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August 15, 2018

BRRTS #: 03-27-001459  
PECFA #: 54754-9998-05

Matthew Vitale  
Wisconsin Department of Natural Resources  
1300 W Clairemont Avenue  
Eau Claire, WI 54701

Subject: Dave's Gas Station – Groundwater Monitoring Report

Dear Mr. Vitale,

Enclosed is the report for the Dave's Gas Station site located in Merrilan, Wisconsin. **This completes the Public Bidding Deferred workscope approved on March 29, 2017.**

### **Sub-Slab Vapor Sampling Workscope**

On April 5, 2018, Braun Intertec of La Crosse, WI installed three sub-slab vapor sampling ports (VP-1, VP-2, and VP-3) in the floor of the on-site building located at 405 N Washington Street. The sub-slab vapor sampling ports were constructed by drilling a ½-inch pilot hole through the concrete slab and several inches into the sub slab material with a hammer drill. A 1½-inch outer hole is then drilled to depths ranging from ¾ -inch to 1-inch, depending on the concrete slab thickness. The holes were cleaned of dust and drilling debris using a shop-vac. A stainless-steel vapor pin is installed in the inner hole with a silicon sleeve to obtain an air tight seal with the concrete floor. The remainder of the hole is sealed with hydrated bentonite and a water dam test was conducted to confirm that the seal is air tight.

On April 5, 2018, Braun Intertec collected vapor samples from the sub-slab sampling ports (VP-1, VP-2, and VP-3) for TO-15 (PVOC and Naphthalene) analysis. Vapor samples were collected by using a short length of Teflon tubing to connect the sampling port and a 6-liter Suma canister. The air samples were collected using a Suma canister with a flow regulator that allowed the sub-slab vapor samples to be collected over a 30-minute period. Prior to collecting the sub-slab vapor samples, a shut-in test was conducted to assure that the fittings between the sample probe and sampling container are air tight. No leaks were detected. The sub-slab soil vapor sampling results are summarized in the attached data table.

### **Groundwater Monitoring Workscope**

On December 20, 2017, METCO collected groundwater samples from five monitoring wells (MW-1R, MW-2, MW-3, MW-4, and MW-5) for PVOC and Naphthalene analysis. MW-1R and MW-2 were also sampled for Dissolved Lead. Field measurements for water level, Dissolved Oxygen, pH, ORP, specific conductance, and temperature were

collected from the sampled monitoring wells.

On April 5, 2018, METCO collected groundwater samples from five monitoring wells (MW-1R, MW-2, MW-3, MW-4, and MW-5) for PVOC and Naphthalene analysis. MW-1R and MW-2 were also sampled for Dissolved Lead. Field measurements for water level, Dissolved Oxygen, pH, ORP, specific conductance, and temperature were collected from the sampled monitoring wells.

On June 27, 2018, METCO collected groundwater samples from five monitoring wells (MW-1R, MW-2, MW-3, MW-4, and MW-5) for PVOC and Naphthalene analysis. MW-1R and MW-2 were also sampled for Dissolved Lead. Field measurements for water level, Dissolved Oxygen, pH, ORP, specific conductance, and temperature were collected from the sampled monitoring wells.

### **Waste Disposal**

On December 12, 2017, DKS Transport Services, LLC, of Menomonie, Wisconsin picked-up and disposed of three drums of soil cuttings at the Advanced Disposal Seven Mile Creek Landfill in Eau Claire, Wisconsin.

### **Discussion of Sub-Slab Vapor Results**

Sub-Slab Vapor Sample VP-1: Showed detects, but no exceedances of the WDNR Small Commercial Sub-Slab Vapor Action Levels.

Sub-Slab Vapor Sample VP-2: Showed detects, but no exceedances of the WDNR Small Commercial Sub-Slab Vapor Action Levels.

Sub-Slab Vapor Sample VP-3: Showed detects, but no exceedances of the WDNR Small Commercial Sub-Slab Vapor Action Levels.

### **Groundwater Results**

Monitoring Well MW-1R: Currently shows NR140 Enforcement Standard (ES) exceedances for Benzene (320 ppb), Naphthalene (420 ppb), Toluene (2590 ppb), Trimethylbenzenes (2240 ppb), and Xylene (2860 ppb) as well as NR140 Preventative Action Limit (PAL) exceedances for Lead (4.0 ppb), Ethylbenzene (330 ppb), and Toluene (450 ppb). Based on historic groundwater results, the contaminant concentrations appear to be stable to decreasing.

Monitoring Well MW-2: Currently shows no detects for all contaminants of concern.

Monitoring Well MW-3: Currently shows no detects for all contaminants of concern.

Monitoring Well MW-4: Currently shows no detects for all contaminants of concern.

Monitoring Well MW-5: Currently shows an NR140 Preventative Action Limit (PAL) exceedance for Benzene (1.58 ppb).

## Conclusions/Recommendations

Based on current groundwater results, METCO recommends that the Dave's Gas Station site be reviewed for the possibility of "closure" for the following reasons:

- 1) The extent and degree of petroleum contamination in soil and groundwater has been adequately defined.
- 2) The majority of accessible contaminated soil (200 tons) was removed during the June 2017 excavation/disposal project.
- 3) Contaminant levels in groundwater appear to be stable to decreasing.
- 4) Based on the Sub-Slab Vapor Sampling results, there does not appear to be a risk for vapor intrusion.
- 5) The Village of Merrilan has two municipal wells, both located approximately 2,500 feet to the east-southeast of the subject property. The only known private wells that are in use in the Village of Merrilan are on Lower Lake Drive, which is over 1 mile from the subject property.

If the state concurs, please contact METCO to discuss closure activities and costs.

However, if the state determines that additional monitoring will be required prior to closure, please contact METCO to discuss.

Per WDNR response to this conclusion/recommendation METCO will proceed.

A Detailed Site Map, Groundwater Flow Maps (3), Groundwater Isoconcentration Map, Vapor Intrusion Map, Data Tables, Sub-Slab Vapor Sampling Documentation, Waste Disposal Documentation, and Laboratory Documents have been attached.

If you have any questions or comments please feel free to call (608-781-8879) or email at [jasonp@metcohq.com](mailto:jasonp@metcohq.com).

Sincerely,



Jason T. Powell  
Staff Scientist

Attachments

c: Matt Lechner – Client





GROUNDWATER FLOW DIRECTION (4-5-18)

DAVE'S GAS STATION (FORMER)

MERRILLAN, WISCONSIN

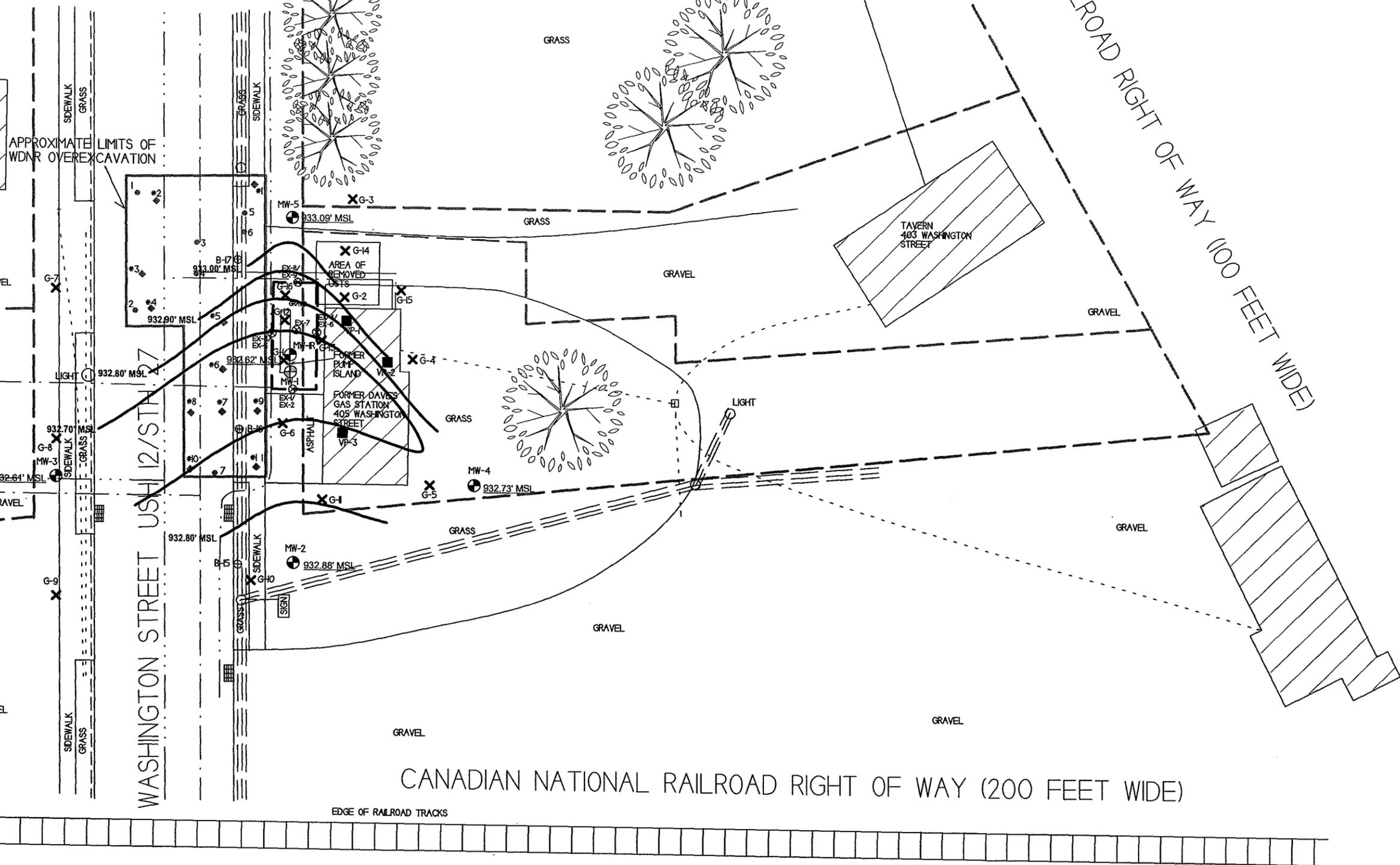
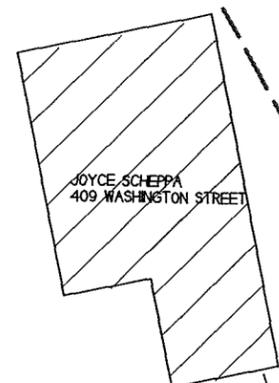
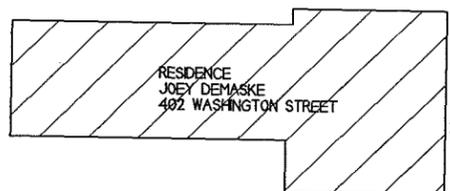
709 Gillette Street, Suite 3  
La Crosse, WI 54603  
Tel: (608) 781-8879  
Fax: (608) 781-8893

DRAWN BY: ED  
DATE: 03/26/2013  
UPDATED BY: JJ (01/22/2015)



- NOTE: INFORMATION BASED ON AVAILABLE DATA. ACTUAL CONDITIONS MAY DIFFER
- ⊕ - P2ESA SOIL BORING LOCATION
  - ◆ - WDNR EXCAVATION SOIL SAMPLE LOCATION
  - - WDNR EXCAVATION PID SOIL SAMPLE LOCATION
  - ⊗ - EXCAVATION PROJECT SOIL SAMPLING LOCATION
  - ✕ - GEOPROBE BORING LOCATION
  - ⊙ - MONITORING WELL LOCATION
  - ⊕ - ABANDONED MONITORING WELL LOCATION
  - - SUB SLAB VAPOR SAMPLING LOCATION

- - - - - WATER LINE
- - - - - SANITARY SEWER LINE
- - - - - NATURAL GAS LINE
- ≡≡≡≡≡≡≡≡≡≡ OVERHEAD UTILITIES
- - - - - PROPERTY BOUNDARY
- - - - - TELEPHONE LINE
- - - - - BURIED ELECTRIC LINE



**GROUNDWATER FLOW DIRECTION (6-27-18)**

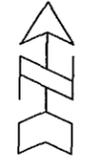
**DAVE'S GAS STATION (FORMER)**



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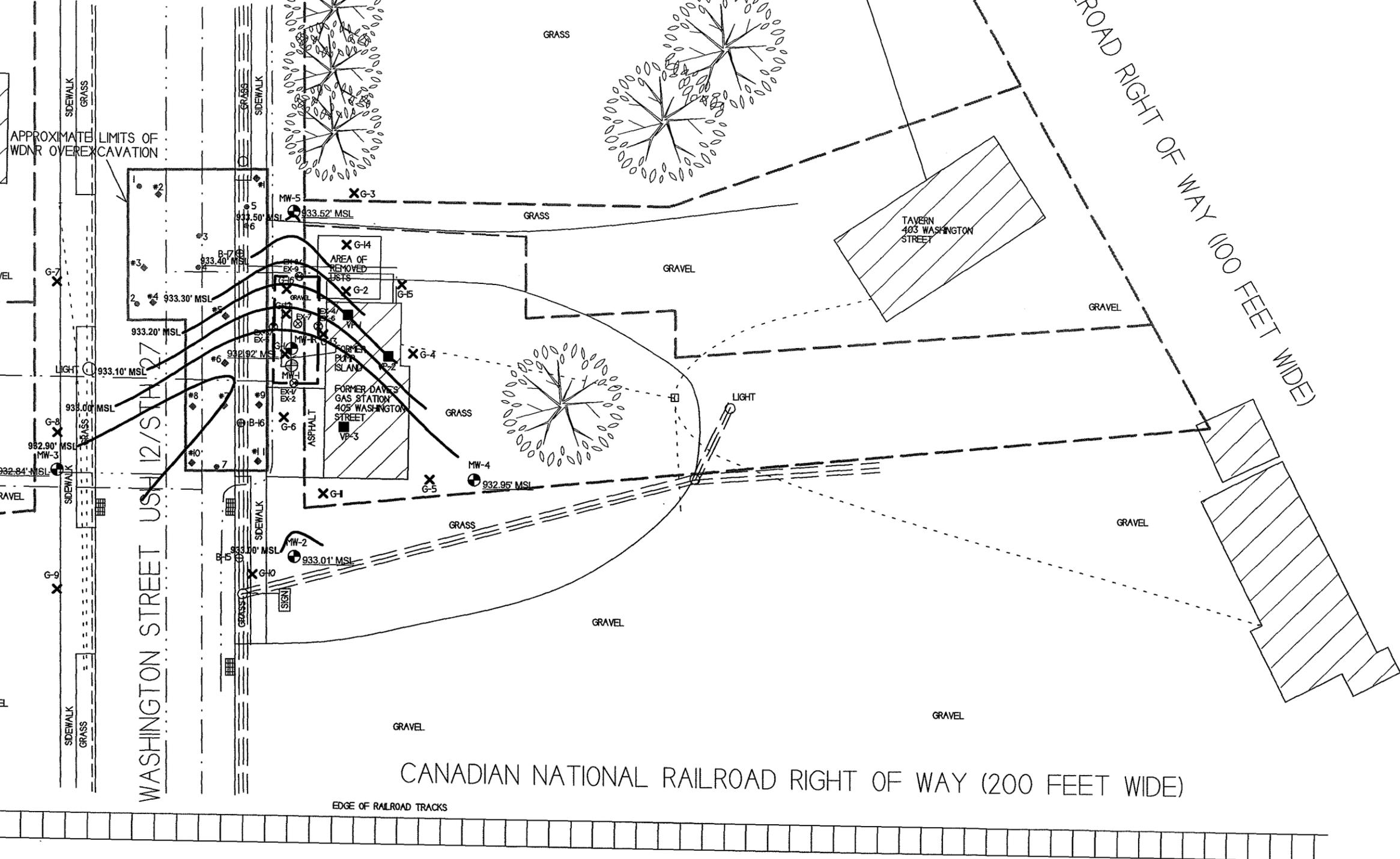
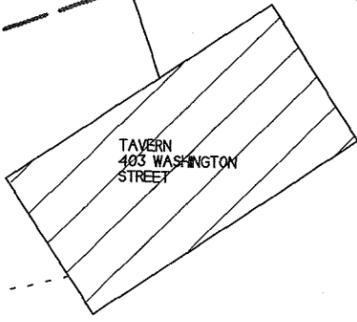
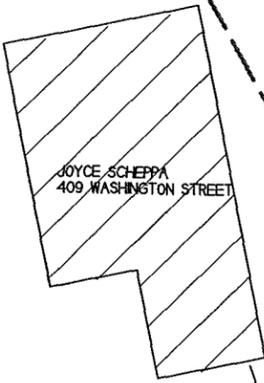
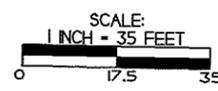
**MERRILLAN, WISCONSIN**

DRAWN BY: ED  
DATE: 03/26/2018  
UPDATED BY: JJ (02/22/2015)



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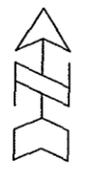
**GROUNDWATER ISOCONCENTRATION (6-27-18)**  
**DAVE'S GAS STATION (FORMER)**

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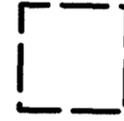
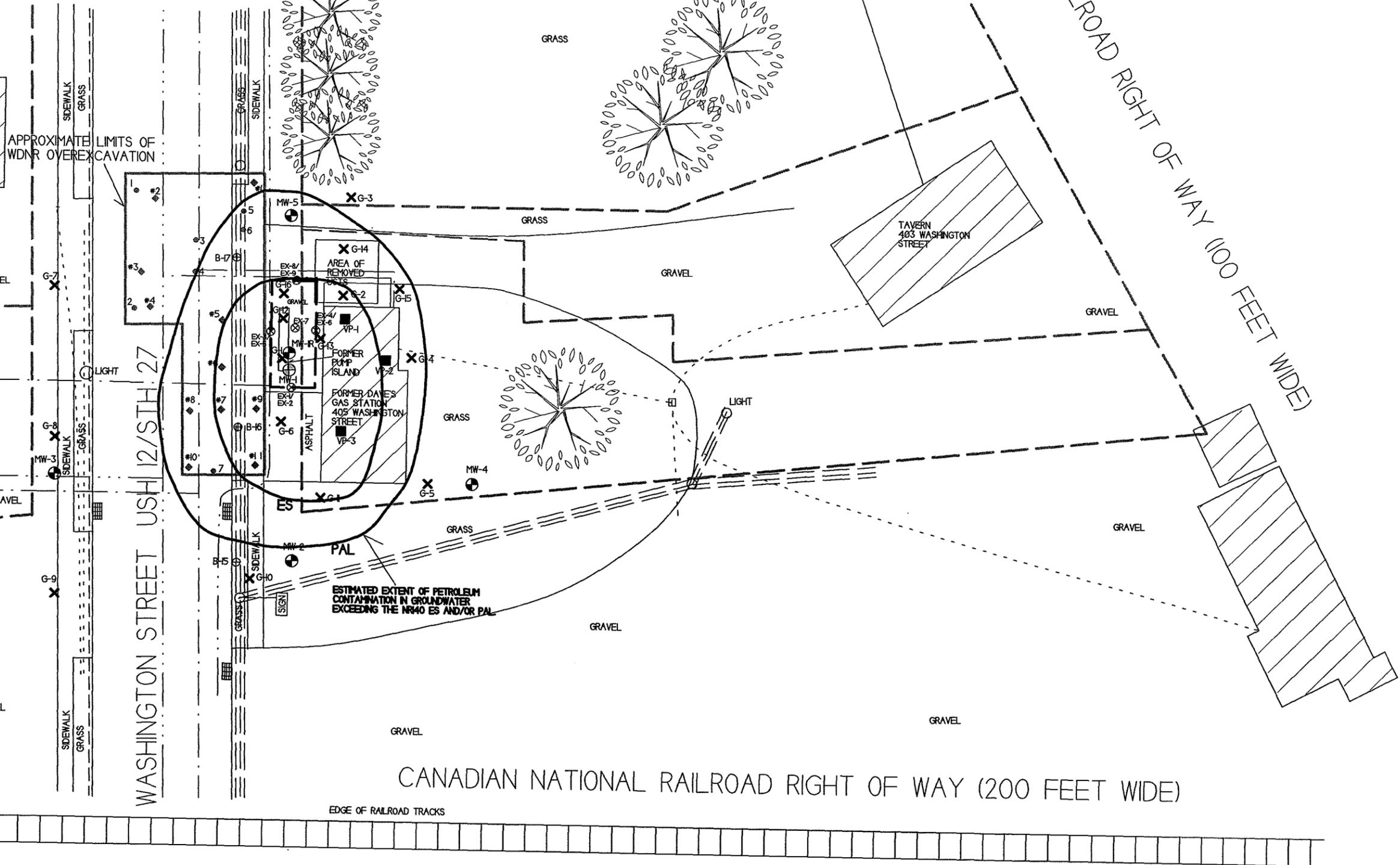
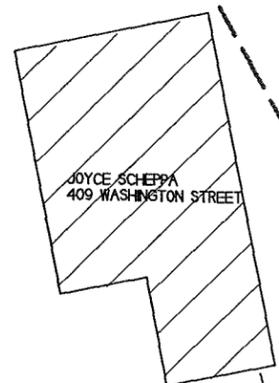
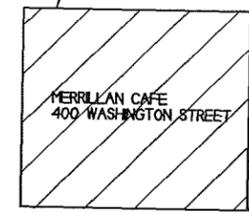
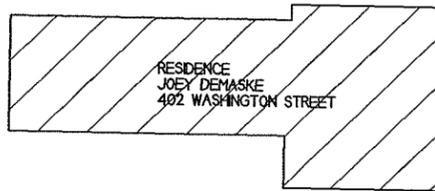
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SCALE:  
 1 INCH = 35 FEET



EXCAVATION AREA  
 (METCO, JUNE 2017)

D.4.a. VAPOR INTRUSION MAP

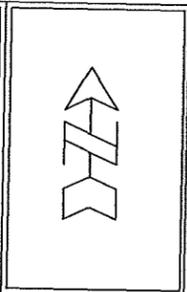
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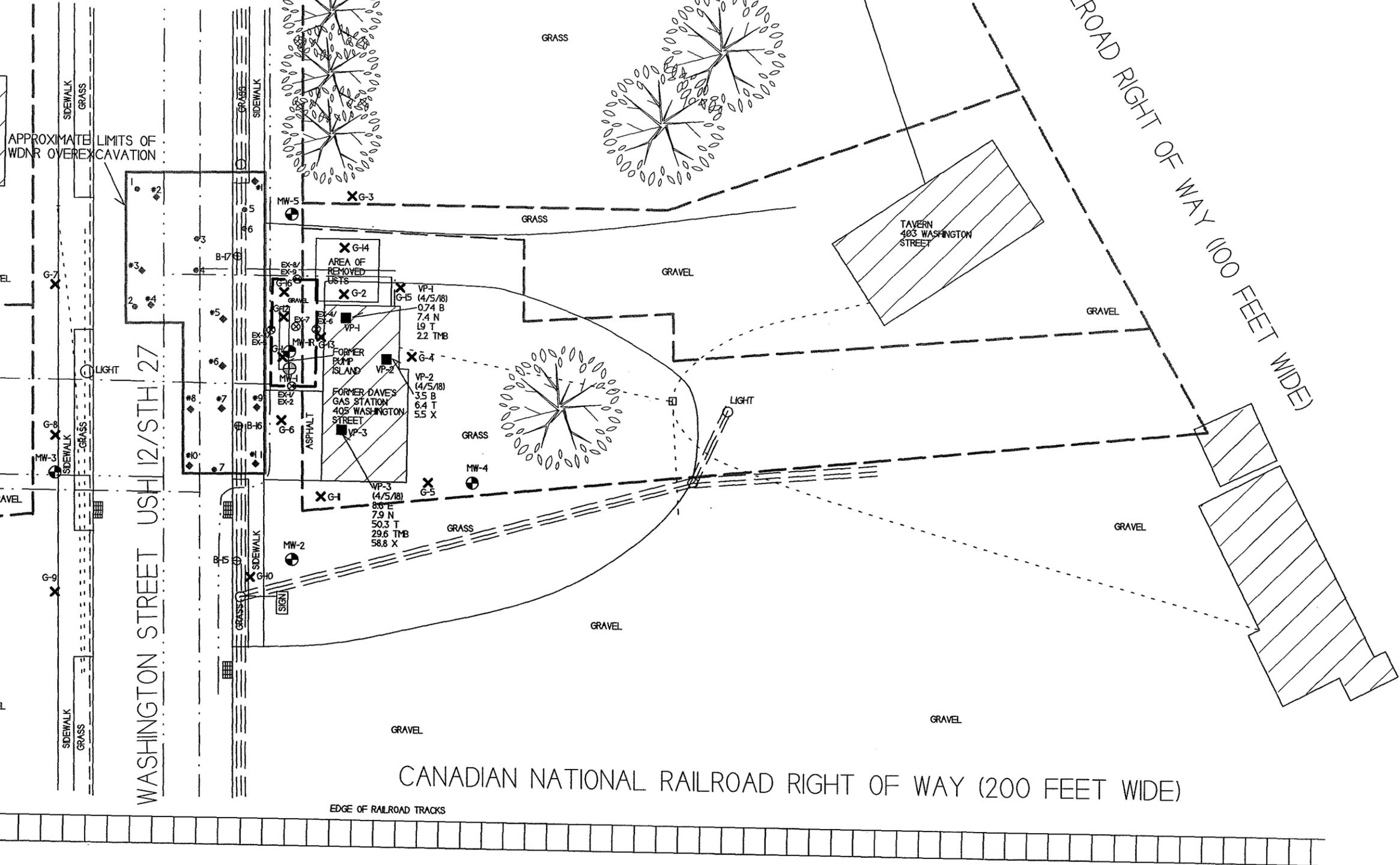
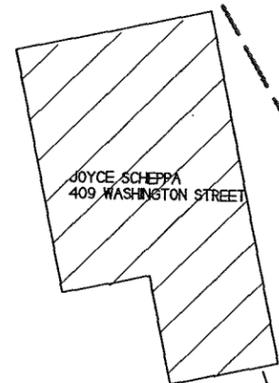
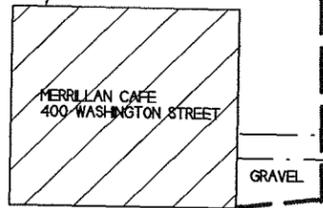
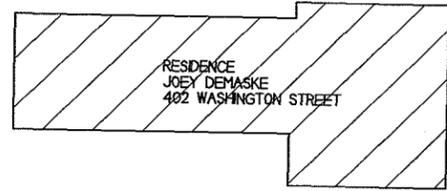
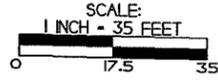
MERRILLAN,  
WISCONSIN

DRAWN BY: ED  
DATE: 03/26/2013  
UPDATED BY: JJ 02/22/2015



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**A.1 Groundwater Analytical Table**  
**Daves Gas Station Site BRRT's# 03-27-001459**

**Well MW-1/1R** MW-1R 937.20  
**PVC Elevation =** MW-1 937.03 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethylbenzenes (ppb)	Xylene (Total) (ppb)
11/04/15	932.05	4.98	38.5	610	950	<110	370	3020	4320	5540
02/09/16	FREE PRODUCT		10.6	200	1350	<24.5	1000	1580	5350	8410
06/21/17	MW-1 WAS ABANDONED & REMOVED DURING EXCAVATION PROJECT									
08/23/17	MW-1 WAS REPLACED WITH MW-1R									
09/26/17	932.32	4.88	5.0	700	750	<21.5	440	2080	2100	4750
12/20/17	932.05	5.15	3.3	690	570	<21.5	252	1950	2790	4170
04/05/18	932.62	4.58	51.3	910	610	<28.5	330	2450	2050	3970
06/27/18	932.92	4.28	4.0	320	330	<28.5	420	450	2240	2860
<b>ENFORCEMENT STANDARD ES = Bold</b>			15	5	700	60	100	800	480	2000
<b>PREVENTIVE ACTION LIMIT PAL = Italics</b>			1.5	0.5	140	12	10	160	96	400

(ppb) = parts per billion (ppm) = parts per million  
 ns = not sampled nm = not measured  
 Note: Elevations are presented in feet mean sea level (msl).

**Well MW-2**  
**PVC Elevation =** 936.63 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethylbenzenes (ppb)	Xylene (Total) (ppb)
11/04/15	932.47	4.16	1.5	7.7	1.8	<1.1	2.3	0.49	<3.1	4.34
02/09/16	932.48	4.15	3.9	<0.46	<0.73	<0.49	<2.6	<0.39	<1.51	<2.06
09/26/17	932.56	4.07	<0.9	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
12/20/17	932.26	4.37	<0.9	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
04/05/18	932.88	3.75	<0.9	<0.22	<0.53	<0.57	<1.7	<0.45	<1.48	<1.58
06/27/18	933.01	3.62	<0.8	<0.53	<0.57	<1.7	<0.45	<1.48	<1.58	<1.58
<b>ENFORCEMENT STANDARD ES = Bold</b>			15	5	700	60	100	800	480	2000
<b>PREVENTIVE ACTION LIMIT PAL = Italics</b>			1.5	0.5	140	12	10	160	96	400

(ppb) = parts per billion (ppm) = parts per million  
 ns = not sampled nm = not measured  
 Note: Elevations are presented in feet mean sea level (msl).

**Well MW-3**  
**PVC Elevation =** 936.72 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethylbenzenes (ppb)	Xylene (Total) (ppb)
11/04/15	932.17	4.55	<0.7	<0.44	<0.71	<1.1	<1.6	<0.44	<3.1	<3.1
02/09/16	932.21	4.51	<0.7	<0.46	<0.73	<0.49	<2.6	<0.39	<1.51	<2.06
09/26/17	932.35	4.37	NS	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
12/20/17	932.14	4.58	NS	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
04/05/18	932.61	4.11	NS	<0.22	<0.53	<0.57	<1.7	<0.45	<1.48	<1.58
06/27/18	932.84	3.88	NS	<0.22	<0.53	<0.57	<1.7	<0.45	<1.48	<1.58
<b>ENFORCEMENT STANDARD ES = Bold</b>			15	5	700	60	100	800	480	2000
<b>PREVENTIVE ACTION LIMIT PAL = Italics</b>			1.5	0.5	140	12	10	160	96	400

(ppb) = parts per billion (ppm) = parts per million  
 ns = not sampled nm = not measured  
 Note: Elevations are presented in feet mean sea level (msl).

**A.1 Groundwater Analytical Table**  
**Daves Gas Station Site BRRT's# 03-27-001459**

**Well MW-4**  
**PVC Elevation = 936.09 (feet) (MSL)**

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
11/04/15	932.37	3.72	<0.7	<0.44	<0.71	<1.1	<1.6	<0.44	<3.1	<3.1
02/09/16	932.39	3.70	<0.7	<0.46	<0.73	<0.49	<2.6	<0.39	<1.51	<2.06
09/26/17	932.62	3.47	NS	4.2	1.37	<0.43	<1.7	0.44	1.87-2.45	<1.71
12/20/17	932.24	3.85	NS	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
04/05/18	932.73	3.36	NS	<0.22	<0.53	<0.57	<1.7	<0.45	<1.48	<1.58
06/27/18	932.95	3.14	NS	<0.22	<0.53	<0.57	<1.7	<0.45	<1.48	<1.58
<b>ENFORCEMENT STANDARD ES = Bold</b>			<b>15</b>	<b>5</b>	<b>700</b>	<b>60</b>	<b>100</b>	<b>800</b>	<b>480</b>	<b>2000</b>
<b>PREVENTIVE ACTION LIMIT PAL = Italics</b>			<i>1.5</i>	<i>0.5</i>	<i>140</i>	<i>12</i>	<i>10</i>	<i>160</i>	<i>96</i>	<i>400</i>

(ppb) = parts per billion (ppm) = parts per million  
 ns = not sampled nm = not measured  
 Note: Elevations are presented in feet mean sea level (msl).

**Well MW-5**  
**PVC Elevation = 937.76 (feet) (MSL)**

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naphthalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
11/04/15	932.92	4.84	<0.7	<0.44	3.07	<1.1	27.8	<0.44	18	4.74
02/09/16	933.29	4.47	<0.7	<0.46	<0.73	<0.49	<2.6	<0.39	<1.51	<2.06
09/26/17	933.24	4.52	NS	0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
12/20/17	932.56	5.20	NS	0.57	3.7	<0.43	<1.7	0.41	25.3	10.77
04/05/18	933.09	4.67	NS	1.76	6.8	<0.57	3.3	0.95	50.6	21.8
06/27/18	933.52	4.24	NS	1.58	1.64	<0.57	<1.7	0.85	17.2	3.12
<b>ENFORCEMENT STANDARD ES = Bold</b>			<b>15</b>	<b>5</b>	<b>700</b>	<b>60</b>	<b>100</b>	<b>800</b>	<b>480</b>	<b>2000</b>
<b>PREVENTIVE ACTION LIMIT PAL = Italics</b>			<i>1.5</i>	<i>0.5</i>	<i>140</i>	<i>12</i>	<i>10</i>	<i>160</i>	<i>96</i>	<i>400</i>

(ppb) = parts per billion (ppm) = parts per million  
 ns = not sampled nm = not measured  
 Note: Elevations are presented in feet mean sea level (msl).

**A.6 Water Level Elevations**  
**Daves Gas Station Site BRRT's# 03-27-001459**  
**Merrillan, Wisconsin**

	MW-1	MW-1R	MW-2	MW-3	MW-4	MW-5
<b>Ground Surface (feet msl)</b>	937.50	937.58	937.12	937.01	936.64	938.19
<b>PVC top (feet msl)</b>	937.03	937.20	936.63	936.72	936.09	937.76
<b>Well Depth (feet)</b>	13.00	13.00	13.00	13.00	13.00	13.00
<b>Top of screen (feet msl)</b>	934.50	934.58	934.12	934.01	933.64	935.19
<b>Bottom of screen (feet msl)</b>	924.50	924.58	924.12	924.01	923.64	925.19

**Depth to Water From Top of PVC (feet)**

<b>11/04/15</b>	4.98	NI	4.16	4.55	3.72	4.84
<b>02/09/16</b>	FP	NI	4.15	4.51	3.70	4.47
<b>09/26/17</b>	A	4.88	4.07	4.37	3.47	4.52
<b>12/20/17</b>	A	5.15	4.37	4.58	3.85	5.20
<b>04/05/18</b>	A	4.58	3.75	4.11	3.36	4.67
<b>06/27/18</b>	A	4.28	3.62	3.88	3.14	4.24

**Depth to Water From Ground Surface (feet)**

<b>11/04/15</b>	5.45	NI	4.65	4.84	4.27	5.27
<b>02/09/16</b>	FP	NI	4.64	4.80	4.25	4.90
<b>09/26/17</b>	A	5.26	4.56	4.66	4.02	4.95
<b>12/20/17</b>	A	5.53	4.86	4.87	4.40	5.63
<b>04/05/18</b>	A	4.96	4.24	4.40	3.91	5.10
<b>06/27/18</b>	A	4.66	4.11	4.17	3.69	4.67

**Groundwater Elevation (feet msl)**

<b>11/04/15</b>	932.05	NI	932.47	932.17	932.37	932.92
<b>02/09/16</b>	FP	NI	932.48	932.21	932.39	933.29
<b>09/26/17</b>	A	932.32	932.56	932.35	932.62	933.24
<b>12/20/17</b>	A	932.05	932.26	932.14	932.24	932.56
<b>04/05/18</b>	A	932.62	932.88	932.61	932.73	933.09
<b>06/27/18</b>	A	932.92	933.01	932.84	932.95	933.52

CNL = Could Not Locate

A = Abandoned and removed during soil excavation project

NI = Not Installed

FP = Free Product

**A.7 Other**

**Groundwater NA Indicator Results  
Daves Gas Station Site BRRT's# 03-27-001459**

**Well MW-1/1R**

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
11/04/15	2.12	6.83	-76	14.1	970	0.395	1510	8.96	318
02/09/16	2.03	7.18	-97	7.9	1287	NS	NS	NS	NS
06/21/17	MW-1 WAS ABANDONED & REMOVED DURING EXCAVATION PROJECT								
08/23/17	MW-1 WAS REPLACED WITH MW-1R								
09/26/17	0.27	7.58	102	18.4	600	NS	NS	NS	NS
12/20/17	1.28	7.26	87	8.8	2111	NS	NS	NS	NS
04/05/18	0.97	7.25	74	6.4	2219	NS	NS	NS	NS
06/27/18	1.40	6.92	-43	18.7	427.3	NS	NS	NS	NS
<b>ENFORCE MENT STANDARD = ES - Bold</b>						<b>10</b>	-	-	<b>300</b>
<b>PREVENTIVE ACTION LIMIT = PAL - Italics</b>						<i>2</i>	-	-	<i>60</i>

(ppb) = parts per billion (ppm) = parts per million  
 ns = not sampled nm = not measured ORP = Oxidation Reduction Potential  
 Note: Elevations are presented in feet mean sea level (msl).

**Well MW-2**

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
11/04/15	4.02	6.93	245	13.5	638	2.56	<300	0.33	64.7
02/09/16	4.23	6.93	110	7.7	876	NS	NS	NS	NS
09/26/17	1.03	7.53	259	18.9	583	NS	NS	NS	NS
12/20/17	2.06	6.92	163	8.6	611	NS	NS	NS	NS
04/05/18	2.73	6.98	172	6.1	713	NS	NS	NS	NS
06/27/18	2.74	6.96	248	18.8	489.4	NS	NS	NS	NS
<b>ENFORCE MENT STANDARD = ES - Bold</b>						<b>10</b>	-	-	<b>300</b>
<b>PREVENTIVE ACTION LIMIT = PAL - Italics</b>						<i>2</i>	-	-	<i>60</i>

(ppb) = parts per billion (ppm) = parts per million  
 ns = not sampled nm = not measured ORP = Oxidation Reduction Potential  
 Note: Elevations are presented in feet mean sea level (msl).

**Well MW-3**

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
11/04/15	5.71	6.59	227	12.9	251	0.750	<300	0.29	198
02/09/16	6.71	6.52	229	7.6	589	NS	NS	NS	NS
09/26/17	1.93	7.74	310	19.0	881	NS	NS	NS	NS
12/20/17	3.87	6.76	254	8.2	1647	NS	NS	NS	NS
04/05/18	3.65	6.73	237	5.4	1255	NS	NS	NS	NS
06/27/18	5.21	6.51	205	20.4	1790	NS	NS	NS	NS
<b>ENFORCE MENT STANDARD = ES - Bold</b>						<b>10</b>	-	-	<b>300</b>
<b>PREVENTIVE ACTION LIMIT = PAL - Italics</b>						<i>2</i>	-	-	<i>60</i>

(ppb) = parts per billion (ppm) = parts per million  
 ns = not sampled nm = not measured ORP = Oxidation Reduction Potential  
 Note: Elevations are presented in feet mean sea level (msl).

**A.7 Other**

**Groundwater NA Indicator Results**

**Daves Gas Station Site BRRT's# 03-27-001459**

**Well MW-4**

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp ( C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
11/04/15	5.25	6.92	211	13.1	235	0.442	<300	0.31	116
02/09/16	5.28	6.27	230	7.4	671	NS	NS	NS	NS
09/26/17	0.88	8.16	322	18.1	2001	NS	NS	NS	NS
12/20/17	2.78	7.19	221	8.0	1293	NS	NS	NS	NS
04/05/18	2.65	7.08	209	5.7	1331	NS	NS	NS	NS
06/27/18	2.42	6.74	237	18.9	215.7	NS	NS	NS	NS
<b>ENFORCE MENT STANDARD = ES – Bold</b>						<b>10</b>	-	-	<b>300</b>
<b>PREVENTIVE ACTION LIMIT = PAL - Italics</b>						<b>2</b>	-	-	<b>60</b>

(ppb) = parts per billion (ppm) = parts per million  
 ns = not sampled nm = not measured ORP = Oxidation Reduction Potential  
 Note: Elevations are presented in feet mean sea level (msl).

**Well MW-5**

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp ( C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Manganese (ppb)
11/04/15	6.16	6.70	182	14.4	211	0.265	<300	0.84	192
02/09/16	5.49	6.86	181	7.5	552	NS	NS	NS	NS
09/26/17	0.33	8.25	114	18.2	682	NS	NS	NS	NS
12/20/17	3.16	7.07	261	8.4	896	NS	NS	NS	NS
04/05/18	3.21	7.20	217	6.2	958	NS	NS	NS	NS
06/27/18	1.79	7.18	241	18.1	449.3	NS	NS	NS	NS
<b>ENFORCE MENT STANDARD = ES – Bold</b>						<b>10</b>	-	-	<b>300</b>
<b>PREVENTIVE ACTION LIMIT = PAL - Italics</b>						<b>2</b>	-	-	<b>60</b>

(ppb) = parts per billion (ppm) = parts per million  
 ns = not sampled nm = not measured ORP = Oxidation Reduction Potential  
 Note: Elevations are presented in feet mean sea level (msl).

A.4 Vapor Analytical Table  
 Sub-Slab Sampling Data Table for Dave's Gas Station  
 BY METCO

WDNR

Small Commercial  
 Sub-Slab Vapor Action  
 Levels for Various VOCs  
 Quick Look-Up Table  
 Updated November, 2017

Sub-Slab Sampling conducted on April 5, 2018

Sample ID

	VP-1	VP-2	VP-3	(ug/m <sup>3</sup> )	
Benzene – ug/m <sup>3</sup>	0.74	3.5	<0.47	530	c
Carbon Tetrachloride – ug/m <sup>3</sup>	NS	NS	NS	670	c
Chloroform – ug/m <sup>3</sup>	NS	NS	NS	180	c
Chloromethane – ug/m <sup>3</sup>	NS	NS	NS	13000	n
Dichlorodifluoromethane – ug/m <sup>3</sup>	NS	NS	NS	15000	n
1,1-Dichloroethane (1,1-DCA) – ug/m <sup>3</sup>	NS	NS	NS	2600	c
1,2-Dichloroethane (1,2-DCA) – ug/m <sup>3</sup>	NS	NS	NS	160	c
1,1-Dichloroethylene (1,1-DCE) – ug/m <sup>3</sup>	NS	NS	NS	29000	n
1,2-Dichloroethylene (cis and trans) - ug/m <sup>3</sup>	NS	NS	NS	NA	-
Ethylbenzene – ug/m <sup>3</sup>	<1.2	<1.2	8.6	1600	c
Methylene chloride – ug/m <sup>3</sup>	NS	NS	NS	87000	n
Methyl Tert-Butyl Ether (MTBE) – ug/m <sup>3</sup>	<5.1	<5.1	<5.3	16000	c
Naphthalene – ug/m <sup>3</sup>	7.4	<3.7	7.9	120	c
Tetrachloroethylene -ug/m <sup>3</sup>	NS	NS	NS	6000	n
Toluene – ug/m <sup>3</sup>	1.9	6.4	50.3	730000	n
1,1,1-Trichloroethane – ug/m <sup>3</sup>	NS	NS	NS	730000	n
Trichloroethylene – ug/m <sup>3</sup>	NS	NS	NS	290	n
Trichlorofluoromethane (Halcarbon 11) – ug/m <sup>3</sup>	NS	NS	NS	NA	-
Trimethylbenzene (1,2,4) – ug/m <sup>3</sup>	2.2	<1.4	29.6	8700	n
Trimethylbenzene (1,3,5) – ug/m <sup>3</sup>	<1.4	<1.4	<1.4	8700	n
Vinyl chloride – ug/m <sup>3</sup>	NS	NS	NS	930	c
Xylene (total) -ug/m <sup>3</sup>	<3.7	5.5	58.8	15000	n

ug/m<sup>3</sup> = Micrograms per cubic meter.

< = Less than the reporting limit indicated in parentheses.

NS = Not Sampled

**Bold = Sub-Slab Standard Exceedance**

c = Carcinogen

n = Non Carcinogen

J = between Limit of Detection (LOD) and Limit of Quantitation (LOQ)



# BRAUN INTERTEC

The Science You Build On.

## Vapor Pin® Installation & Soil Vapor Sampling

Project Name: Dave's Gas Station

Project #: B1801497

Field Personnel: Dave Bradshaw

Equipment:  Vapor Pin® Kit with tools  Hammer Drill  Shop-Vac  PID #: 70

Other: \_\_\_\_\_

### Vapor Pin® Installation

Installation Date: 4-5-18

Installation Type:

Temporary  Permanent

If Permanent, Cover Type:

Stainless Steel  Plastic

Concrete Thickness: 5 inches

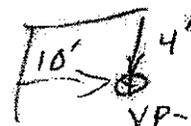
New Silicon Sleeve

New Vapor Pin® Cap

Concrete Patch (if temporary)

Comments: \_\_\_\_\_

### Sketch of pin location with measurements to walls



### Soil Gas Sampling

Manometer: 0.0 nbar (55)

- ~~0.10~~ nbar (Atm)  
- 0.10

Sample Identifier: VP-1

Sampling Date: 4-5-18

Sample Depth:  Sub-Slab  \_\_\_\_\_ Feet

Purged air prior to sampling with:

Pump  Syringe  Other \_\_\_\_\_

Amount purged: 180 mL

Sampling Canister:  1 Liter  6 Liter

Flow Controller:  200 mL/min  Other: \_\_\_\_\_

	Collection Time:	Canister Vacuum (" Hg):
Start:	<u>10:54</u>	<u>-31</u>
End:	<u>11:35</u>	<u>-3</u>

PID Reading (ppm):	<u>5.1</u>
Canister #:	<u>0088</u>
Flow Controller #:	

Additional Comments: \_\_\_\_\_

# BRAUN INTERTEC

The Science You Build On.

## Vapor Pin® Installation & Soil Vapor Sampling

Project Name: Dave's Gas Station

Project #: B1801497

Field Personnel: Dave Bradshan

Equipment:  Vapor Pin® Kit with tools  Hammer Drill  Shop-Vac  PID #: 70

Other: \_\_\_\_\_

### Vapor Pin® Installation

Installation Date: 4-5-18

Installation Type:

Temporary  Permanent

If Permanent, Cover Type:

Stainless Steel  Plastic

Concrete Thickness: 5 inches

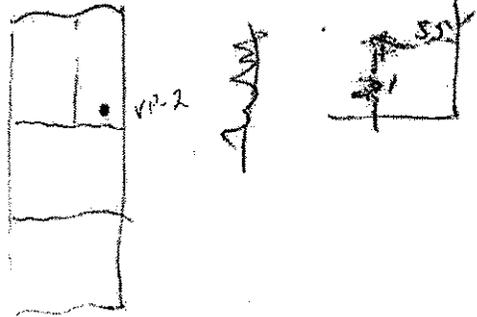
New Silicon Sleeve

New Vapor Pin® Cap

Concrete Patch (if temporary)

Comments: \_\_\_\_\_

### Sketch of pin location with measurements to walls



### Soil Gas Sampling

Manometer: 0.0 inbar (SS) ~~-2.00~~ -0.20 inbar (Atm)

Sample Identifier: VP-2 Sampling Date: 4-5-18

Sample Depth:  Sub-Slab  \_\_\_\_\_ Feet

Purged air prior to sampling with:

Pump  Syringe  Other \_\_\_\_\_

Amount purged: 180 mL

Sampling Canister:  1 Liter  6 Liter

Flow Controller:  200 mL/min  Other: \_\_\_\_\_

	Collection Time:	Canister Vacuum (" Hg):
Start:	<u>11:27:30</u>	<u>-30</u>
End:	<u>12:10:00</u>	<u>-4</u>

PID Reading (ppm):	<u>1.5</u>
Canister #:	<u>0034</u>
Flow Controller #:	

Additional Comments: \_\_\_\_\_

# BRAUN INTERTEC

The Science You Build On.

## Vapor Pin® Installation & Soil Vapor Sampling

Project Name: Dave's Gas Station Project #: B1801497  
Field Personnel: Dave Bradshun

Equipment:  Vapor Pin® Kit with tools  Hammer Drill  Shop-Vac  PID #: 20  
Other: \_\_\_\_\_

### Vapor Pin® Installation

Installation Date: 4-5-18

Installation Type:

Temporary  Permanent

If Permanent, Cover Type:

Stainless Steel  Plastic

Concrete Thickness: 8 inches

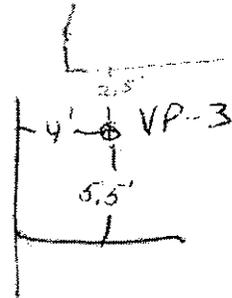
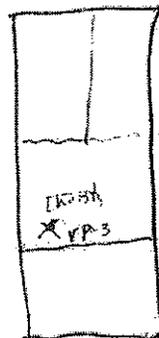
New Silicon Sleeve

New Vapor Pin® Cap

Concrete Patch (if temporary)

Comments: \_\_\_\_\_

### Sketch of pin location with measurements to walls



Soil Gas Sampling Manometer: 0.0 in Hg (SS) -0.20 (kPa)

Sample Identifier: VP-3 Sampling Date: 4-5-18

Sample Depth:  Sub-Slab  \_\_\_\_\_ Feet

Purged air prior to sampling with:

Pump  Syringe  Other \_\_\_\_\_

Amount purged: 180 mL

Sampling Canister:  1 Liter  6 Liter

Flow Controller:  200 mL/min  Other: \_\_\_\_\_

	Collection Time:	Canister Vacuum (" Hg):
Start:	<u>11:51</u>	<u>-25</u>
End:	<u>12:25</u>	<u>-3</u>

PID Reading (ppm):	<u>8.2</u>
Canister #:	<u>1564</u>
Flow Controller #:	

Additional Comments: \_\_\_\_\_



Pace Analytical Services, LLC  
1700 Elm Street - Suite 200  
Minneapolis, MN 55414  
(612)607-1700

April 18, 2018

Nicholas Stingl  
Braun Intertec  
2309 Palace Sreet  
La Crosse, WI 54603

RE: Project: B1801497 Daves Gas Station  
Pace Project No.: 10426561

Dear Nicholas Stingl:

Enclosed are the analytical results for sample(s) received by the laboratory on April 09, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nathan Boberg  
nathan.boberg@pacelabs.com  
(612)607-6407  
Project Manager

Enclosures



### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: B1801497 Daves Gas Station  
Pace Project No.: 10426561

---

### Minnesota Certification IDs

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414-2485  
A2LA Certification #: 2926.01  
Alabama Certification #: 40770  
Alaska Contaminated Sites Certification #: 17-009  
Alaska DW Certification #: MN00064  
Arizona Certification #: AZ0014  
Arkansas Certification #: 88-0680  
California Certification #: 2929  
CNMI Saipan Certification #:MP0003  
Colorado Certification #: MN00064  
Connecticut Certification #: PH-0256  
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137  
Florida Certification #: E87605  
Georgia Certification #: 959  
Guam EPA Certification #: MN00064  
Hawaii Certification #: MN00064  
Idaho Certification #: MN00064  
Illinois Certification #: 200011  
Indiana Certification #: C-MN-01  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Kentucky DW Certification #: 90062  
Kentucky WW Certification #: 90062  
Louisiana DEQ Certification #: 03086  
Louisiana DW Certification #: MN00064  
Maine Certification #: MN00064  
Maryland Certification #: 322  
Massachusetts Certification #: M-MN064

Michigan Certification #: 9909  
Minnesota Certification #: 027-053-137  
Mississippi Certification #: MN00064  
Montana Certification #: CERT0092  
Nebraska Certification #: NE-OS-18-06  
Nevada Certification #: MN00064  
New Hampshire Certification #: 2081  
New Jersey Certification #: MN002  
New York Certification #: 11647  
North Carolina DW Certification #: 27700  
North Carolina WW Certification #: 530  
North Dakota Certification #: R-036  
Ohio DW Certification #: 41244  
Ohio VAP Certification #: CL101  
Oklahoma Certification #: 9507  
Oregon NwTPH Certification #: MN300001  
Oregon Secondary Certification #: MN200001  
Pennsylvania Certification #: 68-00563  
Puerto Rico Certification #: MN00064  
South Carolina Certification #:74003001  
Tennessee Certification #: TN02818  
Texas Certification #: T104704192  
Utah Certification #: MN00064  
Virginia Certification #: 460163  
Washington Certification #: C486  
West Virginia DW Certification #: 9952 C  
West Virginia DEP Certification #: 382  
Wisconsin Certification #: 999407970

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: B1801497 Daves Gas Station  
Pace Project No.: 10426561

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10426561001	VP-1	Air	04/05/18 11:35	04/09/18 09:30
10426561002	VP-2	Air	04/05/18 12:10	04/09/18 09:30
10426561003	VP-3	Air	04/05/18 12:25	04/09/18 09:30

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Pace Analytical Services, LLC  
1700 Elm Street - Suite 200  
Minneapolis, MN 55414  
(612)607-1700

### SAMPLE ANALYTE COUNT

Project: B1801497 Daves Gas Station  
Pace Project No.: 10426561

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10426561001	VP-1	TO-15	CH1	19	PASI-M
10426561002	VP-2	TO-15	CH1	19	PASI-M
10426561003	VP-3	TO-15	CH1	19	PASI-M

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: B1801497 Daves Gas Station  
Pace Project No.: 10426561

---

**Method:** TO-15  
**Description:** TO15 MSV AIR (TICS)  
**Client:** Braun-BLM  
**Date:** April 18, 2018

**General Information:**

3 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: B1801497 Daves Gas Station

Pace Project No.: 10426561

Sample: VP-1 Lab ID: 10426561001 Collected: 04/05/18 11:35 Received: 04/09/18 09:30 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR (TICS)</b>									
Analytical Method: TO-15									
Benzene	0.74	ug/m3	0.45	0.21	1.39		04/17/18 22:22	71-43-2	
Ethylbenzene	ND	ug/m3	1.2	0.24	1.39		04/17/18 22:22	100-41-4	
Methyl-tert-butyl ether	ND	ug/m3	5.1	0.93	1.39		04/17/18 22:22	1634-04-4	
Naphthalene	7.4	ug/m3	3.7	0.83	1.39		04/17/18 22:22	91-20-3	
Toluene	1.9	ug/m3	1.1	0.22	1.39		04/17/18 22:22	108-88-3	
1,2,4-Trimethylbenzene	2.2	ug/m3	1.4	0.24	1.39		04/17/18 22:22	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.4	0.57	1.39		04/17/18 22:22	108-67-8	
m&p-Xylene	ND	ug/m3	2.5	0.49	1.39		04/17/18 22:22	179601-23-1	
o-Xylene	ND	ug/m3	1.2	0.52	1.39		04/17/18 22:22	95-47-6	
<b>Tentatively Identified Compounds</b>									
Methane, bromochloro-	11.5J	ppbv			1.39		04/17/18 22:22	74-97-5	N
2-Butanone, 3,3-dimethyl	2.9J	ppbv			1.39		04/17/18 22:22	75-97-8	N
Benzene, 1-chloro-2-met	1.8J	ppbv			1.39		04/17/18 22:22	95-49-8	N
Unknown	1.1J	ppbv			1.39		04/17/18 22:22		
Unknown	1.1J	ppbv			1.39		04/17/18 22:22		
Undecane	1.6J	ppbv			1.39		04/17/18 22:22	1120-21-4	N
Unknown	0.33J	ppbv			1.39		04/17/18 22:22		
Unknown	0.34J	ppbv			1.39		04/17/18 22:22		
Dodecane	0.85J	ppbv			1.39		04/17/18 22:22	112-40-3	N
Cyclohexane, 2-butyl-1,	0.54J	ppbv			1.39		04/17/18 22:22	54676-39-0	N

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: B1801497 Daves Gas Station

Pace Project No.: 10426561

Sample: VP-2 Lab ID: 10426561002 Collected: 04/05/18 12:10 Received: 04/09/18 09:30 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR (TICS)</b>		Analytical Method: TO-15							
Benzene	3.5	ug/m3	0.45	0.21	1.39		04/17/18 22:56	71-43-2	
Ethylbenzene	ND	ug/m3	1.2	0.24	1.39		04/17/18 22:56	100-41-4	
Methyl-tert-butyl ether	ND	ug/m3	5.1	0.93	1.39		04/17/18 22:56	1634-04-4	
Naphthalene	ND	ug/m3	3.7	0.83	1.39		04/17/18 22:56	91-20-3	
Toluene	6.4	ug/m3	1.1	0.22	1.39		04/17/18 22:56	108-88-3	
1,2,4-Trimethylbenzene	ND	ug/m3	1.4	0.24	1.39		04/17/18 22:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.4	0.57	1.39		04/17/18 22:56	108-67-8	
m&p-Xylene	3.3	ug/m3	2.5	0.49	1.39		04/17/18 22:56	179601-23-1	
o-Xylene	2.2	ug/m3	1.2	0.52	1.39		04/17/18 22:56	95-47-6	
<b>Tentatively Identified Compounds</b>									
Unknown	0.26J	ppbv			1.39		04/17/18 22:56		
Unknown	0.28J	ppbv			1.39		04/17/18 22:56		
Methane, bromochloro-	8.5J	ppbv			1.39		04/17/18 22:56	74-97-5	N
Cyclopentane, methyl-	1.8J	ppbv			1.39		04/17/18 22:56	96-37-7	N
1-Butanol	0.65J	ppbv			1.39		04/17/18 22:56	71-36-3	N
2-Pentanone	1.3J	ppbv			1.39		04/17/18 22:56	107-87-9	N
2-Pentanol, 4-methyl-	6.6J	ppbv			1.39		04/17/18 22:56	108-11-2	N
Unknown	8.6J	ppbv			1.39		04/17/18 22:56		
Cyclotetrasiloxane, oct	9.4J	ppbv			1.39		04/17/18 22:56	556-67-2	N
Unknown	74.4J	ppbv			1.39		04/17/18 22:56		

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**ANALYTICAL RESULTS**

Project: B1801497 Daves Gas Station  
 Pace Project No.: 10426561

Sample: VP-3 Lab ID: 10426561003 Collected: 04/05/18 12:25 Received: 04/09/18 09:30 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR (TICS)</b>		Analytical Method: TO-15							
Benzene	ND	ug/m3	0.47	0.22	1.44		04/17/18 23:29	71-43-2	
Ethylbenzene	8.6	ug/m3	1.3	0.25	1.44		04/17/18 23:29	100-41-4	
Methyl-tert-butyl ether	ND	ug/m3	5.3	0.96	1.44		04/17/18 23:29	1634-04-4	
Naphthalene	7.9	ug/m3	3.8	0.86	1.44		04/17/18 23:29	91-20-3	
Toluene	50.3	ug/m3	1.1	0.23	1.44		04/17/18 23:29	108-88-3	
1,2,4-Trimethylbenzene	29.6	ug/m3	1.4	0.25	1.44		04/17/18 23:29	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.4	0.59	1.44		04/17/18 23:29	108-67-8	
m&p-Xylene	37.4	ug/m3	2.5	0.50	1.44		04/17/18 23:29	179601-23-1	
o-Xylene	21.4	ug/m3	1.3	0.53	1.44		04/17/18 23:29	95-47-6	
<b>Tentatively Identified Compounds</b>									
Unknown	305J	ppbv			1.44		04/17/18 23:29		
1-Propene, 2-methyl-	53.8J	ppbv			1.44		04/17/18 23:29	115-11-7	N
Pentane, 2,3,3-trimethyl	18.8J	ppbv			1.44		04/17/18 23:29	560-21-4	N
Cyclotrisiloxane, hexame	7.8J	ppbv			1.44		04/17/18 23:29	541-05-9	N
Cyclotetrasiloxane, oct	14.7J	ppbv			1.44		04/17/18 23:29	556-67-2	N
Benzene, 4-ethyl-1,2-di	4.6J	ppbv			1.44		04/17/18 23:29	934-80-5	N
Naphthalene, decahydro-	5.8J	ppbv			1.44		04/17/18 23:29	493-02-7	N
Undecane	4.5J	ppbv			1.44		04/17/18 23:29	1120-21-4	N
Benzene, 1-ethyl-2,3-di	2.3J	ppbv			1.44		04/17/18 23:29	933-98-2	N
Naphthalene, decahydro-	2.1J	ppbv			1.44		04/17/18 23:29	2958-76-1	N

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**QUALITY CONTROL DATA**

Project: B1801497 Daves Gas Station  
 Pace Project No.: 10426561

QC Batch: 532760 Analysis Method: TO-15  
 QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level  
 Associated Lab Samples: 10426561001, 10426561002, 10426561003

METHOD BLANK: 2893258 Matrix: Air  
 Associated Lab Samples: 10426561001, 10426561002, 10426561003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	04/17/18 10:06	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	04/17/18 10:06	
Benzene	ug/m3	ND	0.32	04/17/18 10:06	
Ethylbenzene	ug/m3	ND	0.88	04/17/18 10:06	
m&p-Xylene	ug/m3	ND	1.8	04/17/18 10:06	
Methyl-tert-butyl ether	ug/m3	ND	3.7	04/17/18 10:06	
Naphthalene	ug/m3	ND	2.7	04/17/18 10:06	
o-Xylene	ug/m3	ND	0.88	04/17/18 10:06	
Toluene	ug/m3	ND	0.77	04/17/18 10:06	

LABORATORY CONTROL SAMPLE: 2893259

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/m3	50	46.0	92	70-137	
1,3,5-Trimethylbenzene	ug/m3	50	45.8	92	70-133	
Benzene	ug/m3	32.5	28.6	88	70-134	
Ethylbenzene	ug/m3	44.1	40.2	91	70-133	
m&p-Xylene	ug/m3	88.3	78.4	89	70-133	
Methyl-tert-butyl ether	ug/m3	36.6	32.3	88	70-132	
Naphthalene	ug/m3	53.3	43.0	81	55-136	
o-Xylene	ug/m3	44.1	37.3	85	70-132	
Toluene	ug/m3	38.3	34.5	90	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: B1801497 Daves Gas Station  
Pace Project No.: 10426561

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above LOD.  
J - Estimated concentration at or above the LOD and below the LOQ.  
LOD - Limit of Detection adjusted for dilution factor and percent moisture.  
LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.  
LCS(D) - Laboratory Control Sample (Duplicate)  
MS(D) - Matrix Spike (Duplicate)  
DUP - Sample Duplicate  
RPD - Relative Percent Difference  
NC - Not Calculable.  
SG - Silica Gel - Clean-Up  
U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.  
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

### ANALYTE QUALIFIERS

N The reported TIC has an 85% or higher match on a mass spectral library search.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: B1801497 Daves Gas Station

Pace Project No.: 10426561

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10426561001	VP-1	TO-15	532760		
10426561002	VP-2	TO-15	532760		
10426561003	VP-3	TO-15	532760		

### REPORT OF LABORATORY ANALYSIS

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WO#: 10426561



10426561



**AIR CHAIN-OF-CUSTODY**  
The Chain-of-Custody is a LEGAL DOCUMENT. All refer

31838

Page: 1 of 1

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:		Program	
Company: <u>Braun Intertec</u>		Report To: <u>Nick Stingl</u>		Attention: <u>Nick Stingl</u>		<input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other	
Address: <u>2309 Palace St.</u>		Copy To:		Company Name: <u>Braun Intertec</u>		Location of Sampling by State _____ Reporting Units ug/m <sup>3</sup> _____ mg/m <sup>3</sup> _____ PPBV _____ PPMV _____ Other _____	
LaCrosse WI 54603 Email To: <u>astingl@braunintertec.com</u> Phone: <u>708-291-7277</u> Fax: _____ Requested Due Date/TAT: _____		Purchase Order No.: <u>81801497</u>		Address: <u>2309 Palace St, LaCrosse, WI 54603</u>		Report Level: <u>II</u> <input type="checkbox"/> <u>III</u> <input type="checkbox"/> <u>IV</u> <input type="checkbox"/> Other _____	
Project Name: <u>Dave's Gas Station</u>		Project Number: <u>81801497</u>		Pace Quote Reference:		Pace Project Manager/Sales Rep. _____ Pace Profile #: <u>38267</u>	

ITEM #	Section D Required Client Information <b>AIR SAMPLE ID</b> Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Tudlar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method:								Pace Lab ID
					COMPOSITE START		COMPOSITE END						PM10	GC - Piped Gas PM	TO-15 BTEX	TO-15 (Methane)	TO-14	TO-15 Full List VOCs	TO-15 Short List BTEX	TO-15 Short List Chromat	
					DATE	TIME	DATE	TIME													
1	VP-1				5-18	10:54	4-5-18	11:35	31	-3	0088								X	001	
2	VP-2				5-18	11:27	4-5-18	12:10	30	-4	0034								X	002	
3	VP-3				5-18	11:51	4-5-18	12:25	25	-3	1564								X	003	
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Comments:	RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS				
	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	
		J. LaRue / Braun	4-5-18	16:00		[Signature]	4/19/18	9:30	-	Y/N	Y/N	Y/N	Y/N
										Y/N	Y/N	Y/N	Y/N
										Y/N	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: David Bradshaw

SIGNATURE of SAMPLER: [Signature] DATE Signed (MM/DD/YY) 4-5-18

Temp in °C \_\_\_\_\_

Received on Ice \_\_\_\_\_

Custody Sealed Cooler \_\_\_\_\_

Samples Intact \_\_\_\_\_

Page 12 of 13

2

**Air Sample Condition Upon Receipt** Client Name: Braun Project #: \_\_\_\_\_  
 Courier:  Fed Ex  UPS  Speedee  Client  
 Commercial  Pace  Other: \_\_\_\_\_  
 Tracking Number: 747593935155

**WO# : 10426561**  
 PM: NB3 Due Date: 04/16/18  
 CLIENT: Braun-BLM

Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No  
 Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Tin Can  Other: \_\_\_\_\_ Temp Blank rec:  Yes  No  
 Temp. (TO17 and TO13 samples only) (°C): \_\_\_\_\_ Corrected Temp (°C): \_\_\_\_\_ Thermom. Used:  151401163  
 G87A91551008A2  
 Temp should be above freezing to 6°C Correction Factor: \_\_\_\_\_ Date & Initials of Person Examining Contents: EG 4/9/18  
 Type of Ice Received  Blue  Wet  None

				Comments:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	10.
Media: <u>Air Can</u> Airbag Filter TDT Passive				11. Individually Certified Cans <input checked="" type="checkbox"/> Y <input type="checkbox"/> N (list which samples)
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	12.

Samples Received: <u>FFT</u>					Pressure Gauge # 10AIR26				
Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
<u>1P-1</u>		<u>0664</u>	<u>-1</u>	<u>5</u>					
<u>11 2</u>		<u>1168</u>	<u>-1</u>	<u>11</u>					
<u>11 3</u>		<u>1124</u>	<u>-2</u>	<u>11</u>					

**CLIENT NOTIFICATION/RESOLUTION** Field Data Required?  Yes  No  
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/Resolution: PVOC and Naphthalene are needed

Project Manager Review: William P. Berg Date: 4/10/18  
 Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

# Synergy Environmental Lab,

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

MATT LECHNER  
MATT LECHNER  
PO BOX 86  
BLACK RIVER FALLS, WI 54615

Report Date 28-Dec-17

Project Name DAVE'S GAS STATION  
Project #

Invoice # E34073

Lab Code 5034073A  
Sample ID MW-3  
Sample Matrix Water  
Sample Date 12/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		12/27/2017	TCC	1
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		12/27/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		12/27/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		12/27/2017	TCC	1
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		12/27/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		12/27/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		12/27/2017	TCC	1
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		12/27/2017	TCC	1
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		12/27/2017	TCC	1

Lab Code 5034073B  
Sample ID MW-5  
Sample Matrix Water  
Sample Date 12/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	0.57 "J"	ug/l	0.27	0.87	1	GRO95/8021		12/27/2017	TCC	1
Ethylbenzene	3.7	ug/l	0.56	1.77	1	GRO95/8021		12/27/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		12/27/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		12/27/2017	TCC	1
Toluene	0.41 "J"	ug/l	0.33	1.06	1	GRO95/8021		12/27/2017	TCC	1
1,2,4-Trimethylbenzene	19.2	ug/l	0.56	1.78	1	GRO95/8021		12/27/2017	TCC	1
1,3,5-Trimethylbenzene	6.1	ug/l	0.58	1.84	1	GRO95/8021		12/27/2017	TCC	1
m&p-Xylene	8.7	ug/l	1.1	3.49	1	GRO95/8021		12/27/2017	TCC	1
o-Xylene	2.07	ug/l	0.61	1.92	1	GRO95/8021		12/27/2017	TCC	1

Project Name DAVE'S GAS STATION  
 Project #

Invoice # E34073

Lab Code 5034073C  
 Sample ID MW-4  
 Sample Matrix Water  
 Sample Date 12/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		12/27/2017	TCC	1
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		12/27/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		12/27/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		12/27/2017	TCC	1
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		12/27/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		12/27/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		12/27/2017	TCC	1
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		12/27/2017	TCC	1
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		12/27/2017	TCC	1

Lab Code 5034073D  
 Sample ID MW-2  
 Sample Matrix Water  
 Sample Date 12/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 0.9	ug/L	0.9		3 1	7421		12/22/2017	CWT	1

Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		12/27/2017	TCC	1
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		12/27/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		12/27/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		12/27/2017	TCC	1
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		12/27/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		12/27/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		12/27/2017	TCC	1
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		12/27/2017	TCC	1
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		12/27/2017	TCC	1

**Project Name** DAVE'S GAS STATION  
**Project #**

**Invoice #** E34073

**Lab Code** 5034073E  
**Sample ID** MW-1R  
**Sample Matrix** Water  
**Sample Date** 12/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
<b>Inorganic</b>										
<b>Metals</b>										
Lead, Dissolved	3.3	ug/L	0.9		3 1	7421		12/22/2017	CWT	1
<b>Organic</b>										
<b>PVOC + Naphthalene</b>										
Benzene	690	ug/l	13.5	43.5	50	GRO95/8021		12/27/2017	TCC	1
Ethylbenzene	570	ug/l	28	88.5	50	GRO95/8021		12/27/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 21.5	ug/l	21.5	68	50	GRO95/8021		12/27/2017	TCC	1
Naphthalene	252 "J"	ug/l	85	263.5	50	GRO95/8021		12/27/2017	TCC	1
Toluene	1950	ug/l	16.5	53	50	GRO95/8021		12/27/2017	TCC	1
1,2,4-Trimethylbenzene	1850	ug/l	28	89	50	GRO95/8021		12/27/2017	TCC	1
1,3,5-Trimethylbenzene	940	ug/l	29	92	50	GRO95/8021		12/27/2017	TCC	1
m&p-Xylene	3300	ug/l	55	174.5	50	GRO95/8021		12/27/2017	TCC	1
o-Xylene	870	ug/l	30.5	96	50	GRO95/8021		12/27/2017	TCC	1

**Lab Code** 5034073F  
**Sample ID** TB  
**Sample Matrix** Water  
**Sample Date** 12/20/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
<b>Organic</b>										
<b>PVOC + Naphthalene</b>										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		12/27/2017	TCC	1
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		12/27/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		12/27/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		12/27/2017	TCC	1
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		12/27/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		12/27/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		12/27/2017	TCC	1
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		12/27/2017	TCC	1
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		12/27/2017	TCC	1

"J" Flag: Analyte detected between LOD and LOQ      LOD Limit of Detection      LOQ Limit of Quantitation

Code	Comment
1	Laboratory QC within limits.

CWT denotes sub contract lab - Certification #445126660

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

*Michael Ricker*



# Synergy Environmental Lab,

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

MATT LEHNER  
MATT LECHNER  
PO BOX 86  
BLACK RIVER FALLS, WI 54615

Report Date 12-Apr-18

Project Name DAVE'S GAS STATION  
Project #

Invoice # E34470

Lab Code 5034470A  
Sample ID MW-3  
Sample Matrix Water  
Sample Date

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.22	ug/l	0.22	0.69	1	GRO95/8021		4/11/2018	CJR	1
Ethylbenzene	< 0.53	ug/l	0.53	1.69	1	GRO95/8021		4/11/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.57	ug/l	0.57	1.82	1	GRO95/8021		4/11/2018	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.38	1	GRO95/8021		4/11/2018	CJR	1
Toluene	< 0.45	ug/l	0.45	1.45	1	GRO95/8021		4/11/2018	CJR	1
1,2,4-Trimethylbenzene	< 0.73	ug/l	0.73	2.33	1	GRO95/8021		4/11/2018	CJR	1
1,3,5-Trimethylbenzene	< 0.75	ug/l	0.75	2.39	1	GRO95/8021		4/11/2018	CJR	1
m&p-Xylene	< 1	ug/l	1	3.17	1	GRO95/8021		4/11/2018	CJR	1
o-Xylene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		4/11/2018	CJR	1

Lab Code 5034470B  
Sample ID MW-4  
Sample Matrix Water  
Sample Date

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.22	ug/l	0.22	0.69	1	GRO95/8021		4/11/2018	CJR	1
Ethylbenzene	< 0.53	ug/l	0.53	1.69	1	GRO95/8021		4/11/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.57	ug/l	0.57	1.82	1	GRO95/8021		4/11/2018	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.38	1	GRO95/8021		4/11/2018	CJR	1
Toluene	< 0.45	ug/l	0.45	1.45	1	GRO95/8021		4/11/2018	CJR	1
1,2,4-Trimethylbenzene	< 0.73	ug/l	0.73	2.33	1	GRO95/8021		4/11/2018	CJR	1
1,3,5-Trimethylbenzene	< 0.75	ug/l	0.75	2.39	1	GRO95/8021		4/11/2018	CJR	1
m&p-Xylene	< 1	ug/l	1	3.17	1	GRO95/8021		4/11/2018	CJR	1
o-Xylene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		4/11/2018	CJR	1

Project Name DAVE'S GAS STATION  
 Project #

Invoice # E34470

Lab Code 5034470C  
 Sample ID MW-2  
 Sample Matrix Water  
 Sample Date

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 0.9	ug/L	0.9		3	1 7421		4/10/2018	CWT	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.22	ug/l	0.22	0.69	1	GRO95/8021		4/11/2018	CJR	1
Ethylbenzene	< 0.53	ug/l	0.53	1.69	1	GRO95/8021		4/11/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.57	ug/l	0.57	1.82	1	GRO95/8021		4/11/2018	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.38	1	GRO95/8021		4/11/2018	CJR	1
Toluene	< 0.45	ug/l	0.45	1.45	1	GRO95/8021		4/11/2018	CJR	1
1,2,4-Trimethylbenzene	< 0.73	ug/l	0.73	2.33	1	GRO95/8021		4/11/2018	CJR	1
1,3,5-Trimethylbenzene	< 0.75	ug/l	0.75	2.39	1	GRO95/8021		4/11/2018	CJR	1
m&p-Xylene	< 1	ug/l	1	3.17	1	GRO95/8021		4/11/2018	CJR	1
o-Xylene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		4/11/2018	CJR	1

Lab Code 5034470D  
 Sample ID MW-5  
 Sample Matrix Water  
 Sample Date

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	1.76	ug/l	0.22	0.69	1	GRO95/8021		4/11/2018	CJR	1
Ethylbenzene	6.8	ug/l	0.53	1.69	1	GRO95/8021		4/11/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.57	ug/l	0.57	1.82	1	GRO95/8021		4/11/2018	CJR	1
Naphthalene	3.3 "J"	ug/l	1.7	5.38	1	GRO95/8021		4/11/2018	CJR	1
Toluene	0.95 "J"	ug/l	0.45	1.45	1	GRO95/8021		4/11/2018	CJR	1
1,2,4-Trimethylbenzene	40	ug/l	0.73	2.33	1	GRO95/8021		4/11/2018	CJR	1
1,3,5-Trimethylbenzene	10.6	ug/l	0.75	2.39	1	GRO95/8021		4/11/2018	CJR	1
m&p-Xylene	18	ug/l	1	3.17	1	GRO95/8021		4/11/2018	CJR	1
o-Xylene	3.8	ug/l	0.58	1.84	1	GRO95/8021		4/11/2018	CJR	1

Project Name DAVE'S GAS STATION  
 Project #

Invoice # E34470

Lab Code 5034470E  
 Sample ID MW-1R  
 Sample Matrix Water  
 Sample Date

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	51.3	ug/L	4.5	15	5	7421		4/10/2018	CWT	1
Organic										
PVOC + Naphthalene										
Benzene	910	ug/l	11	34.5	50	GRO95/8021		4/12/2018	CJR	1
Ethylbenzene	610	ug/l	26.5	84.5	50	GRO95/8021		4/12/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 28.5	ug/l	28.5	91	50	GRO95/8021		4/12/2018	CJR	1
Naphthalene	330	ug/l	85	269	50	GRO95/8021		4/12/2018	CJR	1
Toluene	2450	ug/l	22.5	72.5	50	GRO95/8021		4/12/2018	CJR	1
1,2,4-Trimethylbenzene	1370	ug/l	36.5	116.5	50	GRO95/8021		4/12/2018	CJR	1
1,3,5-Trimethylbenzene	680	ug/l	37.5	119.5	50	GRO95/8021		4/12/2018	CJR	1
m&p-Xylene	3040	ug/l	50	158.5	50	GRO95/8021		4/12/2018	CJR	1
o-Xylene	930	ug/l	29	92	50	GRO95/8021		4/12/2018	CJR	1

Lab Code 5034470F  
 Sample ID TB  
 Sample Matrix Water  
 Sample Date

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.22	ug/l	0.22	0.69	1	GRO95/8021		4/11/2018	CJR	1
Ethylbenzene	< 0.53	ug/l	0.53	1.69	1	GRO95/8021		4/11/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.57	ug/l	0.57	1.82	1	GRO95/8021		4/11/2018	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.38	1	GRO95/8021		4/11/2018	CJR	1
Toluene	< 0.45	ug/l	0.45	1.45	1	GRO95/8021		4/11/2018	CJR	1
1,2,4-Trimethylbenzene	< 0.73	ug/l	0.73	2.33	1	GRO95/8021		4/11/2018	CJR	1
1,3,5-Trimethylbenzene	< 0.75	ug/l	0.75	2.39	1	GRO95/8021		4/11/2018	CJR	1
m&p-Xylene	< 1	ug/l	1	3.17	1	GRO95/8021		4/11/2018	CJR	1
o-Xylene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		4/11/2018	CJR	1

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

**Code**      **Comment**

1      Laboratory QC within limits.

CWT denotes sub contract lab - Certification #445126660

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

*Michael Ricker*

## Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914  
 920-830-2455 • FAX 920-733-0631

**Sample Handling Request**

Rush Analysis Date Required \_\_\_\_\_  
 (Rushes accepted only with prior authorization)

Normal Turn Around

Account No.: \_\_\_\_\_ Quote No.: \_\_\_\_\_  
 Project #: \_\_\_\_\_  
 Sampler: (signature) *Bonny Zygine*

Project (Name / Location): *Danes Gas Station*

Reports To: <i>Matt Lechner</i>	Invoice To: <i>Matt Lechner</i>
Company: _____	Company: <i>ClO METCO</i>
Address: <i>P.O. Box 86</i>	Address: <i>709 Gillette Street, Site 3</i>
City State Zip: <i>Black River Falls, WI 54615</i>	City State Zip: <i>La Crosse, WI 54603</i>
Phone: _____	Phone: _____
FAX: _____	FAX: _____

Analysis Requested											Other Analysis				PID/ FID
DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 96)	LEAD (Dissolved)	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	B-PCRA METALS		

Lab ID	Sample I.D.	Collection Date	Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation
	MW-3					N	3	GW	HCl
	MW-4					N	3		
	MW-2					Y	4		HNO <sub>3</sub>
	MW-5					N	3		
	MW-1R					Y	4		HNO <sub>3</sub>
	TB						1		

Comments/Special Instructions (\*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

*Lab to send copy of report to METCO (Jason P. (Invoice to METCO))*  
*\* Agent Status*  
*\* Ut Codes apply*

Sample Integrity: To be completed by receiving lab  
 Method of Shipment: \_\_\_\_\_  
 Temp of Temp Blank: \_\_\_\_\_  
 Coordinates: \_\_\_\_\_

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
<i>Bonny Zygine</i>	8:30 AM	4/6/18			
Received in Laboratory By:	Time	Date			
<i>[Signature]</i>	10:00	4/7/18			

# Synergy Environmental Lab,

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

MATT LECHNER  
MATT LECHNER  
PO BOX 86  
BLACK RIVER FALLS, WI 54615

Report Date 13-Jul-18

Project Name DAVES GAS STATION  
Project #

Invoice # E34869

Lab Code 5034869A  
Sample ID MW-3  
Sample Matrix Water  
Sample Date 6/27/2018

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.22	ug/l	0.22	0.69	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
Ethylbenzene	< 0.53	ug/l	0.53	1.69	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.57	ug/l	0.57	1.82	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.38	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
Toluene	< 0.45	ug/l	0.45	1.45	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
1,2,4-Trimethylbenzene	< 0.73	ug/l	0.73	2.33	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
1,3,5-Trimethylbenzene	< 0.75	ug/l	0.75	2.39	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
m&p-Xylene	< 1	ug/l	1	3.17	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
o-Xylene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1

Lab Code 5034869B  
Sample ID MW-4  
Sample Matrix Water  
Sample Date 6/27/2018

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.22	ug/l	0.22	0.69	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
Ethylbenzene	< 0.53	ug/l	0.53	1.69	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.57	ug/l	0.57	1.82	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.38	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
Toluene	< 0.45	ug/l	0.45	1.45	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
1,2,4-Trimethylbenzene	< 0.73	ug/l	0.73	2.33	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
1,3,5-Trimethylbenzene	< 0.75	ug/l	0.75	2.39	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
m&p-Xylene	< 1	ug/l	1	3.17	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1
o-Xylene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021	6/29/2018	6/29/2018	CJR	1

Project Name DAVES GAS STATION

Invoice # E34869

Project #

Lab Code 5034869C  
Sample ID MW-2  
Sample Matrix Water  
Sample Date 6/27/2018

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 0.8	ug/L	0.8	2.7	1	7421		7/3/2018	CWT	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.22	ug/l	0.22	0.69	1	GRO95/8021		6/29/2018	CJR	1
Ethylbenzene	< 0.53	ug/l	0.53	1.69	1	GRO95/8021		6/29/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.57	ug/l	0.57	1.82	1	GRO95/8021		6/29/2018	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.38	1	GRO95/8021		6/29/2018	CJR	1
Toluene	< 0.45	ug/l	0.45	1.45	1	GRO95/8021		6/29/2018	CJR	1
1,2,4-Trimethylbenzene	< 0.73	ug/l	0.73	2.33	1	GRO95/8021		6/29/2018	CJR	1
1,3,5-Trimethylbenzene	< 0.75	ug/l	0.75	2.39	1	GRO95/8021		6/29/2018	CJR	1
m&p-Xylene	< 1	ug/l	1	3.17	1	GRO95/8021		6/29/2018	CJR	1
o-Xylene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		6/29/2018	CJR	1

Lab Code 5034869D  
Sample ID MW-5  
Sample Matrix Water  
Sample Date 6/27/2018

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	1.58	ug/l	0.22	0.69	1	GRO95/8021		6/29/2018	CJR	1
Ethylbenzene	1.64 "J"	ug/l	0.53	1.69	1	GRO95/8021		6/29/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.57	ug/l	0.57	1.82	1	GRO95/8021		6/29/2018	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.38	1	GRO95/8021		6/29/2018	CJR	1
Toluene	0.85 "J"	ug/l	0.45	1.45	1	GRO95/8021		6/29/2018	CJR	1
1,2,4-Trimethylbenzene	13.1	ug/l	0.73	2.33	1	GRO95/8021		6/29/2018	CJR	1
1,3,5-Trimethylbenzene	4.1	ug/l	0.75	2.39	1	GRO95/8021		6/29/2018	CJR	1
m&p-Xylene	2.35 "J"	ug/l	1	3.17	1	GRO95/8021		6/29/2018	CJR	1
o-Xylene	0.77 "J"	ug/l	0.58	1.84	1	GRO95/8021		6/29/2018	CJR	1

Project Name DAVES GAS STATION  
 Project #

Invoice # E34869

Lab Code 5034869E  
 Sample ID MW-1R  
 Sample Matrix Water  
 Sample Date 6/27/2018

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	4.0	ug/L	0.8	2.7	1	7421		7/3/2018	CWT	1
Organic										
PVOC + Naphthalene										
Benzene	320	ug/l	11	34.5	50	GRO95/8021		6/30/2018	CJR	1
Ethylbenzene	330	ug/l	26.5	84.5	50	GRO95/8021		6/30/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 28.5	ug/l	28.5	91	50	GRO95/8021		6/30/2018	CJR	1
Naphthalene	420	ug/l	85	269	50	GRO95/8021		6/30/2018	CJR	1
Toluene	450	ug/l	22.5	72.5	50	GRO95/8021		6/30/2018	CJR	1
1,2,4-Trimethylbenzene	1510	ug/l	36.5	116.5	50	GRO95/8021		6/30/2018	CJR	1
1,3,5-Trimethylbenzene	730	ug/l	37.5	119.5	50	GRO95/8021		6/30/2018	CJR	1
m&p-Xylene	2240	ug/l	50	158.5	50	GRO95/8021		6/30/2018	CJR	1
o-Xylene	620	ug/l	29	92	50	GRO95/8021		6/30/2018	CJR	1

Lab Code 5034869F  
 Sample ID TB  
 Sample Matrix Water  
 Sample Date 6/27/2018

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.22	ug/l	0.22	0.69	1	GRO95/8021		7/3/2018	CJR	1
Ethylbenzene	< 0.53	ug/l	0.53	1.69	1	GRO95/8021		7/3/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.57	ug/l	0.57	1.82	1	GRO95/8021		7/3/2018	CJR	1
Naphthalene	< 1.7	ug/l	1.7	5.38	1	GRO95/8021		7/3/2018	CJR	1
Toluene	< 0.45	ug/l	0.45	1.45	1	GRO95/8021		7/3/2018	CJR	1
1,2,4-Trimethylbenzene	< 0.73	ug/l	0.73	2.33	1	GRO95/8021		7/3/2018	CJR	1
1,3,5-Trimethylbenzene	< 0.75	ug/l	0.75	2.39	1	GRO95/8021		7/3/2018	CJR	1
m&p-Xylene	< 1	ug/l	1	3.17	1	GRO95/8021		7/3/2018	CJR	1
o-Xylene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		7/3/2018	CJR	1

"J" Flag: Analyte detected between LOD and LOQ      LOD Limit of Detection      LOQ Limit of Quantitation

Code	Comment
1	Laboratory QC within limits.

CWT denotes sub contract lab - Certification #445126660

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

*Michael Ricker*

**CHAIN OF CUSTODY RECORD**

**Synergy**

**Environmental Lab, Inc.**

1990 Prospect Ct. • Appleton, WI 54914  
920-830-2455 • FAX 920-733-0631

Chain # No 367

Page 1 of 1

**Sample Handling Request**  
Rush Analysis Date Required  
(Rushes accepted only with prior authorization)  
 Normal Turn Around

Account No.: \_\_\_\_\_ Quote No.: \_\_\_\_\_  
Project #: \_\_\_\_\_  
Sampler (signature): *Tyfa Woodruff*

Project (Name/Location): *Dunes Gas Station/Merrillan, WI*  
Reports To: *Matt Lechner*  
Company: *90 METCO*  
Address: *P.O. Box 86*  
City/State/Zip: *Black River Falls, WI 54603*  
Phone: \_\_\_\_\_ FAX: \_\_\_\_\_

Invoiced To: *Matt Lechner*  
Company: *90 METCO*  
Address: *709 Grillethe Street, Suite 3*  
City/State/Zip: *La Crosse, WI 54603*  
Phone: \_\_\_\_\_ FAX: \_\_\_\_\_

Sample I.D.	Collection Date/Time	Comp/Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)	Preservation
<i>MW-3</i>	<i>7/18</i>		<i>N</i>	<i>3</i>	<i>GW</i>	<i>HCl</i>
<i>MW-4</i>			<i>N</i>	<i>3</i>		<i>HCl</i>
<i>MW-2</i>			<i>Y</i>	<i>4</i>		<i>HCl, HNO3</i>
<i>MW-5</i>			<i>N</i>	<i>3</i>		<i>HCl</i>
<i>MW-1R</i>			<i>Y</i>	<i>4</i>		<i>HCl, HNO3</i>
<i>TR</i>				<i>1</i>		<i>HCl</i>

Analysis Requested	Other Analysis
DRO (Mod DRO Sep 95)	
LEAD (Dissolv)	
NITRATE/NITRITE	
OIL & GREASE	
PAH (EPA 8270)	
PCB	
PVOC (EPA 8021)	
PVOC - NAPHTHALENE	
SULFATE	
TOTAL SUSPENDED SOLIDS	
VOC DW (EPA 5242)	
VOC (EPA 8260)	
8-PCMA METALS	

Comments/Special Instructions (\*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge, etc.)

*Lab to send copy of Report to METCO/Jason P. (Invoice to METCO)*  
*\*UTC Rates Apply*  
*# Agent Status*

Received By (sign): *Tyfa Woodruff* Time: *3:00 AM 7/18/18* Date: \_\_\_\_\_  
Received By (sign): \_\_\_\_\_ Time: \_\_\_\_\_ Date: \_\_\_\_\_  
Received In Laboratory By: *[Signature]* Date: *6/29/18* Time: *8:00*