
PREPARED BY

EnviroForensics, LLC
N16W23390 Stone Ridge Drive, Suite G
Waukesha, WI 53188



February 9, 2022

Kristina Sanders-Brown
Sparr, Belville & Brown, LLC.
103 High Avenue
Oshkosh, Wisconsin 54901

Subject: Environmental Investigation Sampling Results
BRRTS#: 02-71-467002

Dear Ms. Sanders-Brown:

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 is providing the results of environmental samples collected from your property located at 103 High Avenue, Oshkosh, Wisconsin. The samples were collected on January 19 and 20, 2022. The sampling activities are part of an environmental investigation being performed for the Gunderson Cleaners facility formerly located at 118 High Avenue 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:

Gunderson Cleaners
41 Main Street
Menasha, WI 54952
920-727-4000

Sampling Results

Two (2) sub-slab vapor samples designated 200017-VP-M and 200017-VP-N were collected from the basement of your building. The approximate sampling locations are depicted on the attached figure. Indoor air samples 200017-103-IA-B and 200017-103-IA-1 were collected from the basement and first floor, respectively. The results of the vapor and air samples are summarized and compared to WDNR standards on the attached table. The laboratory report that relates to the vapor and air samples are also attached.

Document: 200017-0252

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As shown on the attached table, the chemicals of concern were not detected in the indoor air samples collected on January 19, 2022. PCE was detected in the sub-slab vapor samples; however, the concentration in both vapor samples was less than the vapor risk screening level established by WDNR for use in evaluating chemical concentrations at sites such as this.

At this time we do not anticipate any further sampling, unless directed by WDNR. If you have any questions or concerns, please contact me at 262-745-5054 or by email at bkappen@enviroforensics.com. The WDNR project manager, Kevin McKnight, can be reached at 920-808-0170. We greatly appreciate your help and patience with this matter.

Sincerely,
EnviroForensics, LLC

A handwritten signature in blue ink, appearing to read "B. J. Kappen".

Brian Kappen, PG
Project Manager

Copy: Kevin McKnight, Wisconsin Department of Natural Resources

Attachments: Sample Location Map
Results Summary Table
Laboratory Analytical Report




Legend

	Property boundary
	Former building
	Sub-slab vapor sample port

SUB-SLAB VAPOR SAMPLE LOCATIONS

Former Gunderson Cleaners
118 High Avenue
Oshkosh, Wisconsin

Date:	3/10/21
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	200017-0126



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Figure	2
Project	200017

APPROXIMATE SCALE: 1" = 40'

TABLE 1
VAPOR INTRUSION ASSESSMENT RESULTS SUMMARY

Former Gunderson Cleaners
118 High Ave, Oshkosh, Wisconsin

Address	Sample Identification	Sample Location	Exposure Criteria	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
INDOOR/OUTDOOR AIR									
Small Commercial Vapor Action Level					180	8.8	NE	180	28
103 High Ave	103-IA-1	First Floor	Small Commercial	6/17/2021	<3.19	<1.07	<19.8	<39.6	<1.28
				1/19/2022	<3.19	<1.07	<19.8	<39.6	<1.28
	103-IA-B	Basement		6/17/2021	<3.19	<1.07	<19.8	<39.6	<1.28
				1/19/2022	<3.19	<1.07	<19.8	<39.6	<1.28
SUB-SLAB VAPOR									
Small Commercial Vapor Risk Screening Level					5,800	290	NE	5,800	930
103 High Ave	VP-M	Basement	Small Commercial	6/18/2021	855	1.93	<19.8	<39.6	<1.28
				1/20/2022	813	<10.7	<198	<396	<12.8
	VP-N			6/18/2021	3,510	14.7	<19.8	<39.6	<1.28
				1/20/2022	1,190	<10.7	<198	<396	<12.8

Notes:

Vapor Action and Risk Screening Levels are calculated according to WDNR Publication RR-800 and subsequent vapor intrusion guidance

Results reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

Samples analyzed according to EPA Method TO-15

NE = Screening/action level not established

Bolded values are above detection limits

Bolded and shaded values exceed the applicable screening or action level



EnvisionAir
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Mr. Brian Kappen
Enviroforensics
N16 W. 23390 Stone Ridge Dr
Suite G
Waukesha, WI 53188

February 7, 2022

EnvisionAir Project Number: 2022-73
Client Project Name: 200017

Dear Mr. Kappen,

Please find the attached analytical report for the samples received January 28, 2022. 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 "David Norris".

David Norris
Project Manager
EnvisionAir, LLC



EnvisionAir
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Client Name: ENVIROFORENSICS
Project ID: 200017
Client Project Manager: BRIAN KAPPEN
EnvisionAir Project Number: 2022-73

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>Canister Pressure / Vacuum</u>		<u>Lab</u>
			<u>Date</u>	<u>Time</u>					<u>Initial Field</u>	<u>Final Field</u>	
			<u>Collected:</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Received:</u>	<u>Received:</u>	<u>(in. Hg)</u>	<u>(in. Hg)</u>	<u>(in. Hg)</u>
22-362	200017-103-IA-1	A	1/19/22	8:13	1/19/22	16:03	1/28/22	11:40	-29	-7	-7
22-363	200017-103-IA-B	A	1/19/22	8:20	1/19/22	16:15	1/28/22	11:40	-29	-10	-10
22-364	200017-VP-N	A	1/20/22	13:06			1/28/22	11:40	-28	-3	-3
22-365	200017-VP-M	A	1/20/22	13:52			1/28/22	11:40	-28	-3	-3



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Client Name: ENVIROFORENSICS

Project ID: 200017

Client Project Manager: BRIAN KAPPEN

EnvisionAir Project Number: 2022-73

Analytical Method: TO-15
Analytical Batch: 012922AIR

Client Sample ID: 200017-103-IA-1

EnvisionAir Sample Number: 22-362
Sample Matrix: AIR

Sample Collection START Date/Time: 1/19/22 8:13
Sample Collection END Date/Time: 1/19/22 16:03
Sample Received Date/Time: 1/28/22 11:40

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<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 (surrogate)	98%		
Analysis Date/Time:	1-29-22/15:07		
Analyst Initials	tjg		



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Client Name: ENVIROFORENSICS

Project ID: 200017

Client Project Manager: BRIAN KAPPEN

EnvisionAir Project Number: 2022-73

Analytical Method: TO-15
Analytical Batch: 012922AIR

Client Sample ID: 200017-103-IA-B

EnvisionAir Sample Number: 22-363
Sample Matrix: AIR

Sample Collection START Date/Time: 1/19/22 8:20
Sample Collection END Date/Time: 1/19/22 16:15
Sample Received Date/Time: 1/28/22 11:40

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<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 (surrogate)	101%		
Analysis Date/Time:	1-29-22/15:48		
Analyst Initials	tjg		



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Client Name: ENVIROFORENSICS

Project ID: 200017

Client Project Manager: BRIAN KAPPEN

EnvisionAir Project Number: 2022-73

Analytical Method: TO-15
Analytical Batch: 020122AIR

Client Sample ID: 200017-VP-N

EnvisionAir Sample Number: 22-364
Sample Matrix: AIR

Sample Collection START Date/Time: 1/20/22 13:36
Sample Collection END Date/Time:
Sample Received Date/Time: 1/28/22 11:40

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	1,190	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	107%		
Analysis Date/Time:	2-1-22/15:48		
Analyst Initials	tjg		



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Client Name: ENVIROFORENSICS

Project ID: 200017

Client Project Manager: BRIAN KAPPEN

EnvisionAir Project Number: 2022-73

Analytical Method: TO-15
Analytical Batch: 020122AIR

Client Sample ID: 200017-VP-M

EnvisionAir Sample Number: 22-365
Sample Matrix: AIR

Sample Collection START Date/Time: 1/20/22 13:52
Sample Collection END Date/Time:
Sample Received Date/Time: 1/28/22 11:40

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	813	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	95%		
Analysis Date/Time:	2-1-22/16:29		
Analyst Initials	tjg		



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Analytical Report

TO-15 Quality Control Data

EnvisionAir Batch Number: 012822AIR

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>
cis-1,2-Dichloroethene	< 5	5	
Tetrachloroethene	< 0.47	0.47	
trans-1,2-Dichloroethene	< 10	10	
Trichloroethene	< 0.2	0.2	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	104%		
Analysis Date/Time:	1-28-22/19:27		
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>
Vinyl Chloride	9.64	9.41	10	96%	94%	2.4%	
trans-1,2-Dichloroethene	8.52	9.1	10	85%	91%	6.6%	
cis-1,2-Dichloroethene	9.76	10.6	10	98%	106%	8.3%	
Trichloroethene	10.1	10.2	10	101%	102%	1.0%	
Tetrachloroethene	8.31	8.21	10	83%	82%	1.2%	
4-bromofluorobenzene (surrogate)	96%	96%					
Analysis Date/Time:	1-28-22/18:00	1-28-22/18:49					
Analyst Initials	tjg	tjg					

TO-15 Quality Control Data

EnvisionAir Batch Number: 020122AIR

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>
cis-1,2-Dichloroethene	< 5	5	
Tetrachloroethene	< 0.47	0.47	
trans-1,2-Dichloroethene	< 10	10	
Trichloroethene	< 0.2	0.2	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	96%		
Analysis Date/Time:	2-1-22/13:45		
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>
Vinyl Chloride	9.9	9.69	10	99%	97%	2.1%	
trans-1,2-Dichloroethene	8.59	9.94	10	86%	99%	14.6%	
cis-1,2-Dichloroethene	11.5	10.4	10	115%	104%	10.0%	
Trichloroethene	10.3	10.5	10	103%	105%	1.9%	
Tetrachloroethene	9.7	8.62	10	97%	86%	11.8%	
4-bromofluorobenzene (surrogate)	103%	93%					
Analysis Date/Time:	2-1-22/12:17	2-1-22/13:07					
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

Client: <u>Enviro Forensics</u>	P.O. Number: <u>2021-0808</u>
Report Address: <u>bkappen@enviroforensics.com</u>	Project Name or Number: <u>200017</u>
Report To: <u>B. Kappen</u>	Sampled by: <u>B. Kappen</u>
Phone: <u>262-745-5054</u>	QA/QC Required: (circle if applicable) Level III Level IV
Invoice Address: <u>accounts payable @enviroforensics.com</u>	Reporting Units needed: (circle) <u>ug/m³</u> mg/m ³ PPBV PPMV
Desired TAT: (Please Circle One) 1 day 2 days 3 days <u>Std (5 bus. days)</u>	Media type: 1LC = 1 Liter Canister 6LC = 6 Liter Canister TB = Tedlar Bag TD = Thermal Desorption Tube

REQUESTED PARAMETERS

TO-15 Full List

TO-15 Short List (Specify in notes)



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

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Canister Pressure / Vacuum

Air Sample ID	Media Type <small>(see code above)</small>	Coll. Date <small>(Grab/Comp Start)</small>	Coll. Time <small>(Grab/Comp Start)</small>	Coll. Date <small>(Comp. End)</small>	Coll. Time <small>(Comp. End)</small>				Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
200017-103-IA-1	6LC	1/19/22	813	1/19/22	1603	X			14949	07750	-29	-7	-7	22-362
200017-103-IA-B	6LC	1/19/22	820	1/19/22	1615	X			H3413	07695	-29	-10	-10	22-363
200017-VP-N	1LC	1/20/22	1336			X			2228	0106	-28	-3	-3	22-364
200017-VP-M	1LC	1/20/22	1352			X			2095	0005	-28	-3	-3	22-365

Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
	1/26/22	1615	FedEx	1/26/22	1615
			YDALLTON	1-28-22	11:40