61	0.17 U	0.17 U	0.17 U	0.12 U	0.34	0.18 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	ug/m3	NA	0.096 U	0.096 U	0.096 U	0.096 U	0.229 U	0.096 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	ug/m3	500	1.92	1.98	2.38	1.95	1.95	2.2	1.8	2.1	2.6	2.8	2.6	3.1	2	8.3	2.4	2	2.3	2.1	1.6	3.1	2.4	2.4	2.4
Ethanol	ug/m3	NA	--	--	--	--	--	--	5.7	8.3	14	20	9.8	7.5	18	5	39	6.2	7	6.5	8.8	10	8.4	7	29
Ethyl acetate	ug/m3	NA	--	--	--	--	--	--	0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.18 U	0.18 U	0.26 U	0.37 U	0.32	0.18 U	0.18 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	ug/m3	290	0.18	0.278	0.288	0.223	0.207 U	0.238	0.26	0.28	0.66	0.85	0.23	0.22 U	0.22 U	0.16 U	0.94	0.23	0.23	0.22 U	0.28	0.46	0.4	0.22 U	0.32
Hexachlorobutadiene	ug/m3	NA	--	--	--	--	--	--	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.75 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.75 U	0.53 U	0.53 U	0.53 U
Hexane	ug/m3	NA	--	--	--	--	--	--	0.92	0.74	1.2	1.6	1	0.51	0.53	0.65	1.7	0.99	1.3	0.41	0.77	0.78	0.74	0.18 U	0.82
Isopropyl alcohol	ug/m3	NA	--	--	--	--	--	--	3.4	3.1	5.3	5.8	3.8	2	9.1	0.18 U	240	5.2	5.2	0.25 U	2.7	1.8	2.4	0.25 U	9.4
Isopropylbenzene	ug/m3	120	2.46 U	2.46 U	2.46 U	2.46 U	5.86 U	2.46 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ug/m3	NA	0.616	0.998	1.08	0.859	0																		

**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-1	IA-1	IA-1	IA-1	IA-2	IA-2-020309	IA-2-021109		
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	9/8/2021	3/29/2022	9/15/2022	3/17/2023	1/16/2009	2/3/2009	2/11/2009		
Analyte	Units	CT IACTIND 2003																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U	0.44 U	0.44 U	--	0.44 U	--	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	--	
1,1,1-Trichloroethane	ug/m3	500	0.16 J	0.05 J	0.19 U	0.28	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	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	0.73	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	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	0.34 U	
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.065 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.082 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 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	0.72	
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.078 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 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	0.41	
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	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	0.37 U	
1,2,4-Trimethylbenzene	ug/m3	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	0.23	0.17 U	0.17 U	0.21	0.25 U	0.37	
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	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	0.3 U	
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.06 J	0.099 J	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	0.2 U	
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	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	0.23 U	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	--	--	--	--	0.25 U	--	0.25 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.35 U	
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.041 J	0.069 J	0.059 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.062 J	0.15 U	0.089 J	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	
1,3-Butadiene	ug/m3	NA	0.078 U	0.048 J	0.078 U	0.13	0.16	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.077 U	0.066 U	0.077 U	0.077 U	0.077 U	0.077 U	0.078 U	0.11 U	
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	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	0.3 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	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	0.3 U	
1,4-Dioxane	ug/m3	NA	--	--	--	--	1.3 U	--	1.3 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Butanone	ug/m3	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	4.2	4.1 U	4.1 U	4.1 U	21	4.1	4.6	
2-Hexanone	ug/m3	NA	0.14 U	0.3	0.14 U	0.14 U	0.16	0.14 U	0.14 U	0.14 U	0.32	0.44	0.14 U	0.14 U	0.14 U	0.14 U	0.29 U	0.25 U	0.29 U	0.29 U	0.14 U	0.14 U	0.2 U	0.35	
4-Ethyltoluene	ug/m3	NA	0.17 U	0.045 J	0.17 U	0.055 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.15 U	0.17 U	0.17 U	0.17 U	0.17 U	0.11 J	0.25 U	0.25 U	
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.14 J	0.08 J	0.14 U	0.21	0.14 U	0.33	0.14 U	0.32	0.083 J	0.14 U	0.45	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.091 J	0.27	0.089 J	0.2 U	0.35	
Acetone	ug/m3	500	9.3	12	7.7	17	12	9.8	15	4.9	14	9.8	12	4.5	6.7	7.8	9.3	8.9	19	7.1	12	8.9	17	14	
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzene	ug/m3	3.3	0.38	0.53	0.23	0.46	0.98	1	0.27	0.44	0.5	0.48	0.47	0.91	0.41	0.36	0.24	0.59	0.55	0.44	0.24	1	1	1.8	
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.26 U	
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U	0.24 U	0.12 J	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.23 U	0.2 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.33 U	
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	
Bromomethane	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.095 J	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	0.14 U	0.14 U	0.14 U	0.095 J	0.14 U	0.19 U	
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	0.22 J	0.97 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.93 U	1.1 U	1.1 U	1.1 U	0.14 J	1.1 U	0.16 U	0.16 U	
Carbon tetrachloride	ug/m3	0.54	0.29	0.32	0.34	0.49	0.5	0.42	0.4	0.39	0.4	0.39	0.5	0.87	0.36	0.44	0.38	0.55	0.44	0.43	0.5	0.45	0.33	0.41	
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	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	0.23 U	0.23 U	
Chloroethane	ug/m3	500	0.093 U	0.093 U	0.093 U	0.096	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.092 U	0.079 U	0.092 U	0.092 U	0.092 U	0.092 U	0.093 U	0.13 U	
Chloroform	ug/m3	0.5	0.13 J	0.075 J	0.14 J	0.3	0.67	0.17 U	0.42	0.17 U	0.16 J	0.16 J	0.5	0.18	0.17 U	0.13 J	0.15 U	0.13 J	0.17 U	0.17 U	0.17 U	0.17 U	0.24 U	0.24 U	
Chloromethane	ug/m3	80	0.8	1	1.2	1.2	1.5	0.97	1.2	1.2	1.2	1.1	1.3	0.14 U	1.3	0.14 U	1.3	1.4	1.5	1	1.1	1	1.1	1.3	
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.14 U	0.15	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.35	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	2.1	
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	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	0.22 U	
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.84	3.3	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U	0.12 U	0.14	0.17 U	0.44	
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.68	0.3 U	0.3 U	0.3 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.43 U	
Dichlorodifluoromethane	ug/m3	500	1.7	1.2	2.3	1.7	2.2	1.4	0.62	1.2	1.5	2.2	1.5	2.4	0.17 U	1.5	2.1	1.15 U	2.4	2.1	2.6	1.1	1.8	2.6	
Ethanol	ug/m3	NA	29	9.1	11	21	22	51	20	3	15	94	6.8	17	16	5.1	81	23	110	38	30	12	5.5	8.8	
Ethyl acetate	ug/m3	NA	0.2	0.57	0.13 U	0.65	0.13 U	0.39	0.13 U	0.38	0.1 J	0.25 U	0.13 U	0.13 U	0.13 U	1.3 U	7.5	1.3 U	1.7	0.83 J	1.3 U	0.37 U	0.37 U	0.18 U	
Ethylbenzene	ug/m3	290	0.064 J	0.13 J	0.1 J	0.18	0.57	0.22	0.2	0.15 U	0.24	0.15 U	0.29	0.5	0.28	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-2-021809	IA-2-022609	IA-2-041409	IA-2-042409	IA-2-091709	IA-2-092409	IA-2-100109	IA-2-100809	IA-2-012810	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				
Sample Date:	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	6/2/2011	9/15/2011	12/8/2011	3/8/2012				
Analyte	Units	CT	IACTIND	2003																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.62 U	--	0.37 U		
1,1,1-Trichloroethane	ug/m3	500	1.1	0.44	1.4	2.1	0.27 U	0.27 U	0.27 U	0.27 U	0.44	0.73	0.27 U	0.27 U	0.27 U	1	0.27 U	0.28	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.13 J	0.082 U
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.34 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 U	
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	
1,1-Dichloroethane	ug/m3	430	0.2 U	0.32	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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	
1,1-Dichloroethene	ug/m3	20	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	0.2 U	0.2 U	0.12 U	0.059 U	
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.74 U	0.45 U	0.45 U
1,2,4-Trimethylbenzene	ug/m3	52	0.65	0.3	0.18 U	0.25 U	0.29	0.39	0.27	0.52	0.55	0.25 U	0.25 U	0.25 U	0.31	0.35	0.48	0.52	0.25 U	0.52	0.25 U	0.25 J	0.088 J	0.15 U			
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U
1,2-Dichlorobenzene	ug/m3	410	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	0.3 U	0.3 U	0.18 U	0.18 U	
1,2-Dichloroethane	ug/m3	0.31	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	0.2 U	0.2 U	0.063 J	0.061 U	
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	--	--	
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.59	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 J	0.15 U	0.15 U
1,3-Butadiene	ug/m3	NA	0.66	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.066 U	
1,3-Dichlorobenzene	ug/m3	410	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	0.3 U	0.3 U	0.18 U	0.18 U	
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.34	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.18 U	--	
2-Butanone	ug/m3	500	3	2.9	0.95	1.6	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		
2-Hexanone	ug/m3	NA	0.26	0.2 U	0.14 U	0.2 U	0.25	0.54	0.2 U	0.26	0.51	0.2 U	0.2 U	0.2 U	0.26	0.84	0.68	0.2 U	0.2 U	0.24	4.1 U	0.5	0.12 U	0.16			
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.39	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.28	0.49	0.34	0.2 U	0.2 U	0.2 U	0.24	0.1 J	0.11 J			
Acetone	ug/m3	500	18	9.7	13	39	6.2	17	11	8.8	17	7.8	3.1	0.48 U	6.3	8.2	18	20	11	9.8 B	15 B	8.9 B	18	6.2	5.4		
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzene	ug/m3	3.3	3	0.77	0.58	0.44	0.41	0.47	0.39	0.54	1.2	0.86	0.67	0.16 U	0.58	0.63	0.47	0.48	0.72	0.48	1.5	0.26	0.3	0.39	0.36		
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	
Bromodichloromethane	ug/m3	0.46	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.2 U	0.1 U	
Bromoform	ug/m3	7.3	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.31 U	0.31 U	
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	
Carbon disulfide	ug/m3	NA	0.16 U	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.93 U	0.93 U	
Carbon tetrachloride	ug/m3	0.54	0.57	0.48	0.41	0.41	0.44	0.4	0.46	0.42	0.31 U	0.4	0.31 U	0.31 U	0.43	0.47	0.5	0.52	0.5	0.48	0.31 U	0.62	0.52	0.49	0.48		
Chlorobenzene	ug/m3	200	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	
Chloroethane	ug/m3	500	0.13 U	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	
Chloroform	ug/m3	0.5	0.24 U	0.25	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.47	0.4	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.085 J	0.073 U	
Chloromethane	ug/m3	80	1.3	1	1.1	1.2	0.91	1.1	0.96	0.98	1.2	1.3	1.3	1.4	1.3	0.8	1.2	1.2	1.1	0.96	0.97	0.95	1.2	0.93	1		
cis-1,2-Dichloroethene	ug/m3	100	1.1	0.95	0.59	1.6	0.2 U	0.2 U	0.79	0.48	0.58	0.2 U	0.2 U	0.2 U	1	0.2 U	0.61	0.2 U	1.7	0.2 U	0.2 U	0.2 U	0.2 U	0.17	0.059 U		
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.14 U	0.068 U	
Cyclohexane	ug/m3	NA	0.61	0.17 U	0.12 U	0.22	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.2	0.17 U	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	
Dichlorodifluoromethane	ug/m3	500	2.9	2.7	2.1	2.9	2	2.1	2.3	2.1	2.2	2.5	2.6	3	1.6	2	2.4	2.6	1.7	1.9	3.2	1.6	2	2.7	2.1		
Ethanol	ug/m3	NA	17	7.9																							

**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-2-061412	IA-2-091312	IA-2-010313	IA-2-031513	IA-2-060713	IA-2-090613	IA-2-121313	IA-2-030714	IA-2-061314	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				
Sample Date:	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	2/28/2018	9/12/2018	2/8/2019	4/11/2019				
Analyte	Units	CT	IACTIND	2003																							
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U			
1,1,1-Trichloroethane	ug/m3	500	0.16 U	0.08 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	0.19 U	0.19 U	0.19 U			
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U			
1,1,2-Trichloroethane	ug/m3	12	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U			
1,1-Dichloroethane	ug/m3	430	0.12 U	0.043 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U			
1,1-Dichloroethene	ug/m3	20	0.12 U	0.045 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U			
1,2,4-Trichlorobenzene	ug/m3	NA	0.45 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U			
1,2,4-Trimethylbenzene	ug/m3	52	0.19	0.48	0.17	0.13 J	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			
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	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	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U			
1,2-Dichloroethane	ug/m3	0.31	0.051 J	0.08 J	0.14	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.04	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-Dichloropropane	ug/m3	0.42	0.14 U	0.16 U	0.16 U	0.11 J	0.16 U	0.16 U	0.16 U	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			
1,2-Dichlorotetrafluoroethane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	0.25 U	--	0.25 U	--	--	--	--	--	--			
1,3,5-Trimethylbenzene	ug/m3	52	0.08 J	0.26	0.17	0.17 U	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	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.47			
1,3-Butadiene	ug/m3	NA	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.44	0.11	0.044 U	0.078 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			
1,3-Dichlorobenzene	ug/m3	410	0.18 U	0.08 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U			
1,4-Dichlorobenzene	ug/m3	24	0.18 U	0.093 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	0.12 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			
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	1.3 U	--	1.3 U	--	--	--	--	--	--			
2-Butanone	ug/m3	500	1.4 J	2.8 J	4.1	2.4 J	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			
2-Hexanone	ug/m3	NA	0.15	0.32	0.14	0.22	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	0.37	0.72	0.14 U	0.14 U	0.14 U			
4-Ethyltoluene	ug/m3	NA	0.086 J	0.19	0.17	0.17 U	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	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.57			
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
4-Methyl-2-pentanone	ug/m3	200	0.12 J	0.19	0.14	0.14 U	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			
Acetone	ug/m3	500	14	17 B	3.3	46	32	22	32	32	29	37	9.7	40	29	93	33	26	36	8.8	31	43	10	6.3			
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
Benzene	ug/m3	3.3	0.24	0.62	0.11	0.91	0.56	0.32	0.66	2	0.62	0.3	0.36	0.67	0.39	0.66	1.1	0.52	0.25	0.49	0.55	0.57	0.48	0.85			
Benzyl chloride	ug/m3	NA	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	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	0.18 U	0.18 U			
Bromodichloromethane	ug/m3	0.46	0.2 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U			
Bromoform	ug/m3	7.3	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U			
Bromomethane	ug/m3	NA	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U			
Carbon disulfide	ug/m3	NA	0.93 U	1.1 U	1.1	0.47 J	0.39 J	0.33 J	0.17 J	0.17 J	0.56 J	0.49 J	1.1 U	0.29 J	0.39 J	0.41 J	0.26 J	0.13 J	0.34 J	1.1 U	0.34 J	0.16 J	0.29 J	1.1 U			
Carbon tetrachloride	ug/m3	0.54	0.45	0.43	0.22	0.45	0.58	0.45	0.46	0.41	0.42	0.43	0.37	0.36	0.35	0.32	0.49	0.38	0.4	0.45	0.41	0.4	0.47	0.97			
Chlorobenzene	ug/m3	200	0.14 U	0.16 U	0.16	0.16 U	0.16 U	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			
Chloroethane	ug/m3	500	0.079 U	0.093 U	0.093 U	0.14	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.053 U	0.093 U	0.061 J	0.093 U	0.059 J	0.093 U	0.093 U	0.093 U	0.093 U	0.19 U	0.093 U			
Chloroform	ug/m3	0.5	0.14 J	0.25	0.17 U	0.15 J	0.17 U	0.17 U	0.37	0.29	0.53	1	0.13 J	0.41	0.62	0.24	0.33	0.21	0.73	0.17 U	0.68	2.4	0.21	0.86			
Chloromethane	ug/m3	80	1.4	1.3	0.072	2.7	1.7	0.98	1.1	1.3	1.2	0.7	0.8	1.4	1.3	1.1	1.7	0.97	1.4	1.3	1.4	1.3	1.2	1.3			
cis-1,2-Dichloroethene	ug/m3	100	0.12 U	0.064 J	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	0.04 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	0.48	0.14 U			
cis-1,3-Dichloropropene	ug/m3	NA	0.14 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	0.045 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U			
Cyclohexane	ug/m3	NA	0.1 U	0.26	0.12	0.12 U	0.12 U	0.12 U	0.12 U	0.32	0.22	0.069 U	0.12 U	0.12 U	0.12 U	0.14	0.89	0.15	0.12 U	0.12 U	0.3	0.12 U	0.12 U	0.12 U			
Dibromochloromethane	ug/m3	NA	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U			
Dichlorodifluoromethane	ug/m3	500	2.7	2.8	0.17	1.7	3.3	1.8	2.6	1.5	2	2.1	1.8	1.4	2.4	1.7	2.4	1.5	0.63	0.95	1.4	2.2	1.9	2.8			
Ethanol	ug/m3	NA	10	9.8	2.6	380	66	46	89	130	240	140	27	150	220	51	72	110	180	48	320	990	11	12			
Ethyl acetate	ug/m3	NA	3.5	0.71	0.13	2	0.39	0.28	13	0.36	0.25	0.35	0.17	0.45	0.49	7.5	0.75	0.13 U	0.39	0.23	1.6	0.39	0.25 U	0.13 U			
Ethylbenzene	ug/m3	290	0.13 U	0.41	0.15	0.25	0.39	0.17	0.15 U	0.56	0.27	0.14	0.076 J	0.2	0.15	0.16	0.73										

**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-2-090619	IA-2-021420	IA-2-09092020	IA-2-10292020	IA-2-030821	IA-2	IA-2	IA-2	IA-2	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				
Sample Date:	9/6/2019	2/14/2020	9/9/2020	10/29/2020	3/8/2021	9/8/2021	3/29/2022	9/15/2022	3/17/2023	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				
Analyte	Units	CT IACTIND 2003																									
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U	0.44 U	0.44 U	0.37 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	--	--	--	--	--	--	--	--	--	--	--			
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.19 U	530	0.19 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	9.8	0.57	1.1	1.1	0.28	1.5	2.2	0.27 U	0.27 U	0.27 U	0.27 U	0.45	0.71	0.29
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.21 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.19 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.68	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	6.1	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.35	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.22 U	0.52 U	0.52 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.31	0.17 U	0.17 U	0.62	0.15 U	0.23	0.17 U	0.17 U	0.086 J	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
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	--	--	--	--	--	--	--	--	--	0.35 U	0.35 U	0.35 U	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.2	0.15 U	0.093 J	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.42	0.25 U	0.25 U
1,3-Butadiene	ug/m3	NA	0.078 U	0.078 U	0.077 U	0.077 U	0.066 U	0.077 U	0.077 U	0.077 U	0.078 U	0.11 U	0.11 U	0.3	0.77	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	500	0.68 J	1.3 J	4.1 U	4.1 U	0.77 J	2.5 J	4.1 U	1.5 J	4.1 U	20	4.2	4.6	4	1.7	1.6	2.5	2	2.6	0.7	1.5	1.9	2	1.2	1.2	
2-Hexanone	ug/m3	NA	0.14 U	0.14 U	0.29 U	0.29 U	0.25 U	0.29 U	0.29 U	0.14 U	0.14 U	0.2 U	0.26	0.33	0.3	0.2 U	0.14 U	0.38	0.51	0.58	0.2 U	0.37	0.52	0.39	0.22	0.22	
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.15 U	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	ug/m3	200	0.47	0.14 U	0.14 U	0.14 U	0.12 U	2.2	0.14 U	0.37	0.14 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	0.2 U	0.2 U	0.2 U	0.2 U
Acetone	ug/m3	500	6.4	7.9	13	14	4.8	16	5.5	10	6.6	18	12	17	24	9.7	7.5	50	11	19	6.7	11	14	21	6.7	6.7	
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	ug/m3	3.3	0.39	0.36	0.45	1.1	0.51	0.45	0.41	0.13	0.46	1	0.71	1.9	3.1	0.69	0.6	0.46	0.41	0.5	0.39	0.46	1.3	0.86	0.67	0.67	
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.16 U	0.18 U	0.18 U	0.36 U	0.18 U	0.26 U	0.26 U	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U	0.23 U	0.23 U	0.2 U	0.23 U	0.23 U	0.23 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.36 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	ug/m3	NA	1.4 U	0.27 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	1.1 U	1.1 U	0.93 U	0.37 J	1.1 U	1.1 U	1.1 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	ug/m3	0.54	0.37	0.42	0.46	0.37	0.46	0.43	0.22 U	0.48	0.43	0.34	0.45	0.52	0.6	0.43	0.22 U	0.42	0.4	0.43	0.4	0.42	0.31 U	0.42	0.31 U	0.42	0.31 U
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	500	0.093 U	0.093 U	0.092 U	0.092 U	0.079 U	0.092 U	0.092 U	0.092 U	0.092 U	0.13 U	0.13 U	0.43	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.5	0.19	0.17 U	4	0.27	0.097 J	0.21	0.17 U	0.17 U	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.53	0.48	
Chloromethane	ug/m3	80	0.9	1	0.14 U	0.14 U	0.12 U	1.5	1.3	1	1	1.1	0.98	1.2	1.4	1.1	1.2	1.2	0.91	1.1	0.97	1	1.2	2.9	1.3	1.3	
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.19	33	0.14 U	0.12 U	0.13 J	0.16	0.14 U	0.14 U	1.9	0.2 U	1.1	1.1	0.55	0.61	1.5	0.2 U	0.2 U	0.94	0.49	0.59	0.2 U	0.2 U	0.2 U	
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.46	0.6	0.17 U	0.15	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.31 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	ug/m3	500	1.6	1.4	0.17 U	2.6	2	2.3	2	2.6	1.1	1.9	2.3	2.5	2.9	2.6	2	2.9	2.1	2.1	2.2	2.2	2.3	2.5	2.5	2.5	2.5
Ethanol	ug/m3	NA	22	5.6	32	16	5	53	6	4.9	10	5.5	9.2	13	18	7.9	4.2	9	6.2	7.5	4.5	5	13	40	17	17	
Ethyl acetate	ug/m3	NA	0.13 U	0.13 U	1.3 U	1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.3 U	0.37 U	0.37 U	0.18 U	0.18 U	0.37 U	0.26 U	0.37 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	ug/m3	290	0.39	0.15 U	0.14 J	0.66	0.07 J	0.17	0.15 U	0.15 U	0.15 U	0.25	0.29	0.64	0.77	0.22 U	0.16	0.22 U	0.22 U	0.23	0.22 U	0.24	0.43	0.22 U	0.22 U	0.22 U	
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U													

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

Area:			Large Retail Space																					
Location:			IA-3																					
Sample ID:	IA-3-021910	IA-3-032610	IA-3-043010	IA-3-052810	IA-3-070110	IA-3-091610	IA-3-120710	IA-3-021711	IA-3-060211	IA-3-091511	IA-3-120811	IA-3-030812	IA-3-061412	IA-3-091312	IA-3-010313	IA-3-031513	IA-3-060713	IA-3-090613	IA-3-121313	IA-3-030714	IA-3-061314	IA-3-091214	IA-3-121914	
Sample Date:	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	12/19/2014	
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	0.44 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	0.86	0.27 U	1.2	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.11 J	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.21 U	0.1 U	0.21 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	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
1,1-Dichloroethane	ug/m3	430	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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	0.14 U	0.14 U	0.14 U	0.14 U	
1,1-Dichloroethene	ug/m3	20	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 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	0.14 U	0.14 U	0.14 U	0.14 U	
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.75 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.45 U	0.45 U	0.45 U	0.52 U	0.52 U	0.52 U	0.52 U	0.26 U	0.26 U	0.26 U	0.26 U	
1,2,4-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.26	0.34	0.46	0.6	0.25 U	0.49	0.25 U	0.25 J	0.071 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	
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,2-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,2-Dichloroethane	ug/m3	0.31	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.056 J	0.061 U	0.051 J	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-Dichloropropane	ug/m3	0.42	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	--	--	--	--	--	--	--	--	--	--	--	
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.074 J	0.22	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	
1,3-Butadiene	ug/m3	NA	0.23 U	0.11 U	0.23 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.066 U	0.066 U	0.066 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.55	0.078 U	
1,3-Dichlorobenzene	ug/m3	410	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dichlorobenzene	ug/m3	24	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	0.059 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Butanone	ug/m3	500	1.6	0.51	1	2.2	3.3	0.95	0.39	0.76 B	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-Hexanone	ug/m3	NA	0.39	0.2 U	0.29	0.52	0.67	0.2 U	0.2 U	0.2 U	4.1 U	0.24	0.093 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	
4-Ethyltoluene	ug/m3	NA	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.074 J	0.15 J	0.17 U	0.17 U	0.17 U	0.17 U	0.18	0.17 U	0.051 J	
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.2 U	0.2 U	0.2 U	0.38	0.34	0.2 U	0.2 U	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	
Acetone	ug/m3	500	7.3	3.8	7.7	15	21	11	9.7 B	9.7 B	11 B	13	7.2	3.9	13	12 B	3.3	12	28	16	14	11	15	
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzene	ug/m3	3.3	0.53	0.6	0.67	0.47	0.51	0.72	0.47	1.4	0.29	0.3	0.39	0.35	0.23	0.66	0.11	0.75	0.23	0.75	0.54	2.4	0.41	
Benzyl chloride	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Bromodichloromethane	ug/m3	0.46	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	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	0.24 U	
Bromoform	ug/m3	7.3	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	0.52 U	0.31 U	0.31 U	0.31 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	
Bromomethane	ug/m3	NA	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.31	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.16	0.099	
Carbon disulfide	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.93 U	0.93 U	0.93 U	1.1 U	1.1 U	1.1 U	1.1 U	0.25 J	1.1 U	1.1 U	0.15 J	
Carbon tetrachloride	ug/m3	0.54	0.43	0.43	0.49	0.54	0.57	0.41	0.45	0.6	0.64	0.51	0.5	0.49	0.43	0.38	0.22	0.39	0.42	0.47	0.47	0.45	0.42	
Chlorobenzene	ug/m3	200	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Chloroethane	ug/m3	500	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U	0.093 U	0.093 U	0.093 U	0.093 U	0.098	0.093 U	0.093 U	0.093 U	
Chloroform	ug/m3	0.5	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.079 J	0.073 U	0.15	0.19	0.17 U	0.075 J	0.17 U	0.21	0.17 U	0.17 U	0.24	
Chloromethane	ug/m3	80	1.2	1.1	0.85	1.2	1.2	1.1	0.98	0.97	1.2	1.4	0.84	1.1	1.4	1.3	0.072	1.3	1.3	1.1	1	1.3	1.2	
cis-1,2-Dichloroethene	ug/m3	100	0.59	0.2 U	1.3	0.2 U	0.51	0.2 U	1.7	0.2 U	0.2 U	0.2 U	0.17	0.059 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.19	0.14 U	0.14 U	0.14 U	
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.068 U	0.14 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Cyclohexane	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.18	0.17 U	0.17 U	0.17 U	0.1 U	0.1 U	0.1 U	0.27	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.34	0.12 U	
Dibromochloromethane	ug/m3	NA	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.26 U	0.13 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
Dichlorodifluoromethane	ug/m3	500	3	1.6	2.1	2.5	2.7	1.5	2.1	3.1	2.1	1.8	2.6	2.1	2.8	2.8	0.17	1.8	2.7	1.8	2.7	1.5	2.1	
Ethanol	ug/m3	NA	38	3.6	5.3	5.5	7	8	2.4	9.4	3.6	5.8	2.1 J	2.2 J	4.4	6.6	2.6	2.5 J	21	27	11	24	64	
Ethyl acetate	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.11 U	0.73	0.37	0.51	0.13	0.44	0.28	0.34	2.6	2.5	0.13 U	
Ethylbenzene	ug/m3	290	0.22 U	0.22 U	0.26	0.23	0.29	0.47	0.22 U	0.47	0.36	0.22 J	0.12 J	0.11 J	0.14	0.42	0.15	0.098 J	0.18	0.36	0.15 U	0.55	0.22	
Hexachlorobutadiene	ug/m3	NA	0.53 U	1.1 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.32 U	0.32 U	0.32 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	
Hexane	ug/m3	NA	0.29	0.19	1.4	0.55																		

**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-3-032715	IA-3-061115	IA-3-091615	IA-3-121815	IA-3-021816	IA-3-080516	IA-3-021017	IA-3-090717	IA-3-022818	IA-3-091218	IA-3-020819	IA-3-090619	IA-3-021420	IA-3-09092020	IA-3-030821	IA-3	IA-3	IA-3	IA-3	IA-4	IA-4-020309	IA-4-021109	IA-4-021809			
Sample Date:	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	9/8/2021	3/29/2022	9/15/2022	3/17/2023	1/16/2009	2/3/2009	2/11/2009	2/18/2009			
Analyte	Units	CT IACTIND 2003																								
1,1,1,2-Tetrachloroethane	ug/m3	1.1	0.44 U	0.44 U	0.44 U	--	0.44 U	--	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	--	--	--	--		
1,1,1-Trichloroethane	ug/m3	500	0.05 J	0.19 U	0.092 J	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.64	10	0.62	1.1	1.1	
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	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-Dichloroethane	ug/m3	20	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	
1,2,4-Trimethylbenzene	ug/m3	52	0.12 J	0.13 J	0.13 J	0.17 U	0.17 U	0.26	0.17 U	0.21	0.17 U	0.17 U	0.17 U	0.17 U	0.39	0.17 U	0.17 U	0.15 U	0.24	0.14 J	0.17 U	0.21	0.26	0.37	0.74	0.65
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.057 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 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-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	--	--	--	0.25 U	NA	--	0.25 U	--	--	--	--	--	--	--	--	--	--	--	--	0.35 U	0.35 U	0.35 U	0.35 U	
1,3,5-Trimethylbenzene	ug/m3	52	0.038 J	0.079 J	0.041 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.15 U	0.099 J	0.17 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	
1,3-Butadiene	ug/m3	NA	0.045 J	0.078 U	0.062 J	0.17	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dioxane	ug/m3	NA	--	--	--	1.3 U	--	1.3 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Butanone	ug/m3	500	1.4 J	1.5 J	0.96 J	0.99 J	0.8 J	2.3 J	0.62 J	2.5 J	1.2 J	2 J	2.7 J	1.2 J	0.71 J	4.1 U	3.1 J	2.9 J	1.2 J	4.1 U	2.5 J	21	4.4	6	3.2	
2-Hexanone	ug/m3	NA	0.27	0.14	0.14 U	0.14 U	0.14 U	0.47	0.14 U	0.31	0.28	0.14 U	0.14 U	0.14 U	0.29 U	0.25 U	0.29 U	0.29 U	0.14 U	0.35	0.2 U	0.33	0.73	0.39		
4-Ethyltoluene	ug/m3	NA	0.086 J	0.045 J	0.066 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Methyl-2-pentanone	ug/m3	200	0.15	0.13 J	0.14 U	0.24	0.14 U	0.14 U	0.14 U	0.14 U	0.39	0.086 J	0.47	0.14 U	0.87	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.21	0.18	0.2 U	0.43	0.28	
Acetone	ug/m3	500	11	10	15	9.9	8.5	19	4.9	14	7.9	12	13	8.5	6.7	13	15	16	7.4	9.3	15	17	10	15	20	
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzene	ug/m3	3.3	0.5	0.28	0.43	1.1	0.55	0.62	0.43	0.5	0.51	0.51	0.94	0.48	0.35	0.25	0.6	0.46	0.4	0.17	1.1	1.1	0.68	1.8	3	
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Bromodichloromethane	ug/m3	0.46	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	
Bromomethane	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
Carbon disulfide	ug/m3	NA	1.1 U	0.092 J	0.13 J	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.93 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	
Carbon tetrachloride	ug/m3	0.54	0.36	0.36	0.39	0.53	0.41	0.43	0.42	0.39	0.4	0.51	0.22 U	0.37	0.42	0.44	0.15 J	0.43	0.22 U	0.41	0.22 U	0.4	0.43	0.5	0.58	
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Chloroethane	ug/m3	500	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	
Chloroform	ug/m3	0.5	0.065 J	0.14 J	0.21	0.28	0.17 U	0.55	0.17 U	0.16 J	0.14 J	0.18	0.17 U	0.17 U	0.17 U	0.17 U	0.13 J	0.15	0.16 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	
Chloromethane	ug/m3	80	0.99	1.7	1.1	1.4	0.99	1.4	1.2	1.2	1.2	2.3	1.3	1	1.1	0.14 U	0.12 U	1.2	1.4	1.2	1	1.2	0.99	1.4	1.3	
cis-1,2-Dichloroethene	ug/m3	100	0.14 U	0.14 U	0.11 J	0.15	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 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	0.12 U	0.12 U	
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.26 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
Dichlorodifluoromethane	ug/m3	500	1.4	2.3	1.6	2.4	1.6	0.64	0.87	1.4	2.3	2.2	2.3	0.17 U	1.5	0.17 U	0.15 U	2.4	2	2.6	1.2	1.9	2.2	2.5	2.8	
Ethanol	ug/m3	NA	8.7	16	25	14	61	21	2.8	16	94	11	18	24	4.1	80	19	110	17	16	15	5.3	8.9	12	18	
Ethyl acetate	ug/m3	NA	0.27	0.13 U	4.5	0.13 U	1.1	0.13 U	0.83	0.22 J	0.15	0.25 U	6	3.4	0.13 U	1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	1.3 U	0.37 U	0.37 U	0.18 U	0.19	
Ethylbenzene	ug/m3	290	0.13 J	0.12 J	0.15 J	0.41	0.15 U	0.22	0.15 U	0.22	0.088 J	0.34	0.66	0.15 U	0.15 J	0.11 J	0.21	0.15 U	0.23	0.15 U	0.23	0.29	0.65	0.78		
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	
Hexane	ug/m3	NA	5.1	0.45 J	0.72 J	1.9 J	0.49 J	0.59 J	0.23 J	0.64 J	0.28 J	0.68 J	4.9 U	0.42 J	4.9 U	1.3 J	4.2 U	4.9 U	1.2 J	0.82 J	0.9	0.66	1.2	1.7		
Isopropyl alcohol	ug/m3	NA	1.9 J	0.87 J	2.1 J	3.4 U	3.4 U	5.4	0.93 J	2.5 J	2.1 J	8	2.7 J	4.6	3.4 U	3.4 U	2.9 U	3 J	1 J	0.91 J	2.2 J	3.5	3.3	4.7	4.8	

**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-4-022609	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	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							
Sample Date:	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	6/2/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012							
Analyte	Units	CT IACTIND 2003																												
1,1,1,2-Tetrachloroethane	ug/m3	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.62 U	--	0.37 U	0.37 U				
1,1,1-Trichloroethane	ug/m3	500	0.45	1.5	2.2	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.76	0.29	0.89	0.27 U	1.1	0.28	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.14 J	0.082 U	0.16 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	0.34 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	0.21 U	0.1 U	0.21 U	
1,1,2-Trichloroethane	ug/m3	12	0.27 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.16 U	0.082 U	0.16 U	
1,1-Dichloroethane	ug/m3	430	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	0.2 U	0.2 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	
1,1-Dichloroethene	ug/m3	20	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	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.12 U	0.059 U	0.12 U	
1,2,4-Trichlorobenzene	ug/m3	NA	0.37 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.45 U	0.45 U	0.45 U	
1,2,4-Trimethylbenzene	ug/m3	52	0.29	0.18 U	0.25 U	0.25 U	0.41	0.28	0.41	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.34	0.41	0.44	0.25 U	0.49	0.25 U	0.25 J	0.094 J	0.15 U	0.19					
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.38 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.23 U	0.12 U	0.23 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	0.3 U	0.3 U	0.3 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	0.18 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	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.063 J	0.061 U	0.12 U	
1,2-Dichloropropane	ug/m3	0.42	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.069 U	0.14 U	
1,2-Dichlorotetrafluoroethane	ug/m3	NA	0.35 U	0.25 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	--	--	--	
1,3,5-Trimethylbenzene	ug/m3	52	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 J	0.15 U	0.15 U	0.08 J
1,3-Butadiene	ug/m3	NA	0.11 U	0.08 U	0.11 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.11 U	0.066 U	0.066 U	0.066 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	0.3 U	0.3 U	0.3 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	
1,4-Dichlorobenzene	ug/m3	24	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	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.18 U	0.18 U	0.18 U	
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.18 U	--	--	
2-Butanone	ug/m3	500	2.5	1.1	1.6	1.5	2	1.3	1.2	0.3 U	0.69	1.2	0.5	1.6	2.2	4.8	2.4	0.96	1 B	2.9 U	5.9 J	1 J	1.5 J	0.97 J						
2-Hexanone	ug/m3	NA	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	0.39	0.54	1	0.59	0.2 U	0.2 U	0.21 J	0.35	0.086 J	0.32	0.098 J					
4-Ethyltoluene	ug/m3	NA	0.25 U	0.18 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	0.15 U	0.068 J	
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Methyl-2-pentanone	ug/m3	200	0.2 U	0.14 U	0.2 U	0.2 U	0.32	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 J	0.098 J	0.15	0.13
Acetone	ug/m3	500	7.8	7.9	20	9.3	16	9.3	10	2.3	4.9	5.9	2.5	6.9	8.7	15	31	19	13 B	12 B	12 B	15	7.4	6.8	9.1					
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzene	ug/m3	3.3	0.76	0.59	0.44	0.4	0.43	0.37	0.48	0.16 U	0.88	0.66	0.54	0.57	0.64	0.48	0.47	0.66	0.49	1.4	0.31	0.3	0.38	0.35	0.23					
Benzyl chloride	ug/m3	NA	0.26 U	0.19 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.16 U	0.16 U	0.16 U	
Bromodichloromethane	ug/m3	0.46	0.33 U	0.24 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.34 U	0.34 U	0.34 U	
Bromoform	ug/m3	7.3	0.51 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.52 U	
Bromomethane	ug/m3	NA	0.19 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.12 U	0.12 U	0.24
Carbon disulfide	ug/m3	NA	0.16 U	0.12 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 J	0.93 U	0.93 U	0.052 J
Carbon tetrachloride	ug/m3	0.54	0.46	0.22 U	0.45	0.41	0.4	0.46	0.4	0.31 U	0.43	0.31 U	0.42	0.43	0.47	0.52	0.48	0.44	0.46	0.57	0.68	0.52	0.48	0.47	0.43					
Chlorobenzene	ug/m3	200	0.23 U	0.17 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.14 U	0.14 U	0.14 U	
Chloroethane	ug/m3	500	0.13 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.079 U	0.079 U	0.079 U
Chloroform	ug/m3	0.5	0.26	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	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 J	0.085 J	0.073 U	0.13 J
Chloromethane	ug/m3	80	1	1.1	1.2	0.9	1.1	1	1	1.3	1.6	1.3	1.2	1.1	0.77	1.2	1.2	1	0.95	0.95	1.1	1.5	1.4	1	1.3					
cis-1,2-Dichloroethene	ug/m3	100	0.98	0.61	1.7	0.2 U	0.2 U	0.84	0.48	0.2 U	0.2 U	0.2 U	0.59	0.2 U	1.3	0.2 U	0.44	0.2 U	1.8	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.19	0.059 U	0.12 U	
cis-1,3-Dichloropropene	ug/m3	NA	0.22 U	0.16 U	0.22 U	0.22 U	0.22 U																							

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

Area:			Large Retail Space																						
Location:			IA-4																						
Sample ID:	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-4-032715	IA-4-061115	IA-4-091615	IA-4-121815	IA-4-021816	IA-4080516	IA-4-021017	IA-4-090717	IA-4-022818	IA-4-091218	IA-4-020819	IA-4-041119	IA-4-090619		
Sample Date:	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	2/28/2018	9/12/2018	2/8/2019	4/11/2019	9/6/2019		
Analyte	Units	CT	IACTIND	2003																					
1,1,1,2-Tetrachloroethane	ug/m3	1.1		0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	
1,1,1-Trichloroethane	ug/m3	500		0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
1,1,2,2-Tetrachloroethane	ug/m3	0.14		0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
1,1,2-Trichloroethane	ug/m3	12		0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	
1,1-Dichloroethane	ug/m3	430		0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,1-Dichloroethene	ug/m3	20		0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,2,4-Trichlorobenzene	ug/m3	NA		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	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	
1,2,4-Trimethylbenzene	ug/m3	52		0.38	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	0.22	0.45	0.24	0.2	0.17 U	0.18	0.36	0.21	0.6	
1,2-Dibromoethane (EDB)	ug/m3	0.038		0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	
1,2-Dichlorobenzene	ug/m3	410		0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,2-Dichloroethane	ug/m3	0.31		0.14 U	0.14	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
1,2-Dichloropropane	ug/m3	0.42		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
1,2-Dichlorotetrafluoroethane	ug/m3	NA		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,3,5-Trimethylbenzene	ug/m3	52		0.12 J	0.17	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.098 U	0.17 U	0.066 J	0.066 J	0.066 J	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	
1,3-Butadiene	ug/m3	NA		0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	0.078 U	
1,3-Dichlorobenzene	ug/m3	410		0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dichlorobenzene	ug/m3	24		0.21 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	0.12 U	0.08 J	0.063 J	0.12 J	0.084 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	
1,4-Dioxane	ug/m3	NA		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Butanone	ug/m3	500		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	1.8 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	
2-Hexanone	ug/m3	NA		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	0.22	0.14 U	0.14 U	0.35	0.69	0.14 U	0.14 U	0.16 U	
4-Ethyltoluene	ug/m3	NA		0.12 J	0.17	0.17 U	0.17 U	0.17 U	0.17 U	0.18	0.17 U	0.098 U	0.055 J	0.069 J	0.041 J	0.076 J	0.17 U	0.17 U	0.18	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	
4-Isopropyltoluene	ug/m3	370		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4-Methyl-2-pentanone	ug/m3	200		0.14 U	0.14	0.28	0.56	0.47	0.16	0.48	1.3	1	0.34	0.89	0.97	1.6	1.5	0.52	0.14 U	0.13 J	2.1	0.6	1.7	0.14 U	
Acetone	ug/m3	500		12 B	3.3	44	36	18	29	29	37	38	27	42	28	96	28	31	38	11	31	36	11	5	
Acrylonitrile	ug/m3	NA		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Benzene	ug/m3	3.3		0.64	0.11	0.82	0.55	0.47	0.56	2.2	0.68	0.39	0.47	0.69	0.36	0.79	1.1	0.54	0.25	0.48	0.58	0.56	0.46	0.84	
Benzyl chloride	ug/m3	NA		0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	
Bromodichloromethane	ug/m3	0.46		0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	
Bromoform	ug/m3	7.3		0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	
Bromomethane	ug/m3	NA		0.14 U	0.14 U	0.13 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
Carbon disulfide	ug/m3	NA		1.1 U	1.1	0.52 J	0.38 J	0.39 J	0.15 J	0.19 J	0.62 J	0.46 J	0.27 J	0.31 J	0.35 J	0.44 J	0.31 J	0.14 J	0.3 J	1.1 U	0.34 J	0.14 J	0.28 J	1.1 U	
Carbon tetrachloride	ug/m3	0.54		0.36	0.22	0.41	0.65	0.45	0.46	0.45	0.4	0.39	0.37	0.35	0.31	0.41	0.54	0.36	0.44	0.43	0.38	0.41	0.49	0.97	
Chlorobenzene	ug/m3	200		0.16 U	0.16	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Chloroethane	ug/m3	500		0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	
Chloroform	ug/m3	0.5		0.19	0.17 U	0.11 J	0.17 U	0.27	0.44	0.46	0.84	1.2	0.69	0.39	1.2	0.28	0.34	0.24	0.74	0.17 U	0.69	1.9	0.21	0.17 U	
Chloromethane	ug/m3	80		1.3	0.072	1.3	1.6	1	1.1	1.4	1.2	0.89	0.97	1.2	1.8	1.2	1.3	1.2	1.3	1.2	1.4	1.3	1.1	1.2	
cis-1,2-Dichloroethene	ug/m3	100		0.14 U	0.14 U	0.14 U	0.14 U	0.18	0.14 U	0.14 U	0.14 U	0.04 U	0.87	0.14 U	0.14 U	0.053 J	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	
cis-1,3-Dichloropropene	ug/m3	NA		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	
Cyclohexane	ug/m3	NA		0.26	0.12	0.12 U	0.12 U	0.12 U	0.12 U	0.33	0.12 U	0.069 U	0.12 U	0.12 U	0.12 U	0.12 U	1.3	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.14 U	
Dibromochloromethane	ug/m3	NA		0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.085 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	
Dichlorodifluoromethane	ug/m3	500		2.8	0.17	1.7	3.3	1.8	2.7	1.3	2.1	2.1	1.7	1.4	2.1	1.7	2.2	1.6	0.61	0.91	1.5	2.4	2.2	2.9	
Ethanol	ug/m3	NA		7.3	2.6	46	79	71	91	83	240	150	260	190	330	57	69	120	2.6 U	47	290	550	11	12	
Ethyl acetate	ug/m3	NA		2.4	0.13 U	0.73	0.94	0.13 U	0.13 U	0.88	0.26	0.38	0.46	0.69	0.69	9.9	0.6	0.73	1.5	0.31	1.5	0.41	0.25 U	3.5	
Ethylbenzene	ug/m3	290		0.38	0.15	0.32	0.43	0.19	0.15 U	0.57	0.27	0.12	0.14 J	0.19	0.16	0.34	0.86	0.17	0.17	0.15 U	0.17	0.26	0.52	0.15 U	
Hexachlorobutadiene	ug/m3	NA		0.37 U	0.37 U</																				

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

Area:			Large Retail Space																	
Location:			IA-4							LRAIR01	LRAIR02	LRAIR03	LRAIR04	LRAIR05	LRAIR06	LRAIR07	LRAIR08	LRAIR09	LRAIR10	
Sample ID:	IA-4-021420	IA-4-09092020	IA-4-10292020	IA-4-030821	IA-4	IA-4	IA-4	IA-4	LRAIR01	LRAIR02	LRAIR03	LRAIR04	LRAIR05	LRAIR06	LRAIR07	LRAIR08	LRAIR09	LRAIR10		
Sample Date:	2/14/2020	9/9/2020	10/29/2020	3/8/2021	9/8/2021	3/29/2022	9/15/2022	3/17/2023	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/m3	1.1	0.44 U	0.44 U	0.44 U	0.37 U	0.44 U	0.44 U	0.44 U	--	--	--	--	--	--	--	--	--	--	
1,1,1-Trichloroethane	ug/m3	500	0.19 U	0.19 U	0.19 U	0.16 U	0.19 U	0.16 J	0.19 U	0.19 U	0.45	0.52	0.65	0.57	0.51	0.44	0.69	0.5	0.49	0.53
1,1,2,2-Tetrachloroethane	ug/m3	0.14	0.24 U	0.24 U	0.24 U	0.21 U	0.24 U	0.24 U	0.24 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/m3	12	0.19 U	0.19 U	0.19 U	0.16 U	0.19 U	0.19 U	0.19 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,1-Dichloroethane	ug/m3	430	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethene	ug/m3	20	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	ug/m3	NA	0.26 U	0.26 U	0.26 U	0.22 U	0.26 U	0.26 U	0.26 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
1,2,4-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.61	0.15 U	0.21	0.17 U	0.17 U	0.09 J	0.25 U	0.25 U	0.25 U	0.29	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dibromoethane (EDB)	ug/m3	0.038	0.27 U	0.27 U	0.27 U	0.23 U	0.27 U	0.27 U	0.27 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
1,2-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	ug/m3	0.31	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	ug/m3	0.42	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dichlorotetrafluoroethane	ug/m3	NA	--	--	--	--	--	--	--	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,3,5-Trimethylbenzene	ug/m3	52	0.17 U	0.17 U	0.17 U	0.15 U	0.086 J	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,3-Butadiene	ug/m3	NA	0.078 U	0.077 U	0.077 U	0.066 U	0.077 U	0.077 U	0.077 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,3-Dichlorobenzene	ug/m3	410	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dichlorobenzene	ug/m3	24	0.21 U	0.21 U	0.21 U	0.18 U	0.21 U	0.21 U	0.21 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,4-Dioxane	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	500	1.6 J	1.9 J	0.98 J	3.5 U	2.6 J	4.1 U	2 J	4.1 U	3.3	3.4	2.1	2.6	2	1.6	3.1	2.5	2.6	1.4
2-Hexanone	ug/m3	NA	0.14 U	0.29 U	0.29 U	0.25 U	0.29 U	0.29 U	0.29 U	0.73	0.66	0.38	0.51	0.37	0.38	0.61	0.48	0.43	0.29	0.29
4-Ethyltoluene	ug/m3	NA	0.17 U	0.17 U	0.17 U	0.15 U	0.17 U	0.17 U	0.17 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
4-Isopropyltoluene	ug/m3	370	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	ug/m3	200	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.17	0.59	0.1 J	0.42	0.39	0.32	0.36	0.54	0.27	0.32	0.3	0.61	0.23
Acetone	ug/m3	500	9.3	13	14	6.6	15	5.5	11	5.8	12	13	10	11	8.5	7.7	13	11	9.8	6.9
Acrylonitrile	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	ug/m3	3.3	0.37	0.23	1.1	0.5	0.41	0.4	0.12	0.48	0.54	0.6	0.67	0.55	0.56	0.51	0.53	0.6	0.51	0.57
Benzyl chloride	ug/m3	NA	0.18 U	0.18 U	0.18 U	0.16 U	0.18 U	0.18 U	0.18 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Bromodichloromethane	ug/m3	0.46	0.24 U	0.23 U	0.23 U	0.2 U	0.23 U	0.23 U	0.23 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Bromoform	ug/m3	7.3	0.36 U	0.36 U	0.36 U	0.31 U	0.36 U	0.36 U	0.36 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
Bromomethane	ug/m3	NA	0.27 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Carbon disulfide	ug/m3	NA	1.1 U	1.1 U	1.1 U	0.93 U	0.31 J	1.1 U	1.1 U	1.1 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon tetrachloride	ug/m3	0.54	0.45	0.47	0.38	0.51	0.42	0.22 U	0.5	0.44	0.7	0.68	0.71	0.68	0.68	0.63	0.68	0.7	0.64	0.66
Chlorobenzene	ug/m3	200	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U
Chloroethane	ug/m3	500	0.093 U	0.092 U	0.092 U	0.079 U	0.092 U	0.092 U	0.092 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	ug/m3	0.5	0.17 U	0.17 U	0.25	0.091 J	0.18	0.18	0.17 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chloromethane	ug/m3	80	1	0.14 U	1	0.12 U	1.5	1.3	1	0.99	1	0.98	1	0.95	1	1	0.92	1.1	0.91	1.2
cis-1,2-Dichloroethene	ug/m3	100	0.41	0.14 U	0.14 U	0.12 U	0.11 J	0.22	0.14 U	0.14 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.21	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	ug/m3	NA	0.16 U	0.16 U	0.16 U	0.14 U	0.16 U	0.16 U	0.16 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Cyclohexane	ug/m3	NA	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U	0.12 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Dibromochloromethane	ug/m3	NA	0.3 U	0.3 U	0.3 U	0.26 U	0.3 U	0.3 U	0.3 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Dichlorodifluoromethane	ug/m3	500	1.4	2	2.6	0.15 U	2.5	2	2.5	1.1	2.5	2.3	2.6	2.4	2.7	2.4	2.4	2.8	2.3	2.7
Ethanol	ug/m3	NA	6.7	81	14	5.6	45	5.6	9.1	9.2	65	9	6.5	5.9	6	5.6	5.9	14	44	14
Ethyl acetate	ug/m3	NA	0.13 U	1.3 U	1.3 U	1.1 U	1.3 U	1.3 U	1.3 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	ug/m3	290	0.15 U	0.15 J	0.63	0.07 J	0.16	0.15 U	0.15 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	0.27	0.22 U	0.22 U
Hexachlorobutadiene	ug/m3	NA	0.37 U	0.37 U	0.37 U	0.32 U	0.37 U	0.37 U	0.37 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Hexane	ug/m3	NA	4.9 U	4.9 U	0.85 J	4.2 U	4.9 U	4.9 U	0.97 J	4.9 U	1.1	0.21	0.18 U	0.18	0.24	0.18 U	0.19	0.21	0.2	0.18 U
Isopropyl alcohol	ug/m3	NA	3.4 U	3.4 U	2.6 J	2.9 U	1.9 J	1.7 J	0.84 J	0.65 J	3.3	3.4	3.7	3.5	3.6	4.4	3.6	2.8	3.2	3.2
Isopropylbenzene	ug/m3	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
m,p-Xylene	ug/m3	NA	0.3 U	0.44	1.9	0.18 J	0.5	0.3 U	0.21 J	0.21 J	0.58	0.57	0.58	0.55	0.49	0.5	0.48	0.53	1	0.5
Methyl methacrylate	ug/m3	NA	0.14 U	0.14 U	0.14 U	0.12 U	0.14 U	0.14 U	0.14 U	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	ug/m3	17	0.58 J	0.74 J	1.2	1.2	0.74 J	1.2 U	1.2 U	1.2 U	5.9	1.5	1.5	1.6	1.9	1.6	1.5	1.6	1.6	1.4
Methyl-t-butyl ether	ug/m3	190	0.13 U	0.13 U	0.13 U	0.11 U	0.13 U	0.13 U	0.13 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Naphthalene	ug/m3	NA	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	NA	0.14 U	0.14 U	0.6	0.12 U	0.21	0.091 J	0.14 U	0.12 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
o-Xylene	ug/m3	NA	0.15 U	0.18	0.82	0.073 J	0.22	0.15 U	0.094 J	0.091 J	0.28	0.28	0.27	0.27	0.25	0.26	0.25	0.27	0.34	0.26
Propylene (Propene)	ug/m3	NA	2.4 U	2.4 U	2.4 U	2.1 U	2.4 U	2.4 U	2.4 U	2.4 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
sec-Butylbenzene	ug/m3	410	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	ug/m3	290	0.15 U	0.15 U	0.14 J	0.13 U	0.56	0.15 U	0.15 U	0.15 U	0.23	0.21 U	0.21 U	0.22	0.21 U	0.21 U	0.37	0.21 U	0.21 U	0.21 U
Tetrachloroethene	ug/m3	5	1.4	0.35	0.74	0.14 J	0.52	1	0.24 U	0.46	0.47	0.47	0.54	0.66	0.64	0.6	0.73	0.53	0.46	0.46
Tetrahydrofuran	ug/m3	NA	0.1 U	1 U	1 U	0.88 U	1 U													



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-5											
Sample ID:	EW-1-030609	EW-1-033109	EW-1-020724	EW-2-030609	EW-2-033109	EW-2-020724	EW-3-030609	EW-3-033109	EW-3-020724	EW-4-030609	EW-4-033109	EW-4-020724	EW-5-020309	EW-5-021109	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	
Sample Date:	3/6/2009	3/31/2009	2/7/2024	3/6/2009	3/31/2009	2/7/2024	3/6/2009	3/31/2009	2/7/2024	3/6/2009	3/31/2009	2/7/2024	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	
Analyte	Units																								
1,1,1,2-Tetrachloroethane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane	ug/m3	59000	66000	230	26000	30000	0.98	54000	72000	0.62	11000	14000	0.79	190000	41000	17000	1800	2600	3100	1900	3500	920	540	550	
1,1,2,2-Tetrachloroethane	ug/m3	6.8 U	6.8 U	0.69 U	6.8 U	6.8 U	0.69 U	6.8 U	6.8 U	0.69 U	1.7 U	6.8 U	6.8 U	6.8 U	6.8 U	6.8 U	1.7 U	68 U	3.4 U	3.4 U	3.4 U	3.4 U	6.8 U	3.4 U	
1,1,2-Trichloroethane	ug/m3	6.4	10	0.55 U	5.4 U	5.4 U	0.55 U	5.4 U	5.4 U	0.55 U	1.4 U	5.4 U	0.55 U	5.4 U	5.4 U	5.4 U	5.4 U	1.4 U	54 U	2.7 U	2.7 U	2.7 U	5.4 U	2.7 U	
1,1-Dichloroethane	ug/m3	4100	4400	23	5700	7000	0.4 U	1600	2300	0.4 U	690	1400	0.4 U	11000	1900	890	770	190	360	450	430	230	100	50	53
1,1-Dichloroethene	ug/m3	570	1200	4.5	330	640	0.4 U	340	560	0.4 U	97	210	0.4 U	2500	290	130	190	61	160	160	98	30	18	21	
1,2,4-Trichlorobenzene	ug/m3	7.4 U	7.4 U	0.74 U	7.4 U	7.4 U	0.74 U	7.4 U	7.4 U	0.74 U	1.9 U	7.4 U	0.74 U	7.4 U	7.4 U	7.4 U	7.4 U	1.9 U	74 U	3.7 U	3.7 U	3.7 U	7.5 U	15 U	3.7 U
1,2,4-Trimethylbenzene	ug/m3	5 U	5 U	10	5 U	5 U	18	5 U	5 U	15	1.3 U	5 U	18	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
1,2-Dibromoethane (EDB)	ug/m3	7.6 U	7.6 U	0.77 U	7.6 U	7.6 U	0.77 U	7.6 U	7.6 U	0.77 U	1.9 U	7.6 U	0.77 U	7.6 U	7.6 U	7.6 U	7.6 U	1.9 U	76 U	3.8 U	3.8 U	3.8 U	7.6 U	3.8 U	
1,2-Dichlorobenzene	ug/m3	6 U	6 U	0.6 U	6 U	6 U	0.6 U	6 U	6 U	0.6 U	1.5 U	6 U	0.6 U	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	6 U	3 U	
1,2-Dichloroethane	ug/m3	4 U	4 U	0.4 U	4 U	4 U	0.4 U	4 U	4 U	0.4 U	1 U	4 U	0.4 U	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	4 U	2 U	
1,2-Dichloropropane	ug/m3	4.6 U	4.6 U	0.46 U	4.6 U	4.6 U	0.46 U	4.6 U	4.6 U	0.46 U	1.2 U	4.6 U	0.46 U	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	46 U	2.3 U	2.3 U	2.3 U	4.6 U	2.3 U	
1,2-Dichlorotetrafluoroethane	ug/m3	7 U	7 U	0.7 U	7 U	7 U	0.7 U	7 U	7 U	0.7 U	1.8 U	7 U	0.7 U	7 U	7 U	7 U	7 U	1.8 U	70 U	3.5 U	3.5 U	3.5 U	7 U	3.5 U	
1,3,5-Trimethylbenzene	ug/m3	5 U	5 U	6.3	5 U	5 U	11	5 U	5 U	8.9	1.3 U	5 U	11	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
1,3-Butadiene	ug/m3	2.2 U	2.2 U	0.22 U	2.2 U	2.2 U	0.22 U	2.2 U	2.2 U	0.22 U	0.55 U	2.2 U	0.22 U	2.2 U	2.2 U	2.2 U	2.2 U	0.55 U	22 U	1.1 U	1.1 U	2.3 U	1.1 U	2.2 U	1.1 U
1,3-Dichlorobenzene	ug/m3	6 U	6 U	0.6 U	6 U	6 U	0.6 U	6 U	6 U	0.6 U	1.5 U	6 U	0.6 U	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	6 U	3 U	
1,4-Dichlorobenzene	ug/m3	6 U	6 U	0.6 U	6 U	6 U	0.6 U	6 U	6 U	0.6 U	1.5 U	6 U	0.6 U	6 U	6 U	6 U	6 U	1.5 U	60 U	3 U	3 U	3 U	6 U	3 U	
1,4-Dioxane	ug/m3	--	--	3.6 U	--	--	3.6 U	--	--	3.6 U	--	--	3.6 U	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	ug/m3	3.5	8.9	12 U	12	11	12 U	36	10	12 U	36	6.4	12 U	6.3	89	75	170	3700	64000	100000	230000	110000	7800	18000	28000
2-Hexanone	ug/m3	4 U	4 U	0.41 U	4 U	4 U	0.41 U	4 U	4 U	0.41 U	1 U	4 U	0.41 U	4 U	4 U	4 U	4 U	1 U	40 U	2.7	2 U	2 U	4 U	2 U	
4-Ethyltoluene	ug/m3	5 U	5 U	0.69	5 U	5 U	9.3	5 U	5 U	1.1	1.3 U	5 U	0.8	5 U	5 U	5 U	5 U	1.3 U	50 U	2.5 U	2.5 U	2.5 U	5 U	2.5 U	
4-Methyl-2-pentanone	ug/m3	4 U	4 U	0.41 U	4 U	4 U	0.71	4 U	4 U	0.5	1 U	4 U	0.84	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	4 U	2 U	
Acetone	ug/m3	35	16	9.6	9.6 U	9.6 U	15	53	24	9.8	26	12	9.5 U	530	32	52	29	460	5600	14000	6900	9200	1700	3200	6000
Benzene	ug/m3	5.3	11	0.61	5.6	7.8	0.62	3.2 U	6.8	0.59	1.4	3.2 U	0.59	13	12	6.2	4.8	5.6	32 U	11	7.1	11	6.3	5.5	8.2
Benzyl chloride	ug/m3	5.2 U	5.2 U	0.52 U	5.2 U	5.2 U	0.52 U	5.2 U	5.2 U	0.52 U	1.3 U	5.2 U	0.52 U	5.2 U	5.2 U	5.2 U	5.2 U	1.3 U	52 U	2.6 U	2.6 U	2.6 U	5.2 U	2.6 U	
Bromodichloromethane	ug/m3	6.6 U	6.6 U	0.67 U	6.6 U	6.6 U	0.67 U	6.6 U	6.6 U	0.67 U	1.7 U	6.6 U	0.67 U	6.6 U	6.6 U	6.6 U	6.6 U	1.7 U	66 U	3.3 U	3.3 U	3.3 U	6.6 U	3.3 U	
Bromoform	ug/m3	11 U	11 U	1 U	11 U	11 U	1 U	11 U	11 U	1 U	2.6 U	11 U	1 U	11 U	11 U	11 U	11 U	2.6 U	110 U	5.1 U	5.1 U	5.1 U	11 U	5.1 U	
Bromomethane	ug/m3	3.8 U	3.8 U	0.39 U	3.8 U	3.8 U	0.39 U	3.8 U	3.8 U	0.39 U	0.95 U	3.8 U	0.39 U	3.8 U	3.8 U	3.8 U	3.8 U	0.95 U	38 U	1.9 U	1.9 U	1.9 U	3.8 U	1.9 U	
Carbon disulfide	ug/m3	3.2 U	3.2 U	3.1 U	27	25	3.1 U	3.2 U	3.2 U	3.1 U	1.8	3.2 U	3.1 U	3.2 U	3.2 U	3.2 U	3.2 U	0.8 U	230	4	5.4	8.2	2.9	5.7	12
Carbon tetrachloride	ug/m3	6.2 U	6.2 U	0.63 U	6.2 U	6.2 U	0.63 U	6.2 U	6.2 U	0.63 U	1.6 U	6.2 U	0.63 U	6.2 U	6.2 U	6.2 U	6.2 U	1.6 U	62 U	3.1 U	3.1 U	3.1 U	6.2 U	3.1 U	
Chlorobenzene	ug/m3	4.6 U	4.6 U	0.46 U	4.6 U	4.6 U	0.46 U	4.6 U	4.6 U	0.46 U	1.2 U	4.6 U	0.46 U	4.6 U	4.6 U	4.6 U	4.6 U	1.2 U	46 U	2.3 U	2.3 U	2.3 U	4.6 U	2.3 U	
Chloroethane	ug/m3	170	250	0.3	700	590	0.26 U	41	44	0.26 U	17	33	0.26 U	260	23	16	11	4.5	26 U	11	15	7	6.5	3.5	3.6
Chloroform	ug/m3	20	34	0.88	9.6	15	0.49 U	13	23	0.49 U	3.6	7.5	0.71	83	32	20	16	2.8	48 U	7.2	6.5	5.8	2.6	4.8 U	2.4 U
Chloromethane	ug/m3	2 U	2 U	1.6	2 U	2 U	1.2	2 U	2 U	1.1	0.5 U	2 U	1.2	2 U	2 U	2 U	2 U	0.5 U	20 U	1 U	1 U	1 U	2 U	1 U	1 U
cis-1,2-Dichloroethene	ug/m3	2000	2200	4.2	6100	7600	0.76	610	1200	0.43	560	1300	0.69	2900	710	400	410	100	150	270	250	170	58	32	43
cis-1,3-Dichloropropene	ug/m3	4.4 U	4.4 U	0.45 U	4.4 U	4.4 U	0.45 U	4.4 U	4.4 U	0.45 U	1.1 U	4.4 U	0.45 U	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	
Cyclohexane	ug/m3	3.4 U	5.7	0.34 U	8.4	8.8	0.34 U	3.4 U	3.4 U	0.34 U	0.85 U	3.4 U	0.34 U	3.4 U	3.4 U	3.4 U	3.4 U	0.85 U	34 U	1.7 U	1.7 U	1.7 U	3.4 U	1.7 U	
Dibromochloromethane	ug/m3	8.6 U	8.6 U	0.85 U	8.6 U	8.6 U	0.85 U	8.6 U	8.6 U	0.85 U	2.2 U	8.6 U	0.85 U	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	86 U	4.3 U	4.3 U	4.3 U	8.6 U	4.3 U	
Dichlorodifluoromethane	ug/m3	5 U	170	2.7	5 U	5 U	3.1	5.4	7	2.9	2.6	5 U	2.9	5 U	5 U	5 U	5 U	2.7	50 U	3	3.2	2.5 U	2.5 U	5 U	2.5
Ethanol	ug/m3	33	40	60	12	8.3	58	39	1.8 U	130	8.6	1.8 U	77	320	36	46	33	22	130	30	26	3.8 U	45	28	68
Ethyl acetate	ug/m3	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	6.3	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	6.3 U	73 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
Ethylbenzene	ug/m3	4.4 U	4.4 U	2.7	4.4 U	4.4 U	5.5	4.4 U	4.4 U	4.2	1.1 U	4.4 U	4.2	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	
Hexachlorobutadiene	ug/m3	22 U	22 U	1.1 U	22 U	22 U	1.1 U	22 U	22 U	1.1 U	5.4 U	22 U	1.1 U	22 U	22 U	22 U	22 U	5.4 U	220 U	11 U	11 U	5.3 U	11 U	22 U	5.3 U
Hexane	ug/m3	3.6 U	3.6 U	14 U	3.6 U	6.6	14 U	3.6 U	3.6 U	14 U	3.2	3.6 U	14 U	5	3.6 U	3.6 U	3.6 U	2.3	36 U	3.3	1.8 U	1.8 U	3.6 U	1.8 U	
Isopropyl alcohol	ug/m3	28	2.4 U	9.8 U	2.4 U	2.4 U	9.8 U	26	5.9	9.8 U	7.5	7.1	9.8 U	190	5.1	4.6	5 U	4.6	290	24	57	35	2.5 U	20	54
m,p-Xylene	ug/m3	8.6 U	8.6 U	11	8.6 U	8.6 U	24	8.6 U	8.6 U	18	2.2 U	8.6 U	31	8.6 U	8.6 U	8.6 U	8.6 U	2.2 U	86 U	4.3 U	4.3 U	4.3 U	8.6 U	4.3 U	
Methyl methacrylate	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	ug/m3	7 U	19	3.5 U	7 U	17	3.5 U	7 U	13	3.5 U	19	12	3.5 U	7.8	7 U	9.6	7 U	12	720	21	15	7 U	25	14 U	8.6
Methyl-t-butyl ether	ug/m3	3.6 U	3.6 U	0.36 U	3.6 U	3.6 U	0.36 U	3.6 U	3.6 U	0.36 U	0.9 U	3.6 U	0.36 U	3.6 U	3.6 U	3.6 U	3.6 U	0.9 U	36 U	1.8 U	1.8 U	1.8 U	3.6 U	1.8 U	
Naphthalene	ug/m3	--	--	0.52 U	--	--	0.52 U	--	--	0.52 U	--	--	0.52 U	--	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	4 U	4 U	0.41 U	4 U	4 U	1.5	4 U	4 U	0.41 U	1 U	4 U	0.88	4 U	4 U	4 U	4 U	1 U	40 U	2 U	2 U	2 U	4 U	2 U	
o-Xylene	ug/m3	4.4 U	4.4 U	6.8	4.4 U	4.4 U	12	4.4 U	4.4 U	9.5	1.1 U	4.4 U	14	4.4 U	4.4 U	4.4 U	4.4 U	1.1 U	44 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	
Propylene (Propene)	ug/m3	1.8 U	1.8 U	6.9 U	1.8 U	1.8 U	6.9 U	1.8 U	1.8 U	6.9 U	0.45 U	1.8 U	6.9 U	3.5 U	1.8 U	1.8 U	3.5 U	0.45 U	35 U	0.9 U	0.9 U</				

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

Area:		Extraction Well - Large Retail Space																							
Location:		EW-5																							
Sample ID:	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	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	
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	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	--	--	--	--	25 U	--	12 U	1.2 U	1.2 U	1.2 U	1.2 U	0.39 J	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	--	
1,1,1-Trichloroethane	ug/m3	460	210	400	340	430	130	81	100	190	0.55 U	0.55 U	59	180	40	68	54	74	25	14	0.19 J	55	32	15	68
1,1,2,2-Tetrachloroethane	ug/m3	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	0.32 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	3.4 U	1.4 U	1.4 U	6.9 U
1,1,2-Trichloroethane	ug/m3	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	0.26 U	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	
1,1-Dichloroethane	ug/m3	42	29	34	33	44	16	11	12	21	0.4 U	0.4 U	6.4	20	4.8	7	7.4	9.3	4.2	2.9	0.4 U	6.9	4.4	2.8	7.5
1,1-Dichloroethene	ug/m3	15	13	15	11	14	5	4.5	4.5	6.9	0.4 U	0.4 U	1.7	4.7	1.5	1.8	2	2.4	1	0.9	0.4 U	1.5 J	1.1	0.84	4 U
1,2,4-Trichlorobenzene	ug/m3	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	0.74 U	0.35 U	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
1,2,4-Trimethylbenzene	ug/m3	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	0.49 U	0.49 U	0.37	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
1,2-Dibromoethane (EDB)	ug/m3	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	0.36 U	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	
1,2-Dichlorobenzene	ug/m3	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	0.28 U	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	
1,2-Dichloroethane	ug/m3	4 U	0.81 U	0.81 U	4 U	8.1 U	2 U	2 U	0.17 J	0.4 U	0.4 U	0.4 U	0.19 U	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	
1,2-Dichloropropane	ug/m3	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	0.22 U	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	
1,2-Dichlorotetrafluoroethane	ug/m3	7 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4 U	--	7 U	
1,3,5-Trimethylbenzene	ug/m3	5 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.49 U	0.19 J	0.49 U	0.49 U	0.49 U	0.23 U	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
1,3-Butadiene	ug/m3	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	0.1 U	0.22 U	0.22 U	0.22 U	0.44 U	0.22 U	0.22 U	0.22 U	1.1 U	0.44 U	0.44 U	2.2 U	
1,3-Dichlorobenzene	ug/m3	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	0.28 U	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	
1,4-Dichlorobenzene	ug/m3	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	0.28 U	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	
1,4-Dioxane	ug/m ³	--	--	--	--	7.2 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.2 U	--	--	36 U
2-Butanone	ug/m3	15000	4000	7200 B	17000	13000	2700	1800	870	840	12 J	1.7 J	1900	31000	680	1200	2100	3800	260	91	9.1 J	1700 E	410	130	4800
2-Hexanone	ug/m3	4 U	0.82 U	0.82 U	82 U	8.2 U	2 U	4.1 U	0.43	0.41 U	0.41 U	0.41 U	0.41 U	0.49	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
4-Ethyltoluene	ug/m3	5 U	0.98 U	0.98 U	4.9 U	9.8 U	2.5 U	4.9 U	0.49 U	0.18 J	0.49 U	0.49 U	0.49 U	0.23 U	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
4-Methyl-2-pentanone	ug/m3	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	0.56	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
Acetone	ug/m3	4500	2000 B	1800 B	2200 B	3400	710	400	440	670 B	9.5	8.5 J	610	6800	210	380	610	500	98	49	21	550	120	58	570
Benzene	ug/m3	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	2.4	3.8	3	2.7	3.4	3.1	0.35	2.9	5	2.8	4
Benzyl chloride	ug/m3	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	0.24 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	
Bromodichloromethane	ug/m3	6.6 U	1.3 U	1.3 U	6.7 U	13 U	3.4 U	3.4 U	0.67 U	0.67 U	0.67 U	0.67 U	0.31 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	3.4 U	1.3 U	1.3 U	6.7 U	
Bromoform	ug/m3	11 U	2.1 U	2.1 U	10 U	21 U	5.2 U	10 U	1 U	1 U	1 U	1 U	0.48 U	1 U	1 U	1 U	2.1 U	1 U	1 U	1 U	5.2 U	2.1 U	2.1 U	10 U	
Bromomethane	ug/m3	3.8 U	0.78 U	0.78 U	3.9 U	7.8 U	1.9 U	3.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.18 U	0.39 U	0.39 U	0.39 U	0.78 U	0.39 U	0.39 U	0.39 U	1.9 U	0.78 U	0.78 U	3.9 U	
Carbon disulfide	ug/m3	14	8	15	22	62 J	13 J	11 J	25	49	3.1 U	3.1 U	19	77	8.9	26	35	46	13	7.4	0.98 J	56	19	6.1 J	100
Carbon tetrachloride	ug/m3	6.2 U	1.3 U	1.3 U	6.3 U	13 U	1.2 J	3.1 U	0.4 J	0.38 J	0.63 U	0.39 J	0.63 U	0.47	0.63 U	0.63 U	0.63 U	0.63 U	0.33 J	0.31 J	0.33 J	3.1 U	1.3 U	1.3 U	6.3 U
Chlorobenzene	ug/m3	4.6 U	0.92 U	0.92 U	4.6 U	9.2 U	2.3 U	4.6 U	0.46 U	0.46 U	0.46 U	0.46 U	0.22 U	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	
Chloroethane	ug/m3	5.5	3.1	3.4	2.6 U	7.5	1.3 U	2.6 U	2.9	5.3	0.26 U	0.26 U	1.5	4	0.86	1.9	1.9	1.6	0.95	0.26 U	0.26 U	1.3 U	0.53 U	0.53 U	2.6 U
Chloroform	ug/m3	4.8 U	1.1	1.2	4.9 U	9.8 U	1.1 J	2.4 U	0.98	1.1	0.49 U	0.49 U	0.59	1.6	0.49 U	0.59	0.76	0.82	0.53	0.18 J	0.17 J	0.63 J	0.98 U	0.98 U	4.9 U
Chloromethane	ug/m3	2 U	0.41 U	0.41 U	2.1 U	4.1 U	1 U	2.1 U	0.21 U	0.21 U	0.21	1.1	0.41 U	0.19 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	2.1 U	0.83	0.83 U	4.1 U	
cis-1,2-Dichloroethene	ug/m3	31	17	27	27	35	11	6.9	8.6	14	0.4 U	0.4 U	4.3	13	1.9	4.3	5	1.4	0.78	0.4 U	4	1.3	0.79 U	4 U	
cis-1,3-Dichloropropene	ug/m3	4.4 U	0.91 U	0.91 U	4.5 U	9.1 U	2.3 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.21 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	2.3 U	0.91 U	0.91 U	4.5 U	
Cyclohexane	ug/m3	3.4 U	0.69 U	0.69 U	3.4 U	6.9 U	1.7 U	3.4 U	0.34 U	0.34 U	0.34 U	0.34 U	0.16 U	0.34 U	0.34 U	0.34 U	0.34 U	0.69 U	0.34 U	0.34 U	0.34 U	1.7 U	0.69 U	0.69 U	3.4 U
Dibromochloromethane	ug/m3	8.6 U	1.7 U	1.7 U	8.5 U	17 U	4.3 U	4.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.4 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	4.3 U	1.7 U	1.7 U	8.5 U	
Dichlorodifluoromethane	ug/m3	5 U	2.4	3.7	4.9 U	9.9 U	2.8	4.9 U	2.9	2.6	0.49	2.5	2.1	1.7	2.5	2.1	2	2.3	2.5	2	3.3	2.2 J	3.1	2.4	4.9 U
Ethanol	ug/m3	89	23	19	24 J	150 J	12 J	290	14	100	7.5	3.5 J	13	3.5 U	39	43	32	15	33	31	15	17 J	21	28	75 U
Ethyl acetate	ug/m3	6.8	3.4	0.72 U	3.8	7.2 U	3.6	26	4.2	30	0.36 U	1.2	2.6	0.17 U	5.5	4.8	3.4	3.6	3.6	2.6	0.36 U	1.8 U	2.8	0.72 U	3.6 U
Ethylbenzene	ug/m3	4.4 U	0.87 U	0.87 U	4.3 U	8.7 U	2.2 U	4.3 U	0.12 J	0.69	0.43 U	0.43 U	0.43 U	0.41	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U	0.16 J	0.15 J	2.2 U	0.87 U	0.87 U	4.3 U
Hexachlorobutadiene	ug/m3	11 U	2.1 U	2.1 U	11 U	21 U	4.2 J	11 U	1.1 U	1.1 U	1.1 U	1.1 U	0.5 U	1.1 U	1.1 U	1.1 U	2.1 U	1.1 U	1.1 U	1.1 U	5.3 U	2.1 U	2.1 U	11 U	
Hexane	ug/m3	7.1 U	1.4 U	0.7 U	3.5 U	280 U	70 U	9.4 J	4.3 J	2 J	14 J	2.2 J	14 U	6.6 U	14 U	14 U	28 U	14 U	7.4 J	1.4 J	70 U	28 U	28 U	140 U	
Isopropyl alcohol	ug/m3	59	11	13	25 U	200 J	49 U	13 J	9.8 U	11	9.8 J	9.8 U	9.8 U	4.6 U	2.9 J	6 J	11	8.4 J	2 J	9.8 J	9.8 U	49 U	3 J	20 U	14 J
m,p-Xylene	ug/m3	8.6 U	1.7 U	1.7 U	8.7 U	17 U	4.3 U	5.4 J	0.87 U	1.9	0.87 J	0.87 U	0.87 U	1.2	0.87 U	0.56 J	0.81 J	1.7 U	0.24 J	0.39 J	0.54 J	4.3 U	1.3 J	1.7 U	8.7 U
Methyl methacrylate	ug/m3	--	--	0.82 U	4.1 U	8.2 U	2 U	4.1 U	0.41 U	0.41 U	0.41 U	0.41 U	0.19 U	0.41 U	0.41 U	0.41 U	0.82 U	0.41 U	0.41 U	--	2 U	--	0.82 U	--	
Methylene chloride	ug/m3	7 U	1.4 U	2	6.9 U	69 U	4.2 J	15 J	11	2.5 JB	3.5 J	6.9	1.1 J	3.4	1.1 J	0.79 J	0.99 J	1.6 J	3.5 U	0.44 J	1.9 J	17 U	6.9 U	6.9 U	35 U
Methyl-t-butyl ether	ug/m3	3.6 U	0.72 U	0.72 U	3.6 U	7.2 U	1.8 U	3.6 U	0.36 U	0.36 U	0.36 U	0.36 U	0.17 U	0.36 U	0.36 U	0.36 U	0.36 U	0.72 U	0.36 U	0.36 U	0.36 U	1.8 U	0.72 U	0.72 U	3.6 U
Naphthalene	ug/m ³	--																							

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Summary of Analytical Results - Extraction Well and Post-Treatment Sampling for Large Retail Space
Former Gorham Manufacturing Site
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Area:	Extraction Well - Large Retail Space																								
Location:	EW-5															EW-Combined									
Sample ID:	EW-5-021017	EW-5-090717	EW-5-022818	EW-5-091218	EW-5-020819	EW-5-090619	EW-5-021420	EW-5-09092020	EW-5-030821	EW-5	EW-5	EW-5	EW-5	EW-5-020724	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	
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	9/8/2021	3/29/2022	9/15/2022	3/17/2023	2/7/2024	2/3/2009	2/11/2009	2/18/2009	2/26/2009	4/14/2009	4/24/2009	9/17/2009	9/24/2009	10/1/2009	10/8/2009	
Analyte	Units																								
1,1,1,2-Tetrachloroethane	ug/m3	1.2 U	2.5 U	12 U	2.5 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U	1.2 U	37 U	--	--	--	--	--	--	--	--	--	--	--	
1,1,1-Trichloroethane	ug/m3	7.4	42	17	49	11	40	11	73	11	0.55 U	15	4200	20000	350	190000	91000	73000	32000	3500	19000	11000	8100	7900	6800
1,1,2,2-Tetrachloroethane	ug/m3	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	0.24 U	1.4 U	21 U	0.69 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
1,1,2-Trichloroethane	ug/m3	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	0.19 U	1.1 U	16 U	0.55 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	
1,1-Dichloroethane	ug/m3	1.8	6.2	2.3 J	5.9	0.4 U	4.9	1.7	0.4 U	1.6	0.4 U	0.32	130	860	28	19000	7800	5300	4800	390	2200	1600	1900	1700	
1,1-Dichloroethene	ug/m3	0.4	1.3	4 U	1.3	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U	77	430	23	7800	1800	1000	630	73	420	310	250	260	280	
1,2,4-Trichlorobenzene	ug/m3	0.74 U	1.5 U	7.4 U	1.5 U	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	1.5 U	0.52 U	1.5 U	22 U	0.74 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
1,2,4-Trimethylbenzene	ug/m3	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	0.49 U	0.17 U	0.98 U	15 U	2.6	5 U	5 U	10 U	10 U	5 U	0.25 U	2.5 U	5 U	10 U	10 U
1,2-Dibromoethane (EDB)	ug/m3	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	0.27 U	1.5 U	23 U	0.77 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	
1,2-Dichlorobenzene	ug/m3	0.6 U	1.2 U	6 U	1.2 U	2.4 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	1.2 U	18 U	0.6 U	6 U	6 U	12 U	12 U	6 U	0.3 U	3 U	6 U	12 U	12 U	
1,2-Dichloroethane	ug/m3	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	0.14 U	0.81 U	12 U	0.4 U	4 U	4 U	8 U	8 U	4 U	0.2 U	2 U	4 U	8 U	8 U	
1,2-Dichloropropane	ug/m3	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	0.16 U	0.92 U	14 U	0.46 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	
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	0.7 U	7 U	7 U	14 U	14 U	7 U	0.35 U	3.5 U	7 U	14 U	14 U	
1,3,5-Trimethylbenzene	ug/m3	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	0.17 U	0.98 U	15 U	1.3	5 U	5 U	10 U	10 U	5 U	0.25 U	2.5 U	5 U	10 U	10 U	
1,3-Butadiene	ug/m3	0.22 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	0.077 U	0.44 U	6.6 U	0.22 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	
1,3-Dichlorobenzene	ug/m3	0.6 U	1.2 U	6 U	1.2 U	1.6 J	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	1.2 U	18 U	0.6 U	6 U	6 U	12 U	12 U	6 U	0.3 U	3 U	6 U	12 U	12 U	
1,4-Dichlorobenzene	ug/m3	0.6 U	1.2 U	6 U	1.2 U	1.6 J	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	1.2 U	18 U	0.6 U	6 U	6 U	12 U	12 U	6 U	0.3 U	3 U	6 U	12 U	12 U	
1,4-Dioxane	ug/m3	--	--	--	--	--	--	--	--	--	--	--	--	3.6 U	--	--	--	--	--	--	--	--	--	--	
2-Butanone	ug/m3	29	4500	750	5500	110	7300	160	12 U	130	3.5 J	1.2 J	5300	350 U	12 U	37	32	48	60	21	40	7.8	31	30	21
2-Hexanone	ug/m3	0.41 U	0.82 U	4.1 U	0.82 U	0.41 U	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	0.29 U	0.82 U	12 U	0.41 U	4 U	4 U	8 U	8 U	4 U	0.5	2 U	4 U	8 U	8 U
4-Ethyltoluene	ug/m3	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	0.17 U	0.98 U	15 U	0.49 U	5 U	5 U	10 U	10 U	5 U	0.25 U	2.5 U	5 U	10 U	10 U	
4-Methyl-2-pentanone	ug/m3	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	0.14 U	0.82 U	12 U	0.41 U	4 U	4 U	8 U	8 U	4 U	0.59	2 U	4 U	8 U	8 U	
Acetone	ug/m3	11	700	320	710	47	1700	66	15	640	16	4	1100	290 U	9.5 U	1600	31	75	63	4.8 U	0.24 U	20	9.6 U	20 U	20 U
Benzene	ug/m3	0.38	2.7	2 J	3.1	3.6	2.5	1.6	0.32 U	3	0.46	0.41	2	9.6 U	2.5	14	7.3	8.4	6.4 U	3.2 U	2.5	2.7	3.2 U	6.4 U	6.4 U
Benzyl chloride	ug/m3	0.52 U	1 U	5.2 U	1 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	2.1 U	16 U	0.52 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	
Bromodichloromethane	ug/m3	0.67 U	1.3 U	6.7 U	1.2 J	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.23 U	1.3 U	20 U	0.67 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	
Bromoform	ug/m3	1 U	2.1 U	10 U	2.1 U	1 U	1 U	1 U	1 U	1 U	0.36 U	2.1 U	31 U	1 U	11 U	11 U	21 U	21 U	11 U	0.51 U	5.1 U	11 U	21 U	21 U	
Bromomethane	ug/m3	0.39 U	0.78 U	3.9 U	0.78 U	0.39 U	0.39 U	0.39 U	0.78 U	0.78 U	0.39 U	0.14 U	0.78 U	12 U	0.39 U	3.8 U	3.8 U	7.6 U	7.6 U	3.8 U	0.19 U	1.9 U	3.8 U	7.6 U	7.6 U
Carbon disulfide	ug/m3	1.2 J	120	62	200	66 J	210	44	3.1 U	3.1 U	3.1 U	0.1 J	270	27 J	3.1 U	3.2 U	63	32	20	3.2 U	4.6	1.6 U	3.2 U	6.4 U	6.4 U
Carbon tetrachloride	ug/m3	0.63 U	1.3 U	6.3 U	0.45 J	0.63 U	6	0.63 U	0.47 J	0.63 U	0.43 J	0.44	1.3 U	19 U	0.63 U	6.2 U	6.2 U	13 U	13 U	6.2 U	0.57	3.1 U	6.2 U	13 U	13 U
Chlorobenzene	ug/m3	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	0.16 U	0.92 U	14 U	0.46 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	
Chloroethane	ug/m3	0.26 U	1.3	2.6 U	1.2	0.53 U	0.26 U	0.26 U	0.26 U	0.26 U	0.092 U	3.2	7.9 U	0.26 U	3400	1700	1200	450	42	220	110	94	92	88	
Chloroform	ug/m3	0.49 U	1	4.9 U	0.84 J	15	0.49 U	0.49 U	0.93	0.3 J	0.17 J	0.17 U	4.7	15 U	3	27	17	20	17	4.8 U	8.8	12	14	11	11
Chloromethane	ug/m3	0.41 U	76	4.1 U	0.83 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	1.4	0.14 U	0.83 U	12 U	0.41 U	2 U	4 U	4 U	2 U	2 U	1 U	2 U	4 U	4 U	4 U
cis-1,2-Dichloroethene	ug/m3	0.4 U	2.8	4 U	2.3	1.8	2.1	0.52	0.73	0.52	0.4 U	0.14 U	8.1	20	8.2	14000	4700	6300	4200	300	1600	1600	1500	1300	1200
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.91 U	4.5 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.91 U	14 U	0.45 U	4.4 U	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U	
Cyclohexane	ug/m3	0.34 U	0.69 U	3.4 U	0.69 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.12 U	0.69 U	10 U	2.3	3.4 U	3.4 U	6.8 U	6.8 U	3.4 U	0.17 U	1.7 U	3.4 U	6.8 U	6.8 U	
Dibromochloromethane	ug/m3	0.85 U	1.7 U	8.5 U	1.7 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.3 U	1.7 U	26 U	0.85 U	8.6 U	8.6 U	18 U	18 U	8.6 U	0.43 U	4.3 U	8.6 U	18 U	18 U	
Dichlorodifluoromethane	ug/m3	1.5	2.2	4.9 U	2.1	0.49 U	0.49 U	1.8	0.49 U	0.49 U	2.5	2	0.99 U	15 U	2.3	5 U	5 U	10 U	110	5 U	2.8	2.5 U	5 U	10 U	10 U
Ethanol	ug/m3	6.7 J	13 J	35 J	11 J	36	18	30	71	47	94	8.1	27	230 U	13	960	81	120	120	17	21	200	96	32	33
Ethyl acetate	ug/m3	2.5	5.2	3.6 U	2.6	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	3.6 U	1.3 U	7.2 U	110 U	9.1	7.3 U	3.6 U	7.2 U	15 U	7.3 U	0.37 U	1.8 U	3.6 U	7.2 U	7.2 U
Ethylbenzene	ug/m3	0.43 U	0.87 U	4.3 U	0.87 U	1.2	0.43 U	0.43 U	0.16 J	16	0.17 J	0.15 U	0.87 U	13 U	1.7	9.4	4.4 U	8.8 U	8.8 U	4.4 U	0.22 U	2.2 U	4.4 U	8.8 U	8.8 U
Hexachlorobutadiene	ug/m3	1.1 U	2.1 U	11 U	2.1 U	2.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	2.1 U	32 U	1.1 U	22 U	22 U	43 U	43 U	22 U	1.1 U	5.3 U	11 U	22 U	22 U	
Hexane	ug/m3	1.4 J	28 U	140 U	28 U	14 U	14 U	14 U	14 U	14 U	4.9 U	28 U	420 U	14 U	16	4.9	270	7.2 U	7.2 U	3.6 U	2.3	1.9	3.6 U	7.2 U	7.2 U
Isopropyl alcohol	ug/m3	2 J	20 U	5.1 J	6.2 J	9.8 U	8.7 J	9.8 U	9.8 U	9.8 U	2.7 J	3.4 U	9.1 J	290 U	9.8 U	610	2.4 U	15	9.9 U	5 U	0.25 U	22	5 U	9.9 U	9.9 U
m,p-Xylene	ug/m3	0.87 U	1.7 U	8.7 U	1.7 U	2.6	0.87 U	0.87 U	0.51 J	67	0.59 J	0.19 J	1.7 U	26 U	6.7	25	8.6 U	18 U	18 U	8.6 U	0.43 U	4.3 U	8.6 U	18 U	18 U
Methyl methacrylate	ug/m3	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	--	0.41 U	12 U	--	--	--	--	--	--	--	--	--	--	--	--
Methylene chloride	ug/m3	1.3 J	6.9 U	35 U	6.9 U	2.6 J	3.5 U	0.5 J	3.5 U	1.8 J	0.9 J	1.2 U	6.9 U	100 U	3.5 U	12	7 U	14 U	14 U	19	2.6	7 U	14 U	28 U	28 U
Methyl-t-butyl ether	ug/m3	0.36 U	0.72 U	3.6 U	0.72 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.13 U	0.72 U	11 U	0.36 U	3.6 U	3.6 U	7.2 U	7.2 U	3.6 U	0.18 U	1.8 U	3.6 U	7.2 U	7.2 U
Naphthalene	ug/m3	--	--	--	--	--	--	--	3.4	--	--	--	--	0.52 U	--	--	--	--	--	--	--	--	--	--	--
n-Heptane	ug/m3	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	0.097 J	0.													

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

Area:		Extraction Well - Large Retail Space																							
Location:		EW-Combined																							
Sample ID:	EW-COMBINED-012810	EW-COMBINED-020510	EW-COMBINED-021210	EW-COMBINED-021910	EW-COMBINED-043010	EW-COMBINED-052810	EW-COMBINED-070110	EW-COMBINED-091610	EW-COMBINED-120710	EW-COMBINED-021711	EW-COMBINED-091511	EW-COMBINED-120811	EW-COMBINED-030812	EW-COMBINED-061412	EW-COMBINED-091312	EW-COMBINED-010313	EW-COMBINED-031513	EW-COMBINED-060713	EW-COMBINED-090613	EW-COMBINED-121313	EW-COMBINED-030714	EW-COMBINED-061314	EW-COMBINED-091214	EW-COMBINED-121914	
Sample Date:	1/28/2010	2/5/2010	2/12/2010	2/19/2010	4/30/2010	5/28/2010	7/1/2010	9/16/2010	12/7/2010	2/17/2011	9/15/2011	12/8/2011	3/8/2012	6/14/2012	9/13/2012	1/3/2013	3/15/2013	6/7/2013	9/6/2013	12/13/2013	3/7/2014	6/13/2014	9/12/2014	12/19/2014	
Analyte	Units																								
1,1,1,2-Tetrachloroethane	ug/m3	--	--	--	--	--	--	--	--	--	2.5 U	--	12 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U	1.2 U	1.2 U	1.2 U	2.5 U	1.2 U	
1,1,1-Trichloroethane	ug/m3	1500	2500	150	1200	1400	1700	2000	4700	280	2500	2400	1100	1800	2800	5.5	610	850	1900	1500	780	770	1300	420	
1,1,2,2-Tetrachloroethane	ug/m3	0.68 U	6.8 U	0.34 U	0.68 U	0.68 U	6.8 U	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	0.24 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U	
1,1,2-Trichloroethane	ug/m3	0.54 U	5.4 U	0.27 U	0.54 U	0.54 U	5.4 U	0.54 U	0.55	0.55 U	0.55 U	1.1 U	0.55 U	2.7 U	0.55 U	0.55 U	0.55 U	0.55 U	0.19 U	0.55 U	0.55 U	0.55 U	1.1 U	0.55 U	
1,1-Dichloroethane	ug/m3	280	370	31	310	200	270	290	330	36	170	200	70	78	130	200	0.4	59	68	150	62	53	68	130	55
1,1-Dichloroethene	ug/m3	52	66	7.3	62	30	40	52	81	7.3	58	44	21	34	42	15	0.4	24	38	56	24	27	40	52	14
1,2,4-Trichlorobenzene	ug/m3	0.74 U	7.4 U	0.37 U	0.74 U	0.74 U	7.4 U	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	1.5 U	0.74 U	0.26 U	0.74 U	0.74 U	0.74 U	1.5 U	0.74 U
1,2,4-Trimethylbenzene	ug/m3	0.5 U	5 U	0.25 U	0.5 U	0.5 U	5 U	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	0.49 U	0.49 U	0.98 U	0.49 U
1,2-Dibromoethane (EDB)	ug/m3	0.76 U	7.6 U	0.38 U	0.76 U	0.76 U	7.6 U	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	0.77 U	0.77 U	0.77 U	0.77 U	
1,2-Dichlorobenzene	ug/m3	0.6 U	6 U	0.3 U	0.6 U	0.6 U	6 U	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	1.2 U	0.6 U	
1,2-Dichloroethane	ug/m3	0.4 U	4 U	0.2 U	0.4 U	0.4 U	4 U	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	
1,2-Dichloropropane	ug/m3	0.46 U	4.6 U	0.23 U	0.46 U	0.46 U	4.6 U	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	0.46 U	0.46 U	0.46 U	0.46 U	
1,2-Dichlorotetrafluoroethane	ug/m3	0.7 U	7 U	0.35 U	0.7 U	0.7 U	7 U	0.7 U	0.7 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,3,5-Trimethylbenzene	ug/m3	0.5 U	5 U	0.25 U	0.5 U	0.5 U	5 U	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	0.49 U	0.49 U	0.98 U	0.49 U
1,3-Butadiene	ug/m3	0.45 U	4.5 U	0.23 U	0.45 U	0.45 U	2.2 U	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	0.44 U	0.22 U	
1,3-Dichlorobenzene	ug/m3	0.6 U	6 U	0.3 U	0.6 U	0.6 U	6 U	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	1.1	0.6 U	0.21 U	0.6 U	0.6 U	1.2 U	0.6 U	
1,4-Dichlorobenzene	ug/m3	0.6 U	6 U	0.3 U	0.6 U	0.6 U	6 U	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	0.64	0.6 U	0.21 U	0.6 U	0.6 U	1.2 U	0.6 U	
1,4-Dioxane	ug/m3	--	--	--	--	--	--	--	--	--	0.72 U	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Butanone	ug/m3	4	11	10	9	12	22	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
2-Hexanone	ug/m3	0.4 U	4 U	0.2 U	0.4 U	0.4 U	4 U	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	0.41 U	0.41 U	0.82 U	0.41 U
4-Ethyltoluene	ug/m3	0.5 U	5 U	0.25 U	0.5 U	0.5 U	5 U	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	0.49 U	3.4	0.49 U	0.17 U	0.49 U	0.49 U	0.49 U	0.98 U	0.49 U
4-Methyl-2-pentanone	ug/m3	0.4 U	4 U	0.2	0.4 U	0.4 U	4 U	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	0.41 U	0.41 U	0.82 U	0.41 U
Acetone	ug/m3	31	9.6 U	13	0.96 U	16	24	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
Benzene	ug/m3	0.61	3.2 U	0.63	0.43	0.74	5.5	0.84	1.7	0.5	0.72	0.77	0.56	3.2 U	1	0.96	0.32	5	0.32 U	0.82	0.32 U	0.63	0.66	0.35 J	0.33
Benzyl chloride	ug/m3	0.52 U	5.2 U	0.26 U	0.52 U	0.52 U	5.2 U	0.52 U	0.52 U	0.52 U	1 U	0.52 U	5.2 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	
Bromodichloromethane	ug/m3	0.66 U	6.6 U	0.33 U	0.66 U	0.66 U	6.6 U	0.66 U	0.66 U	0.67 U	0.67 U	1.3 U	0.67 U	3.4 U	10	0.67 U	0.67 U	0.67 U	0.67 U	0.24 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U
Bromoform	ug/m3	1.1 U	11 U	0.51 U	1.1 U	1.1 U	11 U	1.1 U	1.1 U	1 U	1 U	2.1 U	1 U	10 U	1 U	1 U	1 U	1 U	0.36 U	1 U	1 U	1 U	2.1 U	1 U	
Bromomethane	ug/m3	0.38 U	3.8 U	0.19 U	0.38 U	0.38 U	3.8 U	0.38 U	0.38 U	0.39 U	0.39 U	0.78 U	0.39 U	3.9 U	0.39 U	0.39 U	0.39 U	0.39 U	0.14 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	
Carbon disulfide	ug/m3	4.3	3.2 U	0.17	3.8	0.77	3.2 U	1.1	1.3	0.31 U	0.73	6.2 J	3.1 U	31 U	1.7 J	3.6	3.1 J	0.82 J	3.1 U	0.73 J	3.1 U	3.1 U	0.4 J	0.52 J	0.33 J
Carbon tetrachloride	ug/m3	0.62 U	6.2 U	0.38	0.62 U	0.62 U	6.2 U	0.73	1.1	0.63 U	0.63	1.3 J	0.48 J	3.1 U	0.5 J	0.74	0.63 U	0.63 U	0.68	0.63 U	0.63 U	0.63 U	0.58 J	0.4 J	
Chlorobenzene	ug/m3	0.46 U	4.6 U	0.23 U	0.46 U	0.46 U	7.2	0.46 U	0.46 U	0.46 U	0.46 U	0.92 U	0.46 U	4.6 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	
Chloroethane	ug/m3	9.8	11	1.3	9.9	4.8	7.2	9.4	17	1	3.6	6.7	2.1	2.6 U	3	5.3	0.26	1.1	1.4	3.3	1.2	1	1.5	1.8	0.77
Chloroform	ug/m3	4.1	5.8	0.49	6.2	6	7.9	8	8.3	1.6	6.9	7.6	2.7	3.2	6.3	8.5	0.49	3.5	2.3	7	1.5	3.1	3.4	4.9	3.4
Chloromethane	ug/m3	0.2 U	2 U	0.1 U	0.2 U	0.2 U	2 U	0.2 U	0.2 U	0.21 U	0.21 U	0.41 U	0.21 U	2.1 U	20	0.21 U	0.21 U	0.21 U	0.14 U	0.21 U	0.21 U	0.21 U	0.83 U	0.41 U	
cis-1,2-Dichloroethene	ug/m3	190	280	21	240	180	260	260	360	28	120	160	38	47	75	150	0.4	30	24	93	12	25	30	57	25
cis-1,3-Dichloropropene	ug/m3	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U	4.4 U	0.44 U	0.44 U	0.45 U	0.45 U	0.91 U	0.45 U	2.3 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	
Cyclohexane	ug/m3	0.34 U	3.4 U	0.17 U	0.34 U	0.34 U	3.4 U	0.34 U	0.55	0.34 U	0.34 U	0.69 U	0.34 U	3.4 U	0.34 U	0.34 U	0.34 U	21	0.34 U	0.12 U	0.34 U	0.34 U	0.34 U	0.69 U	0.34 U
Dibromochloromethane	ug/m3	0.86 U	8.6 U	0.43 U	0.86 U	0.86 U	8.6 U	0.86 U	0.86 U	0.85 U	0.85 U	1.7 U	0.85 U	4.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.3 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	
Dichlorodifluoromethane	ug/m3	2.4	5 U	2.2	2.7	1.7	5 U	2.5	1.6	3	4.1	2.9	2.9	4.9 U	2.9	2.9	0.49	2.5	2.1	11	3.2	2.4	2.1	2.5	2.7
Ethanol	ug/m3	39	60	23	62	10	19 U	15	1.9 U	8.2	17	15 J	9.2	75 U	7.2 J	12	7.5	320	34	30	11	38	41	15	12
Ethyl acetate	ug/m3	0.36 U	3.6 U	0.18 U	0.36 U	0.36 U	3.6 U	0.36 U	0.36 U	0.36 U	0.36 U	0.72 U	1.2	3.6 U	1.3	0.36 U	0.36 U	110	0.36 U	0.13 U	1.8	1.8	0.36 U	0.72 U	0.36 U
Ethylbenzene	ug/m3	0.44 U	4.4 U	0.22 U	0.44 U	0.44 U	4.4 U	0.44 U	0.58	0.43 U	0.43 U	0.87 U	0.58	4.3 U	0.28 J	0.21 J	0.43 U	13	0.43 U	0.2	0.43 U	0.43 U	0.43 U	0.87 U	0.43 U
Hexachlorobutadiene	ug/m3	1.1 U	11 U	0.53 U	1.1 U	1.1 U	11 U	1.1 U	1.1 U	1.1 U	1.1 U	2.1 U	1.1 U	11 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	1.1 U	1.1 U	1.1 U	2.1 U	1.1 U	
Hexane	ug/m3	0.36 U	3.6 U	0.74	0.36 U	0.92	3.6 U	0.44	0.71 U	0.7 U	0.8	28 U	0.66 J	140 U	0.91 J	1.5 J	14 J	6.8 J	14 U	2.2 J	1.2 J	0.8 J	14 U	28 U	14 U
Isopropyl alcohol	ug/m3	2.3	5 U	1	0.5 U	2.6	2.4 U	0.24 U	0.5 U	0.84	0.25 U	20 J	9.8 U	98 U	3.1 J	2.9 J	9.8 U	27	9.8 U	3.4 U	3 J	1.6 J	1.6 J	2.7 J	9.8 U
m,p-Xylene	ug/m3	0.86 U	8.6 U	0.49	0.86 U	0.86 U	8.6 U	0.86 U	1.6	0.87 U	0.87 J	1.7 U	1.6	8.7 U	0.51 J	0.59 J	0.87 U	34	0.87 U	0.4	0.87 U	0.57 J	0.95	1.7 U	0.25 J
Methyl methacrylate	ug/m3	--	--	--	--	--	--	--	--	0.41 U	0.82 U	0.41 U	0.41 U	4.1 U	0.41 U	0.41 U	0.41 U	3.5	0.41 U	0.14 U	0.41 U	0.41 U	0.82 U	0.41 U	
Methylene chloride	ug/m3	1.4 U	14 U	2.6	1.4 U	1.4 U	7 U	2.1	0.9	0.78	2.9	6.9 J	2.2 J	8.1 J	2.3 J	2.2 JB	3.5 J	2.4 J	1.3 J	4.6	2.1 J	1.7 J	1.1 J	1.4 J	3.5 U
Methyl-t-butyl ether	ug/m3	0.36 U	3.6 U	0.18 U	0.36 U	0.36 U	3.6 U	0.36 U	0.36 U	0.36 U	0.36 U	0.72 U	0.24 J	3.6 U	1.1	0.17 J	0.36 U	0.36 U							

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

Area:	Extraction Well - Large Retail Space																			Post Treatment - Large Retail Space						
	Location:	EW-Combined																		PostCarbon						
		Sample ID:	EW-Combined-032715	EW-Combined-061115	EW-Combined-091615	EW-Combined-121815	EW-Combined-021816	EW-Combined-080516	EW-Combined-021017	EW-Combined-090717	EW-Combined-022818	EW-Combined-091218	EW-Combined-020819	EW-Combined-090619	EW-Combined-021420	EW-Comb.-09092020	EW-Combined-030821	EW-Combined-09/8/2021	EW-Combined-03/29/2022	EW-Combined-09/15/2022	EW-Combined-03/17/2023	Post carbon-020309	POST CARBON-021109	POST CARBON-021809	POST CARBON-022609	POST CARBON-041409
Sample Date:	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	9/8/2021	3/29/2022	9/15/2022	3/17/2023	2/3/2009	2/11/2009	2/18/2009	2/26/2009	4/14/2009		
Analyte	Units																									
1,1,1,2-Tetrachloroethane	ug/m3	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	0.44 U	1.2 U	2.5 U	--	--	--	--	--	--	
1,1,1-Trichloroethane	ug/m3	500	1200	3400 E	1600	320	4000	260	530	150	690	62	70	470	97	300	0.19 U	42	2.1	1	15	45	1.9	13000		
1,1,2,2-Tetrachloroethane	ug/m3	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	0.24 U	0.69 U	1.4 U	0.34 U	1.7 U	0.68 U	0.68 U	68 U		
1,1,2-Trichloroethane	ug/m3	0.55 U	0.28 J	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	0.19 U	0.55 U	1.1 U	0.27 U	1.4 U	0.54 U	0.54 U	54 U		
1,1-Dichloroethane	ug/m3	49	100	190	69	25	360	25	67	19	73	13	45	19	29	9	34	0.14 U	3.2	0.81 U	0.2 U	1 U	5.4	11000	490	
1,1-Dichloroethene	ug/m3	22	46	160	21	9	160	11	24	10	27	10	24	10	27	7.4	16	0.14 U	2.1	0.79 U	0.2 U	1 U	0.4 U	6400	96	
1,2,4-Trichlorobenzene	ug/m3	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	1.5 U	0.74 U	0.74 U	0.74 U	0.74 U	1.5 U	0.52 U	0.74 U	1.5 U	0.37 U	1.9 U	0.74 U	0.74 U	74 U	
1,2,4-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.98 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.98 U	1.2	0.49 U	0.49 U	0.49 U	0.49 U	0.17 U	0.49 U	0.98 U	0.25 U	1.3 U	0.5 U	0.5 U	50 U		
1,2-Dibromoethane (EDB)	ug/m3	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	0.27 U	0.77 U	1.5 U	0.38 U	1.9 U	0.76 U	0.76 U	76 U		
1,2-Dichlorobenzene	ug/m3	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	2 J	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U	1.2 U	0.3 U	1.5 U	0.6 U	0.6 U	60 U	
1,2-Dichloroethane	ug/m3	0.4 U	0.4 U	0.81 U	0.81 U	0.81 U	4 U	0.4 U	0.81 U	0.81 U	0.81 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.14 U	0.4 U	0.81 U	0.2 U	1 U	0.4 U	0.4 U	40 U		
1,2-Dichloropropane	ug/m3	0.46 U	0.46 U	0.92 U	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	0.92 U	0.92 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	0.92 U	0.23 U	1.2 U	0.46 U	0.46 U	46 U		
1,2-Dichlorotetrafluoroethane	ug/m3	--	--	--	1.4 U	--	7 U	--	--	--	--	--	--	--	--	--	--	--	--	--	0.35 U	1.8 U	0.7 U	0.7 U	70 U	
1,3,5-Trimethylbenzene	ug/m3	0.49 U	0.49 U	0.98 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.98 U	1.2	0.49 U	0.49 U	0.49 U	0.49 U	0.17 U	0.49 U	0.98 U	2.1	1.3 U	0.5 U	0.5 U	50 U		
1,3-Butadiene	ug/m3	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	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.077 U	0.22 U	0.44 U	0.11 U	0.55 U	0.22 U	0.22 U	22 U		
1,3-Dichlorobenzene	ug/m3	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	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U	1.2 U	2.9	1.5 U	0.6 U	0.6 U	60 U		
1,4-Dichlorobenzene	ug/m3	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	0.6 U	0.6 U	0.6 U	0.21 U	0.6 U	1.2 U	0.3 U	1.5 U	0.6 U	0.6 U	60 U		
1,4-Dioxane	ug/m ³	--	--	--	7.2 U	--	36 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
2-Butanone	ug/m3	1.2 J	1.2 J	1.3 J	1.5 J	24 U	14 J	0.59 J	2.5 J	1.3 J	1.9 J	3.1 J	1.6 J	2 J	8 J	12 U	1.2 J	4.1 U	19	24 U	10	6.3	9.4	5.5	330	
2-Hexanone	ug/m3	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	4.1 U	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	0.82 U	0.82 U	0.82 U	0.29 U	0.41 U	0.82 U	0.2 U	1 U	0.4 U	0.4 U	13000	
4-Ethyltoluene	ug/m3	0.49 U	0.49 U	0.98 U	0.98 U	0.98 U	4.9 U	0.49 U	0.98 U	0.98 U	0.98 U	0.49 U	0.49 U	0.49 U	0.49 U	0.49 U	0.17 U	0.49 U	0.98 U	2.1	1.3 U	0.5 U	0.5 U	50 U		
4-Methyl-2-pentanone	ug/m3	0.13 J	0.41 U	0.82 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	0.41 U	0.41 U	0.41 U	0.14 U	0.41 U	0.82 U	5	1 U	0.4 U	0.4 U	40 U		
Acetone	ug/m3	6.1 J	9.5 U	12 J	6.7 J	19 U	39 J	3.7 J	8.7 J	19 U	19 U	9.4 J	4.9 J	12	12	9.5 U	9.5 U	7.8	17	13 J	1200	11	19	12	430	
Benzene	ug/m3	0.39	0.36	0.55 J	0.69	0.64 U	3.2 U	0.33	0.51 J	0.4 J	0.49 J	1.4	0.4	0.33	0.32 U	0.4	0.95	0.5	0.32 U	0.64 U	1.3	0.8 U	0.32 U	0.32 U	32 U	
Benzyl chloride	ug/m3	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	0.18 U	1 U	1 U	0.26 U	1.3 U	0.52 U	0.52 U	52 U		
Bromodichloromethane	ug/m3	0.67 U	0.67 U	1.3 U	9.1	1.3 U	6.7 U	1.6	1.3 U	1.3 U	1.3 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.23 U	0.67 U	1.3 U	0.33 U	1.7 U	0.66 U	0.66 U	66 U	
Bromoform	ug/m3	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	0.36 U	1 U	2.1 U	0.51 U	2.6 U	1.1 U	1.1 U	110 U	
Bromomethane	ug/m3	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	0.14 U	0.39 U	0.78 U	0.19 U	0.95 U	0.38 U	0.38 U	38 U		
Carbon disulfide	ug/m3	0.24 J	0.37 J	1 J	6.2 U	6.2 U	31 U	3.1 U	6.2 U	6.2 U	6.2 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	1.1 U	0.69 J	6.2 U	0.16 U	0.8 U	4.1	27	250		
Carbon tetrachloride	ug/m3	0.28 J	0.49 J	0.75 J	1.3 U	1.3 U	6.3 U	0.63 U	1.3 U	1.3 U	0.58 J	0.63 U	89	0.63 U	1.1	0.63 U	0.44 J	0.44	0.63 U	1.3 U	0.38	1.6 U	0.62 U	0.62 U	62 U	
Chlorobenzene	ug/m3	0.46 U	0.46 U	0.92 U	0.92 U	0.92 U	4.6 U	0.46 U	0.92 U	0.92 U	0.92 U	0.46 U	0.46 U	0.46 U	0.46 U	0.46 U	0.16 U	0.46 U	0.92 U	0.23 U	1.2 U	0.46 U	0.46 U	46 U		
Chloroethane	ug/m3	0.44	1	2.7	0.93	0.53 U	8.6	0.31	1.3	0.53 U	0.53 U	0.53 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.092 U	0.26 U	0.53 U	0.13 U	5100	1800	480	64	
Chloroform	ug/m3	2.5	6.4	4.1	3.1	1.6	20	1.5	4.1	1.9	5.1	1.8	3.2	1	4.7	0.6	5	0.17 U	0.49 U	0.98 U	0.24 U	1.2 U	0.48 U	0.67	48 U	
Chloromethane	ug/m3	0.41 U	0.41 U	0.83 U	15	0.83 U	4.1 U	5.7	0.83 U	0.83 U	0.83 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	1.3	2	1.2	0.59	0.5 U	0.2 U	0.2 U	23		
cis-1,2-Dichloroethene	ug/m3	21	52	41	20	12	160	7.3	41	9.5	42	5.8	27	6.4	11	4.6	22	0.14 U	0.47	0.79 U	0.27	1 U	3.9	5200	820	
cis-1,3-Dichloropropene	ug/m3	0.45 U	0.45 U	0.91 U	0.91 U	0.91 U	4.5 U	0.45 U	0.91 U	0.91 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.91 U	0.22 U	1.1 U	0.44 U	0.44 U	44 U		
Cyclohexane	ug/m3	0.34 U	0.34 U	0.69 U	0.69 U	0.69 U	3.4 U	0.53	0.69 U	0.69 U	0.69 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.12 U	0.34 U	0.69 U	0.93	0.85 U	0.34 U	0.34 U	34 U		
Dibromochloromethane	ug/m3	0.85 U	0.85 U	1.7 U	1.7 U	1.7 U	8.5 U	0.85 U	1.7 U	1.7 U	1.7 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.3 U	0.85 U	1.7 U	0.43 U	2.2 U	0.86 U	0.86 U	86 U		
Dichlorodifluoromethane	ug/m3	1.8	2.9	2.6	3.2	2.7	5	1.3	2.2	2.3	2.2	0.49 U	0.49 U	1.7	0.49 U	0.49 U	0.49 U	2	2.4	1.9	0.76	4.1	3	2.4	50 U	
Ethanol	ug/m3	5.2 J	5.1 J	20	18	9.5 J	140	5.9 J	16	12 J	14 J	25	25	14	18	10	53	16	18	9.5 J	740	36	25	9.8	110	
Ethyl acetate	ug/m3	11	1.3	0.72 U	0.72 U	0.72 U	3.6 U	0.36 U	2.5	0.72 U	1.4 U	0.36 U	0.36 U	0.36 U	0.36 U	3.6 U	4.9	3.6 U	7.2 U	0.37 U	0.9 U	0.36 U	0.73 U	73 U		
Ethylbenzene	ug/m3	0.43 U	0.43 U	0.87 U	0.87 U	0.87 U	4.3 U	0.43 U	0.87 U	0.87 U	0.87 U	1.1	0.43 U	0.43 U	0.43 U	0.43 U	0.15 U	0.43 U	0.87 U	10	1.1 U	0.44 U	0.44 U	44 U		
Hexachlorobutadiene	ug/m3	1.1 U	1.1 U	2.1 U	2.1 U	2.1 U	11 U	1.1 U	2.1 U	2.1 U	2.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	1.1 U	2.1 U	1.1 U	5.4 U	2.2 U	2.2 U	220 U	
Hexane	ug/m3	7.9 J	14 U	1.6 J	28 U	28 U	140 U	14 U	28 U	28 U	28 U	14 U	14 U	14 U	14 U	14 U	4.9 U	3.2 J	28 U	3	0.9 U	46	0.36 U	0.36 U	36 U	
Isopropyl alcohol	ug/m3	9.8 U	3.8 J	3.7 J	20 U	20 U	98 U	0.66 J	1.6 J	20 U	20 U	2.2 J	9.8 U	2.3 J	9.8 U	9.8 U	1 J	9.8 U	20 U	450	2.9	3.1	47	290		
m,p-Xylene	ug/m3	0.87 U	0.87 U	1.7 U	1.7 U	1.7 U	8.7 U	0.87 U	1.7 U	1.7 U	1.7 U	2.4	1	0.87 U	0.57 J	0.87 U	0.25 J	0.3 U	0.87 U	1.7 U	27	2.2 U	0.86 U	0.86 U	86 U	
Methyl methacrylate	ug/m3	0.41 U	--	0.82 U	--	0.82 U	--	0.41 U	0.82 U	0.82 U	0.82 U	0.41 U	0.41 U	0.41 U	--	0.41 U	0.14 U	0.41 U	0.82 U	--	--	--	--	--		
Methylene chloride	ug/m3	3.5 U	3.5 U	5.3 J	6.9 U	6.9 U	35 U	3.5 U	6.9 U	6.9 U	6.9 U	1.3 J	3.5 U	3.5 U	3.5 U	3.5 U	1.5	3.5 U	6.9 U	20	76	17	3	810		
Methyl-t-butyl																										

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

Area:		Post Treatment - Large Retail Space													
Location:		PostCarbon													
Sample ID:	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	Post Carbon	Post Carbon	Post Carbon	Post Carbon	POST-CARBON	
Sample Date:	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	9/8/2021	3/29/2022	9/15/2022	3/17/2023	2/20/2024	
Analyte	Units														
1,1,1,2-Tetrachloroethane	ug/m3	--	--	1.2 U	2.5 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.44 U	1.2 U	2.5 U	--	
1,1,1-Trichloroethane	ug/m3	0.56	450	380	740	0.55 U	2.3	2.4	840	730	0.55 U	0.19 U	0.55 U	1.1 U	76
1,1,2,2-Tetrachloroethane	ug/m3	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	0.24 U	0.69 U	1.4 U	0.69 U
1,1,2-Trichloroethane	ug/m3	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	0.19 U	0.55 U	1.1 U	0.55 U
1,1-Dichloroethane	ug/m3	370	610	21	80	0.4 U	2.8	17	62	16	52	0.62	18	6.5	46
1,1-Dichloroethene	ug/m3	78	87	3.8	30	0.4 U	9.8	9.1	41	9.8	37	0.42	8.1	3	34
1,2,4-Trichlorobenzene	ug/m3	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	1.5 U	0.52 U	0.74 U	1.5 U	0.74 U
1,2,4-Trimethylbenzene	ug/m3	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	0.17 U	0.49 U	0.98 U	0.49 U
1,2-Dibromoethane (EDB)	ug/m3	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	0.27 U	0.77 U	1.5 U	0.77 U
1,2-Dichlorobenzene	ug/m3	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	0.21 U	0.6 U	1.2 U	0.6 U
1,2-Dichloroethane	ug/m3	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	0.14 U	0.4 U	0.81 U	0.4 U
1,2-Dichloropropane	ug/m3	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	0.16 U	0.46 U	0.92 U	0.46 U
1,2-Dichlorotetrafluoroethane	ug/m3	0.35 U	0.35 U	--	--	--	--	--	--	--	--	--	--	--	0.7 U
1,3,5-Trimethylbenzene	ug/m3	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	0.17 U	0.49 U	0.98 U	0.49 U
1,3-Butadiene	ug/m3	0.23 U	0.23 U	0.22 U	0.44 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.077 U	0.22 U	0.44 U	0.22 U
1,3-Dichlorobenzene	ug/m3	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	0.21 U	0.6 U	1.2 U	0.6 U
1,4-Dichlorobenzene	ug/m3	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	0.21 U	0.6 U	1.2 U	0.6 U
1,4-Dioxane	ug/m ³	--	--	--	--	--	--	--	--	--	--	--	--	--	3.6 U
2-Butanone	ug/m3	1.9	2	2.5 J	0.52 J	12 U	27	1.9 J	12 U	12 U	12 U	4.1 U	12 U	24 U	12 U
2-Hexanone	ug/m3	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	0.82 U	0.29 U	0.41 U	0.82 U	0.41 U
4-Ethyltoluene	ug/m3	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	0.17 U	0.49 U	0.98 U	0.49 U
4-Methyl-2-pentanone	ug/m3	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	0.14 U	0.41 U	0.82 U	0.41 U
Acetone	ug/m3	3.6	5.7	21	19 U	3.5 J	71	10	9.5 U	6.8 J	9.5 U	6.8	9.5 U	19 U	9.5 U
Benzene	ug/m3	0.16 U	0.16 U	0.33	0.55 J	1.2	1.6	0.32 U	0.32 U	0.12 J	0.32 U	0.2	0.32 U	0.64 U	0.32 U
Benzyl chloride	ug/m3	0.26 U	0.26 U	0.52 U	1 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.18 U	1 U	1 U	0.52 U
Bromodichloromethane	ug/m3	0.33 U	0.33 U	0.67 U	1.3 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.67 U	0.23 U	0.67 U	1.3 U	0.67 U
Bromoform	ug/m3	0.51 U	0.51 U	1 U	2.1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.36 U	1 U	2.1 U	1 U
Bromomethane	ug/m3	0.19 U	0.19 U	0.39 U	0.78 U	0.39 U	3.9 U	0.78 U	0.39 U	0.39 U	0.39 U	0.14 U	0.39 U	0.78 U	0.39 U
Carbon disulfide	ug/m3	0.16 U	0.2	3.1 U	6.2 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	1.1 U	3.1 U	6.2 U	3.1 U
Carbon tetrachloride	ug/m3	0.31 U	0.31 U	0.35 J	1.3 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.22 U	0.63 U	1.3 U	0.63 U
Chlorobenzene	ug/m3	0.23 U	0.23 U	0.46 U	0.92 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	0.92 U	0.46 U
Chloroethane	ug/m3	19	10	0.26 U	0.53 U	0.53 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.092 U	0.26 U	0.53 U	0.26 U
Chloroform	ug/m3	0.24 U	6.8	1.2	6.5	1.2	0.49 U	0.49 U	3.7	3	0.58	0.17 U	0.9	0.98 U	4.5
Chloromethane	ug/m3	0.1 U	0.1 U	0.41 U	0.83 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.41 U	0.14 U	0.41 U	0.83 U	1.1
cis-1,2-Dichloroethene	ug/m3	230	570	8.7	54	1.2	2.3	9.4	40	17	40	0.4	10	3.3	19
cis-1,3-Dichloropropene	ug/m3	0.22 U	0.22 U	0.45 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.91 U	0.45 U
Cyclohexane	ug/m3	0.17 U	0.17 U	0.34 U	0.69 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.12 U	0.34 U	0.69 U	0.34 U
Dibromochloromethane	ug/m3	0.43 U	0.43 U	0.85 U	1.7 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.3 U	0.85 U	1.7 U	0.85 U
Dichlorodifluoromethane	ug/m3	1.7	1.9	2	2.2	0.49 U	0.49 U	1.6	0.49 U	0.49 U	0.49 U	0.72	0.49 U	0.99 U	1.5
Ethanol	ug/m3	0.38 U	2.8	4.7 J	15 U	11	360	6.8 J	6 J	9.7	2.3 J	83	6 J	12 J	7.5 U
Ethyl acetate	ug/m3	0.18 U	0.18 U	0.36 U	1.4 U	0.36 U	180	0.36 U	3.6 U	3.6 U	3.6 U	1.4	3.6 U	7.2 U	3.6 U
Ethylbenzene	ug/m3	0.22 U	0.22 U	0.43 U	0.87 U	1.1	33	0.43 U	0.43 U	0.43 U	0.43 U	0.15 U	0.43 U	0.87 U	0.43 U
Hexachlorobutadiene	ug/m3	0.53 U	0.53 U	1.1 U	2.1 U	2.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.37 U	1.1 U	2.1 U	1.1 U
Hexane	ug/m3	0.18 U	0.23	0.74 J	28 U	14 U	14 U	14 U	14 U	1.4 J	14 U	2.1 J	14 U	28 U	14 U
Isopropyl alcohol	ug/m3	0.25 U	1.4	9.8 U	20 U	9.8 U	230	1.5 J	9.8 U	9.8 U	5.7 J	2.2 J	9.8 U	20 U	9.8 U
m,p-Xylene	ug/m3	0.43 U	0.43 U	0.87 U	1.7 U	2.4	120	0.87 U	0.87 U	0.87 U	0.87 U	0.3 U	0.87 U	1.7 U	0.87 U
Methyl methacrylate	ug/m3	--	--	0.41 U	0.82 U	0.41 U	0.41 U	0.41 U	--	0.41 U	0.41 U	0.14 U	0.41 U	0.82 U	--
Methylene chloride	ug/m3	0.7 U	0.72	0.55 J	6.9 U	1.2 J	10	0.75 J	3.5 U	14	3.5 U	14	3.5 U	6.9 U	3.5 U
Methyl-t-butyl ether	ug/m3	0.18 U	0.18 U	0.36 U	0.72 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.13 U	0.36 U	0.72 U	0.36 U
Naphthalene	ug/m ³	--	--	--	--	--	--	--	0.52 U	--	--	--	--	--	0.52 U
n-Heptane	ug/m3	0.2 U	0.2 U	0.41 U	0.82 U	0.41 U	15	0.41 U	0.41 U	0.41 U	0.41 U	0.14 U	0.41 U	0.82 U	0.41 U
o-Xylene	ug/m3	0.22 U	0.22 U	0.43 U	0.87 U	1.2	36	0.43 U	0.43 U	0.43 U	0.43 U	0.15 U	0.43 U	0.87 U	0.43 U
Propylene (Propene)	ug/m3	0.35 U	0.35 U	2.1 J	14 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	2.4 U	6.9 U	14 U	6.9 U
Styrene	ug/m3	0.21 U	0.21 U	0.43 U	0.85 U	0.43 U	10	0.43 U	0.43 U	0.43 U	0.43 U	0.15 U	0.43 U	0.85 U	0.43 U
Tetrachloroethene	ug/m3	0.52	1.9	19	3	10	7.7	7	3.1	1.9	1.2	0.24 U	0.68 U	1.4 U	0.75
Tetrahydrofuran	ug/m3	4.1	6.5	0.35	0.59 U	0.29 U	0.29 U	0.29 U	2.9 U	2.9 U	2.9 U	1 U	2.9 U	5.9 U	2.9 U
Toluene	ug/m3	0.19 U	0.36	0.28 J	0.39 J	2.1	340	0.38 U	0.19 J	0.23 J	0.45	0.27	0.52	0.75 U	0.38 U
Total VOCs	ug/m3	898.35	1984.36	749.38	2796.9	43.43	1672.78	172.4	2425.99	1460.36	420.72	115.73	116.52	54.8	343.29
trans-1,2-Dichloroethene	ug/m3	7.7	15	0.18 J	1.2	0.93 J	0.78	0.4 U	0.4 U	0.41	0.86	0.14 U	0.4 U	0.79 U	0.44
trans-1,3-Dichloropropene	ug/m3	0.22 U	0.22 U	0.45 U	0.91 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.16 U	0.45 U	0.91 U	0.45 U
Trichloroethene	ug/m3	1	1	250	1600	8.2	11	5.9	1200	600	0.63	0.19 U	0.54 U	1.1 U	0.54 U
Trichlorofluoromethane	ug/m3	180	210	42	280	2.2 J	44	110	230	50	280	3.6	73	30	160
Trichlorotrifluoroethane	ug/m3	0.38 U	0.51	0.74 J	0.64 J	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	1.1 U	3.1 U	6.1 U	3.1 U
Vinyl acetate	ug/m3	0.71 U	0.71 U	0.8 J	0.49 J	7 U	7 U	7 U	7 U	7 U	7 U	2.5 U	7 U	14 U	7 U
Vinyl chloride	ug/m3	0.13 U	0.13 U	0.26 U	0.51 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.089 U	0.26 U	0.51 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
 -- Compound not analyzed.

Prepared By: AKN, 3/13/2024
 Checked By: MM, 3/13/2024