

December 30, 2021

Jeremy Trad 3677 East Squire Avenue Cudahy, WI 53110

Subject: Environmental Investigation Sampling Results

BRRTS#: 02-41-515150

Dear Mr. Trad:

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 3677 East Squire Avenue in Cudahy, Wisconsin. Indoor air and sub-slab vapor samples were collected on June 21-22, 2021. The sampling activities are part of an environmental investigation being performed for the former Packard Way Cleaners facility located at 3650-3652 East Barnard Avenue in Cudahy 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:

Packard Way Cleaners (former) 3650-3652 E. Barnard Ave. Cudahy, WI

Sampling Results

Two indoor air samples were collected from within your home; one (1) in the basement (6306-3677 Squire IA-B) and one (1) on the second floor (6306-3677 Squire IA-2). Additionally, one (1) sub-slab vapor sample (6306-3677 Squire-SSV-1) was collected from beneath the basement floor of your home. An outdoor sample was collected during the same period to rule out any background conditions. The sampling locations are depicted on the attached **Figure 1**. The results of the indoor air and vapor samples are summarized and compared to WDNR standards on the attached **Table 1**. A copy of the laboratory report that relates to the indoor air and vapor samples is also attached.

Document: 6306-0847 EnviroForensics, LLC

N16 W23390 Stone Ridge Dr, Suite G, Waukesha, WI 53188

Phone: 262-290-4001 • Fax 317-972-7875



PCE was detected in the sub-slab vapor sample; however the concentration was <u>below</u> the respective Vapor Risk Screening Levels established for residential buildings. No other chemicals of concern were detected in the sub-slab vapor samples. No other chemicals of concern were detected in the indoor air samples.

At this time there is not a vapor risk to your building. We will contact you to to schedule the next sampling event, if needed. 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, Issac Ross, can be reached at 414 263-8519. We greatly appreciate your help and patience with this matter.

Sincerely, **EnviroForensics, LLC**

Rob Hoverman, PG Senior Project Manager

Copy:

Connor Mulcahy, Wisconsin Department of Natural Resources

Attachments:

Figure 1 – Vapor Intrusion Sample Locations Table 1 – Vapor Intrusion Analytical Results Laboratory Analytical Report Excerpt

FIGURE 1 VAPOR INTRUSION SAMPLE LOCATIONS 3677 E Squire Avenue, Cudahy, Wisconsin

East Squire Avenue

6306-3677 Squire-IA-2
6306-3677 Squire-IA-B
6306-3677 Squire-SSV-1

South Kirkwood Avenue

6306-OA

Legend

• = Indoor/Outdoor/Sub-slab Air Sample

IA-B = Basement IA-2 = 2nd Floor





TABLE 4 VAPOR INTRUSION ANALYTICAL RESULTS

Packard Way, Ltd. 3650-3652 East Barnard Avenue Cudahy, WI

Sample Address	Consultant	Sample Identification	Sample Location	Applicable Criteria	Sample Duration	Date Sampled	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
		INDO	OOR/OUTDO	OR AIR SAM	IPLES						
		Residential Vapor Action Level					42	2.1	NE	42	1.7
		6306-3677 Squire-IA-2	2nd Floor			7/21/2021	<3.19	<1.07	<19.8	<39.6	<1.28
		0300-3077 Squite-1A-2	211d F1001			12/9/2021	<3.19	<1.07	<19.8	<39.6	<1.28
		6306-3677 Squire-IA-1	1st Floor	Residential		12/9/2021	<3.19	<1.07	<19.8	<39.6	<1.28
3677 East Squire Avenue	EnviroForensics	6306-3677 Squire-IA-B	Basement		24-Hour	7/21/2021	< 3.19	<1.07	<19.8	<39.6	<1.28
		0300-3077 Squite-IA-B	Basement			12/9/2021	<3.19	<1.07	<19.8	<39.6	<1.28
		6306-OA	Outdoors	Not Applicable		7/21/2021	<3.19	<1.07	<19.8	<39.6	<1.28
		0300-OA	Outdoors	Not Applicable		12/9/2021	<3.19	<1.07	<19.8	<39.6	<1.28
		SU	JB-SLAB VA	POR SAMPL	LES						
		Residential Vapor Risk Screening L	evel				1,400	70	NE	1400	57
3677 East Squire Avenue	EnviroForensics	6306-3677 Squire-SSV-1	Basement	Residential	Grab	7/22/2021	128	<10.7	<198	<396	<12.8
3077 East Squite Avenue	Enviror orensics	0300-3077 Squire-33 V-1	Dascillelli	Residential	Glab	12/10/2021	<31.9	<10.7	<198	<396	<12.8

Notes:

Results reported in microgragms per cubic meter ($\mu g/m^3$)

Samples analyzed according to EPA Method TO-15

Vapor Risk Screeing/Action Levels are calculated in accordance with WDNR Publication RR-800 and associated guidance documents

IA = Indoor Air

OA = Outdoor Air

SSV = Sub-slab vapor

Bolded values are above detection limits

Bolded and Blue shaded concentrations exceed the applicable residential screening level

NE = Screening/action level not established



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

December 29, 2021

EnvisionAir Project Number: 2021-605

Client Project Name: 6306 - Parkard Way Cleaners

Dear Mr. Hoverman,

Please find the attached analytical report for the samples received December 13, 2021. 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,

David Norris Project Manager EnvisionAir, LLC



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Client Name: ENVIROFORENSICS

Project ID: 6306 - PACKARD WAY CLEANERS

Client Project Manager: ROB HOVERMAN

EnvisionAir Project Number: 2021-605

Sample Summary

Canister Pressure / Vacuum

			START	START							<u>Lab</u>
			Date	Time	End Date	End Time	Date	Time	Initial Field	Final Field	Received
Laboratory Sample Number:	Sample Description:	Matrix:	Collected:	Collected:	Collected:	Collected:	Received:	Received	(in. Hg)	(in. Hg)	(in. Hg)
21-2877	6306-3677-SQUIRE-IA-2	Α	12/9/21	15:11	12/10/21	15:00	12/13/21	12:00	-29	-5	-5
21-2878	6306-3677-SQUIRE-IA-1	Α	12/9/21	15:15	12/10/21	15:15	12/13/21	12:00	-28	-1	-1
21-2879	6306-3677-SQUIRE-IA-B	Α	12/9/21	15:17	12/10/21	15:05	12/13/21	12:00	-28	-8	-8
21-2880	6306-OA	Α	12/9/21	14:05	12/10/21	14:40	12/13/21	12:00	-28	0	0
21-2881	6306-3677-SQUIRE-SV-1	Α	12/10/21	15:35	12/10/21	15:39	12/13/21	12:00	-28	-3	-3



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Client Name: ENVIROFORENSICS

Project ID: 6306 - PACKARD WAY CLEANERS

Client Project Manager: ROB HOVERMAN

EnvisionAir Project Number: 2021-605

Analytical Method: TO-15
Analytical Batch: 121321CAIR

Client Sample ID: 6306-3677 SQUIRE-IA-2 Sample Collection START Date/Time: 12/9/21 15:11

Sample Collection END Date/Time: 12/10/21 15:00

EnvisionAir Sample Number: 21-2877 Sample Received Date/Time: 12/13/21 12:00

Compounds	Sample Results ug/m ³	Reporting Limit ug/m ³	Flag
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	< 3.19	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surro	ogate) 92%		
Analysis Date/Time:	12-14-21/02:20		
Analyst Initials	tjg		



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Client Name: ENVIROFORENSICS

Project ID: 6306 - PACKARD WAY CLEANERS

Client Project Manager: ROB HOVERMAN

EnvisionAir Project Number: 2021-605

Analytical Method: TO-15
Analytical Batch: 121321CAIR

Client Sample ID: 6306-3677 SQUIRE-IA-1 Sample Collection START Date/Time: 12/9/21 15:15

Sample Collection END Date/Time: 12/10/21 15:15

EnvisionAir Sample Number: 21-2878 Sample Received Date/Time: 12/13/21 12:00

Compounds	Sample Results ug/m ³	Reporting Limit ug/m ³	<u>Flag</u>
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	< 3.19	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surro	ogate) 90%		
Analysis Date/Time:	12-14-21/03:04		
Analyst Initials	tjg		



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Client Name: ENVIROFORENSICS

Project ID: 6306 - PACKARD WAY CLEANERS

Client Project Manager: ROB HOVERMAN

EnvisionAir Project Number: 2021-605

Analytical Method: TO-15
Analytical Batch: 121321CAIR

Client Sample ID: 6306-3677 SQUIRE-IA-B Sample Collection START Date/Time: 12/9/21 15:17

Sample Collection END Date/Time: 12/10/21 15:05

EnvisionAir Sample Number: 21-2879 Sample Received Date/Time: 12/13/21 12:00

Compounds	Sample Results ug/m ³	Reporting Limit ug/m ³	<u>Flag</u>
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	< 3.19	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surro	gate) 102%		
Analysis Date/Time:	12-14-21/03:50		
Analyst Initials	tjg		



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Client Name: ENVIROFORENSICS

Project ID: 6306 - PACKARD WAY CLEANERS

Client Project Manager: ROB HOVERMAN

EnvisionAir Project Number: 2021-605

Analyst Initials

Analytical Method: TO-15
Analytical Batch: 121321CAIR

Client Sample ID: 6306-OA Sample Collection START Date/Time: 12/9/21 14:05

Sample Collection END Date/Time: 12/10/21 14:40 Sample Received Date/Time: 12/13/21 12:00

EnvisionAir Sample Number: 21-2880 Sample Received Date/Time: Sample Matrix: AIR

tjg

Sample Results ug/m³ Reporting Limit ug/m³ Compounds Flag cis-1,2-Dichloroethene < 19.8 19.8 < 3.19 Tetrachloroethene 3.19 trans-1,2-Dichloroethene < 39.6 39.6 Trichloroethene < 1.07 1.07 Vinyl Chloride < 1.28 1.28 4-bromofluorobenzene (surrogate) 103% Analysis Date/Time: 12-13-21/20:43



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Client Name: ENVIROFORENSICS

Project ID: 6306 - PACKARD WAY CLEANERS

Client Project Manager: ROB HOVERMAN

EnvisionAir Project Number: 2021-605

Analytical Method: TO-15
Analytical Batch: 121321CAIR

Client Sample ID: 6306-3677 SQUIRE-SSV-1 Sample Collection START Date/Time: 12/10/21 15:35

Sample Collection END Date/Time: 12/10/21 15:39

EnvisionAir Sample Number: 21-2881 Sample Received Date/Time: 12/13/21 12:00

Compounds	Sample Results ug/m ³	Reporting Limit ug/m ³	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	< 31.9	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surro	ogate) 105%		
Analysis Date/Time:	12-14-21/20:37		
Analyst Initials	tjg		



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Analytical Report

TO-15 Quality Control Data

EnvisionAir Batch Number: 121321CAIR

Method Blank (MB):	MB Results (ppbv)	Reporting Limit (ppbv)	<u>Flags</u>
cis-1,2-Dichloroethene	< 5	5	
Tetrachloroethene	< 0.47	0.47	
trans-1,2-Dichloroethene	< 10	10	
Trichlorethene	< 0.2	0.2	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	92%		
Analysis Date/Time:	12-13-21/19:19		
Analyst Initials	tjg		

			LCS/D	LCS	LCSD		
<u>LCS/LCSD</u>	LCS Results (ppbv)	LCSD Results (ppbv)	Conc(ppbv)	Rec.	Rec.	RPD	Flag
Vinyl Chloride	9.91	9.19	10	99%	92%	7.5%	
trans-1,2-Dichloroethene	10.3	9.62	10	103%	96%	6.8%	
cis-1,2-Dichloroethene	10.4	10.2	10	104%	102%	1.9%	
Trichloroethene	9.46	9.62	10	95%	96%	1.7%	
Tetrachloroethene	9.51	9.6	10	95%	96%	0.9%	
4-bromofluorobenzene (surrogate)	99%	108%					
Analysis Date/Time:	12-13-21/17:53	12-13-21/18:41					
Analyst Initials	tjg	tjg					



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Flag Number Comments

CHAIN OF CUSTODY RECORD

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

www.envision-air.cc Canister Pressure / Vacuum Initial Final Field Received (in. Hg) (in. Hg) (in. Hg) -28 -3 -3 -28 -3 -9 -28 -3 -3 Date Parallel Received (in. Hg) Date	-		,							
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