



August 20, 2021

Jeff Ackerman  
Remediation & Redevelopment Program  
Wisconsin Department of Natural Resources  
3911 Fish Hatchery Rd  
Fitchburg, WI 53711

**Re: Remediation Site Operation, Maintenance, Monitoring and Optimization Report  
Former Robinson's Cleaners  
1036 4<sup>th</sup> Street, Beloit, Wisconsin  
BRRTS# 02-54-515602**

Dear Mr. Ackerman:

EnviroForensics LLC (EnviroForensics) is pleased to provide this Remediation Site Operation, Maintenance, Monitoring and Optimization Report for the former Robinson's Cleaners facility located at 1036 4<sup>th</sup> Street in Beloit, Wisconsin (the Site). This report is being submitted in place of Department Form 4400-194. The purpose of this report is to present operation, maintenance, and monitoring (OM&M) data related to a soil vapor extraction (SVE) system installed and intermittently operated at the Site, along with recent groundwater monitoring data.

### **Soil Vapor Extraction Progress**

The SVE system consists of a vacuum blower connected to five (5) extraction wells screened in unconsolidated soil from 3-6 feet bgs. The blower and associated equipment and controls are housed inside a trailer-mounted, climate controlled enclosure positioned along the west wall of the Site building. The extraction well locations and conveyance line paths are depicted on **Figure 1**. The extraction wells are connected to the SVE blower and associated equipment with individual conveyance lines that manifold just outside the system enclosure. Routine OM&M activities are described in the *Operation, Maintenance, and Monitoring Plan* dated October 31, 2019.

SVE system operation has occurred intermittently as follows:

- September 4, 2019 (start up) through December 18, 2019;
- December 2 – 25, 2020; and
- March 9 through June 28, 2021.

SVE system operational data is summarized in **Table 1**. In total, the system has operated for 4,797.7 hours, or approximately 200 days, since start up. Shut downs were typically related to water management, as the water table has intersected the extraction well screens throughout the operational history. The system was not operated for most of 2020 due to high water table conditions.

The chlorinated volatile organic compound (CVOC) concentration in the system effluent is monitored by collecting samples in 1-liter vacuum canisters from a port in the discharge stack at a rate of 200 ml/minute. The samples are analyzed for tetrachloroethene (PCE) and its degradation compounds according to EPA Test Method TO-15. The effluent concentration trend is depicted in **Chart 1**. On three (3) occasions, CVOCs were not detected above laboratory reporting limits in the effluent sample.

CVOC mass removal is calculated using the flow rate, system run time, and concentrations detected in samples of the system effluent. Time versus cumulative mass removal is illustrated in **Chart 2**. The average contaminant removal rate for the system since start up was 0.0021 pounds per day, and the total mass removed through June 28, 2021 was 0.41 pounds.

More than 162,000 gallons of condensate and groundwater has been pumped through the SVE system and discharged to the storm sewer in 4<sup>th</sup> Street under a WPDES permit. As required, the discharged water is sampled monthly for analysis of pH, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and oil and grease. The tetrachloroethene (PCE) concentration detected in the water samples has decreased from 40 micrograms per liter ( $\mu\text{g/L}$ ) at start up to 4.1  $\mu\text{g/L}$  in June 2021.

## Groundwater Monitoring Results

A water table contour map for April 28, 2021 is presented on **Figure 2**. The indicated groundwater flow direction is generally south, which is consistent with prior monitoring events.

Comprehensive monitoring well sample analytical results are summarized and compared to WDNR standards in **Table 2**, and charts showing contaminant concentration trends in groundwater are presented in **Attachment 1**. Decreasing concentration trends are observed at MW-1, MW-8, MW-10, MW-14, and MW-15. Contaminant concentrations at other monitoring well locations within the PCE plume are stable. The following results are also notable:

- At MW-14, located just north of Merrill Avenue, PCE has not been detected for two (2) consecutive monitoring events.
- The PCE concentration at MW-21, which defines the downgradient edge of the plume, has been less than the enforcement standard for two (2) consecutive monitoring events.

Monitoring well sample results for the two (2) most recent sampling events are shown on **Figure 3** along with an updated extent of the PCE plume considering the most recent monitoring data.

## Conclusions

To date the SVE system has delivered a low mass removal rate relative to operational costs. However, if the current drought conditions in Rock County persist and the water table continues to drop it may present an opportunity to capture contaminated vapor from lower part of the extraction interval (i.e., approximately 5-6 feet bgs) which has been saturated since start up. EnviroForensics will monitor Site conditions and operate the system if the low water table leads to an enhanced mass removal rate. Groundwater monitoring will be conducted periodically for purposes of evaluating concentration trends and plume stability/contraction.

As shown on **Figure 4** and summarized in **Table 3**, sub-slab vapor concentrations have decreased substantially compared to pre-remediation concentrations detected in 2010 and 2013. However, PCE concentrations in vapor remain above the small commercial VRSL and it does not appear that SVE alone will completely address the vapor intrusion risk for the Site building. Therefore, the path to closure will likely include a pivot to sub-slab depressurization beneath the Site building when operation of the SVE system no longer makes sense.

If you have questions regarding the content of this report, please feel free to contact me at 262-745-5054 or [bkappen@enviroforensics.com](mailto:bkappen@enviroforensics.com).

Sincerely,

**EnviroForensics LLC**

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

Brian Kappen, PG  
*Project Manager*

Attachments

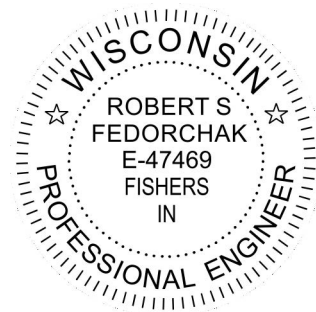
## CERTIFICATIONS

I, Robert Fedorchak, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.



Senior Engineer, Lic. No.

Signature, title and P.E. number



I, Brian Kappen, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.



Project Manager

Signature and title

8/20/2021

Date

## **TABLES**

**Table 1**  
**Soil Vapor Extraction System Operational Data**  
Former Robinson's Cleaners  
1036 4th Street, Beloit, Wisconsin

Date	Time	System Runtime	Vacuum				Flow Rate	Influent Air Temp	Exhaust Temp	Sample Total CVOC *	Flow Meter	Volume Discharged	Notes
			in Hg										
			Hours	System	SVE-1/3	SVE-2							
9/4/2019	1140	4186.1	-5.0	-4.5	-5.5	-5.5	3,550	73	115	2,710	NM	100	Hours meter paused at 4,186.1. 100 gallons manually discharged from tote.
9/11/2019	1130	4188.1	-5.0	-4.5	-5.5	-5.5	NM	NM	NM	NM	0	100	100 gallons manually discharged from tote. Use flow meter reading going forward.
9/12/2019	1320	4212.6	-6.0	-5.2	-5.7	-5.5	3,650	74	129	1,900	1,230	1,230	
9/13/2019	1205	4236.6	-6.0	-5.3	-5.7	-5.5	3,790	78	131	1,350	2,145	915	
9/19/2019	1520	4370.0	-4.8	-4.2	-4.7	-4.2	3,615	74	114	228	3,182	1,037	
9/26/2019	1330	4461.4	0.0	0.0	0.0	0.0	NM	NM	NM	NM	6,610	3,428	System down on arrival.
10/29/2019	945	4799.6	-6.2	-5.4	0.0	-5.6	3,440	53	102	30	23,838	17,228	
11/19/2019	825	5303.3	-6.6	-5.0	-0.5	0.0	3,250	52	102	132	64,242	40,404	
12/18/2019	930	6012.8	-7.0	0.0	0.0	-7.4	2,450	42	86	30	64,242	0	Hours meter paused at 5,777.8. Run time hours calculated manually. System shut down due to frozen AWS.
12/27/2019	1055	6013.8	0.0	0.0	0.0	0.0	0	NM	NM	NM	64,343	101	Site visit to test system with PID. No effluent sample collected.
12/2/2020	1305	5778.2	-6.0	-5.3	-5.7	0.0	NM	NM	NM	NM	64,343	0	Re-started system.
12/31/2020	805	6322.8	0.0	0.0	0.0	0.0	NM	NM	NM	NM	75,757	11,414	System down due to high water alarm. AWS frozen.
3/29/2021	1312	6804.5	-6.7	-5.8	-6.0	-6.2	3,367	48.7	121.9	269	88,282	12,525	
4/29/2021	1434	7548.9	-6.5	-5.5	-6.0	-6.0	3,450	71	136	131	126,565	38,283	
5/28/2021	1105	8241.4	-6.0	-5.7	-6.0	-6.0	4,989	61	117	30	150,505	23,940	
6/28/2021	926	8983.8	-6.5	-5.0	-5.5	-5.5	4,642	71	125	328	162,424	11,919	System shut down manually.

**Notes:**

1. Influent and exhaust temp measured with thermo-anemometer
2. Flow rate measured with thermo-anemometer. Pitot tube/ magnehelic gauge reading unreliable
3. Differential pressure gauges on conveyance lines not functional due to water in tubing
4. Digital water flow meter installed 9/11/2019

µg/m<sup>3</sup> = micrograms per cubic meter

CVOC = Chlorinated Volatile Organic Compound

fpm = feet per minute

NM = Not Measured

\* = 30 µg/m<sup>3</sup> assumed for non-detect result. Detection limit for PCE = 31.9 µg/m<sup>3</sup>

**Table 2**  
**Summary of Monitoring Well Sample Analytical Results**  
Former Robinson's Cleaners  
1036 4th Street, Beloit, Wisconsin

Monitoring Well ID	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Benzene	n-Butylbenzene	sec-Butylbenzene	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	n-Propylbenzene	Toluene	Trimethylbenzenes	Xylenes
		Chlorinated VOCs					Petroleum VOCs										
Enforcement Standard (µg/l)		5	5	70	100	0.2	5	NE	NE	700	NE	NE	100	NE	1,000	400	10,000
Preventive Action Limit (µg/l)		0.5	0.5	7	20	0.02	0.5	NE	NE	140	NE	NE	10	NE	200	96	1,000
MW-1	7/1/04	180	<5	<5	ND	ND	<5	PNR	PNR	<5	PNR	PNR	PNR	PNR	<5	PNR	<5
	9/1/04	350	<5	<5	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR
	12/1/04	320	<5	<5	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR
	1/1/05	76	0.56	<1.0	ND	ND	<4.0	<0.40	<0.50	<1.0	<0.40	<0.40	<0.50	<1.0	0.52	<0.80	<1.0
	3/1/05	240	<5	<5	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR
	6/1/05	180	<5	<5	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR
	8/1/06	260	1.3	<2.1	ND	ND	<1.0	<2.3	<2.2	<1.4	<1.5	<1.7	<1.8	<2.0	<1.7	<4.5	<6.6
	11/1/06	290	1.6	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.8	<2.83
	4/1/08	117	0.63	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.8	<1.8
	7/1/11	231	1.5	<0.83	<0.89	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<0.97	<1.8
	3/6/12	180	0.69	<0.83	<0.89	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<0.97	<1.8
	6/7/12	140	0.54	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.59	<0.068
	9/1/12	95.3	<5	<5	<5	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	12/12/12	100	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068
	3/20/13	83	0.43 J	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068
	6/19/13	110	1.2	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068
	9/18/13	210	1.4	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068
	12/18/13	92	<3.3	<3.8	<3.5	<1.8	<2.4	<3.5	<3.3	<5.5	<3	<3.1	<17	<2.5	<6.9	<22	<6.9
	3/4/14	132	0.79 J	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.30	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	6/25/14	114	0.78 J	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.30	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
9/25/14	168	1.06	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.30	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
12/1/14	110	0.79 J	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.30	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
9/19/16	150	1.07 J	<0.45	<0.54	<0.17	<0.44	<1	<1.2	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1	
2/7/20	72	0.3 J	<0.37	<0.34	<0.2	<0.22	<0.71	<0.79	<0.26	<0.78	<0.24	<2.1	<0.61	<0.19	<1.43	0.56 J	
4/28/21	60	<0.47	<0.39	<0.6	<0.17	<0.38	<0.46	<0.31	<0.37	<0.3	<0.43	<1.4	<0.44	<0.42	<0.73	<1.21	
MW-3	7/1/04	<5	<5	<5	ND	ND	<5	PNR	PNR	<5	PNR	PNR	PNR	PNR	<5	PNR	<5
	9/1/04	<10	<5	<5	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR
	12/1/04	<5	<5	<5	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR
	1/1/05	1.7	0.56	<1.0	ND	ND	<2.0	<0.20	7.4	<5.0	1.6	2.1	0.38	11	1.1	1.12	<0.50
	3/1/05	<5	<5	<5	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR
	6/1/05	<5	<5	<5	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR
	8/1/06	0.92	1.3	<2.1	ND	ND	<0.41	<0.93	3	<0.54	<0.59	<0.67	<0.74	4	<0.67	<1.8	<2.63
	11/1/06	0.9	1.6	<0.83	ND	ND	<0.41	<0.93	3.4	<0.54	<0.59	<0.67	<0.74	1.5	<0.67	<1.8	<2.63
4/1/08	Well Destroyed																

**Table 2**  
**Summary of Monitoring Well Sample Analytical Results**  
Former Robinson's Cleaners  
1036 4th Street, Beloit, Wisconsin

Monitoring Well ID	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Benzene	n-Butylbenzene	sec-Butylbenzene	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	n-Propylbenzene	Toluene	Trimethylbenzenes	Xylenes	
		Chlorinated VOCs					Petroleum VOCs											
Enforcement Standard (µg/l)		5	5	70	100	0.2	5	NE	NE	700	NE	NE	100	NE	1,000	400	10,000	
Preventive Action Limit (µg/l)		0.5	0.5	7	20	0.02	0.5	NE	NE	140	NE	NE	10	NE	200	96	1,000	
MW-4	7/1/04	<50	<5	<5	ND	ND	<50	PNR	PNR	740	PNR	PNR	PNR	PNR	95	PNR	1,990	
	9/1/04	<100	<10	<10	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	
	12/1/04	<5	<5	<5	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	
	1/1/05	<2.5	<0.20	<0.50	ND	ND	2.0	8.9	4.6	180	15	1.5	48	47	13	64	220	
	3/1/05	<5	<5	<5	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	
	6/1/05	<5	<5	<5	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR
	8/1/06	1.5	<0.48	<0.83	ND	ND	3.9	13	<2.2	400	26	<1.7	140	92	26	90	391	
	11/1/06	<2.2	<0.48	<0.83	ND	ND	2.7	6.3	<4.4	300	20	<3.4	85	64	18	28	255	
	4/1/08	<1.1	<1.2	4.9	ND	ND	1.4	13.9	5.6	433	34.1	PNR	122	95	42	<27.2	552	
	7/1/11	3.7	<2.4	9.8	<4.4	<0.9	<2.0	10.1	<4.4	432	20.4	<3.4	139	81.6	39.6	31.2	79.9	
	3/6/12	1.7 J	0.47 J	11	< 4.4	< 0.9	1.0 J	15	6.3	480	33	1.5 J	170	120	34	6.7	450	
	6/7/12	<0.85	<0.95	11	<1.3	<0.50	<0.37	<0.65	5	420	27	<0.85	220	92	28	3.1 J	370	
	9/1/12	Well Sealed Shut																
	12/12/12	0.96 J	<0.19	8.7	<0.25	<0.10	0.53	9.2	3.9	250	20	<0.17	120	66	11	3.9	140	
	3/19/13	1.0 J	<0.19	9.6	<0.25	<0.10	<0.074	13	5.3	200	25	1.4 J	74	94	9.5	1.3 J	140	
	6/19/13	1.4	0.85	9.9	<0.25	<0.10	0.51	11	4.7	280	23	1.3	120	78	20	4.05 J	220	
	9/18/13	2.4	0.95	10	<0.25	<0.10	<0.074	8.7	4.3	190	20	1.1	89	66	9.4	<0.18	100	
	12/18/13	<3.3	<3.3	12.2	<3.5	<1.8	<2.4	8.5 J	<3.3	287	19	<3.1	96	56	13.5 J	<22	190	
	3/4/14	1.16	0.85 J	7.2	<0.35	<0.18	<0.24	10.8	4.7	226	22.6	1.14	104	79	2.53 J	13.9	203.4	
	6/25/14	<3.3	<3.3	7.8	<0.35	<0.18	<0.24	8.1 J	4.1 J	283	20.4	<3.1	104	71	17.7 J	<22	192.1	
9/25/14	2.2 J	<1.65	11.8	<1.75	<0.9	<1.2	10.9	5.1	370	27.1	<1.55	112	84	17.2	<18	203.6		
12/1/14	<1.65	<1.65	8.8	<1.75	<0.9	<1.2	4.2 J	1.8 J	133	11.4	<1.55	29.4	37	6.7 J	<11	69		
9/20/16	1.38 J	0.84 J	7.7	<0.54	<0.17	<0.44	12.3	5.2	255	27.1	<1.1	99	92	7.1	<3.1	156		
2/6/20	1.46 J	<0.6	11.4	<0.68	<0.4	<0.44	15.5	6.0	350	30.7	2.12	104	103	11.8	2.46 J	191.8		
4/29/21	<5.4	<4.7	9.3 J	<6	<1.7	<3.8	15.2 J	6.5 J	264	29.1	<4.3	78	112	7.9 J	<7.3	160		
MW-5/5R	7/1/04	<100	<100	<100	ND	ND	<100	PNR	PNR	930	PNR	PNR	PNR	PNR	620	PNR	4,600	
	9/1/04	<500	<500	<500	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	
	12/1/04	<50	<50	55	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	
	1/1/05	<10	<4.0	30	ND	ND	<4.0	<4.0	18	36	41	8.4	33	180	<4.0	940	90	
	3/1/05	<50	<50	<50	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	
	6/1/05	<50	<50	<50	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	
	8/1/06	<2.2	<2.4	29	ND	ND	<2.0	<4.6	<4.4	28	31	16	36	170	<3.4	850	44	
	11/1/06	1.2	<1.2	18	ND	ND	<1.0	<2.3	<2.2	4.8	11	9.6	11	40	<1.7	260	12	
4/1/08	Well Destroyed																	



**Table 2**  
**Summary of Monitoring Well Sample Analytical Results**  
Former Robinson's Cleaners  
1036 4th Street, Beloit, Wisconsin

Monitoring Well ID	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Benzene	n-Butylbenzene	sec-Butylbenzene	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	n-Propylbenzene	Toluene	Trimethylbenzenes	Xylenes	
		Chlorinated VOCs					Petroleum VOCs											
Enforcement Standard (µg/l)		5	5	70	100	0.2	5	NE	NE	700	NE	NE	100	NE	1,000	400	10,000	
Preventive Action Limit (µg/l)		0.5	0.5	7	20	0.02	0.5	NE	NE	140	NE	NE	10	NE	200	96	1,000	
MW-8	7/1/04	34	44	95	ND	ND	<5.0	PNR	PNR	<5.0	PNR	PNR	PNR	PNR	<5.0	PNR	<5.0	
	9/1/04	15	31	200	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	
	12/1/04	9.1	16	170	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	
	1/1/05	5.3	6.5	95	ND	ND	<0.40	1.5	1.4	<1.0	0.5	<0.40	<0.50	<1.0	0.44	<0.80	<1.0	
	3/1/05	94	15	19	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	
	6/1/05	23	31	130	ND	ND	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	PNR	
	8/1/06	3.0	32	130	ND	ND	<0.41	3.5	<0.89	0.67	0.99	<0.67	<0.74	0.95	<0.67	<1.80	<2.63	
	11/1/06	17	14	110	ND	ND	<0.41	1.3	1.2	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	4/1/08	4.9	10.5	65.6	ND	ND	<0.41	2.0	1.9	<0.54	0.65	PNR	<0.74	<0.81	<0.67	<0.97	<1.8	
	7/1/11	21.3	2.2	20.8	<0.89	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.59	<0.59	<0.89	<0.81	<0.67	<0.97	<0.83
	3/6/12	26	1.6 J	1.5 J	<0.89	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.59	<0.59	2.0 J	<0.81	<0.67	<0.97	<0.83
	6/7/12	19	1.1	8.4	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068	
	9/1/12	<5	<5	77.4	<5	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
	12/12/12	0.97 J	<0.19	79	1.4	<0.10	<0.074	<0.13	2.8	0.31 J	0.72 J	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	3/19/13	21	4.1	26	0.15 J	<0.10	<0.074	0.60 J	0.88 J	<0.13	<0.14	<0.17	<0.16	<0.13	<0.32	<0.14	<0.068	
	6/19/13	18	1.1	1.0	<0.11	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	9/19/13	5.9	2.3	69	1.9	<0.10	<0.074	<0.13	1.9	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.15	<0.068	
	12/17/13	6.3	1.1	45	0.91 J	0.33 J	<0.24	0.67 J	0.79 J	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	3/4/14 **	7.0	2.47	41	0.89 J	0.20 J	<0.24	1.43	1.78	<0.55	0.44 J	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	6/25/14	9.5	1.08	18.2	0.38 J	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/25/14	14.5	0.62 J	38	0.75 J	<0.18	<0.24	<0.35	0.84 J	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	12/1/14	6.8	<0.33	58	1.02 J	<0.18	<0.24	0.6 J	1.06	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/19/16 **	6.0	<0.47	52	1.14 J	0.24 J	<0.44	<1	1.37 J	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1	
2/7/20	7.1	<0.3	<0.37	<0.34	<0.2	<0.22	<0.71	<0.79	<0.26	<0.78	<0.24	<2.1	<0.61	<0.19	<1.43	<0.71		
4/29/21	10.7	<0.47	<0.39	<0.6	<0.17	<0.38	<0.46	<0.31	<0.37	<0.3	<0.43	<1.4	<0.44	<0.42	<0.73	<1.21		
MW-10	7/1/05	13	0.75	1.6	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<0.16	<2.63	
	1/1/06	13	0.91	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<0.17	<2.63	
	8/1/06	14	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<0.18	<2.63	
	11/1/06	21	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<0.19	<2.63	
	4/1/08	3.5	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<0.20	<2.63	
	7/1/11	Well Not Located																
	3/6/12	9.5	<0.48	<0.83	<0.19	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	0.30 J	<0.81	<0.67	<1.80	<2.63	
	6/6/12	11	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068	
	9/1/12	18.9	<5	<5	<5	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
	12/12/12	7.2	<0.19	<0.12	<0.11	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	3/19/13	Well Not Located																
	6/19/13	21	<0.19	<0.12	<0.11	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	9/18/13	11	<0.19	<0.12	<0.11	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	12/17/13	7.3	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	3/4/14	12.4	0.40 J	0.57 J	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	6/25/14	8.4	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/25/14	Well Not Sampled																
	12/1/14	Well Not Sampled																
	9/19/16	8.6	<0.47	<0.45	<0.54	<0.17	<0.44	<1	<1.2	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1	
2/7/20	1.35	<0.3	<0.37	<0.34	<0.2	<0.22	<0.71	<0.79	<0.26	<0.78	<0.24	<2.1	<0.61	<0.19	<1.43	<0.71		
4/28/21	1.4 J	<0.47	<0.39	<0.6	<0.17	<0.38	<0.46	<0.31	<0.37	<0.3	<0.43	<1.4	<0.44	<0.42	<0.73	<1.21		

**Table 2**  
**Summary of Monitoring Well Sample Analytical Results**  
Former Robinson's Cleaners  
1036 4th Street, Beloit, Wisconsin

Monitoring Well ID	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Benzene	n-Butylbenzene	sec-Butylbenzene	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	n-Propylbenzene	Toluene	Trimethylbenzenes	Xylenes
		Chlorinated VOCs					Petroleum VOCs										
Enforcement Standard (µg/l)		5	5	70	100	0.2	5	NE	NE	700	NE	NE	100	NE	1,000	400	10,000
Preventive Action Limit (µg/l)		0.5	0.5	7	20	0.02	0.5	NE	NE	140	NE	NE	10	NE	200	96	1,000
MW-11	7/1/05	0.63	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63
	1/1/06	<0.45	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63
	8/1/06	<0.45	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63
	11/1/06	<0.45	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63
	4/1/08	<0.45	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63
	7/1/11	<0.45	<0.48	<0.20	<0.19	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63
	3/6/12	<0.45	<0.48	<0.20	<0.19	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63
	6/6/12	<0.17	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068
	9/1/12	<5	<5	<5	<5	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	12/12/12	<0.17	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068
	3/19/13	<0.17	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068
	6/19/13	<0.17	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068
	9/18/13	<0.17	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068
	12/17/13	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	3/4/14	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	6/25/14	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
9/25/14	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
12/1/14	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
9/19/16	<0.49	<0.47	<0.45	<0.54	<0.17	<0.44	<1	<1.2	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1	
MW-13	7/1/05	30	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63
	1/1/06	20	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63
	8/1/06	50	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63
	11/1/06	46	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63
	4/1/08	231	1.1	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63
	7/1/11	78.7	<0.48	<0.20	<0.89	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63
	3/6/12	59	<0.48	<0.83	<0.89	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63
	6/6/12	42	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068
	9/1/12	6.12	<5	<5	<5	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	12/12/12	5.8	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068
	3/20/13	11	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068
	6/19/13	220	1.1	1.1	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068
	9/18/13	27	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068
	12/17/13	8.3	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	3/14/14 **	6.3	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	6/25/14	31.2	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
9/25/14	17.1	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
12/1/14	7.5	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
9/19/16	7.5	<0.47	<0.45	<0.54	<0.17	<0.44	<1	<1.2	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1	
2/7/20	109	0.32 J	<0.37	<0.34	<0.2	<0.22	<0.71	<0.79	<0.26	<0.78	<0.24	<2.1	<0.61	<0.19	<1.43	<0.71	
4/29/21	1.5 J	<0.47	<0.39	<0.6	<0.17	<0.38	<0.46	<0.31	<0.37	<0.3	<0.43	<1.4	<0.44	<0.42	<0.73	<1.21	
4/29 DUP	1.69 J	<0.47	<0.39	<0.6	<0.17	<0.38	<0.46	<0.31	<0.37	<0.3	<0.43	<1.4	<0.44	<0.42	<0.73	<1.21	

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Monitoring Well ID	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Benzene	n-Butylbenzene	sec-Butylbenzene	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	n-Propylbenzene	Toluene	Trimethylbenzenes	Xylenes	
		Chlorinated VOCs					Petroleum VOCs											
Enforcement Standard (µg/l)		5	5	70	100	0.2	5	NE	NE	700	NE	NE	100	NE	1,000	400	10,000	
Preventive Action Limit (µg/l)		0.5	0.5	7	20	0.02	0.5	NE	NE	140	NE	NE	10	NE	200	96	1,000	
MW-14	7/1/05	31	1.0	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	1/1/06	27	0.70	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	8/1/06	43	0.81	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	11/1/06	24	<0.46	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	4/1/08	12.1	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	7/1/11	8.8	<0.48	<0.83	<0.89	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	3/6/12	14	0.27 J	<0.83	<0.89	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	6/6/12	12	0.26 J	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068	
	9/1/12	10.9	<5	<5	<5	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
	12/12/12	16	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	3/19/13	9.8	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	6/19/13	4.4	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	9/19/13	14	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	0.45 J	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	0.36 J	
	12/16/13	6.9	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	3/14/14	Not Accessible																
	6/25/14	0.91 J	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/25/14	8.9	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	12/2/14	2.53	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/20/16	4.1	<0.47	<0.45	<0.54	<0.17	<0.44	<1	<1.2	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1	
	2/6/20	<0.38	<0.3	<0.37	<0.34	<0.2	<0.22	<0.71	<0.79	0.26 J	<0.78	<0.24	<2.1	<0.61	<0.19	<1.43	<0.71	
4/29/21	<0.54	<0.47	<0.39	<0.6	<0.17	<0.38	<0.46	<0.31	<0.37	<0.3	<0.43	<1.4	<0.44	<0.42	<0.73	<1.21		
MW-15	8/1/06	24	0.72	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	11/1/06	26	2.5	2.3	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	4/1/08	6.6	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	7/1/11	Well Not Located																
	3/6/12	0.94	<0.48	<0.83	<0.89	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	6/7/12	1.3	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.54	<0.14	<0.17	<0.16	<0.13	<0.67	<0.32	<0.068	
	9/1/12	<5	<5	<5	<5	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
	12/12/12	14	1.3	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	3/20/13	15	0.55	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068	
	6/19/13	15	0.43 J	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068	
	9/18/13	12	0.41 J	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068	
	12/15/13	6.5	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	3/4/14	15.7	1.12	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	6/25/14	4.0	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/25/14	1.75	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	12/1/14	2.39	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/19/16	0.66 J	<0.47	<0.45	<0.54	<0.17	<0.44	<1	<1.2	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1	
2/6/20	<0.38	<0.3	<0.37	<0.34	<0.2	<0.22	<0.71	<0.79	<0.26	<0.78	<0.24	<2.1	<0.61	<0.19	<1.43	<0.71		
4/28/2021 **	0.64 J	<0.47	<0.39	<0.6	<0.17	<0.38	<0.46	<0.31	<0.37	<0.3	<0.43	<1.4	<0.44	<0.42	<0.73	<1.21		
4/28 DUP **	0.64 J	<0.47	<0.39	<0.6	<0.17	<0.38	<0.46	<0.31	<0.37	<0.3	<0.43	<1.4	<0.44	<0.42	<0.73	<1.21		

**Table 2**  
**Summary of Monitoring Well Sample Analytical Results**  
Former Robinson's Cleaners  
1036 4th Street, Beloit, Wisconsin

Monitoring Well ID	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Benzene	n-Butylbenzene	sec-Butylbenzene	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	n-Propylbenzene	Toluene	Trimethylbenzenes	Xylenes	
		Chlorinated VOCs					Petroleum VOCs											
Enforcement Standard (µg/l)		5	5	70	100	0.2	5	NE	NE	700	NE	NE	100	NE	1,000	400	10,000	
Preventive Action Limit (µg/l)		0.5	0.5	7	20	0.02	0.5	NE	NE	140	NE	NE	10	NE	200	96	1,000	
MW-16	8/1/06	3.1	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.13	<0.59	<0.67	<0.74	<0.81	<0.11	<1.80	<2.63	
	11/1/06	6.6	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	4/1/08	1.5	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	7/1/11	Well Not Located																
	3/6/12	1.4 J	<0.48	<0.83	<0.89	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	6/6/12	1.5	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.54	<0.14	<0.17	<0.16	<0.13	<0.67	<0.32	<0.068	
	9/1/12	<5	<5	<5	<5	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
	12/12/12	2.2	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	3/19/13	1.8	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	6/19/13	1.7	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	9/19/13	2.0	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	12/16/13	1.57	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	3/4/14	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	6/25/14	1.81	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/25/14	1.88	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	12/12/14	1.45	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/20/16	2.49	<0.47	<0.45	<0.54	<0.17	<0.44	<1	<1.2	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1	
2/6/20	Well Destroyed During Property Redevelopment																	
MW-17	4/1/08	19.3	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	7/1/11	43.6	<0.48	<0.83	<0.89	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	3/6/12	18	<0.48	<0.83	<0.89	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	6/7/12	24	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.54	<0.14	<0.17	<0.16	<0.13	<0.67	<0.32	<0.068	
	9/1/12	<5	<5	<5	<5	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5		
	12/12/12	3.0	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	3/20/13	9.1	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068	
	6/19/13	18	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068	
	9/18/13	15	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068	
	12/18/13	12.7	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	3/4/14	3.09	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	6/25/14	2.11	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/24/14	26.6	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	12/1/14	8.0	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/19/16	16.9	<0.47	<0.45	<0.54	<0.17	<0.44	<1	<1.2	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1	
2/7/20	36	<0.3	<0.37	<0.34	<0.2	<0.22	<0.71	<0.79	<0.26	<0.78	<0.24	<2.1	<0.61	<0.19	<1.43	<0.71		
4/29/21	14.2	<0.47	<0.39	<0.6	<0.17	<0.38	<0.46	<0.31	<0.37	<0.3	<0.43	<1.4	<0.44	<0.42	<0.73	<1.21		

**Table 2**  
**Summary of Monitoring Well Sample Analytical Results**  
Former Robinson's Cleaners  
1036 4th Street, Beloit, Wisconsin

Monitoring Well ID	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Benzene	n-Butylbenzene	sec-Butylbenzene	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	n-Propylbenzene	Toluene	Trimethylbenzenes	Xylenes
		Chlorinated VOCs					Petroleum VOCs										
Enforcement Standard (µg/l)		5	5	70	100	0.2	5	NE	NE	700	NE	NE	100	NE	1,000	400	10,000
Preventive Action Limit (µg/l)		0.5	0.5	7	20	0.02	0.5	NE	NE	140	NE	NE	10	NE	200	96	1,000
MW-18	9/19/13	<0.17	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068
	12/16/13	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	3/4/14	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	6/25/14	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	9/25/14	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	12/2/14	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	9/20/16	<0.49	<0.47	<0.45	<0.54	<0.17	<0.44	<1	<1.2	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1
MW19	9/19/13	<0.17	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068
	12/16/13	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	3/4/14	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	6/25/14	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	9/25/14	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	12/2/14	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	9/20/16	<0.49	<0.47	<0.45	<0.54	<0.17	<0.44	<1	<1.2	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1
MW-20	9/19/13	<0.17	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068
	12/16/13	0.64 J	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	3/3/14	0.41 J	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	6/25/14	0.61 J	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	9/25/14	<0.33	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	12/2/14	0.35 J	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	9/20/16	<0.49	<0.47	<0.45	<0.54	<0.17	<0.44	<1	<1.2	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1
	2/6/20	<0.38	<0.3	<0.37	<0.34	<0.2	<0.22	<0.71	<0.79	<0.26	<0.78	<0.24	<2.1	<0.61	<0.19	<1.43	<0.71
4/28/21	<0.54	<0.47	<0.39	<0.6	<0.17	<0.38	<0.46	<0.31	<0.37	<0.3	<0.43	<1.4	<0.44	<0.42	<0.73	<1.21	
MW-21	9/19/13	7.4	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.14	<0.068
	12/16/13	5.6	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	3/4/14	5.6	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	6/24/14	4.8	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	9/25/14	5.5	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	12/2/14	5.5	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69
	9/20/16	5.9	<0.47	<0.45	<0.54	<0.17	<0.44	<1	<1.2	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1
	2/6/20	3.3	<0.3	<0.37	<0.34	<0.2	<0.22	<0.71	<0.79	<0.26	<0.78	<0.24	<2.1	<0.61	<0.19	<1.43	<0.71
	4/28/21	3.09	<0.47	<0.39	<0.6	<0.17	<0.38	<0.46	<0.31	<0.37	<0.3	<0.43	<1.4	<0.44	<0.42	<0.73	<1.21

**Table 2**  
**Summary of Monitoring Well Sample Analytical Results**  
Former Robinson's Cleaners  
1036 4th Street, Beloit, Wisconsin

Monitoring Well ID	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Benzene	n-Butylbenzene	sec-Butylbenzene	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	n-Propylbenzene	Toluene	Trimethylbenzenes	Xylenes	
		Chlorinated VOCs					Petroleum VOCs											
Enforcement Standard (µg/l)		5	5	70	100	0.2	5	NE	NE	700	NE	NE	100	NE	1,000	400	10,000	
Preventive Action Limit (µg/l)		0.5	0.5	7	20	0.02	0.5	NE	NE	140	NE	NE	10	NE	200	96	1,000	
PZ-12	7/1/05	1.9	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	1/1/06	2.8	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	8/1/06	8.0	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	11/1/06	6.2	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	4/1/08	2.3	<0.48	<0.83	ND	ND	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	7/1/11	Well Not Located																
	3/6/12	3.0	<0.48	<0.83	<0.19	<0.18	<0.41	<0.93	<0.89	<0.54	<0.59	<0.67	<0.74	<0.81	<0.67	<1.80	<2.63	
	6/6/12	2.4	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068	
	9/1/12	<5	<5	<5	<5	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
	12/12/12	2.1	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068	
	3/20/13	2.8	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068	
	6/19/13	2.0	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068	
	9/18/13	1.8	<0.19	<0.12	<0.25	<0.10	<0.074	<0.13	<0.15	<0.13	<0.14	<0.17	<0.16	<0.13	<0.11	<0.32	<0.068	
	12/16/13 **	2.05	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	3/3/14	1.85	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	6/25/14 **	1.42	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/25/14**	3.9	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	12/1/14	1.63	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/19/16	2.06	<0.47	<0.45	<0.54	<0.17	<0.44	<1	<1.2	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1	
	2/6/20	1.2 J	<0.3	<0.37	<0.34	<0.2	<0.22	<0.71	<0.79	<0.26	<0.78	<0.24	<2.1	<0.61	<0.19	<1.43	<0.71	
4/29/21	1.13 J	<0.47	<0.39	<0.6	<0.17	<0.38	<0.46	<0.31	<0.37	<0.3	<0.43	<1.4	<0.44	<0.42	<0.73	<1.21		
PZ-22	6/24/14	0.87 J	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/25/14 **	0.66 J	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	12/2/14	0.85 J	<0.33	<0.38	<0.35	<0.18	<0.24	<0.35	<0.33	<0.55	<0.3	<0.31	<1.7	<0.25	<0.69	<2.2	<0.69	
	9/20/16	0.86 J	<0.47	<0.45	<0.54	<0.17	<0.44	<1	<1.2	<0.71	<0.82	<1.1	<1.6	<0.77	<0.44	<3.1	<3.1	
	2/6/20	0.49 J	<0.3	<0.37	<0.34	<0.2	<0.22	<0.71	<0.79	<0.26	<0.78	<0.24	<2.1	<0.61	<0.19	<1.43	<0.71	
4/29/21	<0.54	<0.47	<0.39	<0.6	<0.17	<0.38	<0.46	<0.31	<0.37	<0.3	<0.43	<1.4	<0.44	<0.42	<0.73	<1.21		

**Notes:**

All concentrations reported in units of micrograms per liter (µg/L)  
Samples analyzed using EPA SW-846 Method 8260  
VOCs = Volatile Organic Compounds  
\*\* = Chloroform was detected in this sample  
**Bolded** and orange shaded values are above Public Health Enforcement Standards  
**Bolded** and blue shaded values are above Public Health Preventive Action Limits  
**Bolded** values are above detection limits  
ND = Not Detected over laboratory detection limits as reported in Shaw Environmental's 2010 Summary Letter  
PNR = Parameter Not Reported as read from Shaw Environmental's 2010 Summary Letter  
NE = No standard established  
Petroleum VOCs are not related to the breakdown of PCE and are not subject to cleanup by Robinson Cleaners

**Table 3**  
**Summary of Sub-Slab Vapor Sample Analytical Results**  
Former Robinson's Cleaners  
Beloit, Wisconsin

Sample Identification	Property Address (4th Street)	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Acetone	Benzene	2-Butanone	Chloroform	Chloromethane	n-Heptane	n-Hexane	Methylene Chloride	Toluene
6154-SSB	1036	2/25/2010	<b>1,080,000</b>	< 4,730	< 6,970	< 6,970	< 4,470	<b>4,440</b>	< 5,590	< 5,160	NA	< 3,610	< 7,140	< 6,190	< 6,110	< 6,220
		8/26/2010	<b>180,000</b>	<b>35.8</b>	< 0.87	< 0.87	< 0.87	<b>9.7</b>	<b>1.6</b>	< 0.87	NA	< 0.87	< 0.87	<b>16.6</b>	<b>109</b>	<b>3.7</b>
6154-SSM		2/25/2010	<b>1,410,000</b>	< 9,460	< 13,900	< 13,900	< 8,950	< 8,260	< 11,200	< 10,300	NA	< 7,230	< 14,300	< 12,400	< 12,200	< 13,200
		8/26/2010	<b>262,000</b>	< 4,450	< 4,450	< 4,450	< 4,450	< 4,450	< 4,450	< 4,450	NA	< 4,450	< 4,450	< 4,450	< 4,450	< 4,450
6154-SSF		2/25/2010	<b>7,920</b>	<b>6.4</b>	< 1.4	< 1.4	< 0.87	<b>42.1</b>	<b>1.1</b>	< 1	NA	< 0.71	<b>1.8</b>	<b>26.4</b>	<b>314</b>	<b>10.6</b>
		8/26/2010	<b>34.3</b>	< 0.87	< 0.87	< 0.87	< 0.87	<b>24.5</b>	< 0.87	<b>1.3</b>	NA	< 0.87	< 0.87	< 0.87	< 0.87	<b>1.2</b>
6154-1036-SSV-WEST	1036	8/14/2013	<b>66,400</b>	<b>971</b>	<198	<396	<12.8	<23,800	<16.0	<29,500	<8.30	<206	<4,100	<1,769	<417	<37,700
		1/14/2020	<b>36,800</b>	<b>74.7</b>	<19.8	<39.6	<1.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
6154-1036-SSV-MIDDLE		8/14/2013	<b>797,000</b>	<b>470</b>	<198	<396	<12.8	<23,800	<b>18.2</b>	<29,500	<b>14.6</b>	<206	<4,100	<1,769	<417	<37,700
		1/14/2020	<b>38,000</b>	<b>30.8</b>	<19.8	<39.6	<1.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
6154-1036-SSV-EAST		8/14/2013	<b>21,100</b>	<10.7	<198	<396	<12.8	<23,800	<16.0	<29,500	<8.30	<206	<4,100	<1,769	<417	<37,700
		1/14/2020	<b>10,600</b>	<1.07	<19.8	<39.6	<1.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Non-Residential Vapor Risk Screening Level</b>			<b>6,000</b>	<b>290</b>	<b>NL</b>	<b>NL</b>	<b>930</b>	<b>4,700,000</b>	<b>530</b>	<b>730,000</b>	<b>180</b>	<b>13,000</b>	<b>NL</b>	<b>100,000</b>	<b>87,000</b>	<b>730,000</b>

**Notes:**

All concentrations reported in units in micrograms per cubic meter (µg/m3)

**Bolded** and shaded values exceed WDNR Non-Residential Vapor Risk Screening Levels as defined in Publication RR-800

**Bolded** values are above detection limits

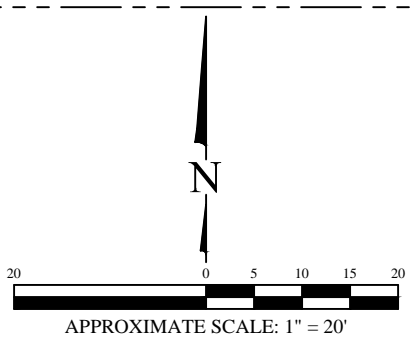
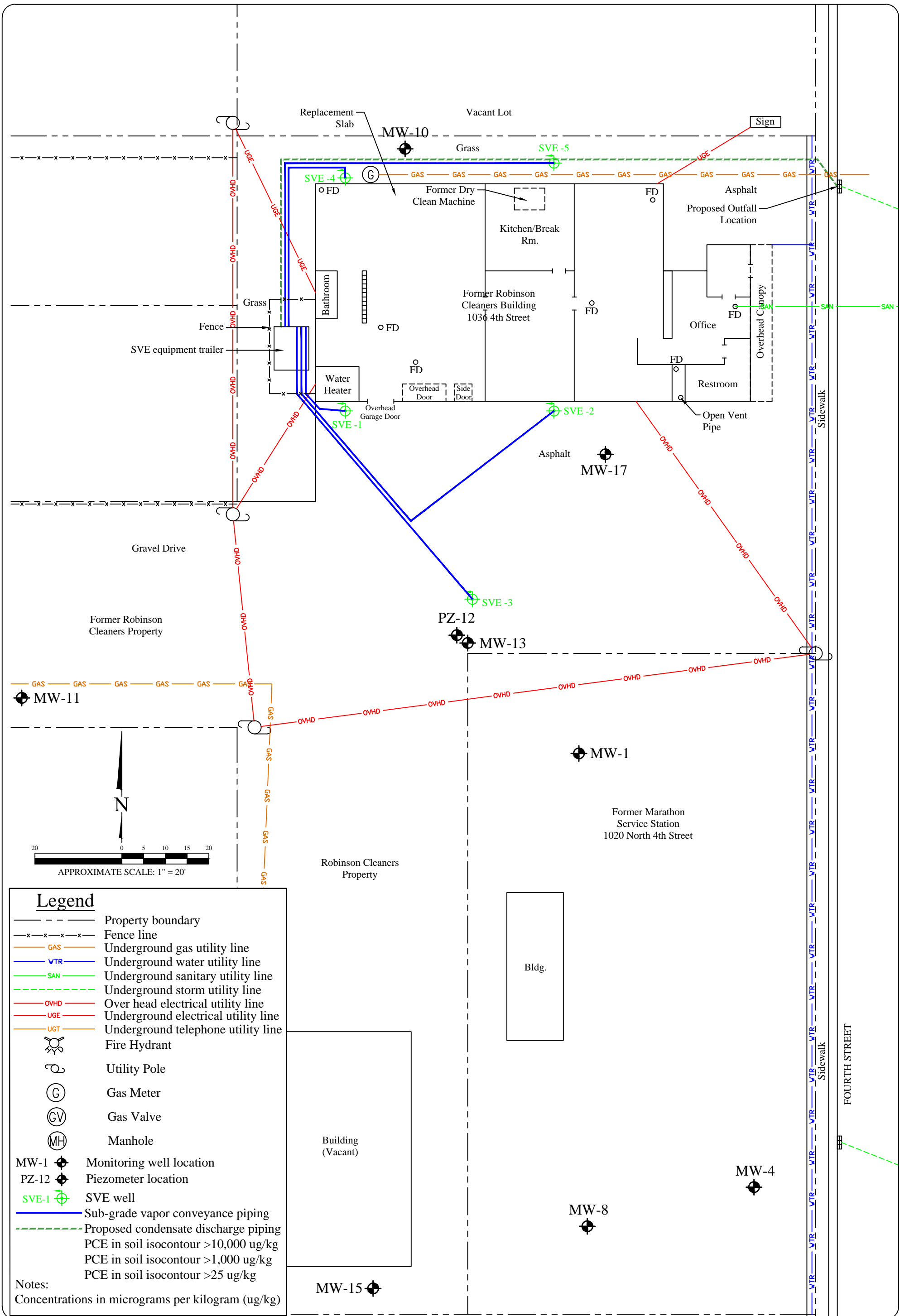
NL = No screening level established

NA = Not Analyzed

Compounds unrelated to the breakdown of PCE are subject to cleanup by Robinson's Cleaners.

## **FIGURES**





**Legend**

- Property boundary
- Fence line
- GAS Underground gas utility line
- WTR Underground water utility line
- SAN Underground sanitary utility line
- Underground storm utility line
- OVHD Over head electrical utility line
- UGE Underground electrical utility line
- UGT Underground telephone utility line
- Fire Hydrant
- Utility Pole
- Gas Meter
- Gas Valve
- Manhole
- MW-1 Monitoring well location
- PZ-12 Piezometer location
- SVE-1 SVE well
- Sub-grade vapor conveyance piping
- Proposed condensate discharge piping

Notes:  
 Concentrations in micrograms per kilogram (ug/kg)  
 PCE in soil isocontour >10,000 ug/kg  
 PCE in soil isocontour >1,000 ug/kg  
 PCE in soil isocontour >25 ug/kg

No.	Date	Revision	Approved

**ENVIROforensics**

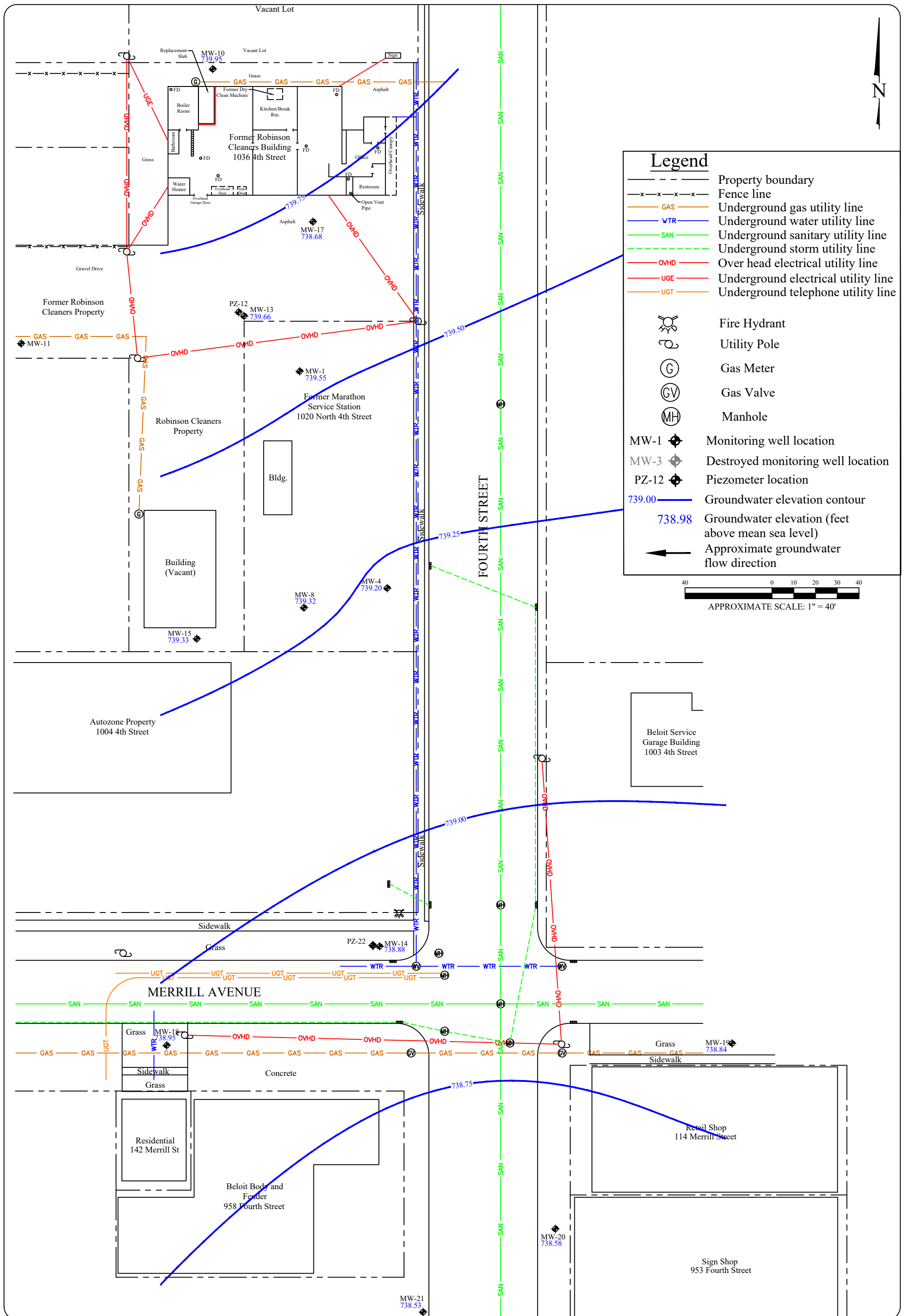
825 North Capitol Avenue • Indianapolis, IN 46204  
 EnviroForensics.com

Date:	11/14/18
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	6154-1169

**SOIL VAPOR EXTRACTION SYSTEM LAYOUT**

Robinson's Cleaners: Beloit  
 1036 4th Street  
 Beloit, Wisconsin

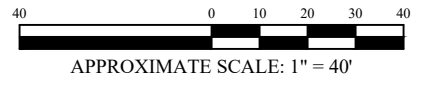
Figure	1
Project	6154



### Legend

- Property boundary
- Fence line
- Underground gas utility line
- Underground water utility line
- Underground sanitary utility line
- Underground storm utility line
- Over head electrical utility line
- Underground electrical utility line
- Underground telephone utility line

- Fire Hydrant
- Utility Pole
- Gas Meter
- Gas Valve
- Manhole
- MW-1 Monitoring well location
- MW-3 Destroyed monitoring well location
- PZ-12 Piezometer location
- 739.00 Groundwater elevation contour
- 738.98 Groundwater elevation (feet above mean sea level)
- Approximate groundwater flow direction



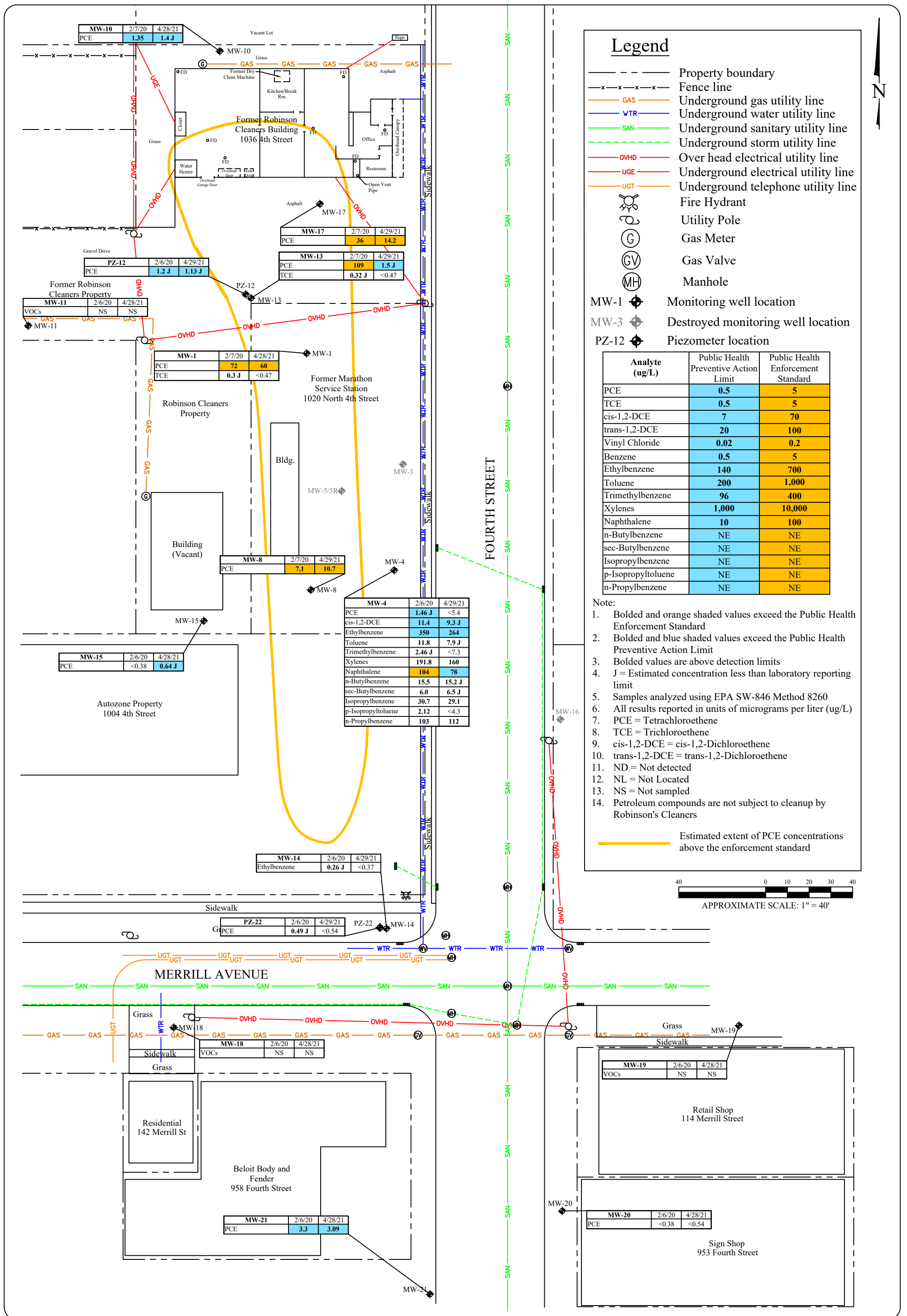
No.	Date	Revision	Approved

ENVIRONMENTAL FORENSIC INVESTIGATIONS, INC.  
602 N Capitol Ave, Suite 210 • Indianapolis, IN 46204  
EnviroForensics.com

Date:	8/17/21
Designed:	AJ
Drawn:	AJ
Checked:	BR
DWG file:	6154-1450

**GROUNDWATER CONTOUR MAP**  
 APRIL 28, 2021  
 Robinson's Cleaners: Beloit  
 1036 4th Street  
 Beloit, Wisconsin

Figure	2
Project	6154



### Legend

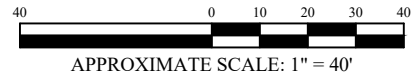
- Property boundary
- x-x-x-x-x- Fence line
- GAS — Underground gas utility line
- WTR — Underground water utility line
- SAN — Underground sanitary utility line
- - - - - Underground storm utility line
- OVD — Over head electrical utility line
- UGE — Underground electrical utility line
- UGT — Underground telephone utility line
- ⊙ Fire Hydrant
- ⊙ Utility Pole
- ⊙ G Gas Meter
- ⊙ GV Gas Valve
- ⊙ MH Manhole
- MW-1 ⊙ Monitoring well location
- MW-3 ⊙ Destroyed monitoring well location
- PZ-12 ⊙ Piezometer location

Analyte (ug/L)	Public Health Preventive Action Limit	Public Health Enforcement Standard
PCE	0.5	5
TCE	0.5	5
cis-1,2-DCE	7	70
trans-1,2-DCE	20	100
Vinyl Chloride	0.02	0.2
Benzene	0.5	5
Ethylbenzene	140	700
Toluene	200	1,000
Trimethylbenzene	96	400
Xylenes	1,000	10,000
Naphthalene	10	100
n-Butylbenzene	NE	NE
sec-Butylbenzene	NE	NE
Isopropylbenzene	NE	NE
p-Isopropyltoluene	NE	NE
n-Propylbenzene	NE	NE

Note:

- Bolded and orange shaded values exceed the Public Health Enforcement Standard
- Bolded and blue shaded values exceed the Public Health Preventive Action Limit
- Bolded values are above detection limits
- J = Estimated concentration less than laboratory reporting limit
- Samples analyzed using EPA SW-846 Method 8260
- All results reported in units of micrograms per liter (ug/L)
- PCE = Tetrachloroethene
- TCE = Trichloroethene
- cis-1,2-DCE = cis-1,2-Dichloroethene
- trans-1,2-DCE = trans-1,2-Dichloroethene
- ND = Not detected
- NL = Not Located
- NS = Not sampled
- Petroleum compounds are not subject to cleanup by Robnison's Cleaners

— Estimated extent of PCE concentrations above the enforcement standard



No.	Date	Revision	Approved

825 North Capitol Avenue • Indianapolis, IN 46204  
EnviroForensics.com

Date:	7/22/21
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	6154-1443

**GROUNDWATER ANALYTICAL RESULTS AND PLUME MAP**  
 Robnison's Cleaners: Beloit  
 1036 4th Street  
 Beloit, Wisconsin

Figure	3
Project	6154

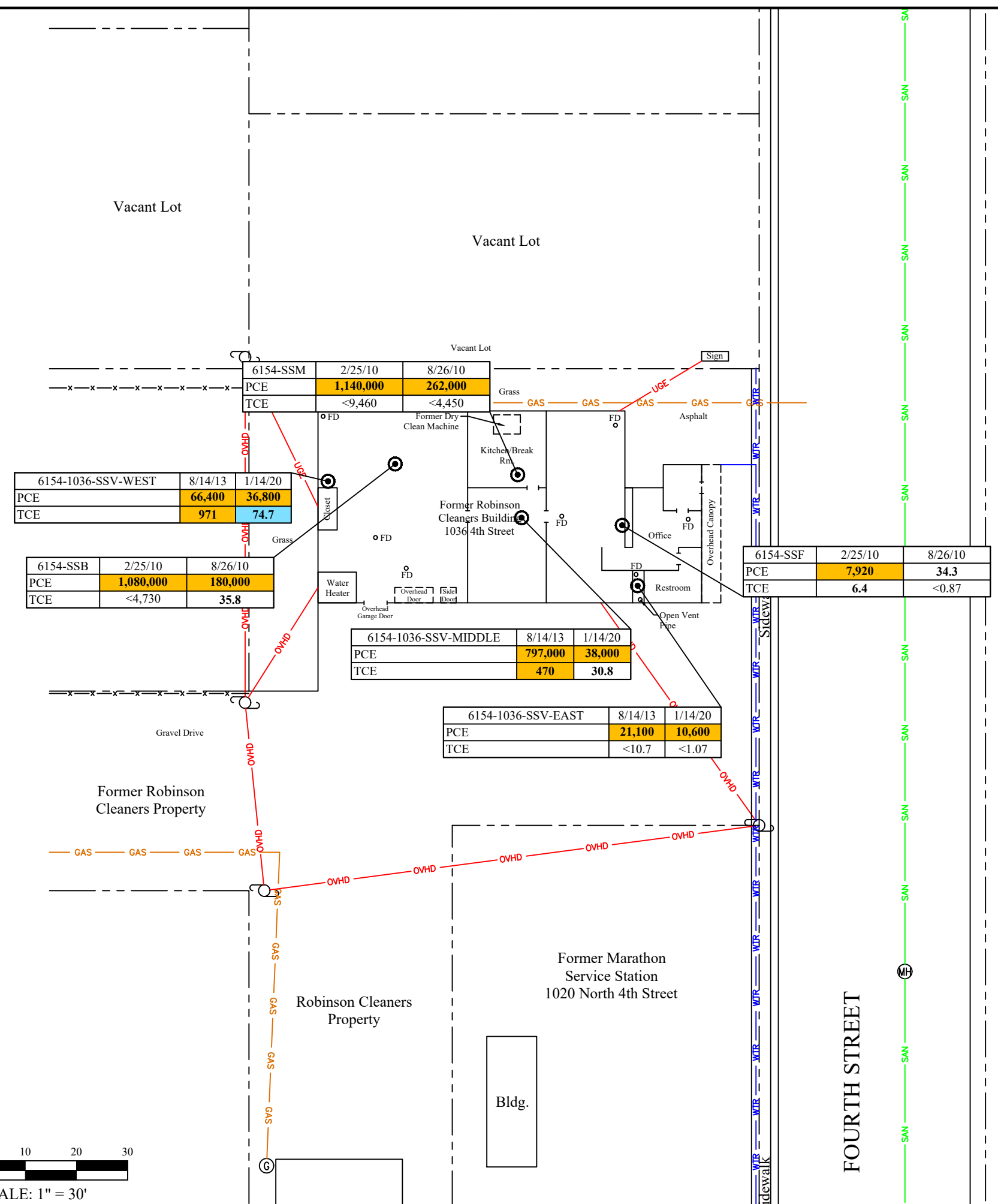
### Legend

- Property boundary
- Fence line
- GAS — Underground gas utility line
- WTR — Underground water utility line
- SAN — Underground sanitary utility line
- Underground storm utility line
- OVHD — Over head electrical utility line
- UGE — Underground electrical utility line
- UGT — Underground telephone utility line
- Fire Hydrant
- Utility Pole
- Gas Meter
- Gas Valve
- Manhole
- Sub-slab sample location

Sub-Slab Vapor		
Analyte (ug/m <sup>3</sup> )	Residential Vapor Risk Screening Level	Small Commercial Vapor Risk Screening Level
PCE	<b>1,400</b>	<b>6,000</b>
TCE	<b>70</b>	<b>290</b>

Note:

1. Bolded and shaded values exceed Vapor Risk Screening Levels
2. All results reported in micrograms per cubic meter (ug/m<sup>3</sup>)
3. NE = Not established
4. PCE = Tetrachloroethene
5. TCE = Trichloroethene
6. Only compounds PCE and TCE are shown



6154-SSM	2/25/10	8/26/10
PCE	<b>1,140,000</b>	<b>262,000</b>
TCE	<9,460	<4,450

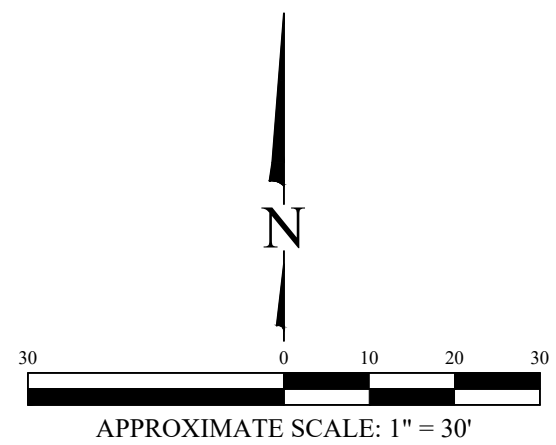
6154-1036-SSV-WEST	8/14/13	1/14/20
PCE	<b>66,400</b>	<b>36,800</b>
TCE	<b>971</b>	<b>74.7</b>

6154-SSB	2/25/10	8/26/10
PCE	<b>1,080,000</b>	<b>180,000</b>
TCE	<4,730	<b>35.8</b>

6154-1036-SSV-MIDDLE	8/14/13	1/14/20
PCE	<b>797,000</b>	<b>38,000</b>
TCE	<b>470</b>	<b>30.8</b>

6154-1036-SSV-EAST	8/14/13	1/14/20
PCE	<b>21,100</b>	<b>10,600</b>
TCE	<10.7	<1.07

6154-SSF	2/25/10	8/26/10
PCE	<b>7,920</b>	<b>34.3</b>
TCE	<b>6.4</b>	<0.87



### SUB-SLAB VAPOR SAMPLE ANALYTICAL RESULTS MAP

Robinson's Cleaners: Beloit  
1036 4th Street  
Beloit, Wisconsin

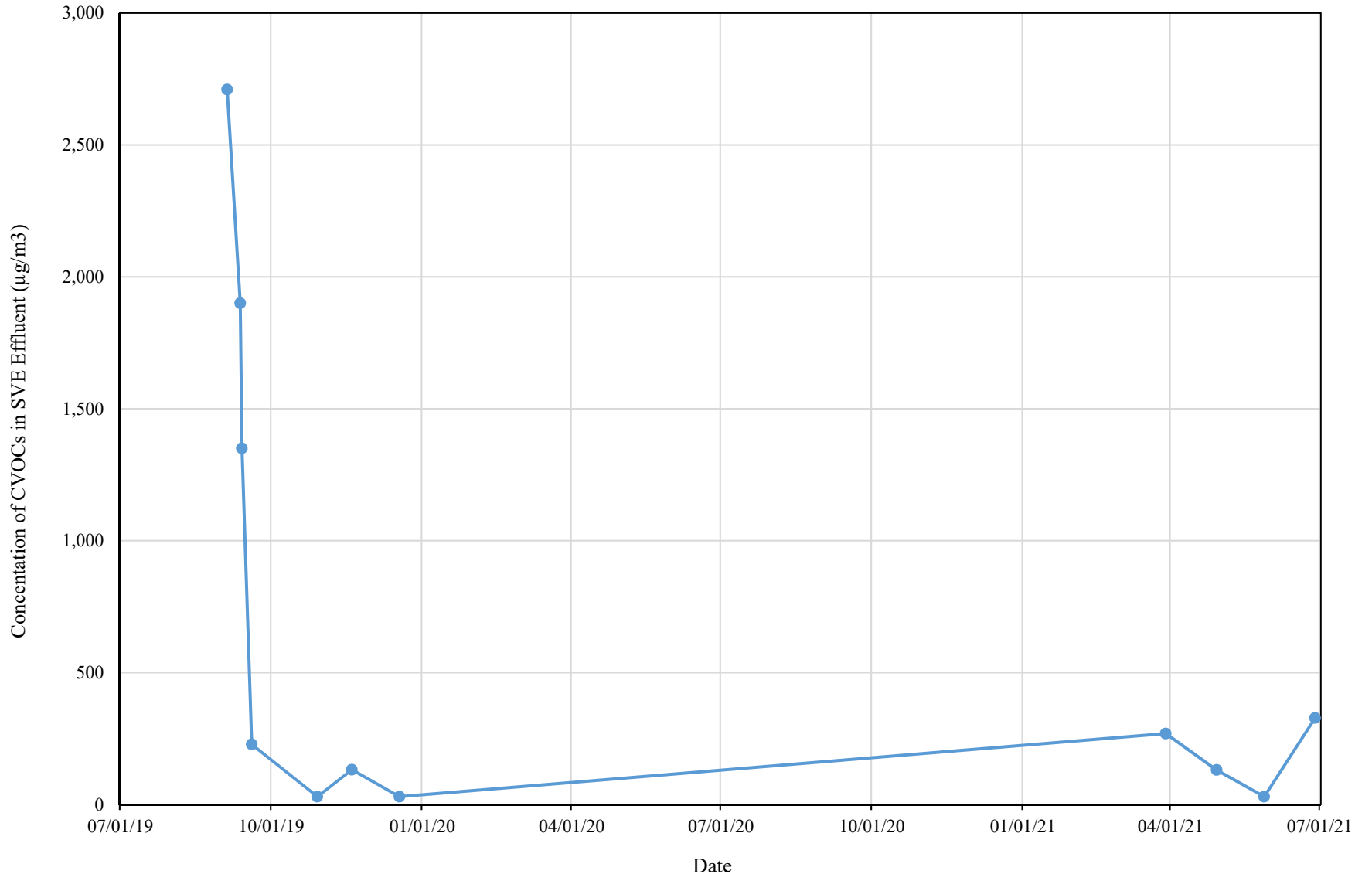
Date:	8/18/21
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	6154-1454

825 North Capitol Avenue • Indianapolis, IN 46204  
EnviroForensics.com

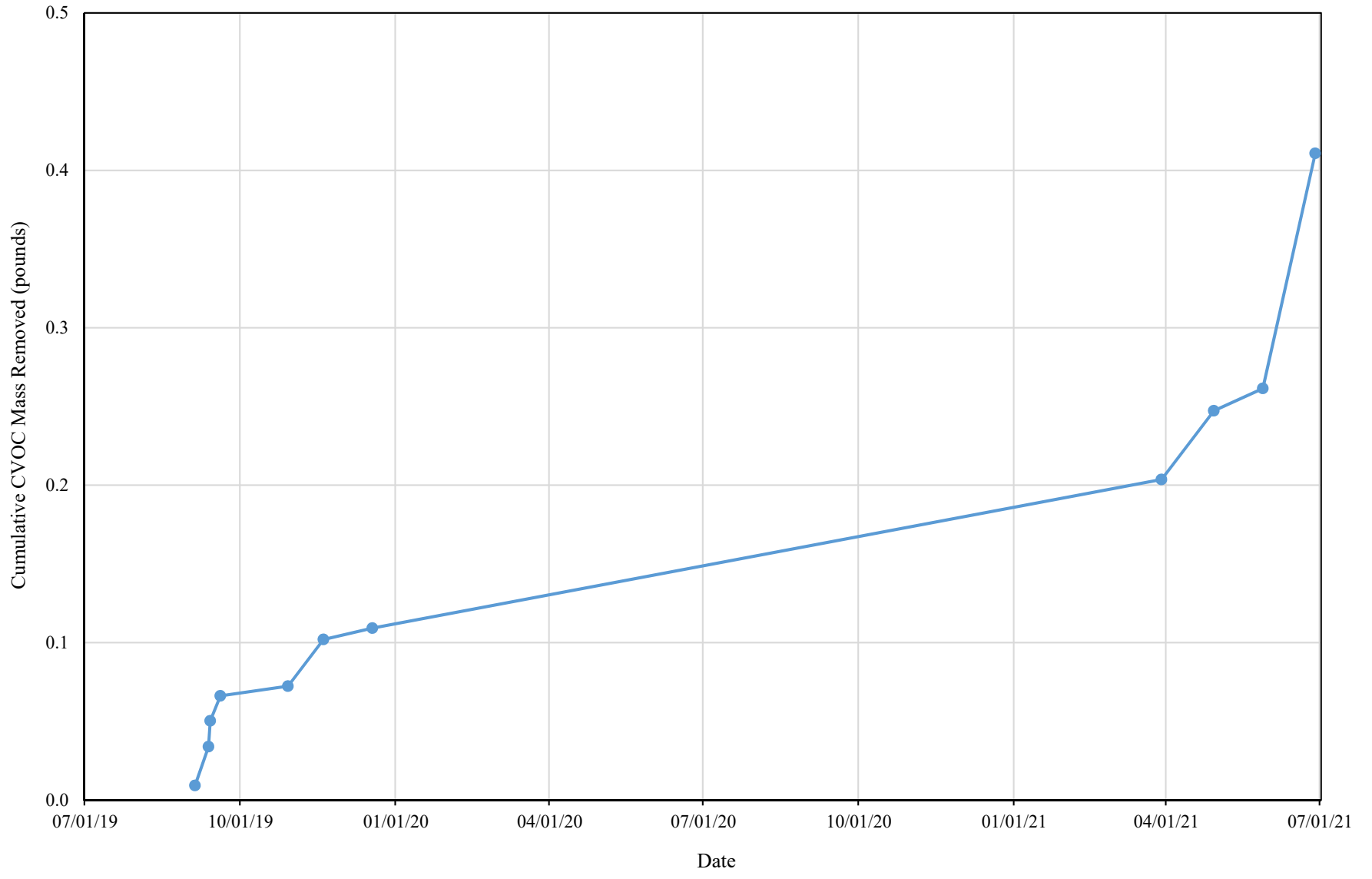
Figure	4
Project	6154

## **SVE DATA CHARTS**

**Chart 1**  
**Vapor Phase CVOC Concentration Trend**  
Former Robinson's Cleaners, Beloit, Wisconsin



**Chart 2**  
**Cumulative CVOC Mass Removed**  
Former Robinson's Cleaners, Beloit, Wisconsin

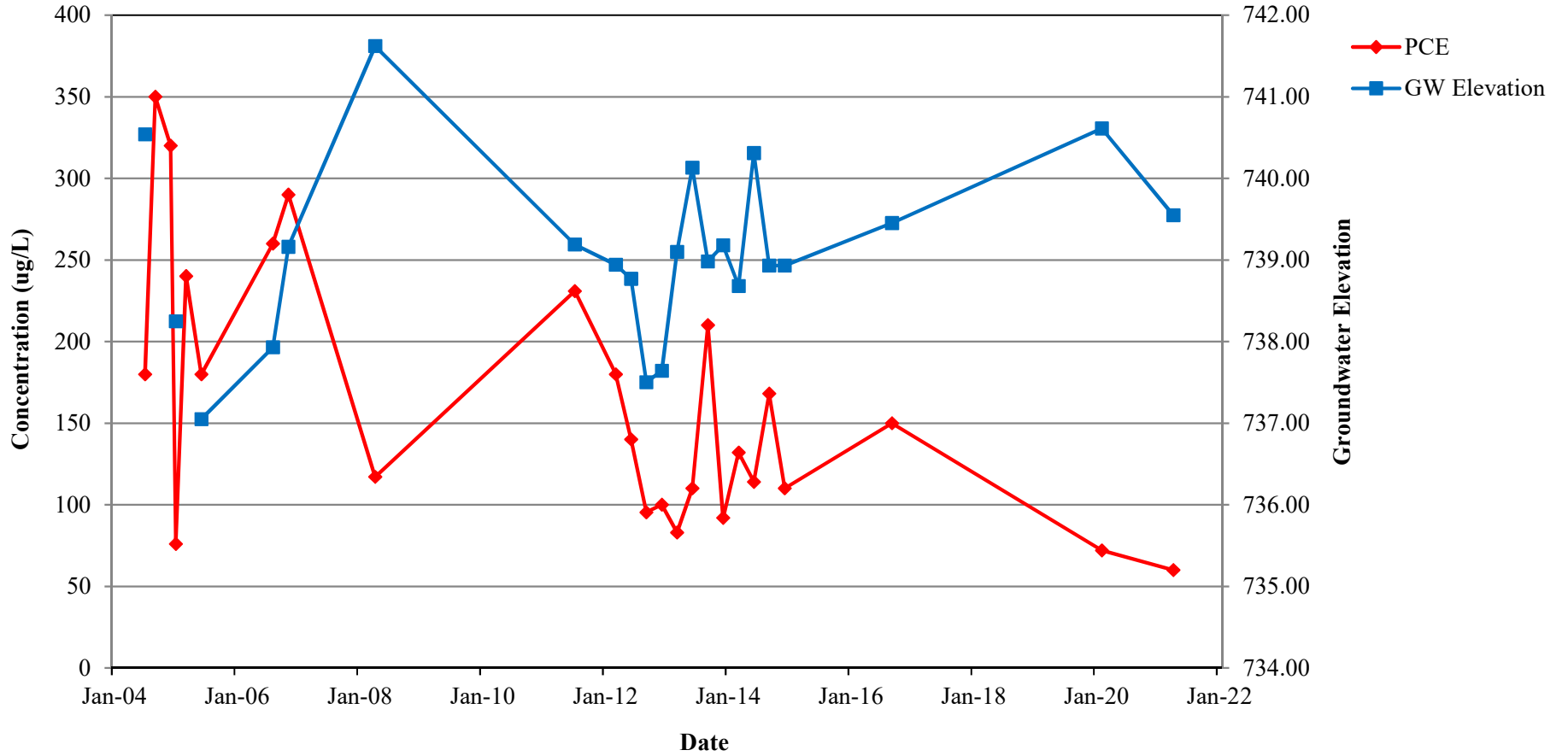


**ATTACHMENT 1**

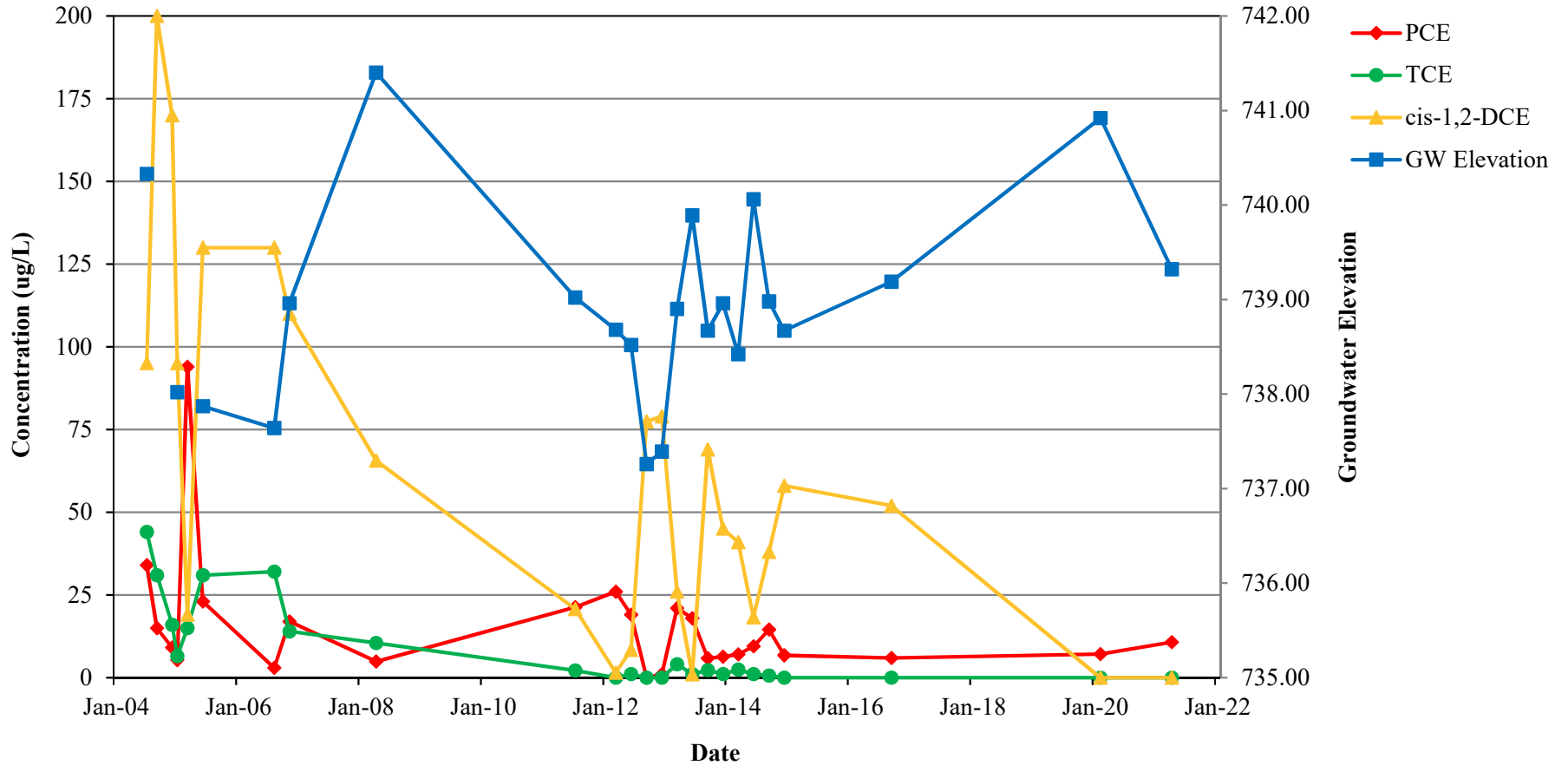
**CONTAMINANT CONCENTRATION TREND CHARTS**



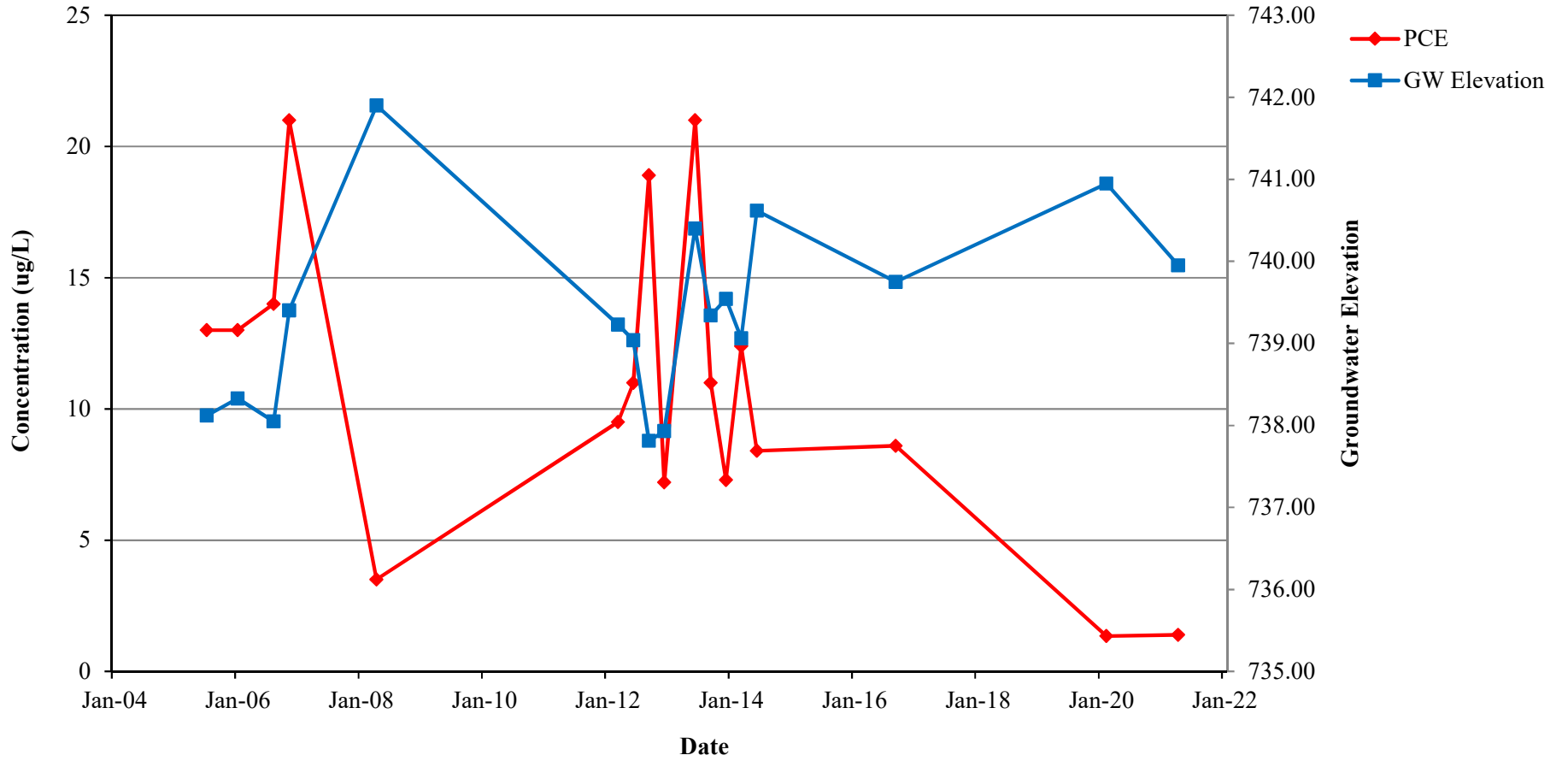
**MW-1**  
**PCE Concentration and Groundwater Elevation vs. Time**



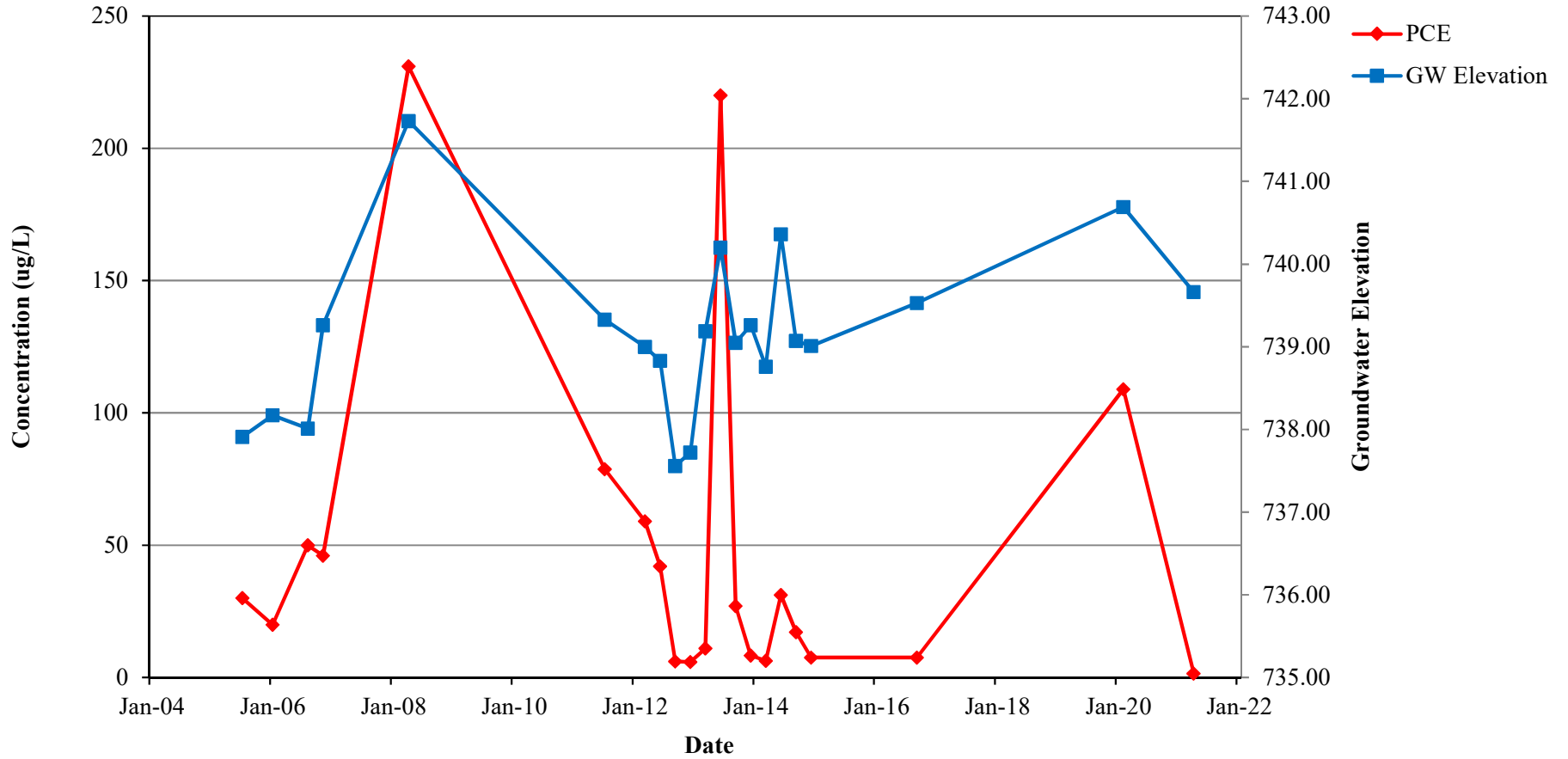
**MW-8**  
**CVOC Concentration and Groundwater Elevation vs. Time**



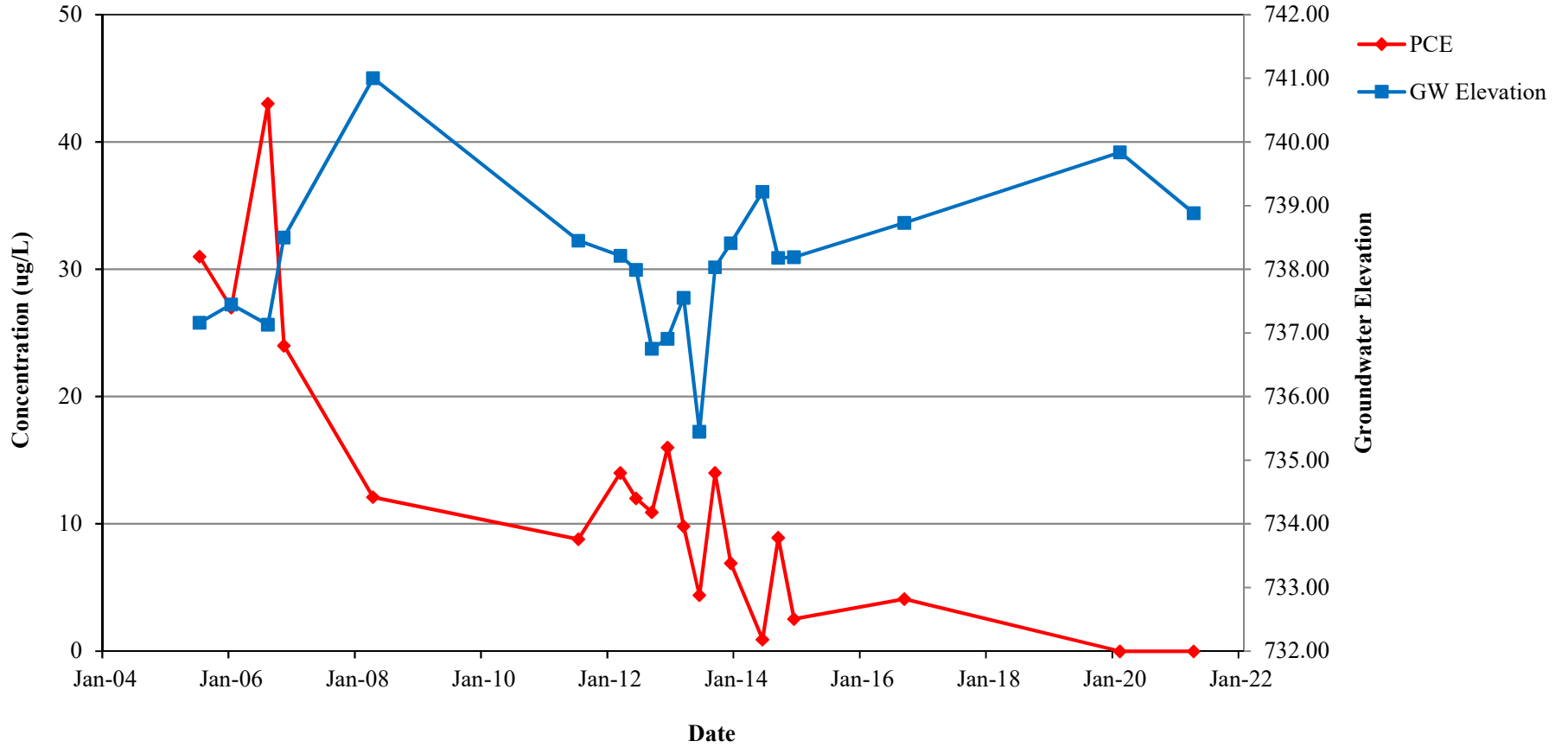
**MW-10**  
**PCE Concentration and Groundwater Elevation vs. Time**



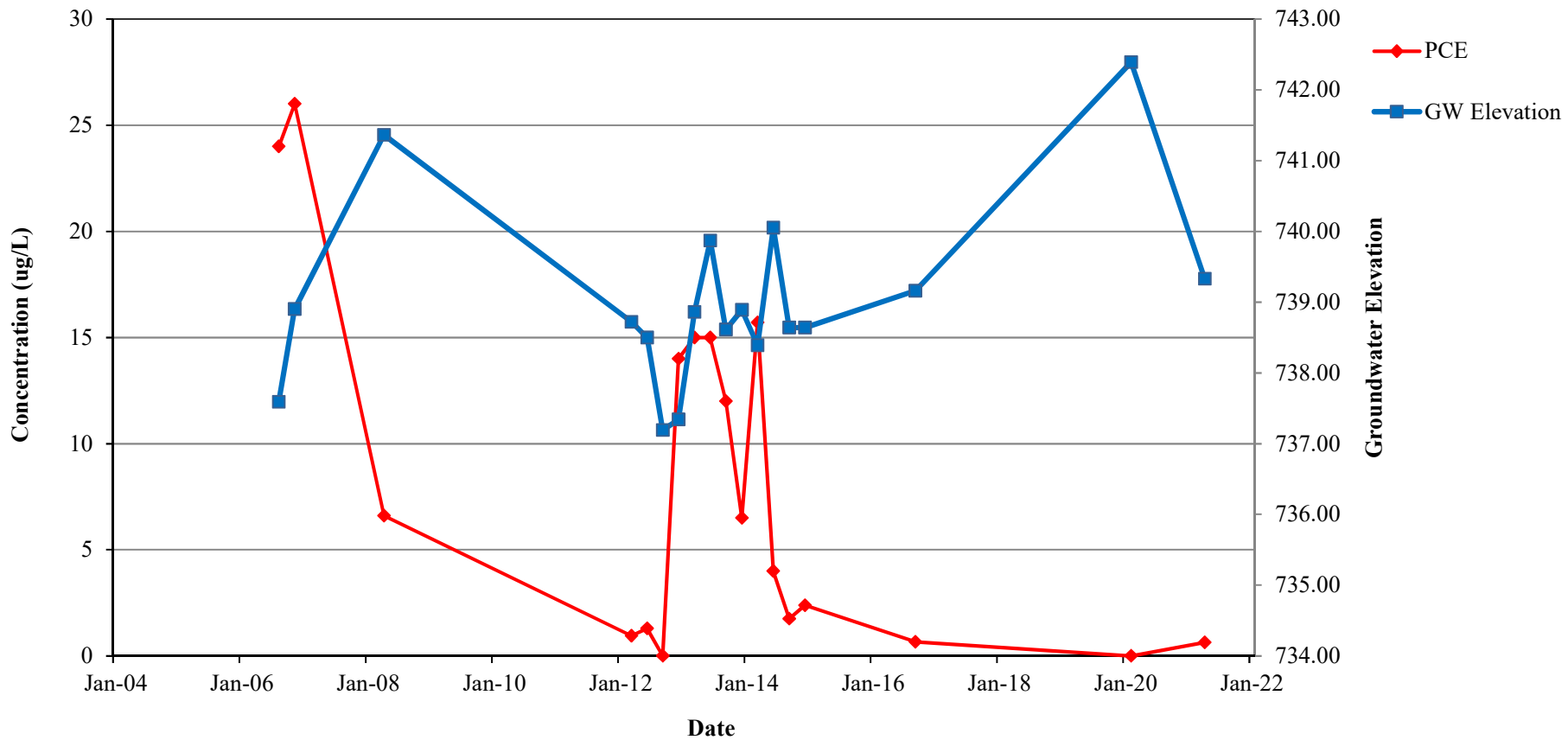
**MW-13**  
**PCE Concentration and Groundwater Elevation vs. Time**



**MW-14**  
**PCE Concentration and Groundwater Elevation vs. Time**



**MW-15**  
**PCE Concentration and Groundwater Elevation vs. Time**



**MW-17**  
**PCE Concentration and Groundwater Elevation vs. Time**

