



December 26, 2023

Jess Vroman
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Mathew Reimer
Senior Environmental Project Coordinator
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SUBJECT: Air Sampling Results for 2930 W. Center St., Milwaukee, WI
DNR Site Name: Findley Adhesives (Former)
DNR BRRTS #03-41-005301

Dear Jess and Mat:

In accordance with Wisconsin Administrative Code (Wis. Admin. Code) § NR 716.14, the DNR is providing the results of environmental samples collected from your property located at 2930 W Center Street in Milwaukee, Wisconsin.

The sampling activities are part of an environmental investigation being performed for the former Findley Adhesives facility located at 2930 W. Center Street in Milwaukee, Wisconsin at the direction of the Department of Natural Resources (DNR). The chemicals of concern for the investigation are tetrachloroethene (PCE), and its breakdown products trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), and vinyl chloride (VC).

Sampling:

On November 9, 2023, the DNR deployed two passive air sampling devices at in the Jewish Community Food Pantry, three in the vacant warehouse portion of the building, and one outdoor sample for quality control. The sample locations are presented on the attached **Figure 1**. On November 16, 2023, the sample devices were retrieved and then submitted to a laboratory, where they underwent laboratory analysis for PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, and VC.

Your Results

The results of the indoor air and vapor samples are summarized and compared to DNR standards on the attached **Table 1**. A copy of the laboratory report for the indoor air samples is also attached.

The two samples from the Jewish Community Food Pantry did not contain detections for the chemicals of concern. One sample from the vacant warehouse detected PCE and TCE, but at concentrations below the small commercial Vapor Action Level. No other samples detected chemicals of concern.

Next Steps

As this is the second round of sampling without the aforementioned chemicals of concern in the indoor air above the vapor action levels, there is not an apparent vapor intrusion risk to the Food Pantry, and no additional sampling appears warranted at this time. The DNR Publication RR-977 *Understanding Chemical Vapor Testing Results* is attached with additional information for you. Previous results from the vacant warehouse indicate a potential risk from sub-slab detections from the chemicals of concerns. Should the warehouse be occupied or redeveloped, further assessment or mitigation may be appropriate.

If you have any questions or concerns, please contact us. We greatly appreciate your help and patience with this matter.

Sincerely,



Rob Hoverman

Vapor Intrusion Expert

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David Hanson, WDNR PM, 414.639.4156 and David.Hanson@Wisconsin.gov

Nathan Kloczko, Wisconsin Dept of Health Services, dhsdphoperations@dhs.wisconsin.gov

Danika Hill-Paulus, City of Milwaukee Health Department, Danika.Hill@Milwaukee.gov

Attachments:

Figure 1 –Sample Locations

Table 1 – Indoor Air Analytical Results

Laboratory Analytical Report

Understanding Chemical Vapor Testing Results (DNR PUB-RR-977)

Figure 1 Sample Locations

2930 W. Center St., Milwaukee, WI
Findley Adhesives (Former)
DNR BRRTS #03-41-005301



● = Passive Indoor Air Sample Location



**Wisconsin Occupational
Health Laboratory**

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ROB HOVERMAN
WI DNR LOW LEVEL SOLVENTS
1027 W. ST. PAUL AVE
MILWAUKEE, WI 53233

Lab Workorder ID 711536
Visit/Project ID FINDLEY ADHESIVES
PO RR060
Received November 20, 2023
Reported December 13, 2023
Report ID 11454927

Previous Report IDs

Dear ROB HOVERMAN:

Enclosed are the analytical results for sample(s) received by the laboratory on November 20, 2023. All samples/specimens received by the laboratory were acceptable for testing. Sample results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the report narrative. All results apply to the samples as received and reported concentrations were calculated with information supplied by the sample submitter.

Please contact the lab if you have any questions concerning this report.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - SARAH OEMIG



Final Report

Lab ID: 711536001	Sample ID: 10_1A1_01_20231109	Media: 3M 3501+ or Assay 525 OVM
Sampling Date:	Matrix: Air	Sampled Time: 8642 M

Analyte	Method	Analysis Date	Air Volume	Reporting Limit	RESULTS			TWA
					Front	Rear	Total	
1,2-Dichloroethene(Total)	OSHA 1001, 1002, 1004, 1005	12/7/2023	525 L	4.6 ug			<4.6 ug	<0.0088 mg/m3 <0.0022 ppm
Tetrachloroethene		12/8/2023	574 L	0.32 ug			<0.32 ug	<0.00056 mg/m3 <0.00082 ppm
Trichloroethene		12/8/2023	630 L	0.29 ug			<0.29 ug	<0.00046 mg/m3 <0.00086 ppm
Vinyl chloride		12/8/2023	643 L	3.8 ug			<3.8 ug	<0.0059 mg/m3 <0.0023 ppm

Lab ID: 711536002	Sample ID: 10_1A1_02_20231109	Media: 3M 3501+ or Assay 525 OVM
Sampling Date:	Matrix: Air	Sampled Time: 8635 M

Analyte	Method	Analysis Date	Air Volume	Reporting Limit	RESULTS			TWA
					Front	Rear	Total	
1,2-Dichloroethene(Total)	OSHA 1001, 1002, 1004, 1005	12/7/2023	525 L	4.6 ug			<4.6 ug	<0.0088 mg/m3 <0.0022 ppm
Tetrachloroethene		12/8/2023	573 L	0.32 ug			<0.32 ug	<0.00056 mg/m3 <0.00082 ppm
Trichloroethene		12/8/2023	629 L	0.29 ug			<0.29 ug	<0.00046 mg/m3 <0.00086 ppm
Vinyl chloride		12/8/2023	642 L	3.8 ug			<3.8 ug	<0.0059 mg/m3 <0.0023 ppm



Final Report

Lab ID: 711536003	Sample ID: 10_1A1_03_20231109	Media: 3M 3501+ or Assay 525 OVM
Sampling Date:	Matrix: Air	Sampled Time: 8616 M

Analyte	Method	Analysis Date	Air Volume	Reporting Limit	RESULTS				
					Front	Rear	Total	Air Concentration	TWA
1,2-Dichloroethene(Total)	OSHA 1001, 1002, 1004, 1005	12/7/2023	524 L	4.6 ug			<4.6 ug	<0.0088 mg/m3	<0.0022 ppm
Tetrachloroethene		12/8/2023	572 L	0.32 ug			0.61 ug	0.0011 mg/m3	0.00016 ppm
Trichloroethene		12/8/2023	628 L	0.29 ug			0.33 ug	0.00053 mg/m3	0.000098 ppm
Vinyl chloride		12/8/2023	641 L	3.8 ug			<3.8 ug	<0.0059 mg/m3	<0.0023 ppm

Lab ID: 711536004	Sample ID: 10_1A1_04_20231109	Media: 3M 3501+ or Assay 525 OVM
Sampling Date:	Matrix: Air	Sampled Time: 8612 M

Analyte	Method	Analysis Date	Air Volume	Reporting Limit	RESULTS				
					Front	Rear	Total	Air Concentration	TWA
1,2-Dichloroethene(Total)	OSHA 1001, 1002, 1004, 1005	12/7/2023	524 L	4.6 ug			<4.6 ug	<0.0088 mg/m3	<0.0022 ppm
Tetrachloroethene		12/8/2023	572 L	0.32 ug			<0.32 ug	<0.00056 mg/m3	<0.000083 ppm
Trichloroethene		12/8/2023	628 L	0.29 ug			<0.29 ug	<0.00046 mg/m3	<0.000086 ppm
Vinyl chloride		12/8/2023	641 L	3.8 ug			<3.8 ug	<0.0059 mg/m3	<0.0023 ppm



Final Report

Lab ID: 711536005	Sample ID: 10_1A1_05_20231109	Media: 3M 3501+ or Assay 525 OVM
Sampling Date:	Matrix: Air	Sampled Time: 8598 M

Analyte	Method	Analysis Date	Air Volume	Reporting Limit	RESULTS			TWA
					Front	Rear	Total	
1,2-Dichloroethene(Total)	OSHA 1001, 1002, 1004, 1005	12/7/2023	523 L	4.6 ug			<4.6 ug	<0.0088 mg/m3 <0.0022 ppm
Tetrachloroethene		12/9/2023	571 L	0.32 ug			<0.32 ug	<0.00056 mg/m3 <0.00083 ppm
Trichloroethene		12/9/2023	627 L	0.29 ug			<0.29 ug	<0.00046 mg/m3 <0.00086 ppm
Vinyl chloride		12/9/2023	640 L	3.8 ug			<3.8 ug	<0.0059 mg/m3 <0.0023 ppm

Lab ID: 711536006	Sample ID: 10_0A_06_20231109	Media: 3M 3501+ or Assay 525 OVM
Sampling Date:	Matrix: Air	Sampled Time: 8650 M

Analyte	Method	Analysis Date	Air Volume	Reporting Limit	RESULTS			TWA
					Front	Rear	Total	
1,2-Dichloroethene(Total)	OSHA 1001, 1002, 1004, 1005	12/7/2023	526 L	4.6 ug			<4.6 ug	<0.0087 mg/m3 <0.0022 ppm
Tetrachloroethene		12/9/2023	574 L	0.32 ug			<0.32 ug	<0.00056 mg/m3 <0.00082 ppm
Trichloroethene		12/9/2023	631 L	0.29 ug			<0.29 ug	<0.00046 mg/m3 <0.00086 ppm
Vinyl chloride		12/9/2023	644 L	3.8 ug			<3.8 ug	<0.0059 mg/m3 <0.0023 ppm

Abbreviations:

mg = milligrams ppm or ppmv = parts per million /m3 = per cubic meter
 ug = micrograms ppb or ppbv = parts per billion ng = nanograms
 < Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used



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AIHA LAP, LLC Laboratory ID: LAP-101070

Final Report

Displayed values on report have been rounded to 2 significant figures. Please contact the laboratory if you have any questions regarding our result calculation or rounding. All samples were received by the laboratory in acceptable condition unless otherwise noted.

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

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End of Analytical Report

Table 1

INDOOR ANALYTICAL RESULTS

Findley Adhesives (Former) - BRRTS No. 03-41-005301

2930 W. Center Street, Milwaukee, Wisconsin

Sample ID	Sample Type	Collection Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl chloride
10_1A1_01_20231109	Indoor Air	11/16/2023	<0.56	<0.46	<8.8	<8.8	<5.9
10_1A1_02_20231109	Indoor Air	11/16/2023	<0.56	<0.46	<8.8	<8.8	<5.9
10_1A1_03_20231109	Indoor Air	11/16/2023	1.1	0.53	<8.8	<8.8	<5.9
10_1A1_04_20231109	Indoor Air	11/16/2023	<0.56	<0.46	<8.8	<8.8	<5.9
10_1A1_05_20231109	Indoor Air	11/16/2023	<0.56	<0.46	<8.8	<8.8	<5.9
10_0A_06_20231109	Outdoor Air	11/16/2023	<0.56	<0.46	<8.7	<8.7	<5.9
Small Commercial Vapor Action Level			180	8.8	180	180	28

Vapor Action and Risk Screening Levels are calculated according to WDNR Publication RR-800 and subsequent updates in DNR Publication RR-0136

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

Samples analyzed according to OSHA Method 1001, 1002, 1004, 1005

Bolded values are above detection limits

Bolded and shaded values exceed the applicable screening or action level



Understanding Chemical Vapor Intrusion Testing Results

From the Lab to You

Chemical vapor samples were taken from underneath your house or building and possibly indoors as well. These samples have been tested by a certified laboratory and a report was issued. The Wisconsin Department of Natural Resources (DNR) uses these test results to determine if people in the building are being exposed to chemical vapors coming from nearby contaminated soil or groundwater, and to decide what, if any, action is needed to prevent this exposure.

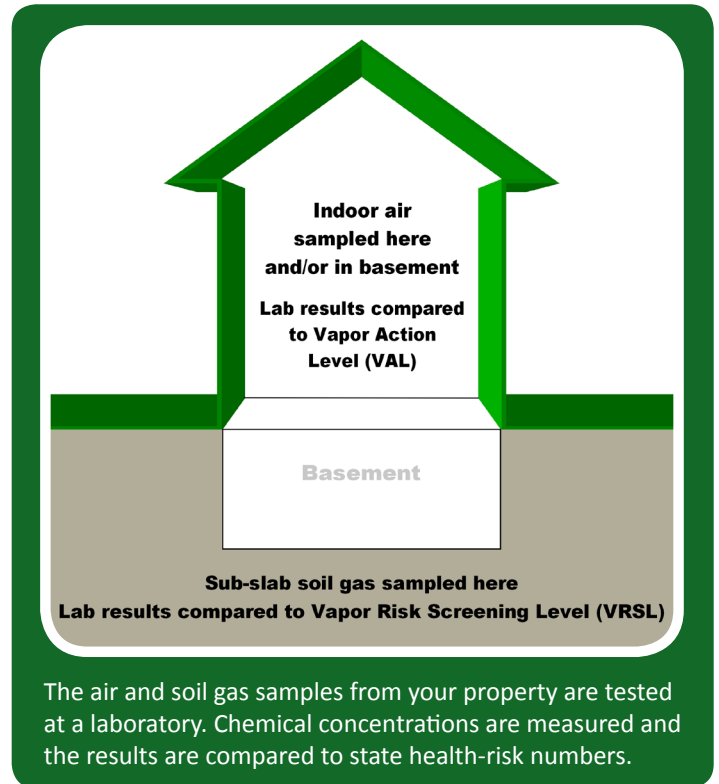
Indoor Air Testing Results

If indoor air samples were collected in your house or building, test results from the lab will be compared to the state Vapor Action Level (VAL) for chemicals of concern. The VAL is a chemical compound's numerical value that represents a health hazard risk to no more than 1 in 100,000 people during a lifetime of exposure. If test results show chemical concentrations in your air below the VAL then adverse health effects are extremely rare, even if you were to breathe the chemical at this concentration for your entire life.

Test results showing chemical concentrations in the air at or above the VAL prompt DNR to recommend that exposure to these chemical vapors be reduced. If test results show concentrations significantly above the VAL, or more than one type of chemical vapor is identified in your indoor air, the risk from exposure increases. If the concentration of any indoor chemical vapor greatly exceeds the VAL, DNR is concerned about even short-term exposure and will typically require immediate action to address the problem.

The VAL for each chemical is set by scientific research. It is protective of all people, including those who are most susceptible to adverse health effects.

If test results identify chemicals in your air that are not present in nearby soil or groundwater contamination, it is likely that these vapors are coming from some product or activity in or near your house or building. Many everyday consumer products (e.g., cleaners, solvents, polish, adhesives, lubricants, aerosols, insect repellants, etc.); combustion processes (e.g., smoking, home heating); fuels in attached garages; dry cleaned clothing or draperies; and occupant activities (e.g., craft hobbies), also release chemical vapors into the air.



Sub-slab Soil Gas Testing Results

Soil gas samples were collected from the ground beneath the concrete slab of your building foundation or basement. The lab measured the concentrations of various chemicals in these samples. DNR compares these measurements to the state Vapor Risk Screening Level (VRSL), which identifies the concentration of a chemical in soil gas that scientific research suggests can be a health risk if vapor enters a building. If soil gas measurements exceed the VRSL for a chemical of concern, action to reduce exposure is strongly recommended.

The VRSL is a higher number (higher chemical concentration) than the VAL because it is presumed that concrete building foundations and basement walls will prevent most soil gas from entering a building. Further, any soil gas that does enter a building through cracks, holes, sump pumps, drains, etc., will be diluted to some extent by the indoor air. So, people inside will not be breathing air that includes the full concentration of chemical vapors that exist in the ground.



DNR generally relies on the test results of the sub-slab soil gas samples when determining what, if any, action should be taken related to chemical vapors coming from nearby soil or groundwater contamination. Indoor air quality is highly variable, and it is difficult to make a definitive decision about vapor intrusion based on indoor air sampling alone.

Follow-Up Actions

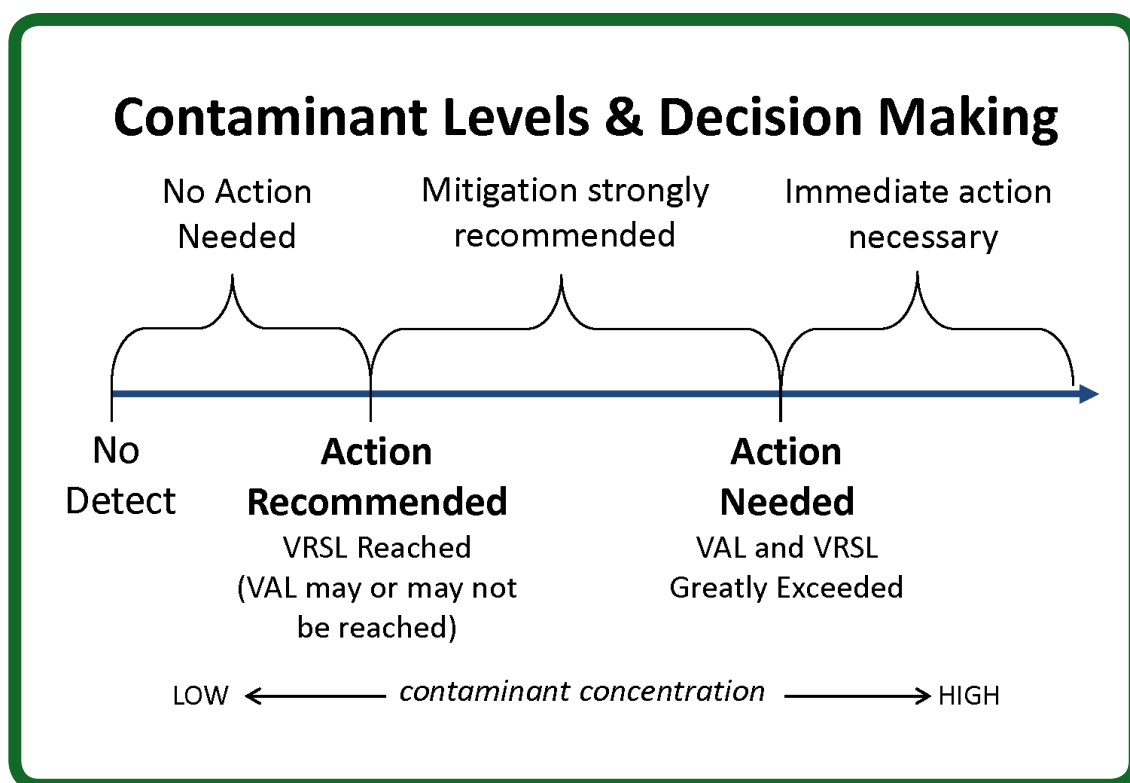
If your test results are less than a VAL for indoor air, or a VRSL for sub-slab soil gas, then the air in the house or building should not present a health concern. Follow-up sampling and testing may be necessary to confirm the results, but no other action is typically suggested.

When test results show soil gas chemical concentrations above a VRSL, both DNR and the Wisconsin Department of

Health Services recommend that owners take action to reduce potential exposure. This typically involves installing a vapor mitigation system that vents chemical vapors from beneath your home or building to the outdoors, similar to a radon mitigation system.

If indoor air concentrations exceed a VAL, but sub-slab concentrations are less than a VRSL, then the chemical vapors are most likely coming from indoor sources. Steps should be taken by the house or building owner to identify the products and practices causing the problem and implement appropriate remedies.

If soil gas mitigation is recommended, a representative of the party who is responsible for the soil or groundwater contamination will contact you to discuss your options.



A Note about Measurement Units: The lab report may include some unfamiliar technical language. The most important point to note is whether or not the test result for a specific chemical exceeds a VAL or VRSL, which are also sometimes referred to, generically, as “screening levels.”

The concentration of gaseous pollutants in air is typically described in two different ways: 1) as units of mass per volume, where $\mu\text{g}/\text{m}^3$ represents micrograms of gaseous pollutant per cubic meter of ambient air; and 2) as parts per billion by volume (ppbv), where the volume of a gaseous pollutant is compared to a set volume of ambient air. These are the numbers that are compared to the VAL and VRSL.

For more information, visit dnr.wi.gov/topic/Brownfields/Vapor.html