State of Wisconsin DEPARTMENT OF NATURAL RESOURCES 2984 Shawano Avenue Green Bay WI 54313-6727

Tony Evers, Governor Preston D. Cole, Secretary

Telephone 608-266-2621 Toll Free 1-888-936-7463 TTY Access via relay - 711



May 7, 2021

MR. EJ DOMBROWSKI JIM'S MUSIC 1219 S MILITARY AVE GREEN BAY, WI 54304

SUBJECT: Vapor Sampling Results - <u>Contaminant Detected **Above** DNR Action Level</u> PROPERTY: One Hour Martinizing, 1233 S Military Ave, Green Bay, WI BRRTS Activity # 02-05-217270

Dear Mr. Dombrowski,

Included are the findings of a recent investigation on your property that was conducted by the United States Environmental Protection Agency (EPA). This letter is a follow-up to my email on April 1, 2021.

As you are aware, this investigation was conducted because of the potential for contaminant vapors from the nearby One Hour Martinizing site, identified above, to migrate through soils, accumulate beneath and/or adjacent to the foundation of your building, and possibly enter your indoor air. The contaminant of concern at the One Hour Martinizing property is the chlorinated volatile organic compound, tetrachloroethylene ("PCE").

#### **Indoor Air Results**

On March 10, 2021, an environmental consultant hired by the EPA collected an indoor air sample within the northern basement of Jim's Music. A sub-slab sample was also attempted to be obtained, however, due to high water table being in contact with the basement foundation, this sample was compromised and unable to be analyzed.

The indoor air sample was submitted to ALS Environmental, where it underwent laboratory analysis for 48 different volatile organic compounds (VOCs), including PCE. The table below summarizes substances detected above the indoor air vapor action level (VAL) for VOCs analyzed in the 8-hour indoor air sample collected from the northern basement.

	Air Concentrations on	Comparison Indoor Air
Contaminant detected	03/10/2021	Vapor Action Level (Commercial)
above Vapor Action Levels	(μg/m³)	(μg/m³)
Acrolein	1.2	0.088
Tetrachloroethene (PCE)	480	180

Note: μg/m³ = micrograms per cubic meter

The analysis detected PCE in indoor air at 480  $\mu$ g/m³; DNR's VAL for PCE is 180  $\mu$ g/m³. Acrolein was also detected within the indoor air at 1.2  $\mu$ g/m³; DNR's VAL for Acrolein is 0.088  $\mu$ g/m³.



April 7, 2021 EJ Dombrowski – Jim's Music Vapor Sampling Results One Hour Martinizing, BRRTS # 02-05-217270

The DNR VAL for PCE is set to provide a threshold concentration that is protective of human health over long-term exposure. It is the experience of DNR and the Wisconsin Department of Health Services (DHS) in investigating similar cases at other locations in the state that the potential health risk for you is low. The vapor levels measured in the indoor air at your business present a <u>long-term risk</u>, not an <u>immediate one</u>, to occupants of the building.

The detection of acrolein in indoor air is likely unrelated to the adjacent One Hour Martinizing site. Acrolein is often associated with gasoline and diesel exhaust, and is also found in cigarette smoke. Because EPA did not obtain an outdoor air sample, DNR believes this detection may be from vehicles passing by, and/or indoor interference from other potential sources within the basement. The amount of acrolein detected is well below the Occupational Safety and Health Administration (OSHA) permissible exposure limit (PEL) OF 229 µg/m³ for 8 hour shifts and 40 hour work weeks.

Even though your potential health risks are low, you may have questions about how breathing these vapors may affect your health. Please contact Curtis Hedman with DHS, who can address your health questions and concerns. He can be reached via phone at 608-287-4152, or email at <a href="mailto:Curtis.Hedman@dhs.wisconsin.gov">Curtis.Hedman@dhs.wisconsin.gov</a>.

In addition to PCE and Acrolein, the laboratory report also shows very low levels of other VOCs in the indoor air at your business. This is likely due to trace amounts of chemical vapors from products (paints, adhesives, fragrances, etc.) commonly found in the typical home or business. These are likely unrelated to the activities that took place at the One Hour Martinizing Site in the past. Results of analysis are attached to this letter.

# **Sump Results**

On March 10, 2021, an environmental consultant hired by the EPA collected a groundwater sample from the sump located directly south of the base of the stairs within the northern basement of Jim's Music. The sump groundwater sample was submitted to CT Laboratories, where it underwent laboratory analysis for 51 different volatile organic compounds (VOCs), including PCE. The table below summarizes all contaminants detected above the preventive action level (PAL) or Enforcement Standard (ES).

		Preventive Action	Enforcement
	Concentration on	Level (PAL)	Standard
Contaminant detected	03/10/2021	(μg/L)	(ES)
above Standards	(μg/L)		(μg/L)
Tetrachloroethene (PCE)	1.7 (J)	0.5	5.0

#### **Notes:**

 $\mu$ g/L = micrograms per liter, a unit of measurement equivalent to parts per billion (J) = Estimated value; detected between the limit of detection and limit of quantitation

The concentration of PCE is above the PAL but below the ES. The lower PAL groundwater quality standard acts as an alert that groundwater contamination is present. When the concentration of a compound exceeds the PAL additional samples are usually collected to ensure that the contaminant concentration does not exceed the ES.

The ES is the established health-based groundwater standard for the compound. The limit is typically based on a one in a million chance of an individual developing negative health effects after a lifetime of

April 7, 2021 EJ Dombrowski – Jim's Music Vapor Sampling Results One Hour Martinizing, BRRTS # 02-05-217270

consuming the contaminated water daily. If a compound exceeds the ES, the WDNR recommends that an alternative potable water source be obtained.

# **Next Steps**

The responsible party for the contamination is required to bring the vapor mitigation system at your business up to standards and to commission the system. This system is similar to that used for homes where radon is a concern. The system diverts radon (or chemical vapors) from beneath the building and discharges them into the outdoor air, above the building's roofline, rendering them harmless.

As part of commissioning of the system, additional indoor air sampling will be performed to ensure the system is effectively lowering vapor concentrations. This indoor air sampling will likely be performed by the responsible party's consultant and/or the EPA's consultant. Once PCE vapors are successfully removed from within your business, there will be no potential or actual health threat for you or your employees from that kind of exposure.

Please feel free to contact me at 920-366-5685 or by email to <u>Josie.Schultz@Wisconsin.gov</u> if you have any questions about these results.

Sincerely,

Josie Schultz

Hydrogeologist

Remediation & Redevelopment Program

Copy: Curtis Hedman, DHS (Curtis.Hedman@dhs.wisconsin.gov)

Deanne Van Kirk, Brown County Health & Human Services (Deanne.VanKirk@browncountywi.gov)

Qefli Neziri, Responsible Party (<u>qefnez@yahoo.com</u>)

Encl: Results of Analysis for 1219 S. Military Ave, Green Bay, WI

Understanding Chemical Vapor Testing Results, RR-977

# ALS ENVIRONMENTAL

# RESULTS OF ANALYSIS Page 1 of 2

**Client: CT Laboratories** 

Client Sample ID: MDC-1219-IA01-20210310 ALS Project ID: P2101325 Client Project ID: MARTINIZING DRY CLEANERS / 103X903100320001BI103 ALS Sample ID: P2101325-002

Test Code: **EPA TO-15 SIM** Date Collected: 3/10/21 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 3/15/21 Analyst: Topacio Zavala Date Analyzed: 3/17/21

6.0 L Summa Canister Volume(s) Analyzed: Sample Type: 1.00 Liter(s) Test Notes:

0.020 Liter(s)

Container ID: SC02083

> Initial Pressure (psig): -2.32Final Pressure (psig): 4.02

> > Container Dilution Factor: 1.51

CAS#	Compound	Result	MRL	Result	MRL	Data
		$\mu g/m^3$	$\mu g/m^3$	${f ppbV}$	ppbV	Qualifier
75-71-8	Dichlorodifluoromethane (CFC 12)	2.2	0.076	0.44	0.015	
74-87-3	Chloromethane	0.40	0.076	0.19	0.037	
75-01-4	Vinyl Chloride	ND	0.038	ND	0.015	
106-99-0	1,3-Butadiene	ND	0.076	ND	0.034	L
74-83-9	Bromomethane	ND	0.038	ND	0.0097	
75-00-3	Chloroethane	ND	0.038	ND	0.014	
107-02-8	Acrolein	1.2	0.30	0.52	0.13	
67-64-1	Acetone	52	3.8	22	1.6	
75-69-4	Trichlorofluoromethane	1.1	0.076	0.20	0.013	
75-35-4	1,1-Dichloroethene	0.079	0.038	0.020	0.0095	
75-09-2	Methylene Chloride	1.2	0.15	0.34	0.043	
76-13-1	Trichlorotrifluoroethane	0.45	0.038	0.059	0.0049	
156-60-5	trans-1,2-Dichloroethene	0.66	0.038	0.17	0.0095	
75-34-3	1,1-Dichloroethane	ND	0.038	ND	0.0093	
1634-04-4	Methyl tert-Butyl Ether	ND	0.038	ND	0.010	
156-59-2	cis-1,2-Dichloroethene	0.055	0.038	0.014	0.0095	
67-66-3	Chloroform	0.27	0.15	0.055	0.031	
107-06-2	1,2-Dichloroethane	0.37	0.038	0.092	0.0093	
71-55-6	1,1,1-Trichloroethane	ND	0.038	ND	0.0069	
71-43-2	Benzene	0.53	0.11	0.16	0.035	
56-23-5	Carbon Tetrachloride	0.40	0.038	0.063	0.0060	
78-87-5	1,2-Dichloropropane	0.41	0.038	0.089	0.0082	
75-27-4	Bromodichloromethane	ND	0.038	ND	0.0056	
79-01-6	Trichloroethene	1.6	0.038	0.31	0.0070	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

L = Laboratory control sample recovery outside the specified limits; results may be biased high.

# ALS ENVIRONMENTAL

# RESULTS OF ANALYSIS Page 2 of 2

**Client: CT Laboratories** 

Client Sample ID: MDC-1219-IA01-20210310 ALS Project ID: P2101325 Client Project ID: MARTINIZING DRY CLEANERS / 103X903100320001BI103 ALS Sample ID: P2101325-002

Test Code: **EPA TO-15 SIM** Date Collected: 3/10/21 Instrument ID: Tekmar AUTOCAN/Agilent 5973N/HP6890A/MS19 Date Received: 3/15/21 Topacio Zavala Analyst: Date Analyzed: 3/17/21

Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s) Test Notes:

0.020 Liter(s)

Container ID: SC02083

> Initial Pressure (psig): -2.32Final Pressure (psig): 4.02

> > Container Dilution Factor: 1.51

CAS#	Compound	Result	MRL	Result	MRL	Data
-		$\mu g/m^3$	$\mu g/m^3$	ppbV	ppbV	Qualifier
123-91-1	1,4-Dioxane	ND	0.15	ND	0.042	
10061-01-5	cis-1,3-Dichloropropene	ND	0.038	ND	0.0083	
10061-02-6	trans-1,3-Dichloropropene	ND	0.038	ND	0.0083	
79-00-5	1,1,2-Trichloroethane	ND	0.15	ND	0.028	
108-88-3	Toluene	91	7.6	24	2.0	D
124-48-1	Dibromochloromethane	ND	0.038	ND	0.0044	
106-93-4	1,2-Dibromoethane	ND	0.038	ND	0.0049	
127-18-4	Tetrachloroethene	480	1.9	70	0.28	D
108-90-7	Chlorobenzene	ND	0.15	ND	0.033	
100-41-4	Ethylbenzene	1.9	0.15	0.43	0.035	
179601-23-1	m,p-Xylenes	5.2	0.15	1.2	0.035	
100-42-5	Styrene	2.1	0.15	0.50	0.035	
95-47-6	o-Xylene	1.8	0.15	0.42	0.035	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.038	ND	0.0055	
108-67-8	1,3,5-Trimethylbenzene	0.83	0.15	0.17	0.031	
95-63-6	1,2,4-Trimethylbenzene	2.6	0.15	0.54	0.031	
541-73-1	1,3-Dichlorobenzene	ND	0.038	ND	0.0063	
106-46-7	1,4-Dichlorobenzene	0.10	0.038	0.017	0.0063	
95-50-1	1,2-Dichlorobenzene	ND	0.038	ND	0.0063	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.15	ND	0.016	
120-82-1	1,2,4-Trichlorobenzene	ND	0.076	ND	0.010	
91-20-3	Naphthalene	0.22	0.15	0.041	0.029	
87-68-3	Hexachlorobutadiene	ND	0.15	ND	0.014	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

D = The reported result is from a dilution.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

75-15-0

Carbon disulfide

1A
VOLATILE ORGANICS ANALYSIS

Sample Description

MDC-1219-SUMP2-20210310

Lab Name: CT Laboratories		Contract:	Contract: TETRA TECH-MARTINIZING DRY CLEANERS SITE						
Matrix:	GROUND WATER	(g/mL) CTL Sample ID:		160295					
Sample wt/vol:	(g/mL)			540258 03/11/2021					
% Solids:									
Soil Extract Vol:	(mL)			1					
Analytical Method:	EPA 8260C								
Analytical Run #:	179961			1.00					
Date & Time Analyze	Date & Time Analyzed: 03/16/2021 / 10:18 GPC		GPC Cleanup Date/Time:		1				
TCLP / SPLP / MLP o	or ASTM Procedure Extraction Date (if applicable	/e):			1				
ICAL Calibration #:	W031121.	Concentra	ation Units:	ug/L					
CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL		
71-55-6	1,1,1-Trichloroethane	1.0	U	0.38	1.0	1.0	1.0		
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	0.36	1.0	1.0	1.0		
79-00-5	1,1,2-Trichloroethane	1.0	U	0.27	1.0	1.0	1.0		
75-34-3	1,1-Dichloroethane	1.0	U	0.28	1.0	1.0	1.0		
75-35-4	1,1-Dichloroethene	1.0	U	0.49	1.0	2.0	2.0		
87-61-6	1,2,3-Trichlorobenzene	1.0	U	0.43	1.0	2.0	2.0		
120-82-1	1,2,4-Trichlorobenzene	1.0	U	0.50	1.0	2.0	2.0		
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U	0.50	1.0	2.0	2.0		
106-93-4	1,2-Dibromoethane	1.0	U	0.33	1.0	1.0	1.0		
95-50-1	1,2-Dichlorobenzene	1.0	U	0.35	1.0	1.0	1.0		
107-06-2	1,2-Dichloroethane	2.0	U	0.69	2.0	2.0	2.0		
78-87-5	1,2-Dichloropropane	1.0	U	0.37	1.0	1.0	1.0		
541-73-1	1,3-Dichlorobenzene	1.0	U	0.30	1.0	1.0	1.0		
106-46-7	1,4-Dichlorobenzene	1.0	U	0.33	1.0	1.0	1.0		
78-93-3	2-Butanone	10	U	2.9	10	10	10		
591-78-6	2-Hexanone	10	U	3.3	10	10	10		
108-10-1	4-Methyl-2-pentanone	10	U	3.7	10	10	10		
67-64-1	Acetone	10	U	4.1	10	20	20		
71-43-2	Benzene	1.0	U	0.47	1.0	2.0	2.0		
74-97-5	Bromochloromethane	1.0	U	0.26	1.0	1.0	1.0		
75-27-4	Bromodichloromethane	0.79	J	0.29	0.60	1.0	1.0		
75-25-2	Bromoform	1.0	U	0.50	1.0	2.0	2.0		
74-83-9	Bromomethane	1.0	U	0.49	1.0	2.0	2.0		

2.0

U

4.0

4.0

2.0

0.83

1A
VOLATILE ORGANICS ANALYSIS

Sample Description

MDC-1219-SUMP2-20210310

03/16/2021 / 10:18  M Procedure Extraction Date ( <i>if applicable</i> ):	GPC Cleanup Date/Time:	<u> </u>
03/16/2021 / 10:18	GPC Cleanup Date/Time:	
179961	Dilution Factor:	1.00
EPA 8260C	Analytical Prep Batch #	
(mL)	Date/Time Prepared:	
	Date Received:	03/11/2021
(g/mL)	CTL Sample ID:	540258
GROUND WATER	SDG No.:	160295
CT Laboratories	Contract: TETRA TECH	I-MARTINIZING DRY CLEANERS SITE
	GROUND WATER  (g/mL)  (mL)  EPA 8260C	GROUND WATER   SDG No.:   CTL Sample ID:   Date Received:     Date/Time Prepared:   EPA 8260C   Analytical Prep Batch #

	WOOTIET.	South Ball Control of the Control of	49, 2				
CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
56-23-5	Carbon tetrachloride	1.0	U	0.37	1.0	1.0	1.0
108-90-7	Chlorobenzene	1.0	U	0.37	1.0	1.0	1.0
75-00-3	Chloroethane	1.0	U	0.36	1.0	2.0	2.0
67-66-3	Chloroform	1.2		0.46	1.0	1.0	1.0
74-87-3	Chloromethane	0.67	J	0.39	1.0	2.0	2.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	0.41	1.0	1.0	1.0
10061-01-5	cis-1,3-Dichloropropene	1.0	U	0.34	1.0	1.0	1.0
110-82-7	Cyclohexane	2.0	U	0.71	2.0	2.0	2.0
124-48-1	Dibromochloromethane	0.51	J	0.35	1.0	1.0	1.0
75-71-8	Dichlorodifluoromethane	2.0	U	0.63	2.0	2.0	2.0
100-41-4	Ethylbenzene	1.0	U	0.42	1.0	1.0	1.0
76-13-1	Freon 113	4.0	U	1.5	4.0	4.0	4.0
98-82-8	Isopropylbenzene	1.0	U	0.39	1.0	1.0	1.0
179601-23-1	m & p-Xylene	2.0	U	0.74	2.0	2.0	2.0
79-20-9	Methyl Acetate	1.0	U	0.34	1.0	2.0	2.0
1634-04-4	Methyl tert-butyl ether	1.0	U	0.28	1.0	1.0	1.0
108-87-2	Methylcyclohexane	2.0	U	0.78	2.0	2.0	2.0
75-09-2	Methylene chloride	3.3	J	1.2	4.0	4.0	4.0
95-47-6	o-Xylene	2.0	U	0.72	2.0	2.0	2.0
100-42-5	Styrene	1.0	U	0.33	1.0	1.0	1.0
127-18-4	Tetrachloroethene	1.7	J	0.54	1.0	2.0	2.0
108-88-3	Toluene	1.0	U	0.27	1.0	1.0	1.0
156-60-5	trans-1,2-Dichloroethene	1.0	U	0.35	1.0	1.0	1.0
10061-02-6	trans-1,3-Dichloropropene	2.0	U	0.56	2.0	2.0	2.0



1A
VOLATILE ORGANICS ANALYSIS

Sample Description

MDC-1219-SUMP2-20210310

Lab Name:	CT Laboratories	Contract: TETR	A TECH-MARTINIZING	DRY CLEA	NERS SITE	
Matrix:	GROUND WATER	SDG No.:	160295			
Sample wt/vol:	(g/i	mL) CTL Sample ID:	540258			
% Solids:		Date Received:	03/11/2021			
Soil Extract Vol:	(m	L) Date/Time Prepare	d:	1		
Analytical Method:	EPA 8260C	Analytical Prep Ba	ch #			
Analytical Run #:	179961	Dilution Factor:	1.00			
Date & Time Analyzed:	03/16/2021 / 10:18	GPC Cleanup Date	e/Time:	1		
TCLP / SPLP / MLP or A	ASTM Procedure Extraction Date (if applic	eable):		1		
ICAL Calibration #:	W031121.	Concentration Unit	s: ug/L			
CAS NO.	Analyte	Concentration Qualifie	ers DL	LOD	LOQ	RL
79-01-6	Trichloroethene	1.0 U	0.39	1.0	1.0	1.0
75-69-4	Trichlorofluoromethane	1.0 U	0.41	1.0	2.0	2.0
75-01-4	Vinyl chloride	0.30 U	0.14	0.30	0.60	0.60



# Understanding Chemical Vapor Intrusion Testing Results

RR-977 October 2014

## 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.

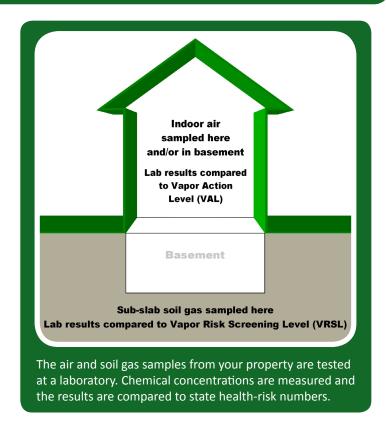
# **Indoor Air Testing Results**

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**

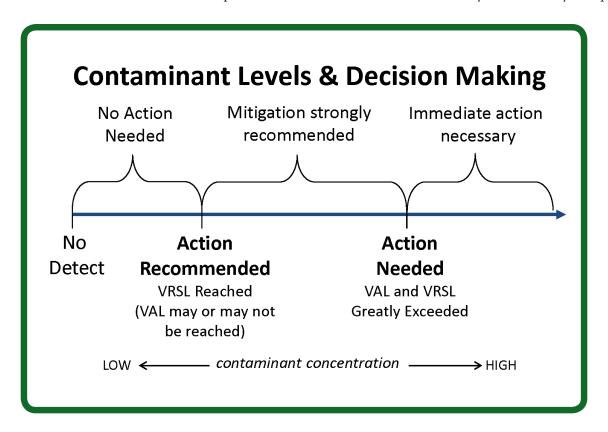
If your test results are less than a VAL for indoor air, or a VRSL for sub-slab soil gas, then the air in the house or building should not present a health concern. Follow-up sampling and testing may be necessary to confirm the results, but no other action is typically suggested.

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.



<u>A Note about Measurement Units:</u> 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  $\mu g/m3$  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 <a href="mailto:dnr.wi.gov/topic/Brownfields/Vapor.html">dnr.wi.gov/topic/Brownfields/Vapor.html</a>

This document contains information about certain state statutes and administrative rules but does not necessarily include all of the details found in the statutes and rules. Readers should consult the actual language of the statutes and rules to answer specific questions. The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format upon request. Please call 608-267-3543 for more information.