Tony Evers, Governor Preston D. Cole, Secretary

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



August 23, 2019

BJW PROPERTIES, LLC BARBARA WALLACE PO BOX 1563 MANITOWOC WI 54221

SUBJECT: Vapor Sampling Results - <u>Contaminant Detection Below DNR Screening Level</u>
PROPERTY: WI DOT – Susies Restaurant (Former) – LGU-SL, 1020 S. 26th Street, Manitowoc, WI BRRTS Activity # 02-36-000516

Dear Ms. Wallace

Included with this letter are the findings of a recent investigation performed on your properties located at 1015 South 26th Street and 1025 South 26th Street by the Wisconsin Department of Natural Resources (DNR).

As you are aware, this investigation was conducted because of the potential for contaminant vapors from the nearby WI DOT - Susies Restaurant (Former) property, identified above, to migrate through soils, accumulate beneath the foundation of your business, and possibly enter your indoor air. The contaminant of concern at the WI DOT - Susies Restaurant (Former) property is Trichloroethene, or TCE. The history of this site and the potential concerns to neighboring residents were described in detail in the original letter sent to your business.

On August 7, 2019, an environmental consultant hired by the DNR collected soil vapor samples from beneath your foundation at both 1015 South 26th Street and 1025 South 26th Street. The samples were then submitted to the Synergy Environmental Lab, Inc., where they underwent laboratory analysis for nine different volatile organic compounds (VOCs), including TCE.

Additionally, on August 6, 2019, the environmental consultant hired by the DNR sampled the two temporary groundwater monitoring wells on your property. The samples were then submitted to the Synergy Environmental Lab, Inc., where they underwent laboratory analysis for VOCs, including TCE.

## **Your Test Results**

Attached is a copy of the laboratory reports for your sub-slab air samples and the groundwater samples.

The results show that a small amount of TCE was detected in the sample taken from beneath your foundation at 1015 South 26th Street. Although TCE was detected in soil vapors beneath your foundation floor, the level at which it was detected is such that it does not pose a threat to you or your employees. This is called "a detection below screening level" and is explained in the enclosed fact sheet.

The results from the sample taken from beneath your foundation at 1025 South 26th Street show that TCE was not detected.

The laboratory report from the August sampling event also shows very low levels of VOCs other than TCE in soil vapors from beneath your buildings. Tetrachloroethene or PCE was detected in soil vapors beneath your foundation floor at both 1025 South 26th Street and 1015 South 26th Street. This is likely due the activities that took place at WI DOT - Susies Restaurant (Former) in the past. Additionally, 1,1,1-Tricholoethane was detected in soil vapors beneath your foundation at 1015 South 26th Street. This is likely due to trace amounts of VOCs



August 23, 2019 Page 2 of 2

Barbara Wallace – BJW Properties, LLC Vapor Sampling Results WI DOT – Susies Restaurant (Former), BRRTS #02-36-000516

from products such as paints, adhesives, fragrances, etc. that are commonly found in the typical home or office, and unrelated to the activities that took place at Susies Restaurant (Former) in the past. The level at which the additional VOCs were detected is such that it does not pose a threat to you or your employees.

The results from the groundwater samples collected from the temporary groundwater monitoring wells had no VOCs detected.

These latest sample results confirm the previous test results, indicating that there does not appear to be a risk of TCE vapor entering your business from beneath the foundation.

# **Next Steps**

Based on the data collected, the DNR is not planning additional sampling beneath your businesses or from the temporary wells installed on your property. I will contact you soon to schedule a time to abandon the vapor ports in the floors of your foundations and the temporary groundwater monitoring wells.

Please feel free to contact me at (920) 662-5443 or by email to <u>Sarah.Krueger@wisconsin.gov</u> if you have any questions about these results.

Sincerely,

Sarah Krueger Project Manager

Remediation & Redevelopment Program

Sarah Krueger

Encl. Understanding Chemical Vapor Testing Results, RR977

Att. Laboratory Analytical Report Sample Location Figure

cc: Greg Minikel, City of Manitowoc, <a href="mailto:gminikel@manitowoc.org">gminikel@manitowoc.org</a>

Sample ID Sample Matrix Sample Date	VP-4 Air 8/7/2019										
		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
1,2-Dichloroethane		< 0.24	ug/m3	0.24	0.763	1	TO-15		8/9/2019	CJR	1
1,1-Dichloroethane		< 0.187	ug/m3	0.187	0.596	1	TO-15		8/9/2019	CJR	1
1,1-Dichloroethene		< 0.21	ug/m3	0.21	0.668	1	TO-15		8/9/2019	CJR	1
cis-1,2-Dichloroethe	ene	< 0.197	ug/m3	0.197	0.626	1	TO-15		8/9/2019	CJR	1
trans-1,2-Dichloroet	thene	< 0.231	ug/m3	0.231	0.734	1	TO-15		8/9/2019	CJR	1
Tetrachloroethene		105	ug/m3	0.278	0.884	1	TO-15		8/9/2019	CJR	1
1,1,1-Trichloroethan	ne	1.25	ug/m3	0.249	0.793	1	TO-15		8/9/2019	CJR	1
Trichloroethene (TC	CE)	2.09	ug/m3	0.237	0.754	1	TO-15		8/9/2019	CJR	1
Vinyl Chloride		< 0.148	ug/m3	0.148	0.472	1	TO-15		8/9/2019	CJR	1

Lab Code

Project Name Proiect #	SUSIES RES	STAURANT					Invo	ice# E365	96		
Lab Code Sample ID Sample Matrix Sample Date	5036596E VP-5 Air 8/7/2019	Result	Unit	LOD	1.00	Dil	Method	Ext Date	Run Date	A nolvet	Code
0 '		Result	Omt	LOD	LOQ	DII	Methou	Ext Date	Kun Date	Anaiysi	Code
Organic											
Air Samples											
1,2-Dichloroethane		< 0.24	ug/m3	0.24	0.763	1	TO-15		8/9/2019	CJR	1
1,1-Dichloroethane	<b>;</b>	< 0.187	ug/m3	0.187	0.596	1	TO-15		8/9/2019	CJR	1
1,1-Dichloroethene	•	< 0.21	ug/m3	0.21	0.668	1	TO-15		8/9/2019	CJR	1
cis-1,2-Dichloroeth	iene	< 0.197	ug/m3	0.197	0.626	1	TO-15		8/9/2019	CJR	1
trans-1,2-Dichloro	ethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		8/9/2019	CJR	1
Tetrachloroethene		24.4	ug/m3	0.278	0.884	1	TO-15		8/9/2019	CJR	1
1,1,1-Trichloroetha	ane	< 0.249	ug/m3	0.249	0.793	1	TO-15		8/9/2019	CJR	1
Trichloroethene (T	CE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		8/9/2019	CJR	1
Vinyl Chloride		< 0.148	ug/m3	0.148	0.472	1	TO-15		8/9/2019	CJR	1

# Synergy Environmental Lab, INC

1990 Prospect Ct., Appleton, WI 54914 \*P 920-830-2455 \* F 920-733-0631

BRIAN YOUNGWIRTH GENERAL ENGINEERING 916 SILVER LAKE DRIVE PORTAGE. WI 53901

Report Date 13-Aug-19

Project Name SUSIES RESTAURANT

Project #

Lab Code 5036589A Sample ID MW-1 Sample Matrix Water Sample Date 8/6/2019

Unit Dil Result LOD LOQ Method **Ext Date** Run Date Analyst Code Organic VOC's Benzene < 0.22 0.22 0.71 8260B 8/10/2019 CJR ug/l < 0.44 1.38 8260B 8/10/2019 CJR Bromobenzene ug/l 0.44 1 Bromodichloromethane < 0.33 0.33 1.06 1 8260B 8/10/2019 CJR ug/l Bromoform < 0.45 ug/l 0.45 1.44 1 8260B 8/10/2019 CJR 0.25 8260B 8/10/2019 CJR tert-Butylbenzene < 0.25 0.8 ug/l 1 0.79 2.53 1 8260B 8/10/2019 CJR sec-Butylbenzene < 0.79 ug/l n-Butylbenzene 0.71 2.25 1 8260B 8/10/2019 CJR < 0.71 ug/l 0.31 8260B 8/10/2019 CJR Carbon Tetrachloride < 0.31 ug/l 0.98 1 Chlorobenzene < 0.26 ug/l 0.26 0.83 1 8260B 8/10/2019 CJR Chloroethane 0.61 1.95 8260B 8/10/2019 CJR < 0.61 ug/l Chloroform < 0.26 0.26 0.82 1 8260B 8/10/2019 CJR ug/1 Chloromethane < 0.54 0.54 1.72 8260B 8/10/2019 CJR ug/l 2-Chlorotoluene < 0.31 0.31 0.98 1 8260B 8/10/2019 CJR ug/l 0.83 8260B 8/10/2019 CJR 4-Chlorotoluene < 0.26 0.26 1 ug/l < 2.96 2.96 9.43 1 8260B 8/10/2019 CJR 1,2-Dibromo-3-chloropropane ug/1 Dibromochloromethane < 0.22 0.22 0.69 1 8260B 8/10/2019 CJR ug/l 0.7 2.22 1 CJR 1,4-Dichlorobenzene < 0.7 ug/l 8260B 8/10/2019 1,3-Dichlorobenzene < 0.85 ug/l 0.85 2.7 1 8260B 8/10/2019 CJR 1,2-Dichlorobenzene < 0.86 ug/l 0.86 2.74 8260B 8/10/2019 CJR Dichlorodifluoromethane < 0.32 0.32 1.02 1 8260B 8/10/2019 CJR ug/l 1,2-Dichloroethane < 0.25 0.25 0.78 1 8260B 8/10/2019 CJR ug/l 1.1-Dichloroethane < 0.36 0.36 1.14 1 8260B 8/10/2019 CJR ug/l 1,1-Dichloroethene 0.42 1.34 8260B 8/10/2019 CJR < 0.42 1 ug/l cis-1,2-Dichloroethene < 0.37 0.37 1.16 1 8260B 8/10/2019 CJR ug/1 1.07 1 8260B 8/10/2019 CJR trans-1,2-Dichloroethene < 0.34 ug/l 0.34

Invoice #

E36589

**Project Name** SUSIES RESTAURANT

Project #

Lab Code5036589ASample IDMW-1Sample MatrixWaterSample Date8/6/2019

•	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2-Dichloropropane	< 0.44	ug/l	0.44	1.39	1	8260B		8/10/2019	CJR	1
1,3-Dichloropropane	< 0.3	ug/l	0.3	0.94	1	8260B		8/10/2019	CJR	1
trans-1,3-Dichloropropene	< 0.32	ug/l	0.32	1.01	1	8260B		8/10/2019	CJR	1
cis-1,3-Dichloropropene	< 0.26	ug/l	0.26	0.81	1	8260B		8/10/2019	CJR	1
Di-isopropyl ether	< 0.21	ug/l	0.21	0.66	1	8260B		8/10/2019	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		8/10/2019	CJR	1
Ethylbenzene	< 0.26	ug/l	0.26	0.83	1	8260B		8/10/2019	CJR	1
Hexachlorobutadiene	< 1.34	ug/l	1.34	4.28	1	8260B		8/10/2019	CJR	1
Isopropylbenzene	< 0.78	ug/l	0.78	2.47	1	8260B		8/10/2019	CJR	1
p-Isopropyltoluene	< 0.24	ug/l	0.24	0.76	1	8260B		8/10/2019	CJR	1
Methylene chloride	< 1.32	ug/l	1.32	4.21	1	8260B		8/10/2019	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.28	ug/l	0.28	0.89	1	8260B		8/10/2019	CJR	1
Naphthalene	< 2.1	ug/l	2.1	6.65	1	8260B		8/10/2019	CJR	1
n-Propylbenzene	< 0.61	ug/l	0.61	1.95	1	8260B		8/10/2019	CJR	1
1,1,2,2-Tetrachloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		8/10/2019	CJR	1
1,1,1,2-Tetrachloroethane	< 0.35	ug/l	0.35	1.13	1	8260B		8/10/2019	CJR	1
Tetrachloroethene	< 0.38	ug/l	0.38	1.21	1	8260B		8/10/2019	CJR	1
Toluene	< 0.19	ug/l	0.19	0.6	1	8260B		8/10/2019	CJR	1
1,2,4-Trichlorobenzene	< 1.15	ug/l	1.15	3.67	1	8260B		8/10/2019	CJR	1
1,2,3-Trichlorobenzene	< 1.71	ug/l	1.71	5.43	1	8260B		8/10/2019	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.05	1	8260B		8/10/2019	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.32	1	8260B		8/10/2019	CJR	1
Trichloroethene (TCE)	< 0.3	ug/l	0.3	0.94	1	8260B		8/10/2019	CJR	1
Trichlorofluoromethane	< 0.35	ug/l	0.35	1.1	1	8260B		8/10/2019	CJR	1
1,2,4-Trimethylbenzene	< 0.8	ug/l	0.8	2.55	1	8260B		8/10/2019	CJR	1
1,3,5-Trimethylbenzene	< 0.63	ug/l	0.63	2	1	8260B		8/10/2019	CJR	1
Vinyl Chloride	< 0.2	ug/l	0.2	0.65	1	8260B		8/10/2019	CJR	1
m&p-Xylene	< 0.43	ug/l	0.43	1.38	1	8260B		8/10/2019	CJR	1
o-Xylene	< 0.29	ug/l	0.29	0.93	1	8260B		8/10/2019	CJR	1
SUR - Dibromofluoromethane	104	REC %			1	8260B		8/10/2019	CJR	1
SUR - 1,2-Dichloroethane-d4	104	REC %			1	8260B		8/10/2019	CJR	1
SUR - 4-Bromofluorobenzene	90	REC %			1	8260B		8/10/2019	CJR	1
SUR - Toluene-d8	97	REC %			1	8260B		8/10/2019	CJR	1

**Project Name** SUSIES RESTAURANT

**Proiect** #

Lab Code5036589BSample IDMW-2Sample MatrixWaterSample Date8/6/2019

Sample Date 6/0/2019	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	A nalvet	Code
	Result	Omi	LOD	LOQ	DII	Method	Ext Date	Run Date	Anaryst	Couc
Organic										
VOC's	0.22	,,				02.600		0/40/0040	arn.	
Benzene	< 0.22	ug/l	0.22			8260B		8/10/2019	CJR	1
Bromobenzene	< 0.44	ug/l	0.44			8260B		8/10/2019	CJR	1
Bromodichloromethane	< 0.33	ug/l	0.33			8260B		8/10/2019	CJR	1
Bromoform	< 0.45	ug/l	0.45			8260B		8/10/2019	CJR	1
tert-Butylbenzene	< 0.25	ug/l	0.25			8260B		8/10/2019	CJR	1
sec-Butylbenzene	< 0.79	ug/l	0.79			8260B		8/10/2019	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71					8/10/2019	CJR	1
Carbon Tetrachloride	< 0.31	ug/l	0.31			8260B		8/10/2019	CJR	1
Chlorobenzene	< 0.26	ug/l	0.26			8260B		8/10/2019	CJR	1
Chloroethane	< 0.61	ug/l	0.61			8260B		8/10/2019	CJR	1
Chloroform	< 0.26	ug/l	0.26			8260B		8/10/2019	CJR	1
Chloromethane	< 0.54	ug/l	0.54			8260B		8/10/2019	CJR	1
2-Chlorotoluene	< 0.31	ug/l	0.31			8260B		8/10/2019	CJR	1
4-Chlorotoluene	< 0.26	ug/l	0.26			8260B		8/10/2019	CJR	1
1,2-Dibromo-3-chloropropane	< 2.96	ug/l	2.96					8/10/2019	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22			8260B		8/10/2019	CJR	1
1,4-Dichlorobenzene	< 0.7	ug/l	0.7			8260B		8/10/2019	CJR	1
1,3-Dichlorobenzene	< 0.85	ug/l	0.85			8260B		8/10/2019	CJR	1
1,2-Dichlorobenzene	< 0.86	ug/l	0.86			8260B		8/10/2019	CJR	1
Dichlorodifluoromethane	< 0.32	ug/l	0.32			8260B		8/10/2019	CJR	1
1,2-Dichloroethane	< 0.25	ug/l	0.25			8260B		8/10/2019	CJR	1
1,1-Dichloroethane	< 0.36	ug/l	0.36	1.14	1	8260B		8/10/2019	CJR	1
1,1-Dichloroethene	< 0.42	ug/l	0.42	1.34	1			8/10/2019	CJR	1
cis-1,2-Dichloroethene	< 0.37	ug/l	0.37	1.16	5 1	8260B		8/10/2019	CJR	1
trans-1,2-Dichloroethene	< 0.34	ug/l	0.34	1.07	7 1	8260B		8/10/2019	CJR	1
1,2-Dichloropropane	< 0.44	ug/l	0.44		) 1	8260B		8/10/2019	CJR	1
1,3-Dichloropropane	< 0.3	ug/l	0.3			8260B		8/10/2019	CJR	1
trans-1,3-Dichloropropene	< 0.32	ug/l	0.32			8260B		8/10/2019	CJR	1
cis-1,3-Dichloropropene	< 0.26	ug/l	0.26	0.81	l 1	8260B		8/10/2019	CJR	1
Di-isopropyl ether	< 0.21	ug/l	0.21		5 1	8260B		8/10/2019	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34					8/10/2019	CJR	1
Ethylbenzene	< 0.26	ug/l	0.26	0.83	3 1	8260B		8/10/2019	CJR	1
Hexachlorobutadiene	< 1.34	ug/l	1.34		3 1			8/10/2019	CJR	1
Isopropylbenzene	< 0.78	ug/l	0.78		7 1			8/10/2019	CJR	1
p-Isopropyltoluene	< 0.24	ug/l	0.24	0.76	5 1			8/10/2019	CJR	1
Methylene chloride	< 1.32	ug/l	1.32	4.21	1			8/10/2019	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.28	ug/l	0.28		) 1			8/10/2019	CJR	1
Naphthalene	< 2.1	ug/l	2.1		5 1	8260B		8/10/2019	CJR	1
n-Propylbenzene	< 0.61	ug/l	0.61	1.95	5 1	8260B		8/10/2019	CJR	1
1,1,2,2-Tetrachloroethane	< 0.3	ug/l	0.3		7 1			8/10/2019	CJR	1
1,1,1,2-Tetrachloroethane	< 0.35	ug/l	0.35		3 1			8/10/2019	CJR	1
Tetrachloroethene	< 0.38	ug/l	0.38					8/10/2019	CJR	1
Toluene	< 0.19	ug/l	0.19					8/10/2019	CJR	1
1,2,4-Trichlorobenzene	< 1.15	ug/l	1.15	3.67	7 1	8260B		8/10/2019	CJR	1

Project Name SUSIES RESTAURANT Invoice # E36589

**Project** #

Lab Code5036589BSample IDMW-2Sample MatrixWaterSample Date8/6/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene	< 1.71	ug/l	1.71	5.43	1	8260B		8/10/2019	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.05	1	8260B		8/10/2019	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.32	1	8260B		8/10/2019	CJR	1
Trichloroethene (TCE)	< 0.3	ug/l	0.3	0.94	. 1	8260B		8/10/2019	CJR	1
Trichlorofluoromethane	< 0.35	ug/l	0.35	1.1	1	8260B		8/10/2019	CJR	1
1,2,4-Trimethylbenzene	< 0.8	ug/l	0.8	2.55	1	8260B		8/10/2019	CJR	1
1,3,5-Trimethylbenzene	< 0.63	ug/l	0.63	2	1	8260B		8/10/2019	CJR	1
Vinyl Chloride	< 0.2	ug/l	0.2	0.65	1	8260B		8/10/2019	CJR	1
m&p-Xylene	< 0.43	ug/l	0.43	1.38	1	8260B		8/10/2019	CJR	1
o-Xylene	< 0.29	ug/l	0.29	0.93	1	8260B		8/10/2019	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		8/10/2019	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			1	8260B		8/10/2019	CJR	1
SUR - 4-Bromofluorobenzene	88	REC %			1	8260B		8/10/2019	CJR	1
SUR - Dibromofluoromethane	101	REC %			1	8260B		8/10/2019	CJR	1

<sup>&</sup>quot;J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

Michaelyllul

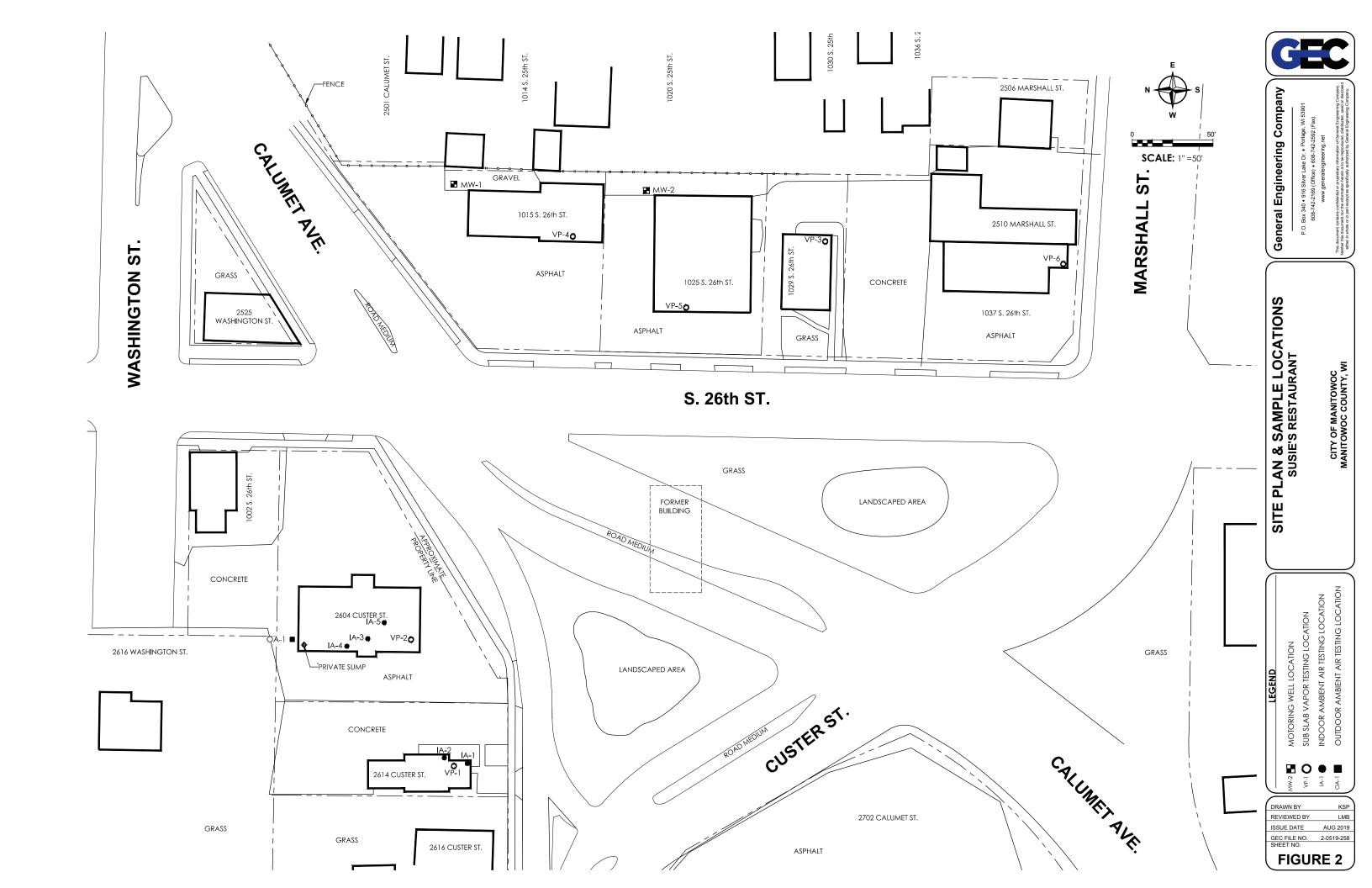
LOQ Limit of Quantitation

Code Comment

Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

**Authorized Signature** 



Tony Evers, Governor Preston D. Cole, Secretary

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



August 23, 2019

KATHY A SCHMILL 1029 S 26TH STREET MANITOWOC WI 54220

SUBJECT: Vapor Sampling Results – <u>Contaminants Not Detected</u>
PROPERTY: WI DOT – Susies Restaurant (Former) – LGU-SL, 1020 S. 26th Street, Manitowoc, WI BRRTS Activity # 02-36-000516

Dear Ms. Schmill:

Included with this letter are the findings of a recent investigation performed on your property located at 1029 South 26th Street by the Wisconsin Department of Natural Resources (DNR).

As you are aware, this investigation was conducted because of the potential for contaminant vapors from the nearby WI DOT - Susies Restaurant (Former) property, identified above, to migrate through soils, accumulate beneath the foundation of your business, and possibly enter your indoor air. The contaminant of concern at the WI DOT - Susies Restaurant (Former) property is Trichloroethene, or TCE. The history of this site and the potential concerns to neighboring residents were described in detail in the original letter sent to your business.

On August 7, 2019, an environmental consultant hired by the DNR collected a soil vapor sample from beneath the foundation at 1029 South 26th Street. The sample was then submitted to the Synergy Environmental Lab, Inc., where it underwent laboratory analysis for nine different volatile organic compounds (VOCs), including TCE.

#### **Your Test Results**

Attached is a copy of the laboratory report for your sub-slab air sample. The results show that TCE was not detected. There does not appear to be a risk of TCE vapor entering your business from beneath the foundation at this time. These sampling results confirm the previous conclusion that there does not appear to be a risk of TCE vapor entering your business from beneath the foundation.

The laboratory report from the August sampling event also shows very low levels of VOCs other than TCE, specifically Tetrachloroethene or PCE, detected in soil vapors from beneath your building. This is likely due the activities that took place at WI DOT - Susies Restaurant (Former) in the past. The level at which PCE was detected is such that it does not pose a threat to you or your employees.

## **Next Steps**

The DNR is not planning additional sampling beneath your businesses based on the data collected. I will contact you soon to schedule a time to abandon the vapor port in the floor of your basement.

Please feel free to contact me at (920) 662-5443 or by email to <u>Sarah.Krueger@wisconsin.gov</u> if you have any questions about these results.



August 23, 2019 Page 2 of 2

Kathy Schmill Vapor Sampling Results

WI DOT – Susies Restaurant (Former), BRRTS #02-36-000516

Sincerely,

Sarah Krueger Project Manager

Remediation & Redevelopment Program

Sarah Krueger

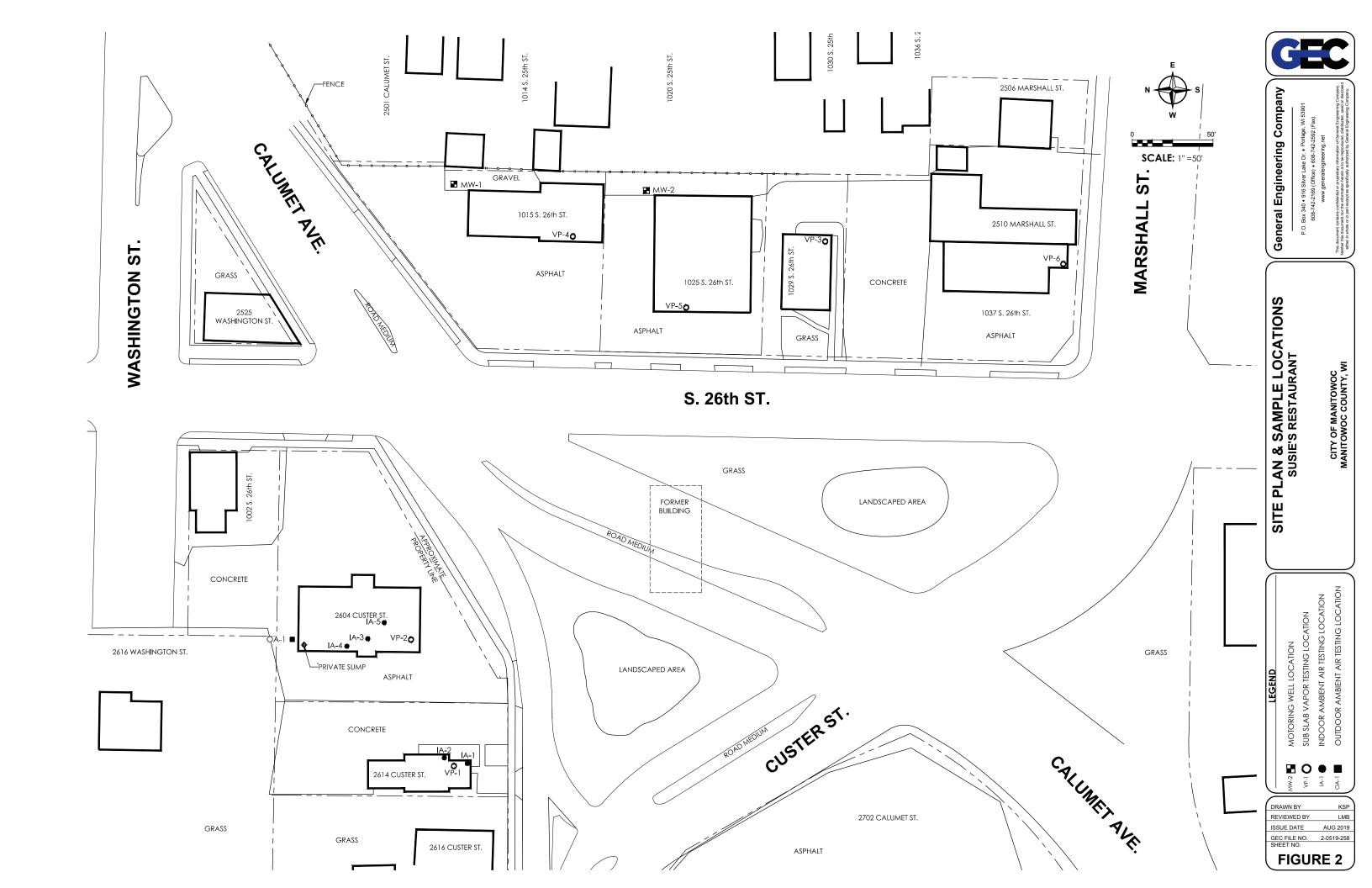
Encl. Understanding Chemical Vapor Testing Results, RR977

Att. Laboratory Analytical Report

Sample Location Figure

Cc: Greg Minikel, City of Manitowoc, <a href="mailto:gminikel@manitowoc.org">gminikel@manitowoc.org</a>

Lab Code Sample ID Sample Matrix Sample Date	5036596C VP-3 Air 8/7/2019										
-		Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
1,2-Dichloroethane		< 0.24	ug/m3	0.24	0.763	1	TO-15		8/9/2019	CJR	1
1,1-Dichloroethane		< 0.187	ug/m3	0.187	0.596	1	TO-15		8/9/2019	CJR	1
1,1-Dichloroethene		< 0.21	ug/m3	0.21	0.668	1	TO-15		8/9/2019	CJR	1
cis-1,2-Dichloroethe	ne	< 0.197	ug/m3	0.197	0.626	1	TO-15		8/9/2019	CJR	1
trans-1,2-Dichloroet	hene	< 0.231	ug/m3	0.231	0.734	. 1	TO-15		8/9/2019	CJR	1
Tetrachloroethene		3.9	ug/m3	0.278	0.884	. 1	TO-15		8/9/2019	CJR	1
1,1,1-Trichloroethan	ne	< 0.249	ug/m3	0.249	0.793	1	TO-15		8/9/2019	CJR	1
Trichloroethene (TC	E)	< 0.237	ug/m3	0.237	0.754	1	TO-15		8/9/2019	CJR	1
Vinyl Chloride		< 0.148	ug/m3	0.148	0.472	1	TO-15		8/9/2019	CJR	1



# Tony Evers, Governor Preston D. Cole, Secretary

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



August 23, 2019

AUTOWERKS VEHICLE MAINTENANCE CENTER, LLC EDWARD WAGNER 1037 S 26TH STREET MANITOWOC WI 54220

> SUBJECT: Vapor Sampling Results - <u>Contaminant Not Detected</u> PROPERTY: WI DOT – Susies Restaurant (Former) – LGU-SL, 1020 S. 26th Street, Manitowoc, WI

> > BRRTS Activity # 02-36-000516

Dear Mr. Wagner:

Included with this letter are the findings of a recent investigation performed on your property located at 1037 South 26th Street by the Wisconsin Department of Natural Resources (DNR).

As you are aware, this investigation was conducted because of the potential for contaminant vapors from the nearby WI DOT - Susies Restaurant (Former) property, identified above, to migrate through soils, accumulate beneath the foundation of your business, and possibly enter your indoor air. The contaminant of concern at the WI DOT - Susies Restaurant (Former) property is Trichloroethene, or TCE. The history of this site and the potential concerns to neighboring residents were described in detail in the original letter sent to your business.

On August 6, 2019, an environmental consultant hired by the DNR installed a sampling device into the foundation at 1037 South 26th Street and collected soil vapor samples. The sample was then submitted to the Synergy Environmental Lab, Inc., where it underwent laboratory analysis for nine different volatile organic compounds (VOCs), including TCE.

#### **Your Test Results**

Attached is a copy of the laboratory report for your sub-slab air sample. The results show that TCE was not detected. There does not appear to be a risk of TCE vapor entering your business from beneath the foundation at this time. In order to confirm the results, an additional sub-slab vapor sample will be collected for analysis from your property on **Wednesday**, **August 28**, **2019**.

The laboratory report from the August sampling event also shows very low levels of VOCs other than TCE, specifically Tetrachloroethene or PCE, detected in soil vapors from beneath your building. This is likely due the activities that took place at WI DOT - Susies Restaurant (Former) in the past. The level at which PCE was detected is such that it does not pose a threat to you or your employees.

Please feel free to contact me at (920) 662-5443 or by email to <u>Sarah.Krueger@wisconsin.gov</u> if you have any questions about these results.

Sincerely,

Sarah Krueger Project Manager

Remediation & Redevelopment Program

arah Krueger



August 23, 2019 Page 2 of 2

Edward Wagner, Autowerks Vehicle Maintenance Center, LLC. Vapor Sampling Results WI DOT – Susies Restaurant (Former), BRRTS #02-36-000516

Encl. Understanding Chemical Vapor Testing Results, <u>RR977</u>

Att. Laboratory Analytical Report Sample Location Figure

cc: Greg Minikel, City of Manitowoc, <a href="maintowoc.org">gminikel@manitowoc.org</a>

# Synergy Environmental Lab, INC

1990 Prospect Ct., Appleton, WI 54914 \*P 920-830-2455 \* F 920-733-0631

**BRIAN YOUNGWIRTH GENERAL ENGINEERING** 916 SILVER LAKE DRIVE PORTAGE, WI 53901

Report Date 12-Aug-19

**Project Name** SUSIES RESTAURANT **Invoice #** E36588

Project #

5036588A Lab Code Sample ID VP-6 Sample Matrix Air Sample Date 8/6/2019

Sample Date	0/0/2019										
		Result	Unit	LOD 1	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
1,2-Dichloroethane		< 0.24	ug/m3	0.24	0.763	1	TO-15		8/7/2019	CJR	1
1,1-Dichloroethane		< 0.187	ug/m3	0.187	0.596	1	TO-15		8/7/2019	CJR	1
1,1-Dichloroethene		< 0.21	ug/m3	0.21	0.668	1	TO-15		8/7/2019	CJR	1
cis-1,2-Dichloroeth	ene	< 0.197	ug/m3	0.197	0.626	1	TO-15		8/7/2019	CJR	1
trans-1,2-Dichloroe	thene	< 0.231	ug/m3	0.231	0.734	1	TO-15		8/7/2019	CJR	1
Tetrachloroethene		9.6	ug/m3	0.278	0.884	1	TO-15		8/7/2019	CJR	1
1,1,1-Trichloroetha	ne	< 0.249	ug/m3	0.249	0.793	1	TO-15		8/7/2019	CJR	1
Trichloroethene (TO	CE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		8/7/2019	CJR	1
Vinyl Chloride		< 0.148	ug/m3	0.148	0.472	1	TO-15		8/7/2019	CJR	1

<sup>&</sup>quot;J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

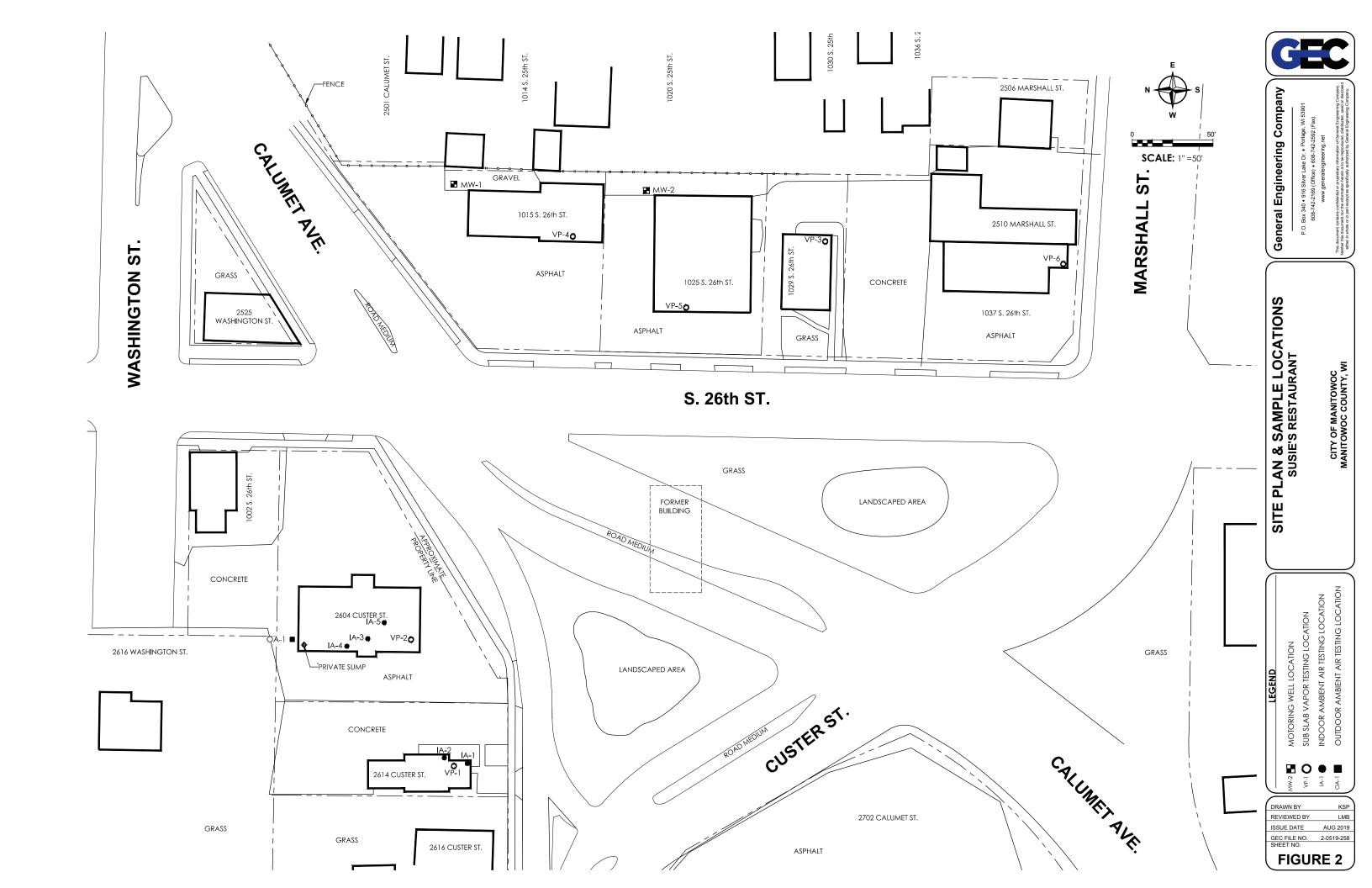
LOQ Limit of Quantitation

Code Comment

Laboratory QC within limits. 1

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

**Authorized Signature** 



Tony Evers, Governor Preston D. Cole, Secretary Telephone 608-266-2621

WISCONSIN Toll Free 1-888-936-7463 **DEPT. OF NATURAL RESOURCES** TTY Access via relay - 711

August 23, 2019

SALVADORE VELESQUES 2604 CUSTER STREET MANITOWOC WI 54220

> SUBJECT: Vapor Sampling Results - Contaminant Detection Below DNR Screening Level PROPERTY: WI DOT – Susies Restaurant (Former) – LGU-SL, 1020 S. 26th Street, Manitowoc, WI BRRTS Activity # 02-36-000516

Dear Mr. Velesques:

Included with this letter are the findings of a recent investigation performed on your property located at 2614 Custer Street by the Wisconsin Department of Natural Resources (DNR).

As you are aware, this investigation was conducted because of the potential for contaminant vapors from the nearby WI DOT - Susies Restaurant (Former) property, identified above, to migrate through soils, accumulate beneath the foundation of your residence, and possibly enter your indoor air. The contaminant of concern at the WI DOT - Susies Restaurant (Former) property is Trichloroethene, or TCE. The history of this site and the potential concerns to neighboring residents were described in detail in the original letter sent to you.

On August 7, 2019, an environmental consultant hired by the DNR collected two 24-hour indoor air samples from the first floor and basement, and a soil vapor sample from beneath your foundation at 2614 Custer Street. The samples were then submitted to the Synergy Environmental Lab, Inc., where they underwent laboratory analysis for nine different volatile organic compounds (VOCs), including TCE.

#### **Your Test Results**

Attached is a copy of the laboratory report for your sub-slab and indoor air samples. The results show that a small amount of TCE was detected in the sample taken from beneath your foundation at 2614 Custer Street. Although TCE was detected in soil vapors beneath your foundation floor, the level at which it was detected is such that it does not pose a threat to you or your family. This is called "a detection below screening level" and is explained in the enclosed fact sheet.

The indoor air sampling results from both the first floor and basement show that TCE was not detected.

The laboratory report from the August sampling event also shows very low levels of VOCs other than TCE, including Tetrachloroethene or PCE, and Vinyl Chloride, detected in soil vapors from beneath your building. This is likely due the activities that took place at WI DOT - Susies Restaurant (Former) in the past. Additionally, 1,1,1-Tricholoethane was detected in soil vapors beneath your foundation at 2614 Custer Street. This is likely due to trace amounts of VOCs from products such as paints, adhesives, fragrances, etc. that are commonly found in the typical home or office, and unrelated to the activities that took place at Susies Restaurant (Former) in the past. The level at which these additional VOCs were detected is such that it does not pose a threat to you or your employees.

These latest sample results confirm the previous test results, indicating that there does not appear to be a risk of TCE vapor entering your home from beneath the foundation.



August 23, 2019 Page 2 of 2

Salvador Velesques Vapor Sampling Results

WI DOT – Susies Restaurant (Former), BRRTS #02-36-000516

## **Next Steps**

An additional round of samples will need to be collected during the winter heating season to confirm the results of the two rounds of sampling at 2614 Custer Street. I will contact you to schedule another sampling visit this winter.

Please feel free to contact me at (920) 662-5443 or by email to <u>Sarah.Krueger@wisconsin.gov</u> if you have any questions about these results.

Sincerely,

Sarah Krueger Project Manager

Remediation & Redevelopment Program

Sarah Krueger

Encl. Understanding Chemical Vapor Testing Results, <u>RR977</u>

Att. Laboratory Analytical Report

Sample Location Figure

cc: Greg Minikel, City of Manitowoc, <a href="mailto:gminikel@manitowoc.org">gminikel@manitowoc.org</a>

# Synergy Environmental Lab, INC

1990 Prospect Ct., Appleton, WI 54914 \*P 920-830-2455 \* F 920-733-0631

BRIAN YOUNGWIRTH GENERAL ENGINEERING 916 SILVER LAKE DRIVE PORTAGE. WI 53901

Report Date 14-Aug-19

Project Name SUSIES RESTAURANT Invoice # E36596

Project #

Lab Code 5036596A Sample ID VP-1 Sample Matrix Air Sample Date 8/7/2019

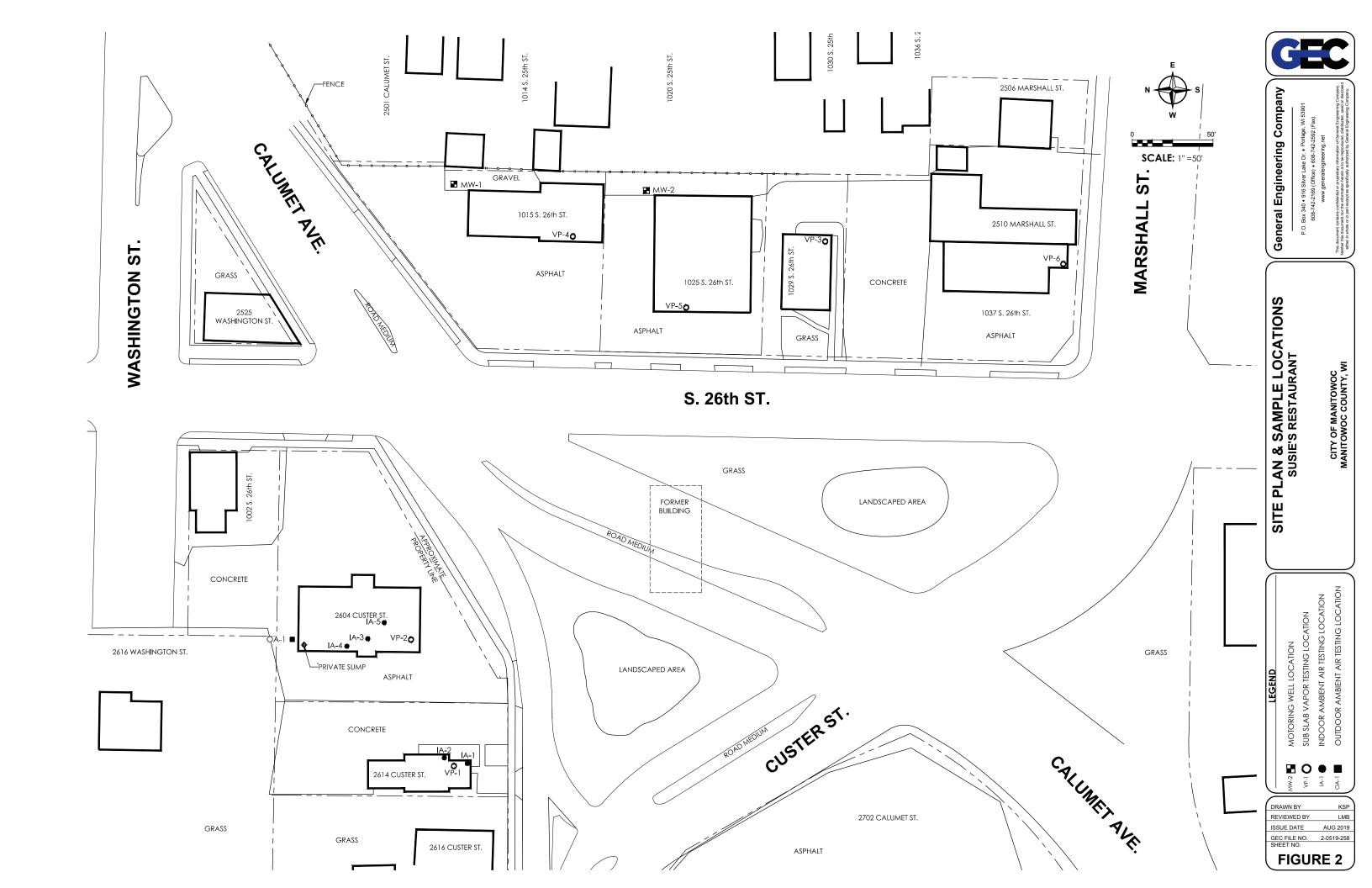
-	Result	Unit	LOD I	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
1,2-Dichloroethane	< 0.24	ug/m3	0.24	0.763	1	TO-15		8/9/2019	CJR	1
1,1-Dichloroethane	< 0.187	ug/m3	0.187	0.596	1	TO-15		8/9/2019	CJR	1
1,1-Dichloroethene	< 0.21	ug/m3	0.21	0.668	1	TO-15		8/9/2019	CJR	1
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		8/9/2019	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		8/9/2019	CJR	1
Tetrachloroethene	1.15	ug/m3	0.278	0.884	1	TO-15		8/9/2019	CJR	1
1,1,1-Trichloroethane	0.65 "J"	ug/m3	0.249	0.793	1	TO-15		8/9/2019	CJR	1
Trichloroethene (TCE)	3.6	ug/m3	0.237	0.754	1	TO-15		8/9/2019	CJR	1
Vinyl Chloride	0.36 "J"	ug/m3	0.148	0.472	1	TO-15		8/9/2019	CJR	1

Lab Code	5036596F
Sample ID	IA-1
Sample Matrix	Air
Sample Date	8/7/2019

	Result	Unit	LOD I	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
1,2-Dichloroethane	< 0.24	ug/m3	0.24	0.763	1	TO-15		8/8/2019	CJR	1
1,1-Dichloroethane	< 0.187	ug/m3	0.187	0.596	1	TO-15		8/8/2019	CJR	1
1,1-Dichloroethene	< 0.21	ug/m3	0.21	0.668	1	TO-15		8/8/2019	CJR	1
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		8/8/2019	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		8/8/2019	CJR	1
Tetrachloroethene	< 0.278	ug/m3	0.278	0.884	1	TO-15		8/8/2019	CJR	1
1,1,1-Trichloroethane	< 0.249	ug/m3	0.249	0.793	1	TO-15		8/8/2019	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		8/8/2019	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		8/8/2019	CJR	1

Lab Code5036596GSample IDIA-2Sample MatrixAirSample Date8/7/2019

	Result	Unit	LOD I	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
1,2-Dichloroethane	< 0.24	ug/m3	0.24	0.763	1	TO-15		8/8/2019	CJR	1
1,1-Dichloroethane	< 0.187	ug/m3	0.187	0.596	1	TO-15		8/8/2019	CJR	1
1,1-Dichloroethene	< 0.21	ug/m3	0.21	0.668	1	TO-15		8/8/2019	CJR	1
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		8/8/2019	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		8/8/2019	CJR	1
Tetrachloroethene	< 0.278	ug/m3	0.278	0.884	1	TO-15		8/8/2019	CJR	1
1,1,1-Trichloroethane	< 0.249	ug/m3	0.249	0.793	1	TO-15		8/8/2019	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		8/8/2019	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		8/8/2019	CJR	1



Tony Evers, Governor Preston D. Cole, Secretary Telephone 608-266-2621

WISCONSIN Toll Free 1-888-936-7463 **DEPT. OF NATURAL RESOURCES** TTY Access via relay - 711

August 23, 2019

SALVADOR VELESQUES 2604 CUSTER STREET **MANITOWOC WI 54220** 

> SUBJECT: Vapor Sampling Results - Contaminant Detection Above DNR Screening Level PROPERTY: WI DOT – Susies Restaurant (Former) – LGU-SL, 1020 S. 26th Street, Manitowoc, WI BRRTS Activity # 02-36-000516

Dear Mr. Velesques:

Included with this letter are the findings of a recent investigation performed on your property located at 2604 Custer Street by the Wisconsin Department of Natural Resources (DNR). This letter is a follow-up to our meeting at your restaurant on August 14, 2019.

As you are aware, this investigation was conducted because of the potential for contaminant vapors from the nearby WI DOT - Susies Restaurant (Former) property, identified above, to migrate through soils, accumulate beneath the foundation of your residence and business, and possibly enter your indoor air. The contaminant of concern at the WI DOT - Susies Restaurant (Former) property is Trichloroethene, or TCE. The history of this site and the potential concerns to neighboring residents were described in detail in the original letter sent to your business.

On August 7, 2019, an environmental consultant hired by the DNR collected a soil vapor sample from beneath your foundation, collected three 8-hour indoor air samples from both the basement and first floor, and an 8-hour outdoor air sample at 2604 Custer Street. The samples were then submitted to the Synergy Environmental Lab, Inc., where they underwent laboratory analysis for nine different volatile organic compounds (VOCs), including TCE.

Additionally, on August 7, 2019 a groundwater sample was collected from the basement sump at 2604 Custer Street. The sample was then submitted to the Synergy Environmental Lab, Inc., where they underwent laboratory analysis for VOCs, including TCE.

#### **Your Test Results**

Attached is a copy of the laboratory reports for your sub-slab, indoor air, and sump groundwater samples.

The analysis of the sample taken at your business at 2604 Custer Street detected TCE beneath your foundation floor at 1,430 micrograms per cubic meter (µg/m<sup>3</sup>). The DNR vapor risk screening level (VRSL) for TCE beneath the floor at a commercial business is 290 µg/m<sup>3</sup>.

The analysis of the indoor air samples shows that TCE was not detected in the samples collected from the first floor of your business. The results from the basement indoor air sample show that a small amount of TCE was detected. Although TCE was detected in the indoor air of your basement, the level at which it was detected is such that it does not pose a threat to you or your employees. This is called "a detection below screening level" and is explained in the enclosed fact sheet.

The DNR action level for TCE is set to provide a threshold concentration that is protective of human health over long-term exposure.



August 23, 2019 Salvador Velesques Vapor Sampling Results WI DOT – Susies Restaurant (Former), BRRTS #02-36-000516

You may have questions about how breathing these vapors may affect your health. Please contact Curtis Hedman with the Wisconsin Department of Health Services (DHS), at (608) 266-6677 or via email to <a href="mailto:Curtis.Hedman@dhs.wisconsin.gov">Curtis.Hedman@dhs.wisconsin.gov</a>, who can address your health questions and concerns.

The laboratory report from the August sampling event also shows very low levels of VOCs other than TCE, including Tetrachloroethene or PCE, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, and Vinyl Chloride, detected in soil vapors from beneath your building and in the basement indoor air. This is likely due the activities that took place at WI DOT - Susies Restaurant (Former) in the past. The level at which these additional VOCs were detected is such that it does not pose a threat to you or your employees.

Additionally, 1,2-Dichloroethane and 1,1-Dichloroethene, was detected in soil vapors beneath your foundation and/or in the basement indoor air. This is likely due to trace amounts of VOCs from products such as paints, adhesives, fragrances, etc. that are commonly found in the typical home or office, and unrelated to the activities that took place at Susies Restaurant (Former) in the past. The level at which these additional VOCs were detected is such that it does not pose a threat to you or your employees.

The results from the groundwater sample collected from the sump at 2604 Custer Street had TCE detected just above the public health enforcement standard of 5 micrograms per liter ( $\mu$ g/L), indicating that groundwater contamination from the WI DOT - Susies Restaurant (Former) site has impacted the groundwater on your property.

# **Next Steps**

We recommend the following actions at this time:

We strongly recommend installing a sub-slab mitigation system to remove TCE vapors from beneath your business. Part of this system will include sealing your basement sump so the contaminated groundwater cannot off-gas into your business. The sub-slab mitigation system with a sealed sump is identical to that used for homes and businesses where radon is a concern and a sump is present. The system diverts radon (or chemical vapors) from beneath the home or business and from within the drain tile and sump and discharges them into the outdoor air, above the building's roofline, rendering them harmless. Once TCE vapors are successfully removed from beneath your basement floor and from within the drain tile and sump, there will be no potential or actual health threat for you or your employees from that kind of exposure.

You will be contacted by DNR to schedule installation of the sub-slab mitigation system. The cost of system installation will be paid by DNR.

Please feel free to contact me at (920) 662-5443 or by email to <u>Sarah.Krueger@wisconsin.gov</u> if you have any questions about these results.

Sincerely,

Sarah Krueger Project Manager

Remediation & Redevelopment Program

Sarah Krueger

August 23, 2019 Page 3 of 3

Salvador Velesques
Vapor Sampling Results

WI DOT – Susies Restaurant (Former), BRRTS #02-36-000516

Encl. Understanding Chemical Vapor Testing Results, <u>RR977</u>
First Request for Access to Install Mitigation System
Access Agreement for VI Mitigation Installation

Att. Laboratory Analytical Report Sample Location Figure

cc. Curtis Hedman, Wisconsin Dept. of Health Services, <u>Curtis.Hedman@dhs.wisconsin.gov</u> Greg Minikel, City of Manitowoc, <u>gminikel@manitowoc.org</u>

Project Name Project #	SUSIES RES	STAURANT					Invo	ice# E365	96		
Lab Code Sample ID Sample Matrix Sample Date	5036596B VP-2 Air 8/7/2019	Result	Unit	LOD I	.00 I	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic											
Air Samples											
1,2-Dichloroethan	e	< 2.4	ug/m3	2.4	7.63	10	TO-15		8/8/2019	CJR	1
1,1-Dichloroethan	e	< 1.87	ug/m3	1.87	5.96	10	TO-15		8/8/2019	CJR	1
1,1-Dichloroethene	e	17	ug/m3	2.1	6.68	10	TO-15		8/8/2019	CJR	1
cis-1,2-Dichloroeth	nene	2280	ug/m3	3.94	12.52	20	TO-15		8/9/2019	CJR	1
trans-1,2-Dichloro	ethene	212	ug/m3	2.31	7.34	10	TO-15		8/8/2019	CJR	1
Tetrachloroethene		141	ug/m3	2.78	8.84	10	TO-15		8/8/2019	CJR	1
1,1,1-Trichloroeth	ane	< 2.49	ug/m3	2.49	7.93	10	TO-15		8/8/2019	CJR	1
Trichloroethene (T	CE)	1430	ug/m3	2.37	7.54	10	TO-15		8/8/2019	CJR	1
Vinyl Chloride		5.4	ug/m3	1.48	4.72	10	TO-15		8/8/2019	CJR	1

Project Name SUSIES RESTAURANT Invoice # E36596

Proiect #

Lab Code 5036596H Sample ID IA-3 Sample Matrix Air Sample Date 8/7/2019

	Result	Unit	LOD I	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code	
Organic											
Air Samples											
1,2-Dichloroethane	1.25	ug/m3	0.24	0.763	1	TO-15		8/8/2019	CJR	1	
1,1-Dichloroethane	< 0.187	ug/m3	0.187	0.596	1	TO-15		8/8/2019	CJR	1	
1,1-Dichloroethene	< 0.21	ug/m3	0.21	0.668	1	TO-15		8/8/2019	CJR	1	
cis-1,2-Dichloroethene	5.5	ug/m3	0.197	0.626	1	TO-15		8/8/2019	CJR	1	
trans-1,2-Dichloroethene	1.03	ug/m3	0.231	0.734	1	TO-15		8/8/2019	CJR	1	
Tetrachloroethene	1.02	ug/m3	0.278	0.884	1	TO-15		8/8/2019	CJR	1	
1,1,1-Trichloroethane	< 0.249	ug/m3	0.249	0.793	1	TO-15		8/8/2019	CJR	1	
Trichloroethene (TCE)	4.0	ug/m3	0.237	0.754	1	TO-15		8/8/2019	CJR	1	
Vinyl Chloride	0.23 "J"	ug/m3	0.148	0.472	1	TO-15		8/8/2019	CJR	1	

Lab Code5036596ISample IDIA-4Sample MatrixAirSample Date8/7/2019

	Result	Unit	LOD I	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
1,2-Dichloroethane	< 0.24	ug/m3	0.24	0.763	1	TO-15		8/8/2019	CJR	1
1,1-Dichloroethane	< 0.187	ug/m3	0.187	0.596	1	TO-15		8/8/2019	CJR	1
1,1-Dichloroethene	< 0.21	ug/m3	0.21	0.668	1	TO-15		8/8/2019	CJR	1
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		8/8/2019	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		8/8/2019	CJR	1
Tetrachloroethene	< 0.278	ug/m3	0.278	0.884	1	TO-15		8/8/2019	CJR	1
1,1,1-Trichloroethane	< 0.249	ug/m3	0.249	0.793	1	TO-15		8/8/2019	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		8/8/2019	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		8/8/2019	CJR	1

Lab Code5036596JSample IDIA-5Sample MatrixAirSample Date8/7/2019

•	Result	Unit	LOD 1	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
1,2-Dichloroethane	< 0.24	ug/m3	0.24	0.763	1	TO-15		8/8/2019	CJR	1
1,1-Dichloroethane	< 0.187	ug/m3	0.187	0.596	1	TO-15		8/8/2019	CJR	1
1,1-Dichloroethene	< 0.21	ug/m3	0.21	0.668	1	TO-15		8/8/2019	CJR	1
cis-1,2-Dichloroethene	< 0.197	ug/m3	0.197	0.626	1	TO-15		8/8/2019	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		8/8/2019	CJR	1
Tetrachloroethene	< 0.278	ug/m3	0.278	0.884	1	TO-15		8/8/2019	CJR	1
1,1,1-Trichloroethane	< 0.249	ug/m3	0.249	0.793	1	TO-15		8/8/2019	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		8/8/2019	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		8/8/2019	CJR	1

Project Name SUSIES RESTAURANT Invoice # E36596

**Project** #

Lab Code 5036596K Sample ID OA-1 Sample Matrix Air Sample Date 8/7/2019

	Result	Unit	LOD I	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Air Samples										
1,2-Dichloroethane	< 0.24	ug/m3	0.24	0.763	1	TO-15		8/8/2019	CJR	1
1,1-Dichloroethane	< 0.187	ug/m3	0.187	0.596	1	TO-15		8/8/2019	CJR	1
1,1-Dichloroethene	< 0.21	ug/m3	0.21	0.668	1	TO-15		8/8/2019	CJR	1
cis-1,2-Dichloroethene	0.44 "J"	ug/m3	0.197	0.626	1	TO-15		8/8/2019	CJR	1
trans-1,2-Dichloroethene	< 0.231	ug/m3	0.231	0.734	1	TO-15		8/8/2019	CJR	1
Tetrachloroethene	< 0.278	ug/m3	0.278	0.884	1	TO-15		8/8/2019	CJR	1
1,1,1-Trichloroethane	< 0.249	ug/m3	0.249	0.793	1	TO-15		8/8/2019	CJR	1
Trichloroethene (TCE)	< 0.237	ug/m3	0.237	0.754	1	TO-15		8/8/2019	CJR	1
Vinyl Chloride	< 0.148	ug/m3	0.148	0.472	1	TO-15		8/8/2019	CJR	1

<sup>&</sup>quot;J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

Code Comment

Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

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**Authorized Signature** 

# Synergy Environmental Lab, INC

1990 Prospect Ct., Appleton, WI 54914 \*P 920-830-2455 \* F 920-733-0631

BRIAN YOUNGWIRTH GENERAL ENGINEERING 916 SILVER LAKE DRIVE PORTAGE. WI 53901

Report Date 13-Aug-19

Project Name SUSIES RESTAURANT Invoice # E36597

Project #

**Lab Code** 5036597A

Sample ID RESTAURANT SUMP

**Sample Matrix** Water **Sample Date** 8/7/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.22	ug/l	0.22	0.71	1	8260B		8/13/2019	CJR	1
Bromobenzene	< 0.44	ug/l	0.44	1.38	1	8260B		8/13/2019	CJR	1
Bromodichloromethane	< 0.33	ug/l	0.33	1.06	1	8260B		8/13/2019	CJR	1
Bromoform	< 0.45	ug/l	0.45	1.44	. 1	8260B		8/13/2019	CJR	1
tert-Butylbenzene	< 0.25	ug/l	0.25	0.8	1	8260B		8/13/2019	CJR	1
sec-Butylbenzene	< 0.79	ug/l	0.79	2.53	1	8260B		8/13/2019	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.25	1	8260B		8/13/2019	CJR	1
Carbon Tetrachloride	< 0.31	ug/l	0.31	0.98	1	8260B		8/13/2019	CJR	1
Chlorobenzene	< 0.26	ug/l	0.26	0.83	1	8260B		8/13/2019	CJR	1
Chloroethane	< 0.61	ug/l	0.61	1.95	1	8260B		8/13/2019	CJR	1
Chloroform	< 0.26	ug/l	0.26	0.82	1	8260B		8/13/2019	CJR	1
Chloromethane	< 0.54	ug/l	0.54	1.72	1	8260B		8/13/2019	CJR	1
2-Chlorotoluene	< 0.31	ug/l	0.31	0.98	1	8260B		8/13/2019	CJR	1
4-Chlorotoluene	< 0.26	ug/l	0.26	0.83	1	8260B		8/13/2019	CJR	1
1,2-Dibromo-3-chloropropane	< 2.96	ug/l	2.96	9.43	1	8260B		8/13/2019	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.69	1	8260B		8/13/2019	CJR	1
1,4-Dichlorobenzene	< 0.7	ug/l	0.7	2.22	1	8260B		8/13/2019	CJR	1
1,3-Dichlorobenzene	< 0.85	ug/l	0.85	2.7	1	8260B		8/13/2019	CJR	1
1,2-Dichlorobenzene	< 0.86	ug/l	0.86	2.74	. 1	8260B		8/13/2019	CJR	1
Dichlorodifluoromethane	< 0.32	ug/l	0.32	1.02	1	8260B		8/13/2019	CJR	1
1,2-Dichloroethane	< 0.25	ug/l	0.25	0.78	1	8260B		8/13/2019	CJR	1
1,1-Dichloroethane	< 0.36	ug/l	0.36	1.14	1	8260B		8/13/2019	CJR	1
1,1-Dichloroethene	< 0.42	ug/l	0.42	1.34	. 1	8260B		8/13/2019	CJR	1
cis-1,2-Dichloroethene	23.5	ug/l	0.37	1.16	1	8260B		8/13/2019	CJR	1
trans-1,2-Dichloroethene	3.4	ug/l	0.34	1.07	1	8260B		8/13/2019	CJR	1

**Project Name** SUSIES RESTAURANT **Proiect #** 

**Lab Code** 5036597A

Sample ID RESTAURANT SUMP

**Sample Matrix** Water **Sample Date** 8/7/2019

1	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2-Dichloropropane	< 0.44	ug/l	0.44	1.39	1	8260B		8/13/2019	CJR	1
1,3-Dichloropropane	< 0.3	ug/l	0.3	0.94	1	8260B		8/13/2019	CJR	1
trans-1,3-Dichloropropene	< 0.32	ug/l	0.32	1.01	1	8260B		8/13/2019	CJR	1
cis-1,3-Dichloropropene	< 0.26	ug/l	0.26	0.81	1	8260B		8/13/2019	CJR	1
Di-isopropyl ether	< 0.21	ug/l	0.21	0.66	1	8260B		8/13/2019	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		8/13/2019	CJR	1
Ethylbenzene	< 0.26	ug/l	0.26	0.83	1	8260B		8/13/2019	CJR	1
Hexachlorobutadiene	< 1.34	ug/l	1.34	4.28	1	8260B		8/13/2019	CJR	1
Isopropylbenzene	< 0.78	ug/l	0.78	2.47	1	8260B		8/13/2019	CJR	1
p-Isopropyltoluene	0.31 "J"	ug/l	0.24	0.76	1	8260B		8/13/2019	CJR	1
Methylene chloride	< 1.32	ug/l	1.32	4.21	1	8260B		8/13/2019	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.28	ug/l	0.28	0.89	1	8260B		8/13/2019	CJR	1
Naphthalene	< 2.1	ug/l	2.1	6.65	1	8260B		8/13/2019	CJR	1
n-Propylbenzene	< 0.61	ug/l	0.61	1.95	1	8260B		8/13/2019	CJR	1
1,1,2,2-Tetrachloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		8/13/2019	CJR	1
1,1,1,2-Tetrachloroethane	< 0.35	ug/l	0.35	1.13	1	8260B		8/13/2019	CJR	1
Tetrachloroethene	< 0.38	ug/l	0.38	1.21	1	8260B		8/13/2019	CJR	1
Toluene	1.94	ug/l	0.19	0.6	1	8260B		8/13/2019	CJR	1
1,2,4-Trichlorobenzene	< 1.15	ug/l	1.15	3.67	1	8260B		8/13/2019	CJR	1
1,2,3-Trichlorobenzene	< 1.71	ug/l	1.71	5.43	1	8260B		8/13/2019	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.05	1	8260B		8/13/2019	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.32	1	8260B		8/13/2019	CJR	1
Trichloroethene (TCE)	5.3	ug/l	0.3	0.94	1	8260B		8/13/2019	CJR	1
Trichlorofluoromethane	< 0.35	ug/l	0.35	1.1	1	8260B		8/13/2019	CJR	1
1,2,4-Trimethylbenzene	< 0.8	ug/l	0.8	2.55	1	8260B		8/13/2019	CJR	1
1,3,5-Trimethylbenzene	< 0.63	ug/l	0.63	2	1	8260B		8/13/2019	CJR	1
Vinyl Chloride	0.2 "J"	ug/l	0.2	0.65	1	8260B		8/13/2019	CJR	1
m&p-Xylene	< 0.43	ug/l	0.43	1.38	1	8260B		8/13/2019	CJR	1
o-Xylene	< 0.29	ug/l	0.29	0.93	1	8260B		8/13/2019	CJR	1
SUR - Toluene-d8	93	REC %			1	8260B		8/13/2019	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			1	8260B		8/13/2019	CJR	1
SUR - 4-Bromofluorobenzene	88	REC %			1	8260B		8/13/2019	CJR	1
SUR - Dibromofluoromethane	111	REC %			1	8260B		8/13/2019	CJR	1

Project Name SUSIES RESTAURANT Invoice # E36597

Project #

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

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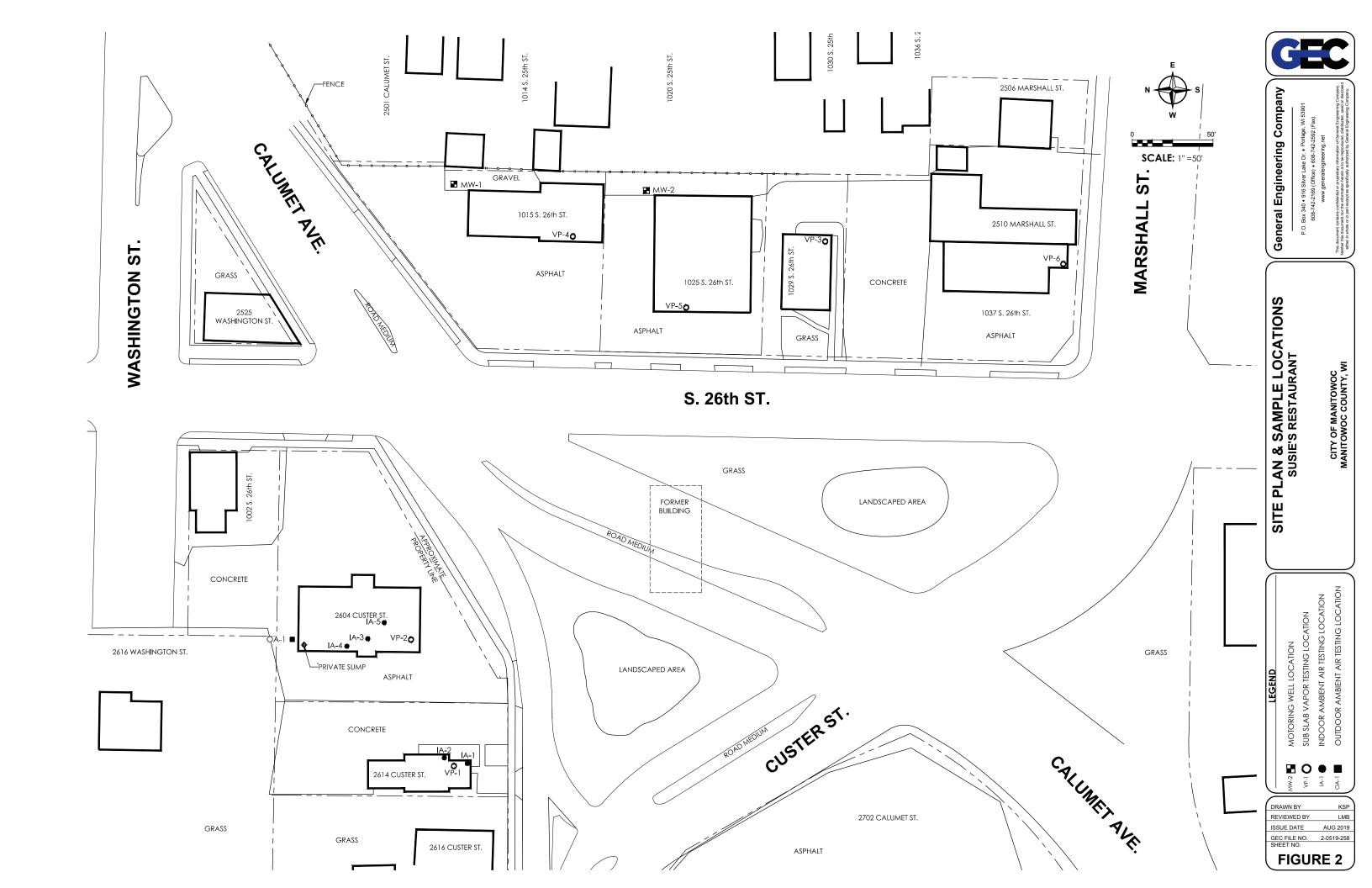
LOQ Limit of Quantitation

Code Comment

Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

**Authorized Signature** 





# 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.

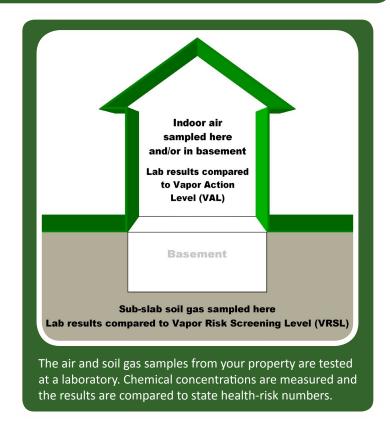
## **Indoor Air Testing Results**

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**

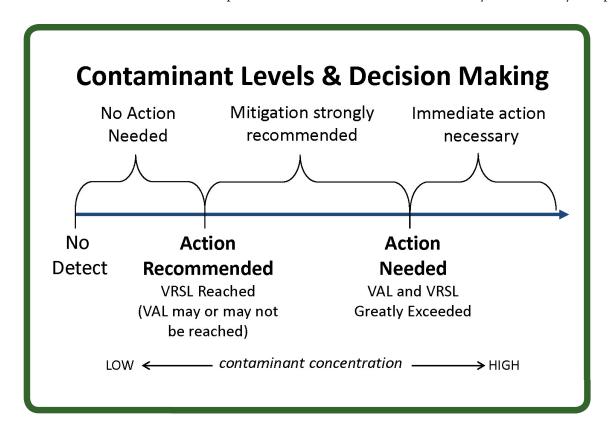
If your test results are less than a VAL for indoor air, or a VRSL for sub-slab soil gas, then the air in the house or building should not present a health concern. Follow-up sampling and testing may be necessary to confirm the results, but no other action is typically suggested.

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.



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  $\mu g/m3$  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.

Tony Evers, Governor Preston D. Cole, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463



August 23, 2019

SALVADOR VELESQUES 2604 CUSTER STREET MANITOWOC WI 54220

SUBJECT: First Notice: Request for Access for Installation of Vapor Mitigation System at Your Business

Dear Mr. Velesques,

As you are aware, the Wisconsin Department of Natural Resources (DNR) has been conducting an investigation to determine whether vapors from the nearby WI DOT - Susies Restaurant (Former) property have accumulated beneath the basement of your business. The vapor contaminant of concern is Trichloroethene, also referred to as TCE.

Based on the detection of TCE at your business, at levels above the DNR's sub-slab vapor risk screening level, DNR would like to install a sub-slab mitigation system to remove TCE vapors from beneath your business. Part of this system will include sealing your basement sump so the contaminated groundwater cannot off-gas into your business. The sub-slab mitigation system with a sealed sump is identical to those used for homes or businesses with high radon gas levels. This system will also effectively divert radon, a naturally occurring element, from entering your business. Once TCE vapors are removed from beneath your basement floor and from within the drain tile and sump, TCE will no longer pose a potential health risk to you and your employees.

Sub-slab mitigation systems consist of PVC tubing that runs from a hole in the basement floor and from the sealed sump to the roof and is powered by a fan that pulls vapors out of the ground before they can enter your business. The cost of the system and its installation will be completely covered by DNR. At this particular location, DNR will also be responsible for the long-term costs associated with maintaining and monitoring this system, with the exception of the electricity to run the fan (equivalent to the electricity for one light bulb).

The DNR strongly encourages you to take advantage of this opportunity. If so, please fill out the included *Access* **Permission and Vapor Mitigation Agreement** and mail it in the stamped return envelope. You may also scan and email the agreement to Sarah Krueger, the DNR Project Manager for this case, at Sarah.Krueger@wisconsin.gov.

Please feel free to contact me at (920) 662-5443 if you have any further questions or concerns.

Sincerely,

Sarah Krueger Project Manager Remediation & Redevelopment Program

Encl. Access Agreement for VI Mitigation Installation



# Wisconsin Department of Natural Resources ACCESS PERMISSION AND VAPOR MITIGATION AGREEMENT

I, Salvador Velasques, hereby give permission to the Wisconsin Department of Natural Resources (DNR) and its employees, duly authorized representatives, agents and contractors, to enter upon and have access at reasonable times to the property and business located at 2604 Custer Street, Manitowoc, WI, 54220, and that is owned by me, Salvador Velasques.

The property is located at 2604 Custer Street, parcel number 052-000-367-040.00, Manitowoc County, Wisconsin. The access permission is for the following purposes: that the DNR may mitigate vapor intrusion at the business due to the presence of Trichloroethene. This permission allows the DNR to:

- (1) Inspect the business and determine which (if any) diagnostic tests are necessary in the business prior to installation of a sub-slab depressurization system (SSDS);
- (2) If necessary, conduct a communication test beneath the foundation slab to design a SSDS appropriate for the structure;
- (3) Inspect the sump and discharge to determine what actions are necessary to seal the sump for installation of a SSDS;
- (4) Install a SSDS in the business, including sealing of the sump and associated plumbing recommendations;
- (5) Conduct communication testing beneath the foundation slab after the SSDS is installed to determine if a pressure differential exists and to add additional suction pits, do additional foundation sealing, etc., if necessary;
- (6) If needed, to collect indoor air sample(s) on each level of the business following installation of the SSDS;
- (7) Inspect the system once every two (2) years or as otherwise recommended based on current industry standards; and
- (8) Maintain and monitor the individual components of the SSDS with the exception of providing electricity necessary to operate the fan.

Once the installation is complete, the SSDS will be owned by the property owner. The contractor will provide a basic warranty on labor and materials to the homeowner and the DNR. The property owner agrees not to damage or interfere with the operation of the SSDS and any work performed that was completed as part of the SSDS installation, including sealing of the sump. The property owner agrees to provide the electricity necessary to operate the fan for the SSDS.

The property owner understands that after the system is installed, DNR will maintain and monitor the SSDS and in order for the system to be effective, it must be operated continuously and as instructed by the contractor.

The property owner understands and agrees that DNR is not liable or responsible for providing the electricity necessary to operate the fan after the SSDS is installed.

IN WITHLISS WILLIAEOT.	
Signature of Property Owner	Date
Print Name	Email address
Mailing Address of Owner	
Area Code and Telephone Number	

IN WITNESS WHEREOF

TENANT(S) / LESSEE(S) by UNIT NUMBER, ETC.
Not Applicable – Owner occupied
Name of Tenant(s)/Lessee(s)
Tenant(s) phone number
Tenant(s) email address

Mail or email correspondence regarding this site to:

WI Dept. of Natural Resources ATTN: Sarah Krueger 2984 Shawano Avenue Green Bay, WI 54313 Sarah.Krueger@wisconsin.gov