June 7, 2023



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Wisconsin Department of Natural Resources Attn: Ms. Josie Schultz

Attn: Ms. Josie Schultz 2984 Shawano Avenue Green Bay, WI 54313

#### Subject:

Former V&L Stripping Vapor Mitigation System – Operation and Maintenance Plan 864 Mather Street Green Bay, WI 54303 BRRTS #02-05-216722

#### Dear Josie:

This letter will summarize the installation and operation of the Vapor Mitigation System (VMS) at the V&L Stripping site. The system was installed on May 8, 2020 by A1 Radon and Vacuum and consists of a sub-slab depressurization system intended to eliminate the potential for vapor intrusion into the building. The system size was based on the square footage of the building (approximately 2,350 square feet) in accordance with standard industry practice. Manufacturer blower specifications are included in the VMS Maintenance Plan. The system layout is shown on Figures D.2.a, D.2.b and D.2.c of the VMS Maintenance Plan. Photographs are included in D.3 and D.4 of the VMS Maintenance Plan.

A 0.0-0.5 inches of water Magnehelic vacuum gauge was used to detect sub-slab vacuum from temporary wells TW900 and TW1400 within the building. Low level vacuum (0.05 inches of water) was recorded in TW900, adjacent to the vapor mitigation system, and 0.01 inches of water at TW1400. Photographs of conductivity testing are included in D.3 of the VMS Maintenance Plan.

Ambient air sampling was conducted following VMS installation in the three (3) quadrants of the building, and exterior on September 3, 2020. The building is currently used for automotive repair, and a variety of petroleum and automotive service products such as gas cans, brake cleaner, waste oil, air conditioner refrigerant, parts cleaner, and propane are stored in the western storage area, and eastern shop area. One-liter Summa cans were utilized to capture 8-hour ambient air samples of the western storage area (West), center office area (Center), eastern shop area (East) and ambient exterior air (Entrance/Exterior). Sample locations are shown on Figure D.2.a in the VMS Maintenance Plan.

Ambient air results are summarized on Table 4a. All four (4) samples contained benzene, ethylbenzene, and naphthalene above the Residential Vapor Action Limit. Benzene and naphthalene also exceeded the Commercial Vapor Action Limit (VAL). Sample "West" also



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exceeded the Commercial VAL for Acrolein. Tetrachloroethylene (PCE) was detected in all three (3) indoor air samples (West, Center, East) at levels well below the VAL. Trichloroethylene (TCE) was detected only in the Center sample at a concentration well below the VAL. Cis-1,2 Dichloroethylene (Cis-1,2 DCE), trans-1,2 Dichloroethylene (trans-1,2 DCE), and Vinyl Chloride were non-detect in all four (4) samples.

The system was shut down on August 31, 2021 to determine sub-slab vapor conditions without system operation. Three (3) sub-slab vapor ports were installed at the site on October 26, 2021. Vapor port VP1 was installed in the east (service bay), VP2 was installed in the center (office) area, and VP3 was installed in the west (storage) portion of the building. Sample locations are shown on Figure D.2.a of the VMS maintenance plan. Samples VP1 and VP2 exceeded the small and large commercial screening values for PCE and TCE. Following receipt of results, the system was re-started. The results of sub-slab sampling are summarized on Tables 4a and 4b.

#### **Conclusion and Recommendations**

The VMS is effective in eliminating the vapor intrusion pathway and will continue to operate as designed. The system will be inspected at least annually, and more frequently if apparent issues arise.

Thank you for your assistance with this project. Please contact me to discuss further at (715) 675-9784 or email me at Adelforge@REIengineering.com.

Sincerely, REI Engineering, Inc.

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Andrew R. Delforge, P.G. Senior Hydrogeologist/Project Manager

CC: Ken Juza, 1478 Norfield Road, Suamico, WI 54173

Enclosures

# TABLE 4a AMBIENT AIR SAMPLING RESULTS FORMER V&L STRIPPING 864 MATHER STREET GREEN BAY, WI 54303

	Sample>		West	Center	East	Entrance		AA856M			AA714L				
				(	Collected By>	AD	AD	AD	AD	AD	AD	AD	AD	AD	AD
					Sample Date>	9/3/20	9/3/20	9/3/20	9/3/20	4/14/22	8/22/22	3/2-3/9/23	4/14/22	8/22/22	3/2-3/9/23
		đ		Indoor Air VAL											
TO-15	CAS	ge			Large										
Detected VOC's (ug/m <sup>3</sup> )	Number	inc	Residential	Small	Commercial/										
Detected VOO 3 (µg/m)	Humber	arc	[R]	Continencial	Industrial										
		Ű		[50]	[LC/I]										
Acetone	67-64-1	n	32,200	135,000	135,000	<0.897	20.6	45	12	34	1050	NA	1118	69	NA
Acrolein	107-02-8	n	0.0209	0.0876	0.0876	3.03	<0.188	<0.188	<0.188	NA	NA	NA	NA	NA	NA
Benzene	71-43-2	С	3.6	16	16	56	54	54	52	1.66	1.76	NĂ	7.9	0.80	NA
Benzyl chloride	100-44-7	с	0.573	2.5	2.5	<0.627	<0.418	<0.418	<0.418	< 0.209	< 0.209	NA	< 0.209	< 0.209	NA
Bromodichloromethane	75-27-4	с	0.759	3.31	3.31	<1.122	<0.748	<0.748	<0.748	< 0.374	0.80j	NA	< 0.374	0.94j	NA
Bromoform	75-25-2	с	25.5	111	111	<1.242	<0.828	<0.828	<0.828	<0.414	<0.414	NA	<0.414	<0.414	NA
Bromometnane	14-83-9	n	5.21	21.9	21.9	<0.6	<0.4	<0.4	<0.4	<0.2	<0.2	NA NA	<0.2	<0.2	NA NA
Carbon digulfide	75-15-0	c	730	3.070	3.070	20.2	2.86	3.2	2.86	1.43	0.02	NA	1 37	1 24	NA
Carbon tetrachloride	56-23-5	c	4.68	20.4	20.4	<0.921	<0.614	0.63i	0.63i	0.63i	0.57i	NA	<0.307	0.50i	NA
Chlorobenzene	108-90-7	c	52.1	219	219	<0.753	<0.502	< 0.502	< 0.502	<0.251	<0.251	NA	<0.251	<0.251	NA
Chloroethane	75-00-3					< 0.477	< 0.318	< 0.318	< 0.318	< 0.159	< 0.159	NA	< 0.159	< 0.159	NA
Chloroform	67-66-3	с	1.22	5.33	5.33	<0.9	<0.6	<0.6	<0.6	0.49j	2.34	NA	< 0.3	1.95	NA
Chloromethane	74-87-3	n	93.9	394	394	<2.493	<1.662	<1.661	<1.662	1.67j	1.53j	NA	1.4j	1.22j	NA
Chlorohexane	544-10-5					13.5	12.5	12.6	11.7	<0.212	2.1	NA	5.5	1.5	NA
Dibromochloromethane	124-48-1					<1.128	<0.752	<0.752	<0.752	< 0.376	< 0.376	NA	< 0.376	< 0.376	NA
1,4-Dichlorobenzene	106-46-7	с	2.55	11.1	11.1	1.8j	0.96j	1.2j	1.2j	< 0.302	< 0.302	NA	< 0.302	0.42j	NA
1,3-Dichlorobenzene	541-73-1					< 0.906	< 0.604	< 0.604	< 0.604	< 0.302	< 0.302	NA	< 0.302	< 0.302	NA
1,2-Dichlorobenzene	95-50-1	n	209	876	876	<0.705	<0.47	<0.47	<0.47	<0.235	<0.235	NA	<0.235	<0.235	NA
Dichlorodifluoromethane	107.06.2	n	104	438	438	3.11	3.2	3.2	3.07	3.11	3.5	NA	10.3	2.52	NA
1,2-Dichloroethane	76 24 2	c	1.08	4.12	4.12	<0.72	<0.48	<0.48	<0.48	0.243]	2.06	NA NA	< 0.24	14.9	NA NA
1 1-Dichloroethene	75-35-4	n	209	876	876	<0.501	<0.314	<0.314	<0.314	<0.101	<0.181	NA	<0.101	<0.101	NA
cis-1.2-Dichloroethene	156-59-2					<0.591	< 0.394	< 0.394	< 0.394	<0.197	<0.197	<0.197	<0.197	<0.197	<0.197
trans-1.2-Dichloroethene	156-60-5	с				<0.693	<0.462	<0.462	<0.462	<0.231	<0.231	<0.231	<0.231	<0.231	<0.231
1,2-Dichloropropane	78-87-5	n	4.17	17.5	17.5	< 0.84	< 0.56	< 0.56	< 0.56	<0.28	<0.28	NA	<0.28	< 0.28	NA
trans-1,3-Dichloropropene	10061-02-6					< 0.594	< 0.396	< 0.396	< 0.396	< 0.198	<0.198	NA	< 0.198	<0.198	NA
cis-1,3-Dichloropropene	10061-01-5					< 0.702	< 0.468	< 0.468	<0.468	< 0.234	< 0.234	NA	< 0.234	<0.234	NA
Dichlorotetrafluoroethane (1,2-)	76-14-2					<1.338	< 0.892	< 0.892	< 0.892	< 0.446	< 0.446	NA	< 0.446	< 0.446	NA
1,4-Dioxane	123-91-1	с	5.62	24.5	24.5	<0.471	< 0.314	< 0.314	< 0.314	< 0.157	<0.157	NA	< 0.157	<0.157	NA
1,2-Dibromoethane (EDB)	106-93-4	С	0.0468	0.204	0.204	<1.026	< 0.684	< 0.684	< 0.684	< 0.342	< 0.342	NĂ	< 0.342	< 0.342	NĂ
Ethanol	64-17-5					130	109	104	87	870	1320	NA	670	330	NA
Ethyl acetate	141-78-6	n	73	307	307	<0.528	< 0.352	< 0.352	< 0.352	2.85	7.0	NA	7.2	15.7	NA
Ethylbenzene	100-41-4	с	11.2	49.1	49.1	38	37	37	33	0.91	2.86	NA	8.6	4.1	NA
4-Ethyltouene	622-96-8				1.750	15.3	15	15.5	11.6	<0.214	0.39]	NA	4.8	0.39]	NA
Herechlere 1.2 butadione	144-04-3	n	1 29	1,150	1,150	40	44 <0.079	44 <0.079	44	0.15j	2.10	NA	<0.4	1.39	NA
n-Heyane	110-54-3	n	730	1 750	1 750	45	-0.310	39	36	7.9	14.2	NA	23.5	10.3	NA
2-Hexanone	591-78-6	n	31.3	131	131	<0.666	<0.444	<0.444	<0.444	0.286i	<0.222	NĂ	<0.222	<0.222	NA
2-Propanol (Isopropanol)	67-63-0	n	209	876	876	<0.327	<0.218	<0.218	<0.218	5.9	57	NA	21.8	46	NA
2-Butanone (MEK)	78-93-3	n	5,210	21,900	21,900	4.8	5.4	4.10	3.07	3.15	11.6	NA	4.80	6.4	NA
4-Methyl-2-pentanone (MIBK)	108-11-2	n	3,130	13,100	13,100	< 0.504	1.15	< 0.336	< 0.336	0.41j	0.78	NA	0.86	0.61	NA
Methyl Methacrylate	80-62-6	n	730	3,070	3,070	< 0.651	< 0.434	< 0.434	< 0.434	< 0.217	0.37j	NA	< 0.217	2.87j	NA
Methylene Chloride	75-09-2	n	626	2,630	2,630	<45	<30	<30	<30	15.9	<15	NA	<15	<15	NA
Methyl-tert-butyl ether (MTBE)	1634-04-4	с	108	472	472	<0.48	<0.32	< 0.32	<0.32	<0.16	<0.16	NA	<0.16	<0.16	NA
Naphthalene	91-20-3	n	0.826	3.61	3.61	7.8	6.2	5.9	3.7j	0.89j	1.67j	NA	1.62j	1.15j	NA
Propylene	115-07-1	n	3,130	13,100	13,100	< 0.237	<0.158	<0.158	<0.158	< 0.079	< 0.079	NA	< 0.079	9.2	NA
Styrene	100-42-5	n	1,040	4,380	4,380	0.64j	0.6j	0.43j	<0.362	0.68	1.32	NA	22.9	7.1	NA
1,1,2,2-Tetrachloroethane	79-34-5	с	0.484	2.11	2.11	<0.975	<0.65	<0.65	< 0.65	< 0.325	<0.325	NĂ	<0.325	< 0.325	NĂ
Tetrachloroethene (PCE)	127-18-4	n	41.7	175	175	5.7	8.7	14.4	< 0.556	<0.278	1.09	1.02	1.43	0.48]	0.75]
Toluono	109-99-9	n	2,090 E 210	8,160	8,160	<0.393	<0.262	<0.262	<0.262	2.05	1.21	NA NA	15.1	0.50	INA NA
1 2 4-Trichlorobenzene	120-82-1	n	2.00	8 76	8 76	<1 971	<1 314	<1 314	<1 314	<0.00	<0.0	NA NA	40 <0 657	<0.657	NA
1.1.1-Trichloroethane	71-55-6	n	5.210	21.900	21.900	<0.747	<0.498	<0.498	<0.498	<0.249	<0.249	NA	<0.249	<0.249	NA
1.1.2-Trichloroethane	79-00-5	n	0,209	0,876	0,876	<0.774	<0,516	<0,516	<0,516	<0.258	<0,258	NA	<0.258	<0,258	NA
Trichloroethene (TCE)	79-01-6		2.09	8.76	8.76	<0.711	1.71	< 0.474	< 0.474	<0.237	<0.237	< 0.237	0.48j	<0.237	<0.237
Trichlorofluoromethane	75-69-4	n				2.36j	2.13j	2.02j	1.8j	1.69	1.8	NA	1.4	1.24	NA
Trichlorotrifluoroethane (1,1,2-)	76-13-1	n	5,210	21,900	21,900	<1.206	< 0.804	< 0.804	< 0.804	0.61j	0.54j	NA	0.54j	0.54j	NA
1,2,4-Trimethylbenzene (TMB)	95-63-6	n	62.6	263	263	54	52	55	37	0.69j	1.42	NA	18.4	1.57	NA
1,3,5-Trimethylbenzene (TMB)	108-67-8	С	62.6	263	263	12.2	11.6	12.5	8.3	< 0.232	0.34j	NA	4.4	0.34j	NA
Vinyl acetate	108-05-4	n	209	876	876	<0.609	< 0.406	< 0.406	< 0.406	< 0.203	< 0.203	NA	< 0.203	< 0.203	NA
Vinyl chloride	75-01-4	n	1.68	27.9	27.9	<0.444	< 0.296	< 0.296	< 0.296	<0.148	<0.148	<0.148	<0.148	<0.148	<0.148
Xylene, m,p-	1330-20-7	n	104	438	438	137	132	134	117	2.17	4.3	NĂ	28	4.9	NA
Xylene, o-	I	n	-			51	50	51	43	0.78	1.69	NA	10.9	2.64	NA

Notes: VAL = Vapor Action Level VAL = Vapor Action Below Laboratory Detection Limit - = Not Standard/Not Applicable - = No Standard/Not Applicable ] = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ) c = carcinogen n = non-carcinogen Target Risk for Carcinogens = 1.00E-05 Target Hazard Quotient for Non-Carcinogens = 1

## **Immediate Action Criteria for Indoor Air** Carinogens (c) = 10 x VAL Non-carinogens (n) = 3 x VAL



= Exceeds US EPA Residential VAL = Exceeds US EPA Commercial VAL = Exceeds Immediate Action Criteria for Indoor Air

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#### TABLE 4b SUB-SLAB AIR SAMPLING RESULTS FORMER V&L STRIPPING 864 MATHER STREET GREEN BAY, WI 54303

Sample>						VP1	VP2	VP3		SS856M			SS714L		SP7	'14 <b>L</b>
	Collected By>					AD	AD	AD	AD	AD	AD	AD	AD	AD	AD	AD
Sample Date>					10/26/21	10/26/21	10/26/21	4/14/22	8/22/22	3/2/23	4/14/22	8/22/22	3/2/23	4/14/22	8/22/22	
		_	Sub-Slab VRSL													
WDNR Common VOC's (µg/m³)	CAS Number	carcinoger	Residential [R] (AF = 0.03)	Small Commercial [SC] (AF = 0.03)	Large Commercial/ Industrial [LC/I] (AF = 0.01)											
cis-1,2-Dichloroethene	156-59-2					354	8,380	0.74j	<0.197	<0.197	<0.197	<0.197	<0.197	<0.197	<0.197	<0.197
trans-1,2-Dichloroethene	156-60-5					33.5j	246	069j	<0.231	<0.231	<0.231	<0.231	<0.231	<0.231	<0.231	<0.231
Tetrachloroethene (PCE)	127-18-4	n	1,390	5,840	17,500	<u>254,000</u>	<u>409,000</u>	56.4	64	93	138	13.7	24.8	55	2.17	3.3
Trichloroethene (TCE)	79-01-6	n	69.5	292	876	<u>3,520</u>	<u>14,700</u>	3.7	1.61	2.84	1.5	1.12	1.29	0.96	0.268j	0.70j
Vinyl chloride	75-01-4	С	55.9	929	2,790	29.9j	44.0j	<0.15	0.256j	<0.148	<0.148	0.23j	<0.148	<0.148	<0.148	<0.148

#### Notes:

Indoor Air Standards based on US EPA Vapor Intrusion Screening Levels (VISL) online calculator.

VISL Calculated on Date: 6/14/2019

AF = Attenuation Factor

VAL = Vapor Action Level

VRSL = Vapor Risk Screening Level

< = Concentration Below Laboratory Detection Limit</p>

- = Not Sampled/Collected

--= No Standard/Not Applicable

<sup>J</sup> = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ)

c = carcinogen

n = non-carcinogen

Target Risk for Carcinogens = 1.00E-05

Target Hazard Quotient for Non-Carcinogens = 1

Italics	= Exceeds US EPA Residential VRSL
Bold	= Exceeds US EPA Small Commercial VRSL
Underlined	= Exceeds US EPA Large Commercial/Industrial VRSL

Property Located at: 864 Mather Street, Green Bay, WI 54303 FID #: 405100300 WDNR BRRTS #: 02-05216722 Parcel Identification #: 5-166 June 5, 2023

#### **Introduction**

This document is the Maintenance Plan for a Vapor Mitigation System at the above-referenced property in accordance with the requirements of s. NR 724.13 (2), Wis. Adm. Code. The maintenance activities relate to the existing sub-slab vapor depressurization system (SSDS) which addresses or occupies the area over the contaminated soil & groundwater plume.

More site-specific information about this property/site may be found in:

- The case file in the DNR West Central Region office.
- At <u>http://dnr.wi.gov/topic/Brownfields/wrrd.html</u>, which includes:
  - BRRTS on the Web (DNR's internet-based data base of contaminated sites) for the link to a PDF for site-specific information at the time of closure and on continuing obligations.
  - RR Sites Map for a map view of the site.
- The DNR project manager for Brown County.

#### **Description of Contamination**

Soil contaminated by chlorinated compounds (primarily tetrachloroethylene [PCE]) is located at a depth of 2 feet to 8 feet below ground surface located on the subject property. Groundwater contaminated by chlorinated compounds (PCE, Trichloroethylene [TCE], cis-1,2 Dichloroethene [cis-1,2 DCE], trans-1,2 Dichloroethene [trans-1,2 DCE], and vinyl chloride) is located at a depth of 8 to 20 feet below ground surface. The extent of the soil and groundwater contamination is shown on the attached Figure D.2.a – Site Map.

#### **Description of the Vapor Mitigation System to be Maintained**

The Vapor Mitigation System consists of one (1) sub-slab depressurization system (SSDS) installed at 864 Mather Street, Green Bay, WI. The SSDS utilizes Schedule 40, 3" PVC pipe and Radonaway RP145 intrinsically safe fan.

The SSDS includes (1) the collection point, (2) interior piping, (3) intrinsically safe fan, and manometer/pressure gauge. The collection point consists of a core drilled hole sealed into the concrete in the northwest corner of the building. The interior piping includes one (1) 3" PVC pipe extending from the collection point through the wall, extending vertically on the exterior of the building approximately sixteen (16) inches above the roof line. The electrical connection is an adjacent interior outlet.

The vapor mitigation system is detailed on Figures D.2.a, and D.2.b. Photographs are included in D.3.

#### Vapor Mitigation System Purpose

The Vapor Mitigation System installed at the subject property serves to actively prevent direct human contact with CVOC vapor due to off gas from documented residual soil and groundwater contamination that might otherwise pose a threat to human health.

#### **Annual Inspection**

The Vapor Mitigation System installed at the subject property designed to actively remove the vapor pathway for chlorinated compounds from entering the former V&L Stripping building as depicted in Figure D.2.b and D.2.c, will be inspected at least once a year. The inspections will be performed by the property owner or their designated representative. The inspections will be performed to evaluate the fan and pressure gauge to ensure the system is operational.

The concrete floor surface will serve as a barrier to vapor intrusion and will be inspected annually. Cracks and penetrations will be inspected and sealed as necessary.

A log of the inspections and any repairs will be maintained by the property owner and is included as D.4, Form 4400-321, Vapor Mitigation System Inspection Log. The log will include

recommendations for necessary repair of the Vapor Mitigation System. Once repairs are completed, they will be documented in the inspection log. A copy of the maintenance plan and inspection log will be kept at the site and available for submittal or inspection by Wisconsin Department of Natural Resources (DNR) representatives upon their request.

#### **Maintenance** Activities

The system layout and concrete floor requiring maintenance is shown on Figures D.2.b and D.2.c. Manufacturers specifications are attached. If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs would be necessary if the following items <u>are not</u> found satisfactory during inspection:

- The fan is running and is not making screeching noise, grinding, hot or vibrating abnormally.
- The manometer is present and there is sufficient vacuum.
- A static pressure reading was taken and recorded in the table.
- The collection point is intact, without cracks or missing sealant.
- Piping is intact and free of cracks. No joints loose or open.
- Fire collars and intumescent fire caulk is intact.
- The piping remains securely bracketed or secured.
- The fan is plugged into the adjacent socket
- The wiring to the fan is intact and free of damage.
- The fan is securely connected to the power source.
- The flexible rubber couplings are free from cracks or damage.
- The system is free of signs of weather damages or vandalism.

Repairs and maintenance shall be conducted immediately upon discovery of malfunction. Maintenance activities or repairs may include:

- Sealing of cracks and penetrations in the concrete floor
- Blower replacement (with similar CFM or higher model)
- Electrical cord replacement
- Outlet replacement
- Manometer replacement

Any replacement of the Vapor Mitigation System or portions of the system will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the DNR or its successor.

The property owner, in order to maintain the integrity of the Vapor Mitigation System will maintain a copy of this Maintenance Plan at the site and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

Notification to WDNR if any problems occur for two (2) or mor successive inspections.

#### Prohibition of Activities and Notification of DNR Prior to Actions Affecting a

#### **Vapor Mitigation System**

The following activities are prohibited on any portion of the property where a Vapor Mitigation System required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources:

1) change in use of a vapor mitigation system.

2) changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings.

3) changing the use or occupancy of the property to single-family residential use.

4) changing the construction of a building that has a vapor mitigation system in place.

If removal, replacement, or other changes to a Vapor Mitigation System are considered, the property owner will contact DNR at least 45 days before taking such an action, to determine whether further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with s. NR 727.07, Wis. Adm. Code.

#### **Amendment or Withdrawal of Maintenance Plan**

This Maintenance Plan can be amended or withdrawn by the property owner and its successors with the written approval of DNR.

#### **Contact Information**

#### Site Owner and Operator:

Ken Juza 1478 Norfield Road Suamico, WI 54173 (920) 619-1010

#### **Environmental Consultant:**

REI Engineering, Inc. Andrew Delforge 4080 North 20<sup>th</sup> Avenue Wausau, WI 54401 715-675-9784

#### **Regulatory Contact:**

WDNR – Remediation and Redevelopment Program (Northeast Region) Josie Schultz 2984 Shawano Avenue Green Bay, WI 54313 (920) 366-5685



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W	FIGURE D.2.	a: SITE	MAP	
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g, INC.	8318		CJK	06/05/2023





D.3 – Maintenance Plan Photos V&L Stripping, Green Bay, WI September 22, 2022





Fan location - near northwest corner of building



Vacuum point and power source



Vacuum gauge



2" of water column

D.3 – Maintenance Plan Photos - V&L Stripping	Photographs
864 Mather Street, Green Bay, WI 54303	REI No. 8318

D.3 – Maintenance Plan Photos V&L Stripping, Green Bay, WI September 22, 2022





Vacuum at TW900- 0.05" water

Vacuum at TW1400 - 0.01 " of water

D.3 – Maintenance Plan Photos - V&L Stripping	Photographs
864 Mather Street, Green Bay, WI 54303	REI No. 8318

P:\\_Report Template\Photo Template.d

State of Wisconsin Department of Natural Resources <u>dnr.wi.gov</u>

#### Vapor Mitigation System Inspection Log

Form 4400-321 (R 03/22)

Page 1 of 7

**Notice:** In accordance with s. NR 727.05(1)(b)3., Wis. Admin. Code, use of this form for documenting the inspections and maintenance of certain vapor-related continuing obligations is required. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Public Records law [ss. 19.31-19.39, Wis. Stats.].

**Directions**: This form was developed to provide the results of a site inspection of a vapor related continuing obligation, typically a vapor mitigation system. See the approval letter for this site for requirements regarding the submittal of this form to the Department of Natural Resources. A copy of this inspection log is required to be maintained either on the property, or at a location specified in the approval letter. The letter may be found in the database, <u>BRRTS on the Web</u>, by searching for the site using the BRRTS ID number and then looking in the "Action" section for code 56.

Activity (Site) Name: Former V&L Stripping

BRRTS No.: 02-05-216722

Address Being Inspected (e.g., 123 N. Main St.):	864 Mather Street, Green Bay, WI 54303	Date of Inspection:	
In an action Deutenment Du (Name & Title/Comment)			

Inspection Performed By (Name & Title/Company):

When submittal of this form is required, submit an electronic version or a scanned copy of this completed form to the RR Submittal Portal.

#### HOW TO USE THIS FORM

The Activity (Site) Name, BRRTS No., Address Being Inspected and Date of Inspection entered above will auto-populate the table. Complete only the applicable rows/components. Check "Not Applicable" for components that do not apply. For example, if there is no sump sealed and vented as part of the system, check "Not Applicable" in the "NOTES" section for that component.

Multiple components: For systems with multiple components (e.g., two manometers or two fans), add an additional row for that component by clicking the "+" (plus) symbol at the end of the row. After a system component row is added, a "-" (minus) symbol is shown so the added row may be deleted.

**Photos:** Click on the placeholder photo shown in each row to replace it with your own site-specific photo. Site-specific photos are optional but strongly recommended. Enter specific details and observations within the "NOTES" section to assist the DNR in understanding status of the system components.

SYSTEM COMPONENT				Date of Inspection:
NAME	WHAT DOES IT DO?	WHAT DO I CHECK?	WHAT SHOULD I SEE?	WHAT TO FIX?
Manometer or Differential Pressure GaugeMeasures differential pressure between vacuum side of vent pipe and indoor space.This measurement confirms there is a vacuum being pulled by the fan.		Liquid Level on Manometer or Gauge	Liquid level in manometer should be offset (not level with each other).	A change in liquid level indicates a change in the vacuum below foundation. This could be caused by failure of fan, blockage of vent pipe, change in water level below building, or other conditions. Hire a professional to identify cause and repair if needed.
PHOTO			NOTES: (Record the reading Not Applicable Exterior adjacent to fan. Va	g on the gauge. Identify specific building and location description:) acuum = 2" of water

BRRTS No. 02-05-216722

Site Name: Former V&L Stripping

## Vapor Mitigation System Inspection LogForm 4400-321 (R 03/22)Page 2 of 7

Page 2 of 7

Address Being Inspected: 864 Mather Street, Green Bay, WI 54303

SYSTEM COMPONENT				Date of Inspection:			
NAME	WHAT DOES IT DO?	WHAT DO I CHECK?	WHAT SHOULD I SEE?	WHAT TO FIX?			
Fan	Fan creates a vacuum and lowers pressure below foundation. The fan also removes soil gases from below foundation for discharge to atmosphere.	Fan Operation Fan Location Motor Noise	Fan is on. Fan mounted outside & secure. Fan motor is quiet (loud motor may indicate problem).	Replace the fan immediately once the fan stops running. Fans typically run for 10-20 years, but it may be less. Replacement fan to have similar specifications as original with respect to flow and vacuum. After a fan is replaced, the system should be evaluated by a mitigation professional to verify effectiveness, which includes pressure readings. Original Fan Make and Model: Radonaway RP145			
РНОТО			NOTES: (Identify specific building and location description:)				
			Not Applicable				

BRRTS No. 02-05-216722

Site Name: Former V&L Stripping

### Vapor Mitigation System Inspection Log

Form 4400-321 (R 03/22)

Page 3 of 7

Address Being Inspected: 864 Mather Street, Green Bay, WI 54303

SYSTEM COMPONENT				Date of Inspection:
NAME	WHAT DOES IT DO?	WHAT DO I CHECK?	WHAT SHOULD I SEE?	WHAT TO FIX?
Suction Drop Point w/	<b>Suction Point :</b> Soil gases are collected in a void space below the foundation, and tight seal prevents soil gas from getting inside the home.	Suction Point Seal	Seal is air tight around pipe penetration.	Suction point seal or vent pipe may need to be sealed or replaced if cracks or leaks appear. If any piping or sealing of the system is altered or replaced, the
Vent Pipe PHOTO	<b>Vent Pipe:</b> Pipe conveys the vacuum from the fan, and collects soil gases for discharge to the atmosphere.	Vent Pipe Condition	Vent pipe is connected to fan, has not cracked.	system should be evaluated by a mitigation professional to verify effectiveness, which includes pressure readings.
РНОТО			NOTES: (Identify specific bui	lding and location description:)
- K.M.			Not Applicable	
			Suction point near northwes	t corner of building

BRRTS No. 02-05-216 Site Name: Former V&	722 &L Stripping	VII 54202		Vapor Mitigation System Inspection Log           Form 4400-321 (R 03/22)         Page 5 of 3				
Address Being Inspected:	804 Mainer Street, Green Bay, V	W1 34303						
SYSTEM COMPONENT				Date of Inspection:				
NAME	WHAT DOES IT DO?	WHAT DO I CHECK?	WHAT SHOULD I SEE?	WHAT TO FIX?				
Outdoor Vent Pipe	Pipe transports the soil gas from beneath the foundation for discharge to the atmosphere.	Vent Pipe Condition Vent Pipe Location	Vent pipe remains connected to fan. End of pipe free from obstructions. The exhaust is more than	Vent pipe may require replacement, or cleaning to remove ice or debris. If any piping or sealing of the system is altered or replaced, the system should be evaluated by a mitigation professional to verify effectiveness, which includes pressure readings.				
РНОТО			intakes. NOTES: (Identify specific buil	Iding and location description:)				
Option all: Click on photo to up _your o up.	load							





## Installs white, stays white

## **Radon Mitigation Fan**

All RadonAway<sup>®</sup> fans are specifically designed for radon mitigation. RP Series Fans provide superb performance, run ultra-quiet and are attractive. They are ideal for most sub-slab radon mitigation systems.

### **Features**

- Eternalast<sup>™</sup> polycarbonate plastic housing
- Energy efficient
- Ultra-quiet operation
- Meets all electrical code requirements
- Water-hardened motorized impeller
- · Seams sealed to inhibit radon leakage (RP140 & RP145 double snap sealed)
- ETL Listed for indoor or outdoor use
- Thermally protected motor
- Rated for commercial and residential use
- HVI certified fan performance

		FAN DUCT		RECOM. MAX.	TYPICAL CFM vs. STATIC PRESSURE WC							
MODEL	P/N	DIAMETER	WAITS	OP. PRESSURE "WC	0"	.2"	.5"	1.0"	1.5"	2.0"		
RP140 <sup>†</sup>	28460	4"	14-19	0.6	152	120*	64*	-	-	-		
RP145	28461	4"	34-66	1.7	169	150*	124*	81*	42	4		
RP260	28462	6"	47-65	1.3	251	210*	157	70	-	-		
RP265	28463	6"	96-136	2.3	375	340*	282*	204*	140	70		
RP380	28464	8"	96-138	2.0	531	490*	415*	268*	139	41		

\*HVI Certified Values. †Energy Star® Rated.













		-	-
Wodel	A	В	L C
RP140	4.5"	9.7"	8.5"
RP145	4.5"	9.7"	8.5"
RP260	6"	11.75"	8.6"
RP265	6"	11.75"	8.6"
RP380	8"	13.41"	10.53"

#### For Further Information, Contact Your Radon Professional:





В

RadonAway