



October 3, 2017

Jennifer Schkirkie
105 Warren Street
Portage, WI 53901

**Subject: Vapor Intrusion Sampling Results – 105 Warren Street, Portage, Wisconsin
BRRTS: 02-11-512824**

Dear Ms. Schkirkie:

In accordance with the executed Agreement to Provide Access for Sampling Activities, and in accordance with Wisconsin Department of Natural Resources (WDNR) regulation NR 716.14, EnviroForensics, LLC. (EnviroForensics) is providing the results of environmental samples collected from your property located at 105 Warren Street in Portage, Wisconsin. The samples were collected on September 6 - 7, 2017. The sampling activities are part of an environmental investigation being performed for the Portage Cleaners facility located at 104 West Wisconsin Street in Portage at the direction of the WDNR pursuant to the authority granted to it under State and Federal law. The chemicals of concern for the investigation are the dry cleaning solvent tetrachloroethene (PCE) and its associated breakdown products.

The Responsible Party is:

Portage Cleaners
104 West Wisconsin Street
Portage, WI

Sampling Results

Two indoor air samples designated 6493-105 Warren St.-IA-B and 6493-105 Warren St.-IA-1 were collected from within the basement and first floor, respectively. For quality control purposes a sample of outdoor ambient air designated 6493-OA-1 was also collected. Additionally, one (1) sub-slab vapor sample designated 6493-105 Warren St.-SSV-1 was collected from beneath the basement floor of your building. The sampling locations are depicted on the attached **Figure 1**. The results of the vapor samples are summarized and compared to WDNR standards on the attached **Table 1**. A copy of the laboratory report that relates to the vapor samples is also attached.



Indoor air samples 6493-105 Warren St.-IA-B and 6493-105 Warren St.-IA-1 contained trichlorethene (TCE) at concentrations of 55.3 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and 76.4 $\mu\text{g}/\text{m}^3$, respectively, which exceed the Vapor Action Level (VAL) of 2.1 $\mu\text{g}/\text{m}^3$ for TCE detected within residential buildings. PCE and TCE were detected in the sub-slab vapor sample, but at a concentration below the Vapor Risk Screening Level (VRSL).

Even though TCE was detected in the indoor air samples at concentrations exceeding the VAL, the concentration in the sub-slab vapor sample is below the VRSL. Therefore, there may be an unidentified source within the home.

At this time, we recommend a follow up sample event with a more thorough chemical inventory of your home to better understand these results. We will contact you to schedule the next event. If you have any questions or concerns, please contact us at 262-510-0612 or by email at rhoverman@enviroforensics.com. The WDNR project manager, Jeff Ackerman, can be reached at 608-275-3323. We greatly appreciate your help and patience with this matter.

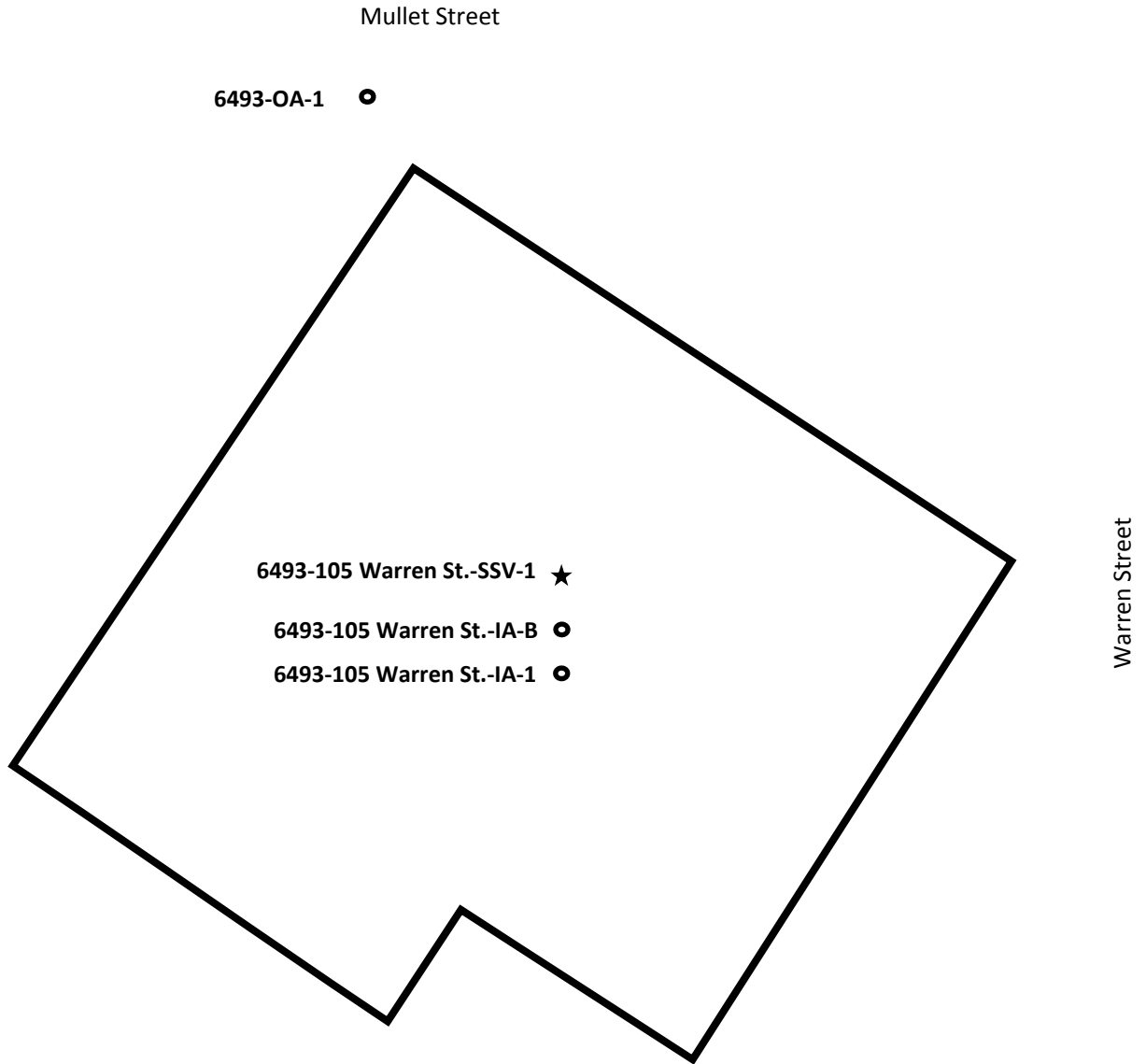
Sincerely,
EnviroForensics, LLC

Rob Hoverman, LPG
Senior Project Manager

Attachments: Figure 1 – Vapor Intrusion Sampling Locations
Table 1 – Vapor Intrusion Assessment Results Summary
Laboratory Analytical Report

Copy: Jeff Ackerman, Wisconsin Department of Natural Resources

FIGURE 1
VAPOR INTRUSION SAMPLE LOCATIONS
105 Warren Street, Portage Wisconsin



Legend

- = Indoor/Outdoor Air Sample
- IA-B = Basement
- IA-1 = 1st Floor
- SSV-1 = Sub-Slab Vapor
- ★ = Sub-Slab Vapor Sampling Port Location



TABLE 1
VAPOR INTRUSION ANALYTICAL RESULTS SUMMARY - 105 WARREN STREET

Portage Cleaners
 104 W. Wisconsin St
 Portage, WI 53901

Sample Address	Sample Identification	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl chloride
INDOOR/OUTDOOR AIR							
Residential Vapor Action Limit			42	2.1	NE	NE	1.7
105 Warren St.	6493-105 Warren St-IA-B	09/07/17	<3.19	55.3	<19.8	<39.6	<1.28
	6493-105 Warren St-IA-1	09/07/17	<3.19	76.4	<19.8	<39.6	<1.28
	6493-OA-1	09/07/17	<3.19	<1.07	<19.8	<39.6	<1.28
SUB-SLAB VAPOR							
Residential Vapor Risk Screening Level			1,400	70	NE	NE	57
105 Warren St.	6493-105 Warren St-SSV-1	9/7/2017	10.9	3.28	<19.8	<39.6	<1.28

Notes:

All concentrations reported in micrograms per cubic meter = $\mu\text{g}/\text{m}^3$

Samples analyzed according to EPA Method TO-15

The vapor risk screening levels for residential structures are calculated in accordance with the procedures described in WDNR Publication RR-800 and subsequent guidance

Only detected compounds are listed

Bolded values are above method detection limits

Bolded and blue shaded values exceed the residential Vapor Risk Screening Level

NE = Not Established

IA = Indoor Air

OA = Outdoor Air

SSV = Sub-Slab Vapor



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Mr. Rob Hoverman
Enviroforensics
N16 W. 23390 Stone Ridge Dr
Suite G
Waukesha, WI 53188

September 20, 2017

EnvisionAir Project Number: 2017-551
Client Project Name: 6493 / Portage Cleaners

Dear Mr. Hoverman,

Please find the attached analytical report for the samples received September 11, 2017. All test methods performed were fully compliant with local, state, and federal EPA methods unless otherwise noted. The project was analyzed as requested on the enclosed chain of custody record. Please review the comments section for additional information about your results or Quality Control data.

Feel free to contact me if you have any questions or comments regarding your analytical report or service.

Thank you for your business. EnvisionAir looks forward to working with you on your next project.

Yours Sincerely,

A handwritten signature in black ink that reads "Stanley A. Hunnicutt".

Stanley A Hunnicutt

Project Manager
EnvisionAir, LLC



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Client Name: ENVIROFORENSICS
Project ID: 6493 - PORTAGE CLEANERS
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2017-551

Sample Summary

Canister Pressure / Vacuum

<u>Laboratory Sample Number:</u>	<u>Sample Description:</u>	<u>Matrix:</u>	<u>START</u>	<u>START</u>	<u>End Date</u>	<u>End Time</u>	<u>Date</u>	<u>Time</u>	<u>Initial Field</u>	<u>Final Field</u>	<u>Lab</u>
			<u>Date</u>	<u>Time</u>							<u>Collected:</u>
17-2198	6493-105 WARREN ST-IA-B	A	9/6/17	10:20	9/7/17	10:10	9/11/17	10:00	-29	-5	-5
17-2199	6493-105 WARREN ST-IA-1	A	9/6/17	10:22	9/7/17	10:13	9/11/17	10:00	-29	-5	-5
17-2200	6493-105 WARREN ST-SSV-1	A	9/7/17	10:42	9/7/17	10:47	9/11/17	10:00	-29	-2	-2
17-2201	6493-OA-1-24HR	A	9/6/17	10:32	9/7/17	10:15	9/11/17	10:00	-29	-5	-5



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Client Name: ENVIROFORENSICS
Project ID: 6493 - PORTAGE CLEANERS
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2017-551

Analytical Method: TO-15
Analytical Batch: 091317AIR

Client Sample ID: 6493-105 WARREN ST-IA-B
Envision Sample Number: 17-2198
Sample Matrix: AIR

Sample Collection START Date/Time: 9/6/17 10:20
Sample Collection END Date/Time: 9/7/17 10:10
Sample Received Date/Time: 9/11/17 10:00

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



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<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 1800	1800	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	55.3	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	112%		
Analysis Date/Time:	9-15-17/08:25		
Analyst Initials	tjg		



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Client Name: ENVIROFORENSICS
Project ID: 6493 - PORTAGE CLEANERS
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2017-551

Analytical Method: TO-15
Analytical Batch: 091317AIR

Client Sample ID: 6493-105 WARREN ST-IA-1
Envision Sample Number: 17-2199
Sample Matrix: AIR

Sample Collection START Date/Time: 9/6/17 10:22
Sample Collection END Date/Time: 9/7/17 10:13
Sample Received Date/Time: 9/11/17 10:00

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



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<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 1800	1800	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	76.4	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	113%		
Analysis Date/Time:	9-15-17/09:03		
Analyst Initials	tjg		



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Client Name: ENVIROFORENSICS
Project ID: 6493 - PORTAGE CLEANERS
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2017-551

Analytical Method: TO-15
Analytical Batch: 091817AIR

Client Sample ID: 6493-105 WARREN ST-SSV- **Sample Collection START Date/Time:** 9/7/17 10:42
Sample Collection END Date/Time: 9/7/17 10:47
Envision Sample Number: 17-2200 **Sample Received Date/Time:** 9/11/17 10:00
Sample Matrix: AIR

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



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<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 1800	1800	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	10.9	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	3.28	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	107%		
Analysis Date/Time:	9-18-17/14:06		
Analyst Initials	tjg		



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Client Name: ENVIROFORENSICS
Project ID: 6493 - PORTAGE CLEANERS
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2017-551

Analytical Method: TO-15
Analytical Batch: 091317AIR

Client Sample ID: 6493-OA-1-24HR
Envision Sample Number: 17-2201
Sample Matrix: AIR

Sample Collection START Date/Time: 9/6/17 10:32
Sample Collection END Date/Time: 9/7/17 10:15
Sample Received Date/Time: 9/11/17 10:00

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
4-Ethyltoluene	< 492	492	
4-Methyl-2-pentanone (MIBK)	< 2050	2050	
1,1,1-Trichloroethane	< 546	546	
1,1,2,2-Tetrachloroethane	< 0.34	0.34	1
1,1,2-Trichloroethane	< 0.21	0.21	1
1,1-Dichloroethane	< 4.05	4.05	
1,1-Dichloroethene	< 198	198	
1,2,4-Trichlorobenzene	< 0.74	0.74	
1,2,4-Trimethylbenzene	< 4.92	4.92	
1,2-dibromoethane (EDB)	< 0.03	0.03	1
1,2-Dichlorobenzene	< 60.1	60.1	
1,2-Dichloroethane	< 0.40	0.40	
1,2-Dichloropropane	< 0.46	0.46	
1,3,5-Trimethylbenzene	< 4.92	4.92	
1,3-Butadiene	< 0.22	0.22	
1,3-Dichlorobenzene	< 60.1	60.1	
1,4-Dichlorobenzene	< 0.60	0.60	
1,4-Dioxane	< 1.80	1.80	
2-Butanone (MEK)	< 2950	2950	
2-Hexanone	< 20.5	20.5	
Acetone	< 2380	2380	
Benzene	< 1.60	1.60	
Benzyl Chloride	< 0.41	0.41	1
Bromodichloromethane	< 0.54	0.54	1
Bromoform	< 10.3	10.3	
Bromomethane	< 3.88	3.88	
Carbon Disulfide	< 311	311	
Carbon Tetrachloride	< 0.63	0.63	
Chlorobenzene	< 23.0	23.0	
Chloroethane	< 13.2	13.2	



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<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
Chloroform	< 0.83	0.83	
Chloromethane	< 20.6	20.6	
cis-1,2-Dichloroethene	< 19.8	19.8	
cis-1,3-Dichloropropene	< 4.54	4.54	
Cyclohexane	< 5510	5510	
Dibromochloromethane	< 0.85	0.85	
Dichlorodifluoromethane	< 49.5	49.5	
Ethyl Acetate	< 1800	1800	
Ethylbenzene	< 8.68	8.68	
Hexachloro-1,3-butadiene	< 1.07	1.07	
Isooctane	< 467	467	
m,p-Xylene	< 43.4	43.4	
Methylene Chloride	< 41.7	41.7	
Methyl-tert-butyl ether	< 36.1	36.1	
N-Heptane	< 410	410	
N-Hexane	< 176	176	
o-Xylene	< 43.4	43.4	
Propylene	< 172	172	
Styrene	< 426	426	
Tetrachloroethene	< 3.19	3.19	
Tetrahydrofuran	< 295	295	
Toluene	< 3770	3770	
trans-1,2-Dichloroethene	< 39.6	39.6	
trans-1,3-Dichloropropene	< 4.54	4.54	
Trichloroethene	< 1.07	1.07	
Trichlorofluoromethane	< 562	562	
Vinyl Acetate	< 176	176	
Vinyl Bromide	< 0.44	0.44	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	105%		
Analysis Date/Time:	9-15-17/05:52		
Analyst Initials	tjg		

TO-15 Quality Control Data

EnvisionAir Batch Number: 091317AIR

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>
4-Ethyltoluene	< 100	100	
4-Methyl-2-pentanone (MIBK)	< 500	500	
1,1,1-Trichloroethane	< 100	100	
1,1,2,2-Tetrachloroethane	< 0.049	0.049	1
1,1,2-Trichloroethane	< 0.038	0.038	1
1,1-Dichloroethane	< 1	1	
1,1-Dichloroethene	< 50	50	
1,2,4-Trichlorobenzene	< 0.1	0.1	
1,2,4-Trimethylbenzene	< 1	1	
1,2-dibromoethane (EDB)	< 0.0041	0.0041	1
1,2-Dichlorobenzene	< 10	10	
1,2-Dichloroethane	< 0.1	0.1	
1,2-Dichloropropane	< 0.1	0.1	
1,3,5-Trimethylbenzene	< 1	1	
1,3-Butadiene	< 0.1	0.1	
1,3-Dichlorobenzene	< 10	10	
1,4-Dichlorobenzene	< 0.1	0.1	
1,4-Dioxane	< 0.5	0.5	
2-Butanone (MEK)	< 1000	1000	
2-Hexanone	< 5	5	
Acetone	< 1000	1000	
Benzene	< 0.5	0.5	
Benzyl Chloride	< 0.08	0.08	1
Bromodichloromethane	< 0.08	0.08	1
Bromoform	< 1	1	
Bromomethane	< 1	1	
Carbon Disulfide	< 100	100	
Carbon Tetrachloride	< 0.1	0.1	
Chlorobenzene	< 5	5	
Chloroethane	< 5	5	
Chloroform	< 0.17	0.17	
Chloromethane	< 10	10	
cis-1,2-Dichloroethene	< 5	5	
cis-1,3-Dichloropropene	< 1	1	
Cyclohexane	< 1600	1600	
Dibromochloromethane	< 0.1	0.1	
Dichlorodifluoromethane	< 10	10	
Ethyl Acetate	< 500	500	
Ethylbenzene	< 2	2	
Hexachloro-1,3-butadiene	< 0.1	0.1	
Isooctane	< 100	100	
m,p-Xylene	< 10	10	
Methylene Chloride	< 12	12	
Methyl-tert-butyl ether	< 10	10	
N-Heptane	< 100	100	
N-Hexane	< 50	50	
o-Xylene	< 10	10	
Propylene	< 100	100	
Styrene	< 100	100	
Tetrachloroethene	< 0.47	0.47	
Tetrahydrofuran	< 100	100	

Analytical Report

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>
Toluene	< 1000	1000	
trans-1,2-Dichloroethene	< 10	10	
trans-1,3-Dichloropropene	< 1	1	
Trichloroethene	< 0.2	0.2	
Trichlorofluoromethane	< 100	100	
Vinyl Acetate	< 50	50	
Vinyl Bromide	< 0.1	0.1	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	96%		
Analysis Date/Time:	9-15-17/03:22		
Analyst Initials	tjg		

<u>LCS/LCSD</u>	<u>LCS Results (ppbv)</u>	<u>LCSD Results (ppbv)</u>	<u>LCS/D Conc(ppbv)</u>	<u>LCS Rec.</u>	<u>LCSD Rec.</u>	<u>RPD</u>	<u>Flag</u>
Propylene	10.6	11.1	10	106%	111%	4.6%	
Dichlorodifluoromethane	10.4	10.2	10	104%	102%	1.9%	
Chloromethane	10.1	9.58	10	101%	96%	5.3%	
Vinyl Chloride	10.8	10.7	10	108%	107%	0.9%	
1,3-Butadiene	11.4	10.9	10	114%	109%	4.5%	
Bromomethane	11.4	10.8	10	114%	108%	5.4%	
Chloroethane	9.86	9.37	10	99%	94%	5.1%	
Vinyl Bromide	11.6	11	10	116%	110%	5.3%	
Trichlorofluoromethane	10.5	9.8	10	105%	98%	6.9%	
Acetone	11.3	11.1	10	113%	111%	1.8%	
1,1-Dichloroethene	10.8	10.6	10	108%	106%	1.9%	
Methylene Chloride	8.41	8.4	10	84%	84%	0.1%	
Carbon Disulfide	9.01	8.84	10	90%	88%	1.9%	
trans-1,2-Dichloroethene	9.26	9.2	10	93%	92%	0.7%	
Methyl-tert-butyl ether	11.7	11.2	10	117%	112%	4.4%	
1,1-Dichloroethane	9.26	9.35	10	93%	94%	1.0%	
Vinyl Acetate	9.4	9.6	10	94%	96%	2.1%	
N-Hexane	8	8.13	10	80%	81%	1.6%	
2-Butanone (MEK)	8.83	8.79	10	88%	88%	0.5%	
cis-1,2-Dichloroethene	9.78	9.41	10	98%	94%	3.9%	
Ethyl Acetate	8.77	8.73	10	88%	87%	0.5%	
Chloroform	10.4	10.2	10	104%	102%	1.9%	
Tetrahydrofuran	8.79	8.8	10	88%	88%	0.1%	
1,2-Dichloroethane	11.6	11.7	10	116%	117%	0.9%	
1,1,1-Trichloroethane	11.9	12	10	119%	120%	0.8%	
Carbon Tetrachloride	10.4	9.88	10	104%	99%	5.1%	
Benzene	8.98	9.1	10	90%	91%	1.3%	
Cyclohexane	8.98	9.17	10	90%	92%	2.1%	
1,2-Dichloropropane	9.32	9.53	10	93%	95%	2.2%	
Trichloroethene	10.5	10.7	10	105%	107%	1.9%	
Bromodichloromethane	10.8	10.7	10	108%	107%	0.9%	
1,4-Dioxane	8.79	9.33	10	88%	93%	6.0%	
Isooctane	8.06	9.03	10	81%	90%	11.4%	
N-Heptane	9.68	9.71	10	97%	97%	0.3%	
cis-1,3-Dichloropropene	10	10.1	10	100%	101%	1.0%	
4-Methyl-2-pentanone (MIBK)	10.4	10.6	10	104%	106%	1.9%	
trans-1,3-Dichloropropene	9.87	9.84	10	99%	98%	0.3%	
1,1,2-Trichloroethane	9.95	10.2	10	100%	102%	2.5%	
Toluene	9.26	9.52	10	93%	95%	2.8%	
2-Hexanone	9.23	9.44	10	92%	94%	2.2%	
Dibromochloromethane	11	10.8	10	110%	108%	1.8%	
1,2-dibromoethane (EDB)	9.6	9.63	10	96%	96%	0.3%	
Tetrachloroethene	10	9.92	10	100%	99%	0.8%	
Chlorobenzene	8.92	8.83	10	89%	88%	1.0%	
Ethylbenzene	8.85	8.86	10	89%	89%	0.1%	
m,p-Xylene	18.7	18.5	20	94%	93%	1.1%	
Bromoform	11.1	10.8	10	111%	108%	2.7%	

Analytical Report

<u>LCS/LCSD</u>	<u>LCS Results (ppbv)</u>	<u>LCSD Results (ppbv)</u>	<u>LCS/D Conc(ppbv)</u>	<u>LCS Rec.</u>	<u>LCSD Rec.</u>	<u>RPD</u>	<u>Flag</u>
Styrene	9.82	9.76	10	98%	98%	0.6%	
1,1,2,2-Tetrachloroethane	8.8	8.89	10	88%	89%	1.0%	
o-Xylene	9.57	9.74	10	96%	97%	1.8%	
4-Ethyltoluene	9.92	9.87	10	99%	99%	0.5%	
1,3,5-Trimethylbenzene	9.59	9.48	10	96%	95%	1.2%	
1,2,4-Trimethylbenzene	9.98	9.93	10	100%	99%	0.5%	
1,3-Dichlorobenzene	9.62	9.26	10	96%	93%	3.8%	
Benzyl Chloride	9.05	8.93	10	91%	89%	1.3%	
1,4-Dichlorobenzene	8.3	8.34	10	83%	83%	0.5%	
1,2-Dichlorobenzene	10.2	9.98	10	102%	100%	2.2%	
1,2,4-Trichlorobenzene	10.5	10.4	10	105%	104%	1.0%	
Hexachloro-1,3-butadiene	11.8	11.4	10	118%	114%	3.4%	
4-bromofluorobenzene (surrogate)	112%	111%					
Analysis Date/Time:	9-15-17/02:06	9-15-17/02:47					
Analyst Initials	tjg	tjg					

TO-15 Quality Control Data

EnvisionAir Batch Number: 091817AIR

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>
4-Ethyltoluene	< 100	100	
4-Methyl-2-pentanone (MIBK)	< 500	500	
1,1,1-Trichloroethane	< 100	100	
1,1,2,2-Tetrachloroethane	< 0.049	0.049	1
1,1,2-Trichloroethane	< 0.038	0.038	1
1,1-Dichloroethane	< 1	1	
1,1-Dichloroethene	< 50	50	
1,2,4-Trichlorobenzene	< 0.1	0.1	
1,2,4-Trimethylbenzene	< 1	1	
1,2-dibromoethane (EDB)	< 0.0041	0.0041	1
1,2-Dichlorobenzene	< 10	10	
1,2-Dichloroethane	< 0.1	0.1	
1,2-Dichloropropane	< 0.1	0.1	
1,3,5-Trimethylbenzene	< 1	1	
1,3-Butadiene	< 0.1	0.1	
1,3-Dichlorobenzene	< 10	10	
1,4-Dichlorobenzene	< 0.1	0.1	
1,4-Dioxane	< 0.5	0.5	
2-Butanone (MEK)	< 1000	1000	
2-Hexanone	< 5	5	
Acetone	< 1000	1000	
Benzene	< 0.5	0.5	
Benzyl Chloride	< 0.08	0.08	1
Bromodichloromethane	< 0.08	0.08	1
Bromoform	< 1	1	
Bromomethane	< 1	1	
Carbon Disulfide	< 100	100	
Carbon Tetrachloride	< 0.1	0.1	
Chlorobenzene	< 5	5	
Chloroethane	< 5	5	
Chloroform	< 0.17	0.17	
Chloromethane	< 10	10	
cis-1,2-Dichloroethene	< 5	5	
cis-1,3-Dichloropropene	< 1	1	
Cyclohexane	< 1600	1600	
Dibromochloromethane	< 0.1	0.1	
Dichlorodifluoromethane	< 10	10	
Ethyl Acetate	< 500	500	
Ethylbenzene	< 2	2	
Hexachloro-1,3-butadiene	< 0.1	0.1	
Isooctane	< 100	100	
m,p-Xylene	< 10	10	
Methylene Chloride	< 12	12	
Methyl-tert-butyl ether	< 10	10	
N-Heptane	< 100	100	
N-Hexane	< 50	50	
o-Xylene	< 10	10	
Propylene	< 100	100	
Styrene	< 100	100	
Tetrachloroethene	< 0.47	0.47	
Tetrahydrofuran	< 100	100	

Analytical Report

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>
Toluene	< 1000	1000	
trans-1,2-Dichloroethene	< 10	10	
trans-1,3-Dichloropropene	< 1	1	
Trichloroethene	< 0.2	0.2	
Trichlorofluoromethane	< 100	100	
Vinyl Acetate	< 50	50	
Vinyl Bromide	< 0.1	0.1	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	95%		
Analysis Date/Time:	9-18-17/18:20		
Analyst Initials	tjg		

<u>LCS/LCSD</u>	<u>LCS Results (ppbv)</u>	<u>LCSD Results (ppbv)</u>	<u>LCS/D Conc(ppbv)</u>	<u>LCS Rec.</u>	<u>LCSD Rec.</u>	<u>RPD</u>	<u>Flag</u>
Propylene	8.68	8.72	10	87%	87%	0.5%	
Dichlorodifluoromethane	10.7	10.2	10	107%	102%	4.8%	
Chloromethane	9.65	9.34	10	97%	93%	3.3%	
Vinyl Chloride	9.76	10.5	10	98%	105%	7.3%	
1,3-Butadiene	10.2	10.9	10	102%	109%	6.6%	
Bromomethane	10.5	10.9	10	105%	109%	3.7%	
Chloroethane	9.3	10.2	10	93%	102%	9.2%	
Vinyl Bromide	10.9	11.3	10	109%	113%	3.6%	
Trichlorofluoromethane	12	11.3	10	120%	113%	6.0%	
Acetone	10.7	11	10	107%	110%	2.8%	
1,1-Dichloroethene	10	10.4	10	100%	104%	3.9%	
Methylene Chloride	8.95	9.21	10	90%	92%	2.9%	
Carbon Disulfide	9.27	9.65	10	93%	97%	4.0%	
trans-1,2-Dichloroethene	9.85	10	10	99%	100%	1.5%	
Methyl-tert-butyl ether	11.1	10.9	10	111%	109%	1.8%	
1,1-Dichloroethane	9.4	9.6	10	94%	96%	2.1%	
Vinyl Acetate	9.7	10	10	97%	100%	3.0%	
N-Hexane	8.71	9.15	10	87%	92%	4.9%	
2-Butanone (MEK)	9.39	9.92	10	94%	99%	5.5%	
cis-1,2-Dichloroethene	9.76	9.71	10	98%	97%	0.5%	
Ethyl Acetate	9.36	9.54	10	94%	95%	1.9%	
Chloroform	9.91	9.92	10	99%	99%	0.1%	
Tetrahydrofuran	8.89	9.79	10	89%	98%	9.6%	
1,2-Dichloroethane	9.7	10	10	97%	100%	3.0%	
1,1,1-Trichloroethane	10.3	10.3	10	103%	103%	0.0%	
Carbon Tetrachloride	10.5	10.4	10	105%	104%	1.0%	
Benzene	9.48	9.67	10	95%	97%	2.0%	
Cyclohexane	9.32	9.75	10	93%	98%	4.5%	
1,2-Dichloropropane	9.64	10.2	10	96%	102%	5.6%	
Trichloroethene	9.96	10.4	10	100%	104%	4.3%	
Bromodichloromethane	9.61	10	10	96%	100%	4.0%	
1,4-Dioxane	9.65	11.5	10	97%	115%	17.5%	
Isooctane	8.39	8.54	10	84%	85%	1.8%	
N-Heptane	9.34	9.82	10	93%	98%	5.0%	
cis-1,3-Dichloropropene	9.8	10.2	10	98%	102%	4.0%	
4-Methyl-2-pentanone (MIBK)	9.83	10.2	10	98%	102%	3.7%	
trans-1,3-Dichloropropene	9.72	10.1	10	97%	101%	3.8%	
1,1,2-Trichloroethane	9.87	10.5	10	99%	105%	6.2%	
Toluene	9.27	9.67	10	93%	97%	4.2%	
2-Hexanone	9.45	10	10	95%	100%	5.7%	
Dibromochloromethane	9.71	9.77	10	97%	98%	0.6%	
1,2-dibromoethane (EDB)	9.39	9.47	10	94%	95%	0.8%	
Tetrachloroethene	9.35	9.39	10	94%	94%	0.4%	
Chlorobenzene	8.85	9.01	10	89%	90%	1.8%	
Ethylbenzene	8.24	8.27	10	82%	83%	0.4%	
m,p-Xylene	17	17.2	20	85%	86%	1.2%	
Bromoform	9.84	9.74	10	98%	97%	1.0%	

Analytical Report

<u>LCS/LCSD</u>	<u>LCS Results (ppbv)</u>	<u>LCSD Results (ppbv)</u>	<u>LCS/D Conc(ppbv)</u>	<u>LCS Rec.</u>	<u>LCSD Rec.</u>	<u>RPD</u>	<u>Flag</u>
Styrene	9.64	9.99	10	96%	100%	3.6%	
1,1,2,2-Tetrachloroethane	8.07	8.43	10	81%	84%	4.4%	
o-Xylene	8.7	9.02	10	87%	90%	3.6%	
4-Ethyltoluene	8.84	8.79	10	88%	88%	0.6%	
1,3,5-Trimethylbenzene	8.02	8.33	10	80%	83%	3.8%	
1,2,4-Trimethylbenzene	8.6	8.64	10	86%	86%	0.5%	
1,3-Dichlorobenzene	9.13	9.21	10	91%	92%	0.9%	
Benzyl Chloride	9.48	9.98	10	95%	100%	5.1%	
1,4-Dichlorobenzene	8.48	8.84	10	85%	88%	4.2%	
1,2-Dichlorobenzene	9.67	9.59	10	97%	96%	0.8%	
1,2,4-Trichlorobenzene	12.2	11.6	10	122%	116%	5.0%	
Hexachloro-1,3-butadiene	11.3	11.5	10	113%	115%	1.8%	
4-bromofluorobenzene (surrogate)	104%	102%					
Analysis Date/Time:	9-18-17/15:51	9-18-17/17:03					
Analyst Initials	tjg	tjg					



EnvisionAir
1441 Sadler Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
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www.envision-air.com

Flag Number

1

Comments

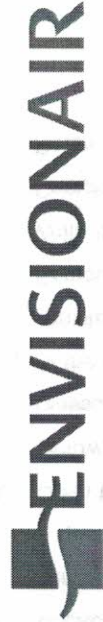
Reporting limit is supported by MDL. TJG

CHAIN OF CUSTODY RECORD

EnvisionAir | 1441 Sadlier Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

Client: <u>EnviroForensics</u>	P.O. Number: <u>2017-1283</u>
Report <u>1216 W23500 Stone Ridge Pt</u>	Project Name or Number: <u>6493</u>
Address: <u>Site Gr. Whiteaker W5 S3188</u>	<u>Partage Cleaners</u>
Report To: <u>R. Heinstead / K. Heinstead</u>	Sampled by: <u>K. Heinstead</u>
Phone: <u>317-972-7870</u>	QA/QC Required: (circle if applicable) Level III Level IV
Invoice Address:	Reporting Units needed: (circle) mg/m ³ PPBV PPMV

Desired TAT: (Please Circle One)
 1 day 2 days 3 days 5 (bus-days)
 Media type: 1LC = 1 Liter Canister
 6LC = 6 Liter Canister
 TB = Tedlar Bag
 TD = Thermal Description Tube



Sampling Type:
 Soil-Gas:
 Sub-Slab:
 Indoor-Air:

www.envision-air.com

REQUESTED PARAMETERS

TO-15 Full List	TO-15 Short List
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Air Sample ID	Media Type (see code above)	Coll. Date (Grab/Comp Start)	Coll. Time (Grab/Comp Start)	Coll. Date (Comp. End)	Coll. Time (Comp. End)		Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
<u>6493-105 Warren St-TA-B</u>	<u>6LC</u>	<u>9/6/17</u>	<u>1020</u>	<u>9/7/17</u>	<u>1010</u>	<input checked="" type="checkbox"/>	<u>14114</u>	<u>07254</u>	<u>-29</u>	<u>-5</u>		<u>17-2198</u>
<u>6493-105 Warren St-TA-C</u>	<u>6LC</u>	<u>9/6/17</u>	<u>1022</u>	<u>9/7/17</u>	<u>1013</u>	<input checked="" type="checkbox"/>	<u>91607</u>	<u>05217</u>	<u>-29</u>	<u>-5</u>		<u>17-2199</u>
<u>6493-105 Warren St-SSU-1</u>	<u>1LC</u>	<u>9/7/17</u>	<u>1042</u>	<u>9/7/17</u>	<u>1047</u>	<input checked="" type="checkbox"/>	<u>83818</u>	<u>-</u>	<u>-29</u>	<u>-2</u>		<u>17-2200</u>
<u>6493-OA-1-24 Hr</u>	<u>6LC</u>	<u>9/6/17</u>	<u>1032</u>	<u>9/7/17</u>	<u>1015</u>	<input checked="" type="checkbox"/>	<u>19565</u>	<u>07458</u>	<u>-29</u>	<u>-5</u>		<u>17-2201</u>

Comments:

Relinquished by: <u>[Signature]</u>	Date: <u>9/8/17</u>	Received by: <u>Paul Ex</u>	Date: <u>9/8/17</u>
			Time: <u>1000</u>