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ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

#### STATUS REPORT, ADDITIONAL WORK PLAN and BUDGET REQUEST

January 17, 2017

Mr. David Volkert Wisconsin Department of Natural Resources 141 NW Barstow Street, Room 180 Waukesha, WI 53188

#### VIA Email and US Mail

KPRG Project 10009

Re:

Status Report, Additional Work Plan and Budget Request – January 2017

Former Bask Dry Cleaners – Waukesha, WI BRRTS# 02-68-297669, FID# 268188800

Dear Mr. Volkert:

Results from the most recent round of groundwater sampling, indoor air sampling and soil vapor sampling have been completed. The groundwater data are summarized in Tables 1 and 2. The indoor air data are summarized in Table 3 and the soil vapor data are summarized in Table 4. Each is discussed separately below followed by a proposed additional scope of work and budget based on our telephone discussion on October 27, 2016.

#### **Groundwater Evaluation**

Three new monitoring wells have been installed and sampled since the last data summary report. These wells are indentified as MW-14, MW-15 and MW-16 and are included on Figure 1. Copies of the boring logs and well construction summaries are provided in Attachment 1.

The most recent rounds of groundwater samples were collected on June 1<sup>st</sup> through 3<sup>rd</sup> and September 20<sup>th</sup> through 23<sup>rd</sup>, 2016. The groundwater elevation measurements are included in Table 1 and the data are summarized in Table 2 which includes historical data. Figure 1 provides the most recent groundwater flow map (consistent with historic trends) and Figure 2 provides extent of impact contours based on that data for tetrachloroethene (PCE) and trichloroethene (TCE). There was only one detection of cis-1,2 dichloroethene (DCE) above the enforcement standard (ES) which was at location MW-6, immediately down gradient of the source area. The only vinyl chloride detection in the most recent sampling was 8.9 ug/l at well MW-5 which is within the source area.

An evaluation of Figure 2 indicates that the leading edge of the impacted groundwater plume has not yet been defined. Based on discussions with WDNR, three additional downgradient monitoring wells are proposed as further discussed in the Additional Work Plan Scope of Work section below.

#### Soil Vapor Intrusion Evaluation

#### Indoor Air Sampling

Since the previous submittal, a sub-slab depressurization system (SSDS) was installed at 2156 Rambling Rose on December 16, 2015. At the request of the homeowner, a pre-installation indoor air sample was collected on December 2, 2015. A follow-up, post-installation indoor air sample was collected on March 31, 2016 in accordance with the previously approved Work Plan. The samples were analyzed for chlorinated volatile organic compounds (CVOCs) using Method TO15. The data are summarized in Table 3. A review of Table 3 indicates that there were no detections of CVOCs in either sample above established guidelines/standards.

#### Soil Vapor Probe Sampling

Three additional soil vapor probes (SV-13, SV-14 and SV-15) were installed in March 2016 per the previously approved Work Plan. Locations of the vapor probe locations are shown on Figure 3. A complete round of soil vapor samples was collected on March 31, 2016. Table 4 summarizes all soil vapor sampling data to date including the most recent round of sampling. Figure 3 provides an isoconcentration contour map of soil vapor impacts. Based on this sampling, the extent of soil vapor impacts appears to be adequately defined.

#### ADDITIONAL WORK PLAN SCOPE OF WORK

For budget estimating purposes, the additional work discussed below is divided into the following tasks:

- Task 1 Additional Requested Work Planning/Coordination
- Task 2 New Well Installations
- Task 3 Additional Groundwater Sampling
- Task 4 Additional Reporting
- Task 5 Operation and Maintenance

Each task is discussed separately below.

#### Task 1 – Additional Requested Work Planning/Coordination

Three new monitoring wells (MW-17, MW-18 and MW-19) are being proposed at locations shown on Figure 4. Two of these wells (MW-17 and MW-18) will be on private commercial property and the other well (MW-19) will be located along a road right-of-way. The scope of this task includes the project management and planning that will be required for the successful completion of the additional work. This includes negotiating a property access agreement for two of the proposed wells and obtaining a new permit from the City of Waukesha for the installation of the other proposed well which will be within the right-of-way.

#### Task 2 – Well Installations

The three proposed monitoring wells will be drilled and installed with sonic drilling techniques. This is due to the refusal encountered with standard hollow stem auger drilling during the installation of wells MW-15 and MW-16 in 2015 (a second mobilization was needed for a sonic rig to complete the installations). All installation, development and reporting procedures will be followed in accordance with previously approved work plans.

#### Task 3 – Additional Groundwater Sampling

Two rounds of additional groundwater sampling will be performed for all new and existing wells. The first round will be approximately two weeks after completion of new well installation and development. The second round will occur approximately three months later. Groundwater sample collection, handling and shipping procedures will be in accordance with previously approved work plans. The samples will be analyzed for CVOCs.

#### Task 4 – Additional Reporting

This task covers the additional effort in tabulating, evaluating and reporting the added data. This includes tables, figures and text discussions.

#### <u>Task 5 – Operation and Maintenance</u>

Several items will require maintenance to continue providing the data and information that is necessary for continued monitoring and minimizing downward migration of potential surficial issues. These include the following:

Repairing the flush mount covers for wells MW-4, MW-5, MW-7, MW-12, MW-11, PZ-1 and PZ-2. All of these wells are within the back driveway of the shopping mall and have been asphalt paved over several time resulting in damaged covers, etc. Repairs will include replacing the damaged covers and

setting concrete anchors/pads that will better withstand seasonal wear such as snow plowing.

 Abandon five former Soil Vapor Extraction System (SVE) test wells (VE-1 through VE-5) from the Arcadis Pilot Test study to remove unnecessary potential migration pathways.

#### PATHWAY TO CLOSURE

It is our understanding that once the extent of groundwater impacts has been sufficiently defined, the site will be ready for conditional closure consideration. If the data indicate that additional work is necessary, discussions will be held with WDNR to define further scope.

#### **COST ESTIMATE**

Costs are summarized in Table 5 and detailed on the costing sheets in Attachment 2. The additional requested budget for the above defined scope of work is \$57,076. The unit rates used in this cost estimate are consistent with previous KPRG rates.

Only those costs incurred will be billed. All billing will be performed on a monthly basis using the unit rates. No additional work will be performed until formal WDNR approval of the proposed budget is received. If there are any questions, please contact me at 262-781-0475.

Sincerely,

KPRG and Associates, Inc.

Richard R. Gnat, P.G.

Richard R

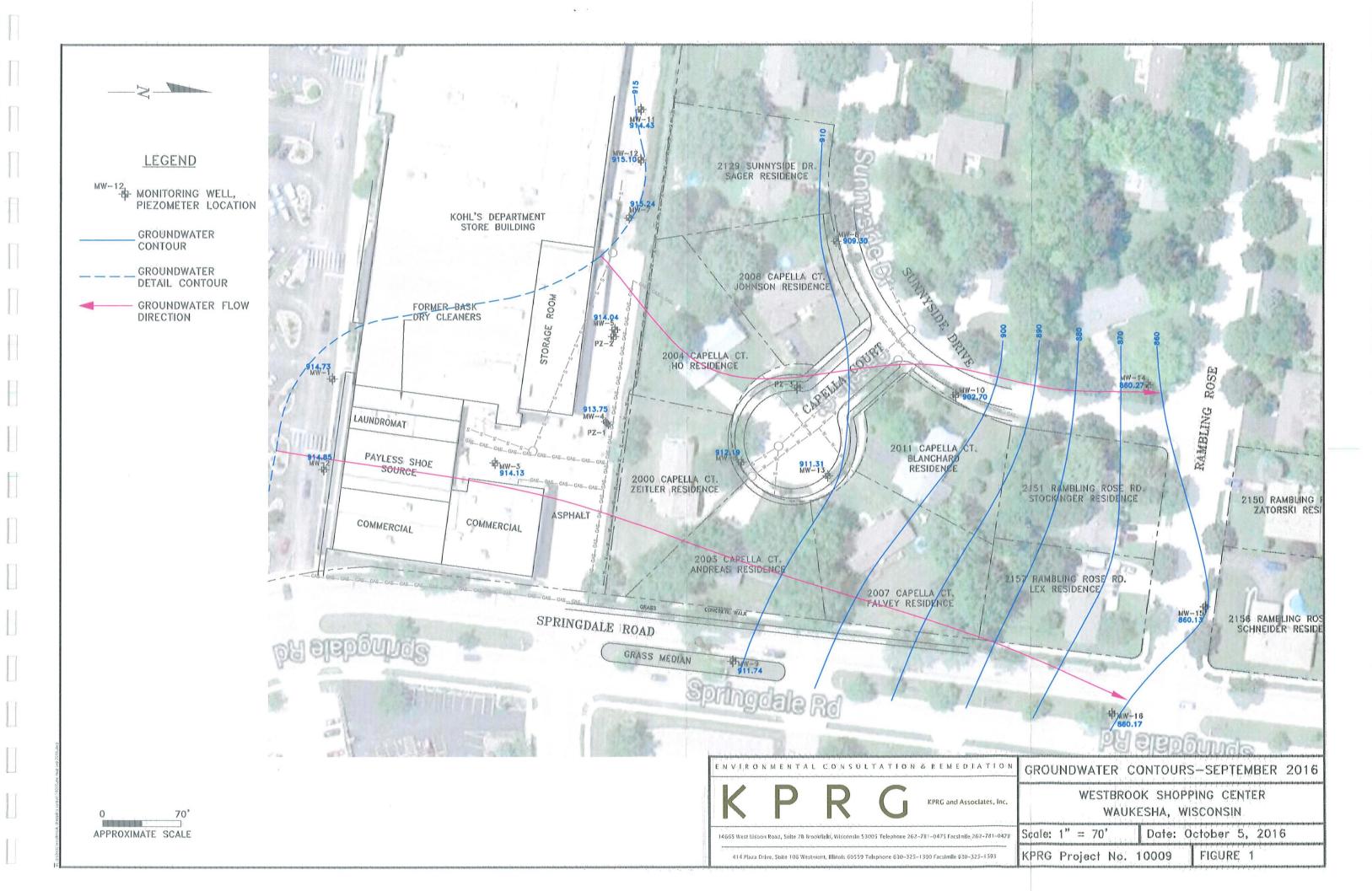
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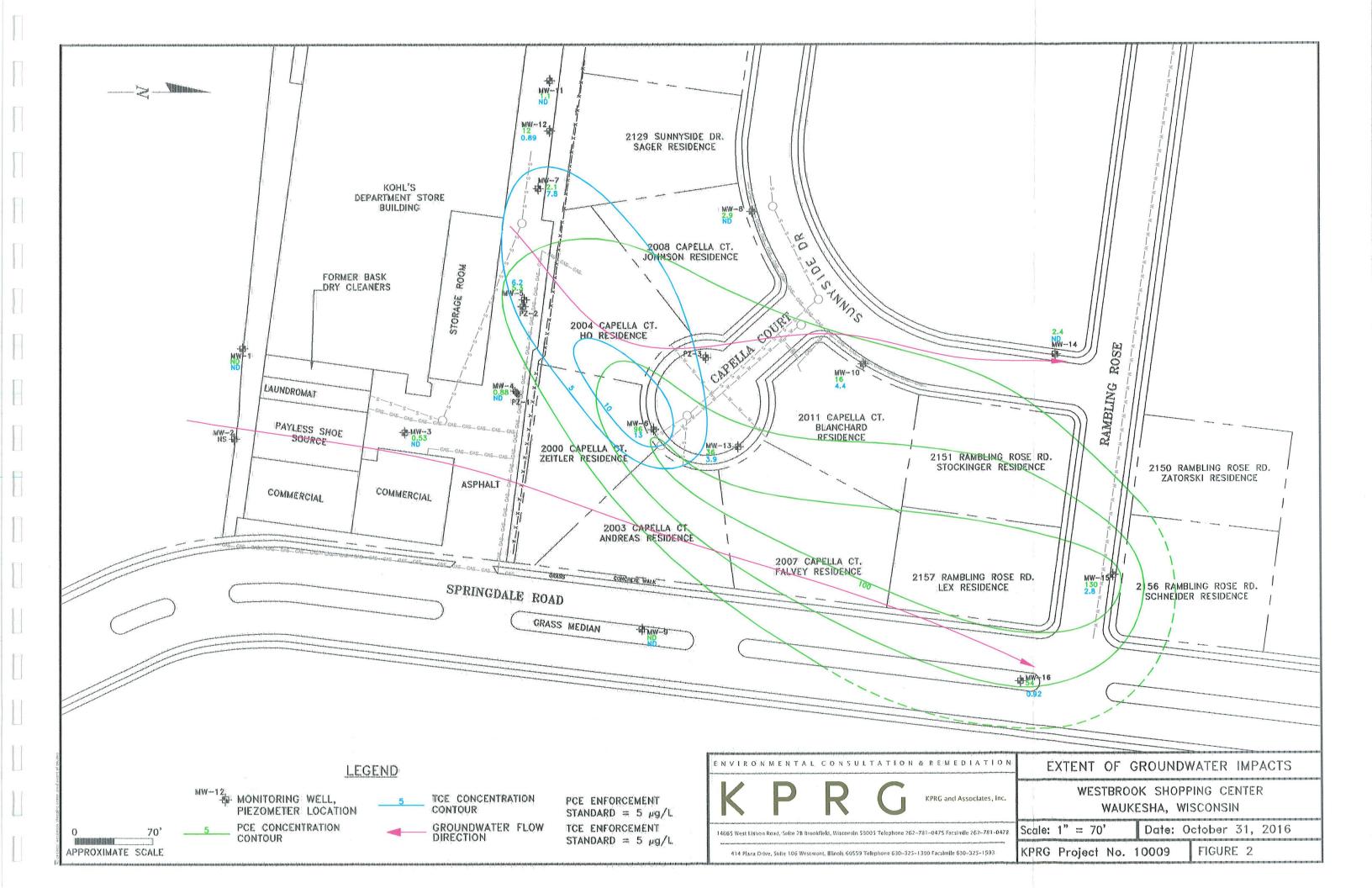
cc: Mr. Greg Butts, former Bask Dry Cleaners

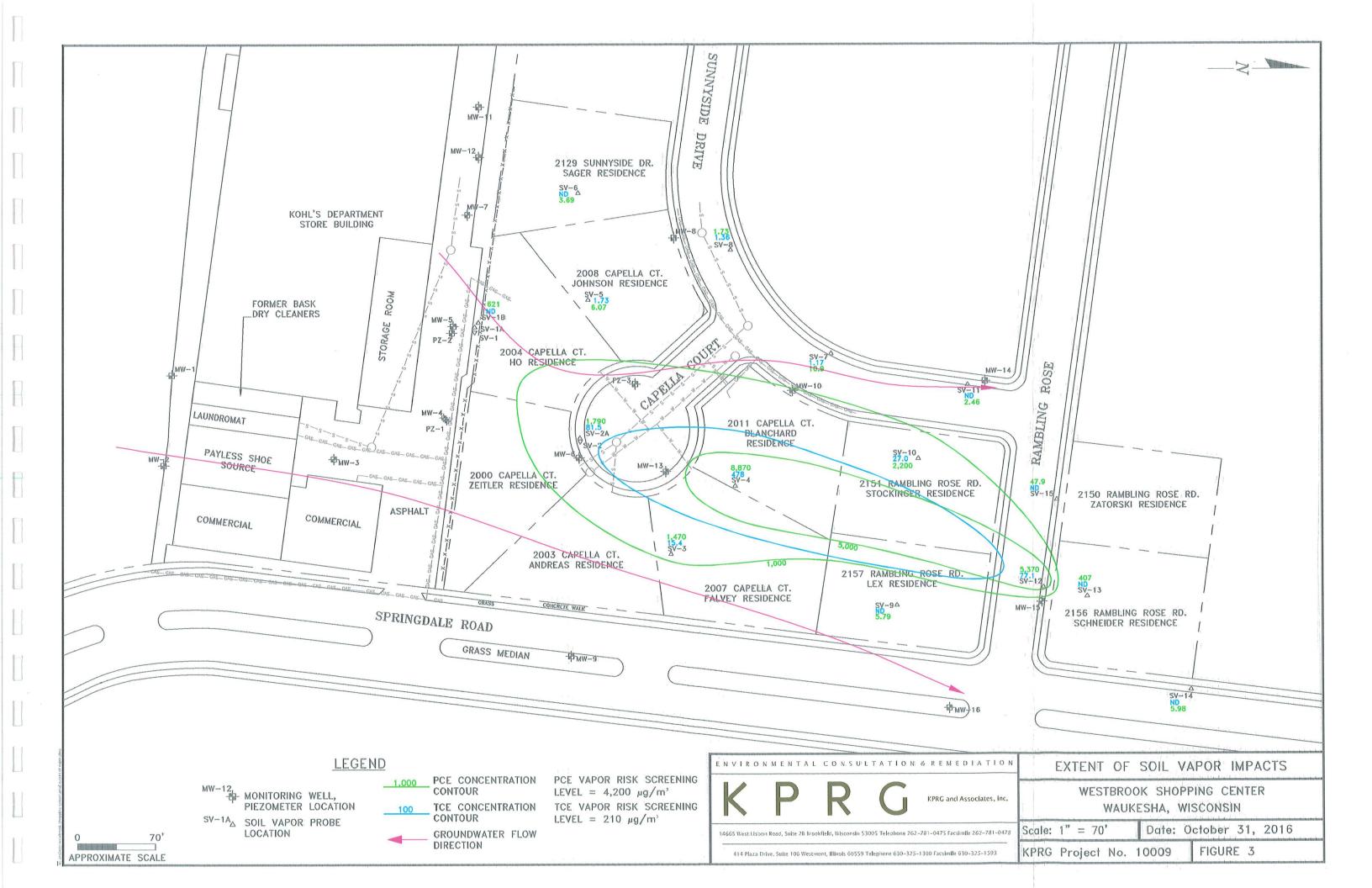
Ms. Michelle Williams, Husch Blackwell, LLP.

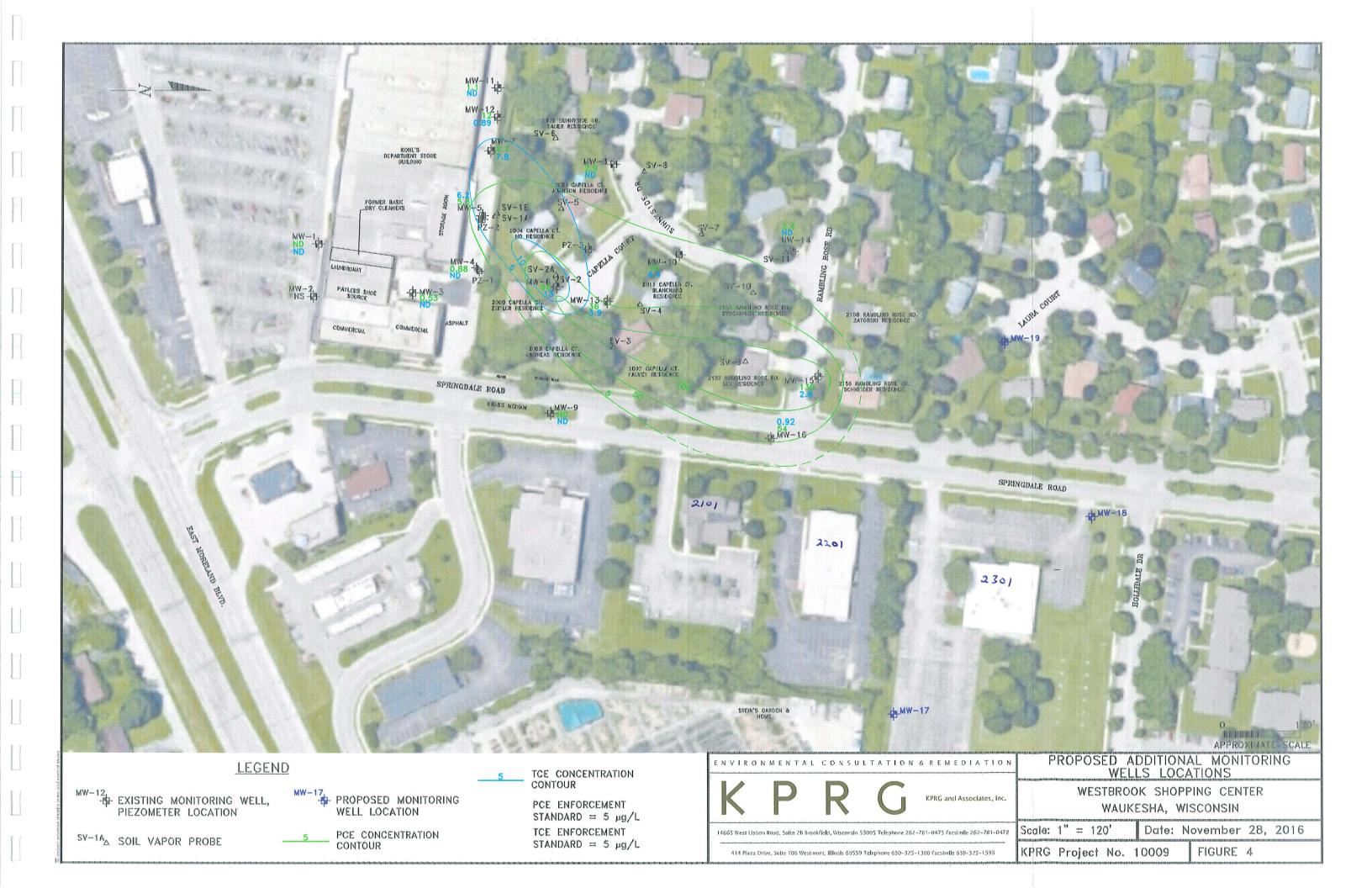
Mr. Donald Gallo, Husch Blackwell, LLP

# **FIGURES**









**TABLES** 

Table 1. Water Level Elevation Table - Former Bask Dry Cleaners, Westbrook Shopping Center, Waukesha, WI

	USGS Datui	n Elevations	3/23/	2005	10/19	/2005	6/19/	2008	8/25/	2008	8/20/	2009	12/7/	2009	3/10/	2010	6/4/:	2010
WELL	Ground	Top of Casing	Depth to Water	Water Elev														
MW-1	941.64	941.25	27.46	913.79	28.11	913.14	24.31	916.94	24.22	917.03	24.51	916.74	25.10	916.15	25.23	916.02	25.03	916.22
MW-2	942.41	942.07	28.45	913.62	29.17	912.90	26.25	915.82	25.20	916.87	25.48	916.59	26.07	916.00	26.21	915.86	24.97	917.10
MW-3	937.79	937.32	24.07	913.25	24.90	912.42	20.80	916.52	21.33	915.99	21.68	915.64	22.11	915.21	22.11	915.21	21.86	915.46
MW-4	932.33	931.89	19.18	912.71	20.05	911.84	15.54	916.35	16.30	915.59	16.37	915.52	17.00	914.89	16.97	914.92	16.71	915,18
MW-5	934.42	934.08	20.82	913.26	21.35	912.73	17.62	916.46	18.15	915.93	18.25	915.83	18.76	915.32	19.90	914.18	19.15	914.93
MW-6	925,93	925.65	13.96	911.69	15.15	910.50	10.21	915.44	11.61	914.04	>11.8	NV	11.98	913.67	11.87	913.78	11.91	913.74
MW-7	935.95	935.58	21,98	913.60	23.17	912.41	18.85	916.73	19.22	916.36	18.35	917.23	18.89	916.69	18.30	917.28	17.85	917.73
MW-8	923.36	922.92	12.58	910.34	14.96	907.96	11,01	911.91	12.88	910.04	12.93	909.99	12.91	910.01	12,90	910.02	12,58	910.34
MW-9	919.56	919.23	8.18	911.05	9.50	909.73	4.34	914.89	5.83	913.40	5.81	913.42	6.11	913.12	5.75	913.48	5.90	913.33
MW-10	918.24	917.88	15.31	902.57	17.40	900.48	8.24	909.64	12.52	905,36	12.35	905.53	12.51	905.37	11.43	906.45	11.78	906.10
MW-11	NS	NS	NM	NS	NM	NS	19.42	NS	19.15	NS	19.45	NS	20.00	NS	19.75	NS	19.55	NS
MW-12	Ns	NS	NM	NS	NM	NS	17.55	NS	17.99	NS	17.96	NS	18.55	NS	17.30	NS	18.34	NS
MW-13	NS	NS	NM	NS	NM	NS	9.84	NS	10.93	NS	10.88	NS	11.03	NS	10.43	NS	10.78	NS
PZ-1	932.34	931.82	40.51	891.31	41.20	890.62	40.92	890,90	40.90	890.92	40.46	891.36	40.74	891.08	39.00	892.82	40.25	891.57
PZ-2	934.27	933,79	DRY	NV	NM	NV	59.14	874.65	59.30	874.49	58.96	874.83	59.05	874.74	59.00	874.79	58.98	874.81
PZ-3	NS	922.99	DRY	NV	NM	NV	DRY	NV	DRY	NV	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY

\6 (P*4 5	USGS Datu	m Elevations	12/16/	2010	6/21/	2011	6/20/	2012	1/18/	2013	10/22	/2014	6/30/	2015	6/1/2	2016	9/20/	/2016
WELL	Ground	Top of Casing	Depth to Water	Water Elev														
MW-1	941.64	941.34	25.33	915.92	24.96	916.29	26.58	914.67	27.51	913.74	26.29	914.96	27.13	914.12	26.42	914.92	26.61	914.73
MW-2	942.41	942.15	26.24	915,83	25.92	916.15	27.34	914.73	NM	NM	27.04	915.03	27.91	914.16	27.14	915.01	27.30	914.85
MW-3	937.79	937.48	22.40	914.92	21.87	915.45	23.26	914.06	23.88	913.44	23.12	914.20	23.50	913.82	23.13	914.35	23.35	914.13
MW-4	932.33	932.09	17.33	914.56	16.73	915.16	DRY	DRY	DRY	DRY	17.90	913.99	DRY	DRY	17.94	914.15	18.34	913.75
MW-5	934.42	934.19	18.94	915.14	18,51	915.57	20.18	913.90	21.02	913.06	20.02	914.06	20.68	913.40	19.93	914.26	20.15	914.04
MW-6	925.93	925.78	12.43	913.22	11.71	913.94	13.32	912.33	14.18	911.47	13.35	912.30	13.99	911.66	13.14	912.64	13.59	912.19
MW-7	935.95	935.90	19.40	916.18	18.24	917.34	20.85	914.73	21.96	913.62	20.56	915.02	21.27	914.31	20.56	915.34	20.66	915.24
MW-8	923.36	923.05	13.56	909.36	12.78	910.14	13.88	909.04	14.09	908.83	13.84	909.08	14.09	908.83	14.61	908.44	13.75	909.30
MW-9	919.56	919.44	7.59	911.64	5.76	913.47	7.55	911.68	8.43	910.80	7.11	912.12	8.21	911.02	7.30	912.14	7.70	911.74
MW-10	918.24	917.99	13.73	904.15	12.30	905.58	14.15	903.73	16.02	901.86	14.86	903.02	15.15	902.73	13.82	904.17	15.29	902.70
MW-11	NS	935.81	20.30	NS	19.77	NS	21.32	NS	22.23	NS	21.21	NS	22.00	NS	21.22	914.59	21.38	914.43
MW-12	NS	935.15	18.75	NS	18.46	NS	19.84	NS	20.96	NS	19.65	NS	20.69	NS	19.95	915.20	20.05	915.10
MW-13	NS	922.36	11.53	NS	10.62	NS	11.50	NS	12.13	NS	11.72	NS	11.72	NS	11.42	910.94	11.05	911.31
MW-14	NS	908.25	NI	NI	47.69	860.56	47.98	860.27										
MW-15	NS	903.57	NI	NI	43.14	860,43	43.44	860.13										
MW-16	NS	903.61	NI	NI	43.15	860.46	43.44	860.17										
PZ-1	932.34	933.97	39.18	892.64	40.35	891.47	40.08	891.74	41.23	890.59	39.95	891.87	40.38	891.44	40.14	893.83	39.21	894.76
PZ-2	934.27	932.02	DRY	DRY														
PZ-3	NS	923.13	DRY	DRY														

Notes: All USGS elevation data in feet above mean sea level.
All depth to water data in feet below top of casing.

KPRG and Associates, inc. data begins 8/20/09.

Wells resurveyed for the 6/1/16 sampling.

NS- Not Surveyed NM- Not Measured

Ni - Not installed DRY- Well was dry

Table 2. Summary of Groundwater Analytical Results - former Bask Dry Cleaners

Sample	WDNR NR 1	40 Standards							MW-1													MW-3						
Parameter Date	PAL	ES	06/19/08	08/20/09	12/07/09	03/10/10	06/04/10	12/16/10	06/22/11	06/18/12	01/18/13	10/22/14	06/30/15	06/01/16	09/20/16	06/19/08	08/21/09	12/07/09	03/10/10	06/04/10	12/16/10	06/22/11	06/18/12	01/18/13	10/22/14	06/30/15	06/02/16	09/22/16
cis-1,2-Dichloroethene	7.0	70	<0.83	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.12	<0.12	<0.12	<0.12	<0.41	<0.41	<0.83	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.12	<0.12	<0.12	<0.12	<0.41	<0.41
trans-1,2-Dichloroethene	20	100	<0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<0.25	<0.25	<0.35	<0.35	<0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<0.25	<0.25	<0.35	<0.35
Tetrachloroethene	0.5	5.0	<0.45	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.17	<0.17	<0.17	<0.17	<0.37	<0.37	<0.45	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.77 J	1.6	<0.17	<0.17	<0.37	0.53
Trichloroethene	0.5	5.0	<0.48	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.19	<0.19	<0.19	<0.19	<0.16	<0.16	<0.48	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.19	<0.19	<0.19	<0.19	<0.16	<0.16
Vinyl Chloride	0.02	0.2	U	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.10	<0.20	<0.20	U	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.10	<0.20	<0.20
Dissolved Oxygen (mg/l)	NE	NE	U	4.99	3.76	4.55	5.01	5.27	6.04	5.18	5.13	4.38	6.15	6.97	5.55	U	0.10	0.75	0.02	0.03	0.30	0.13	0.02	0.07	0.12	0.50	1.37	0.13
Oxidation-Reduction Potential	NE	NE	U	37.2	285	273	287.2	49.9	267.9	212.8	87.7	181.9	201.3	77.8	150.5	U	-130	97.7	-162.5	54.2	-34.1	33.6	142.3	73.4	43.7	54.7	256.4	147.8

Sample	WDNR NR 1	40 Standards		des Anni de La maria mariam					MW-4											a de Addisonni des		MW-5				and all first state and the		
Parameter Date	PAL	ES	06/19/08	08/21/09	12/07/09	03/10/10	06/04/10	12/16/10	06/22/11	06/21/12	01/18/13	10/23/14	06/30/15	06/01/16	09/23/16	06/19/08	08/21/09	12/07/09	03/18/10	06/04/10	12/17/10	06/22/11	06/21/12	01/18/13	10/22/14	07/01/15	06/02/16	09/23/16
cls-1,2-Dichloroethene	7.0	70	<0.83	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NS	NS	<0.12	NS	<0.41	<0.41	54.6	<4.0	3.6 J	<u>170</u>	17	1,500	1,300	<u>470</u>	<u>370</u>	<u>100</u>	39	7.2	7.2
trans-1,2-Dichloroethene	20	100	<0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NS	NS	<0.25	NS	<0.35	<0.35	<17.8	<4.0	<2.0	<0.20	<1.0	15	18 J	5.0	3.2	2.1	2.8	3.9	1.6
Tetrachloroethene	0.5	5.0	217	<0.50	3.2	3.2	0,69 J	<0.50	1.8 J	NS	NS	1.4	NS	<0.37	0.88	1,840	180	<u>180</u>	660	96	200	46	2.3	3.6	1.3	0.64	8.4	5.3
Trichloroethene	0.5	5.0	<0.48	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NS	NS	<0.19	NS	<0.16	<0.16	16.7	<1.6	2.9	<u>49</u>	6.6	38	<u>60</u>	1.1	1.7	0.26	4.3	1.4	6.2
Vinyl Chloride	0.02	0.2	J	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	NS	NS	<0.10	NS	<0.20	<0.20	U	<1.6	<0.80	<0.80	<0.40	<u>12</u>	<u>9.0 J</u>	<u>7.3</u>	<u>2.5</u>	0.89	8.9	1.1	1.2
Dissolved Oxygen (mg/l)	NE	NE	U	2.75	1.31	5.20	1.10	1.67	NM	NS	NS	1.66	NS	3.64	5.21	U	3.18	0.66	NM	5.03	1.77	0.15	0.43	0.16	0.16	0.73	0.86	0.09
Oxidation-Reduction Potential	NE	NE	U	-82	209	-1.7	143.5	-4.6	NM	NS	NS -	78.4	NS	240.0	49.6	U	30	-158	NM	-27.8	-13.7	-116.1	-71.4	-50.7	-56.9	-73.6	-96.7	-88.2

Sample	WDNR NR 1	40 Standards							MW-6													MW-7						
Parameter Date	PAL	ES	06/19/08	08/21/09	12/07/09	03/10/10	06/04/10	12/17/10	06/22/11	06/21/12	01/18/13	10/22/14	06/30/15	06/03/16	09/22/16	06/19/08	08/21/09	12/07/09	03/10/10	06/04/10	12/17/10	06/22/11	06/21/12	01/18/13	10/22/14	06/30/15	06/02/16	09/23/16
cls-1,2-Dichloroethene	7.0	70	44.5	NS	21 J	26 J	26 J	3,400	1,900	<u>240</u>	<u>82</u>	<u>190</u>	35	19	<u>76</u>	2.5	0.86 J	<0.50	<0.50	<0.50	0.62 J	<0.50	4.3	3.4	1.3	<0.12	<0.41	0.84
trans-1,2-Dichloroethene	20	100	<4.4	NS	<20	<16	<8.0	37	50	11	3.9	9.2	1.6	1.0	3.5	<0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	1.8	0.74	<0.35	<0.35
Tetrachloroethene	0.5	5.0	653	NS	<u>1,700</u>	<u>1,400</u>	<u>500</u>	430	400	<u>320</u>	260	220	140	<u>70</u>	<u>96</u>	48.5	22	30	<u>35</u>	<u>30</u>	34	<u>29</u>	1.7	1.2	<0.17	<0.17	1.5	2.1
Trichloroethene	0.5	5.0	8.9	NS	8.4 J	<u>690</u>	640	<u>450</u>	230	<u>160</u>	<u>57</u>	69	22	6.5	13	4.7	3.2	1.9	1.4	2.0	11	2.8	<u>18</u>	<u>10</u>	6.0	2.3	2.2	7.8
Vinyl Chloride	0.02	0.2	U	NS	<8.0	<6.4	<3.2	<2.0	<4.0	<0.10	<0.10	<0.10	<0.10	<0.20	<0.20	U	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	0.28	<0.20	<0.20
Dissolved Oxygen (mg/l)	NE	NE	U	NS	2.43	0.64	1.20	0.33	0.46	0.77	3.74	0.08	0.94	1.93	0.24	U	2.84	2.10	1.86	1.80	0.61	0.05	0.38	0.00	0.21	0.64	1.83	0.55
Oxidation-Reduction Potential	NE	NE	U	NS	-46.7	-171.2	-117.8	-30.7	13.1	-18.1	75.2	92.2	78.5	100.3	81.8	U	-53.4	-194	-199.9	-142.9	-90.6	-196.8	-106.3	-36.7	-62.8	-71.6	-70.7	-48.8

Sample	WDNR NR 1	40 Standards	- Anna Santa Maria Maria						MW-8													MW-9					rest novembala est a paga	
Parameter Date	PAL	ES	06/19/08	08/20/09	12/07/09	03/10/10	06/04/10	12/16/10	06/22/11	06/21/12	01/18/13	10/22/14	06/30/15	06/03/16	09/22/16	06/19/08	08/20/09	12/07/09	03/10/10	06/04/10	12/16/10	06/22/11	06/18/12	01/18/13	10/22/14	06/30/15	06/02/16	09/22/16
cis-1,2-Dichloroethene	7.0	70	<0.83	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.12	<0.12	<0.12	<0.12	<0.41	<0.41	<0.83	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.12	<0.12	<0.12	<0.12	<0.41	<0.41
trans-1,2-Dichloroethene	20	100	<0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<0.25	<0.25	<0.35	<0.35	<0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<0.25	<0.25	<0.35	<0.35
Tetrachloroethene	0.5	5.0	<0.45	<0.50	<0.50	<0.50	<0.50	1.2 J	<0.50	1.3	1.7	1.8	2.7	1.8	2.9	<0.45	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.17	<0.17	<0.17	<0.17	<0.37	<0.37
*Trichloroethene	0.5	5.0	<0.48	<0.20	<0.20	<0.20	<0.20	0.58 J	<0.20	0.62	0.41	0.36	<0.19	<0.16	<0.16	<0.48	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.19	<0.19	<0.19	<0.19	<0.16	<0.16
Vinyl Chloride	0.02	0.2	U	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.10	<0.20	<0.20	U	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.10	<0.20	<0.20
Dissolved Oxygen (mg/l)	NE	NE	U	2.57	4.96	3.91	6.00	1.86	7.05	3.92	1.44	1.80	3.09	4.89	2.11	U	4.93	3.83	5.84	4.91	4.80	4.98	4.27	4.71	3.65	5.61	6.06	3.94
Oxidation-Reduction Potential	NE	NE	U	-60.7	143	212.9	80.5	-1.2	127.07	61.5	76.5	137.7	123.3	240.2	195.1	U	-67.9	60	-44.1	26.2	18.5	74.13	159.2	70.6	74.7	73.3	63.2	117.7

Sample	WDNR NR 1	40 Standards				***************************************			MW-10											- Constitution		MW-11						
Parameter Date	PAL	ES	06/19/08	08/20/09	12/07/09	03/18/10	06/04/10	12/16/10	06/22/11	06/21/12	01/18/13	10/22/14	06/30/15	06/03/16	09/22/16	06/19/08	08/20/09	12/07/09	03/10/10	06/04/10	12/16/10	06/22/11	06/21/12	01/18/13	10/22/14	06/30/15	06/02/16	09/22/16
cis-1,2-Dichloroethene	7.0	70	<0.83	2.5	2.2	<0.50	1.0 J	1.5 J	1.1 J	0.77 J	<0.12	12.0	4.3	2.8	7.7	<0.83	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.12	<0.12	<0.12	<0.12	<0.41	<0.41
trans-1,2-Dichloroethene	20	100	<0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<0.25	<0.25	<0.35	<0.35	<0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<0.25	<0.25	<0.35	<0.35
Tetrachloroethene	0.5	5.0	2.8	<u>15</u>	11	<u>7.4</u>	<u>13</u>	<u>13</u>	<u>13</u>	<u>13</u>	12	11	14	9.6	<u>16</u>	6.5	2.9	1.8	3.1	3.9	1.7 J	4.6	1.4	2.5	1.1	1.5	1.4	1.1
Trichloroethene	0.5	5.0	<0.48	0.94	1.2	0.41 J	0.85 J	1.7 J	0.93 J	0.89	0.85	4.0	3.5	1.9	4.4	<0.48	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.19	<0.19	<0.19	<0.19	<0.16	<0.16
Vinyl Chloride	0.02	0.2	U	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.10	<0.20	<0.20	U	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.10	<0.20	<0.20
Dissolved Oxygen (mg/l)	NE	NE	U	5.19	4.24	NM	5.01	3.46	6.46	5.15	7.25	4.67	7.85	7.19	7.33	U	2.66	2.31	5.82	3,55	1.81	2.23	1.77	2.43	1.78	3.15	4.13	4.27
Oxidation-Reduction Potential	NE	NE	U	-60.7	154	NM	145.9	14.1	155.3	103.3	74.9	136.9	114.0	275.2	180.9	U	-84.2	155	121.1	-23.4	-9.0	59.7	184.9	69.7	118.9	79.0	147.3	144.0

Sample	WDNR NR 1	40 Standards					***************************************		MW-12	***************************************	er annual cand nur			-		************						MW-13				ice par en ane den e		department of the Ro
Parameter Date	PAL	ES	06/19/08	08/20/09	12/07/09	03/10/10	06/04/10	12/17/10	06/22/11	06/21/12	01/18/13	10/22/14	06/30/15	06/03/16	09/23/16	06/19/08	08/20/09	12/07/09	03/10/10	06/04/10	12/17/10	06/22/11	06/21/12	01/18/13	10/22/14	06/30/15	06/03/16	09/22/16
cis-1,2-Dichloroethene	7.0	70	2.0	2:1	2.6	1.4 J	1.3 J	2:2	1.3 J	2.9	1.7	NS	2.5	1.4	1.9	34.8	26	25	24	17	16	40	23	9.7	16	16	16	20
trans-1,2-Dichloroethene	20	100	<0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	NS	<0.25	<0.35	<0.35	1.1	1.7	0.80 J	1.6 J	0.79 J	0.74 J	1.30 J	1.1	0.62	<0.25	0.95	0.86	1.1
Tetrachloroethene	0.5	5.0	48.7	<u>54</u>	<u>34</u>	<u>31</u>	<u>51</u>	<u>19</u>	<u>49</u>	23	<u>29</u>	NS	22	<u>12</u>	<u>12</u>	13.8	<u>63</u>	<u>58</u>	<u>54</u>	41	39	<u>60</u>	<u>40</u>	<u>32</u>	<u>21</u>	<u>32</u>	<u>27</u>	<u>36</u>
Trichloroethene	0.5	5.0	4.3	4.6	2.8	3.5	4.6	2.3	3.8	2.5	1.9	NS	1.5	0.96	0.89	1.7	2.6	2.4	3.1	2.1	6.5	<u>18</u>	11	6.5	3.9	4.1	3.2	3.9
Vinyl Chloride	0.02	0.2	U	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.10	NS	<0.10	<0.20	<0.20	U	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.10	<0.20	<0.20
Dissolved Oxygen (mg/l)	NE	NE	U	2.98	2.34	7.14	2.97	1.25	2.67	2.35	3.78	NS	3.61	4.52	2.53	U	0.09	1.23	0.45	0.31	0.39	0.52	1.04	0.36	0.37	1.07	0.95	0.09
Oxidation-Reduction Potential	NE	NE	U	-70.4	175	144.7	126.6	-16.0	56.36	22.9	79.6	NS	86.3	223.2	189.3	Ų	-117	56.9	53.6	47.2	-13.2	21.1	-18.1	57.0	36.8	22.8	51.3	-53.9

Sar	mple	WDNR NR 14	40 Standards	MW	<i>I</i> -14	MV	/-15	MW	V-16	-		<del>iraa janani</del> koduus			A Caleman and Colors	PZ-1	***********		ekin yantin yanting haki		DED SERVE	
Parameter	Date	PAL	ES	06/01/16	09/20/16	06/01/16	09/20/16	06/02/16	09/22/16	06/19/08	08/21/09	12/07/09	03/10/10	06/04/10	12/16/10	06/22/11	06/21/12	01/18/13	10/22/14	07/01/15	06/01/16	09/23/16
cis-1,2-Dichloroethene		7.0	70	<0.41	<0.41	4.1	13	1.2	1.0	0.97	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.12	<0.12	<0.12	<0.12	<0.41	<0.41
trans-1,2-Dichloroethene		20	100	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<0.25	<0.25	<0.35	<0.35
Tetrachloroethene		0.5	5.0	0.7	2.4	<u>57</u>	<u>130</u>	<u>49</u>	<u>54</u>	0.54	<0.50	<0.50	<0.50	<0.50	1.4 J	<0.50	<0.17	1.6	<0.17	<0.17	<0.37	<0.37
Trichloroethene		0.5	5.0	<0.16	<0.16	0.99	2.8	0.8	0.92	<0.48	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.19	<0.19	<0.19	<0.19	<0.16	<0.16
Vinyl Chloride		0.02	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	J	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.10	<0.20	<0.20
Dissolved Oxygen (mg/l)		NE	NE	5.75	5.26	4.70	4.56	5.41	7.06	U	4,31	1.82	5.64	1.45	0.71	1.12	4.33	4.64	2.80	2.43	4.68	4.14
Oxidation-Reduction Poter	ntial	NE	NE	-29.1	0.3	-3.7	22.5	-39.2	102.1	U	-69.9	183	-76.8	71.8	-11.3	5.83	101	43.4	117.2	54.0	260.4	78.5

Notes: All values are in µg/l unless otherwise noted.

PAL - Preventative Action Limit ES - Enforcement Standard

NE - Standard Not Established

NS - Not Sampled

NM - Not Measured
U Pre Injection Data (unknown)

BOLD - Result exceeds the PAL

BOLD - Result exceeds the ES

ET - Endpoint timeout caused by matrix interference.

J - Estimated value. Result between method detection limit and limit of quantification.

M - The MS and or MSD were outside control limits.

pH - The pH was outside range and the sample was adjusted.

Table 3 - Summary of Indoor Air Data for Detected Chlorinated Compounds Only - 2156 Rambling Rose

Sample Name	WDNR Residential VAL	2156 Ram	bling Rose
Parameter Date	Indoor Air	12/02/15	03/31/16
1,2-Dichloroethane	1.1	<0.81	NA
cis-1,2-Dichloroethene	NS	<0.793	<0.793
trans-1,2-Dichloroethene	NS	<0.793	<0.793
Tetrachloroethene	42	5.30	4.84
Trichloroethene	2.1	<1.07	<1.07

Notes: All values in ug/m<sup>3</sup>.

VAL - Vapor Action Level

NA - Not Analyzed

NS - No Standard

BOLD - Result exceeds the VAL

Table 4 - Summary of Soil Vapor Data for Chlorinated Compounds Only - Former Bask Dry Cleaners

Sample Name	WDNR Resi	dential VRSL	SV-1	SV-1A			SV-1B			SV-2			SV-2A		
Parameter Date	Sub-Slab	Deep Soil	03/02/05	11/02/12	12/11/12	10/01/14	12/27/14	06/25/15	03/31/16	03/02/05	11/02/12	10/01/14	12/27/14	06/25/15	03/31/16
1,1-Dichloroethene	7,000	21,000	ND	16	<0.79	<7.9	<0.79	<0.79	NA	ND	<0.79	<16	<0.79	1.3	NA
cis-1,2-Dichloroethene	NC	NC	ND	<0.79	<0.79	<7.9	<0.79	<0.79	<0.79	ND	<0.79	<16	<0.79	<0.79	<0.79
trans-1,2-Dichloroethene	NC	NC	ND	<0.79	<0.79	<7.9	<0.79	<0.79	<0.79	ND	<0.79	<16	<0.79	<0.79	<0.79
Tetrachloroethene	1,400	4,200	29.64	2,000	880	2,800	600	1,200	621	5.03	3.3	4,500	390	3.5	1,790
Trichloroethene	70	210	ND	12	1.7	<11	<1.1	1.2	<0.51	ND	<1.1	460	29	<1,1	81.5

Samp	ole Name	WDNR Resi	dential VRSL		S	V-3			S	V-4			S	/-5	
Parameter	Date	Sub-Slab	Deep Soil	09/30/14	12/27/14	06/25/15	03/31/16	09/30/14	12/27/14	06/25/15	03/31/16	09/30/14	12/27/14	06/25/15	03/31/16
1,1-Dichloroether	ne	7,000	21,000	<3.2	<0.79	<0.79	NA	<40	<0.79	<3.2	NA	3,3	<0,79	<0.79	NA
cis-1,2-Dichloroet	hene	NC	NC	<3.2	<0.79	<0.79	<0.79	270	11	520	46.3	<0.79	<0.79	<0.79	<0.79
trans-1,2-Dichloro	ethene	NC	NC	<3.2	<0.79	<0.79	<0.79	310	10	120	<0.79	<0.79	<0.79	<0.79	<0.79
Tetrachloroethene	9	1,400	4,200	7,500	3,500	3,100	1,470	81,000	1,100	16,000	8,870	4.5	<1.4	2,700	6.07
Trichloroethene		70	210	120	35	14	15.4	6,400	160	1,200	478	<1.1	<1.1	120	1.73

Sample Name	WDNR Resi	dential VRSL		\$\	<b>/-</b> 6			S\	J-7			S	/-8	
Parameter Date	Sub-Slab	Deep Soil	09/30/14	12/27/14	06/25/15	03/31/16	09/30/14	12/27/14	06/25/15	03/31/16	09/30/14	12/27/14	06/25/15	03/31/16
1,1-Dichloroethene	7,000	21,000	1.3	<0.79	<0.79	NΑ	<20	<0.79	<0.79	NA	<7.9	<0.79	<0.79	NA
cis-1,2-Dichloroethene	NC	NC	<0.79	<0.79	<0.79	<0.79	<20	<0.79	<0.79	<0.79	<7.9	<0.79	<0.79	<0.79
trans-1,2-Dichloroethene	NC	NC	<0.79	<0.79	<0.79	<0.79	<20	<0.79	<0.79	<0.79	<7.9	<0.79	<0.79	<0.79
Tetrachloroethene	1,400	4,200	8.8	1.5	<1.4	3.69	750	110	68	10.9	<14	<1.4	5.0	1.73
Trichloroethene	70	210	<1.1	<1.1	<1.1	<1.1	140	27	17	1.17	<11	<1.1	<1.1	1.36

Sample Name	WDNR Resi	idential VRSL		SV-9			SV-10			SV-11			SV-12		SV-13	SV-14	SV-15
Parameter Date	Sub-Slab	Deep Soil	12/27/14	06/25/15	03/31/16	12/27/14	06/25/15	03/31/16	12/27/14	06/25/15	03/31/16	06/25/15	07/28/15	03/31/16	03/31/16	03/31/16	03/31/16
1,1-Dichloroethene	7,000	21,000	<6.3	<0.79	NA	<0.79	<0.79	NA	<0.79	<0.79	NA	<3.2	< 0.79	NA	NA	NA	NA
cis-1,2-Dichloroethene	NC	NC	180	<0.79	<0.79	6.3	22	<0.79	<0.79	<0.79	<0.79	14	15	37.2	<0.79	<0.79	<0.79
trans-1,2-Dichloroethene	NC	NC	<6.3	<0.79	<0.79	1,3	1.3	<0.79	<0.79	<0.79	<0.79	4.4	5.2	<0.79	<0.79	<0.79	<0.79
Tetrachloroethene	1,400	4,200	5,000	81	5,79	750	3,900	2,200	3.2	5.3	2.46	11,000	27,000	5,370	407	5.98	47.9
Trichloroethene	70	210	91	<1.1	<1.1	33	190	27.0	<1.1	<1.1	<1.1	75	140	77.1	<1.1	<1.1	<1.1

Notes: All values in ug/m<sup>3</sup>.

It is noted that 111-TCA was detected below standard at SV-7 on 12/27/14.

It is noted that Methylene Chloride was detected below standard at SV-4, SV-5 and SV-6 on 9/30/14,

VRSL - Vapor Risk Screening Level

BOLD - Result exceeds the Deep Soil VRSL

NA - Not Analyzed

NC - Not Calculated

ND - Not Detected

Table 5. Additional Probe Install and Sampling Budget Summary - Former Bask Dry Celaners, Waukesha WI 1-Nov-16

				Cont	ractors		
Task	KPRG Labor	Expenses	Analytical	Driller	IDW Disposal	Surveyor	Totals
Additional Requested Work Planning and Coordination	\$1,941	\$300	\$0	\$0	\$0	\$0	\$2,241
2) New Well Installation Costs	\$6,070	\$1,080	\$0	\$22,500	\$1,750	\$1,200	\$32,600
3) Additional Groundwater Sampling (2 Rounds)	\$7,430	\$2,210	\$2,860	\$0	\$0	\$0	\$12,500
4) Additional Reporting	\$2,772	\$50	\$0	\$0	\$0	\$0	\$2,822
5) Opreation and Maintenance	\$1,403	\$60	\$0	\$5,450	\$0	\$0	\$6,913
Totals	\$19,616	\$3,700	\$2,860	\$27,950	\$1,750	\$1,200	\$57,076

# <u>ATTACHMENT 1</u> WELL LOGS AND CONSTRUCTION SUMMARIES

State of Wisconsin	
Danartment of Matural Resources	

#### SOIL BORING LOG INFORMATION

Form 4400-122

Rev. 7-98

·	Roi	ute To:	Watershed / W Remediation /	astewater Redevelopment _		Manage Other					_			P	age	l of	1
Facility/Project	Name	forme	· Bask Dry C	Cleaners		License	/Permit	/Monito	oring Nu	ımber		E	oring	g Nun		MW-	
Boring Drilled I First Name: Firm: Horizon	Adam	ne of cre		st) and Firm	<del></del>		0 1/		1 5 y y	1 2/	rilling (	•	0 1		Drilling	g Metho Son	
WI Unique Wel	l No.	DNR W	'ell ID No.	Well Name MW-14	S	Final S	tatic W	ter Lev Feet M		Surface	Elevat	ion Feet	MSL		Boreho	ole Dian 6	neter inches
Local Grid Orig State Plane NE 1/4 of		timated: 1/4 of S	N,	Location _, T7 N, R _	E 19E		Latong			Loc	cal Grid	Locat Fe		_ N _ S			E Feet W
Facility ID	2681	88800	County	Waukesha	Co	ounty Co 68	de	Civil 7	Town / C	city / or \	√illage	Waul	cesha				
Number and Type Length Att. & eldmr	Blow Counts	Depth in Feet (below ground surface)		Soil/Rock Descrip nd Geologic Origi Each Major Un	n For		uscs	Graphic Log	Well Diagram	PID/FID	Compressive Strength		Liquid	Limit	Plasticity sail	P 200	RQD / Comments
		2 4 6 8 10 12 14 16 18 20 22	some sand Brown Silt gravel, mo  Brown Silt - increase  - gravel ar End of Bon	y Sand, meduim, s	dium, trac	moist.											
Signature		the into		s totti is true and (	correct to t	ne oest c	Fir	m		1.4	,	T .					·
	-	LAY (AV	<del></del>					K	PRG a	nd Ass	ociate	s, Inc					

#### SOIL BORING LOG INFORMATION

Form 4400-122

Rev. 7-98

	Ro			Wastewater		Manager Other		]							г	Рапе	1	of	1
Facility/Project	Nama					License	Dormit	Manit	ring N	Luna	har		Tr	) ori	ng Nu	_			
racinty/rioject	Name	forme	r Bask Dry	Cleaners		License	e/ Permit	/ IVIOIIII	ning r	v (LIII)	oei			2011	ng mu	HUCI	N	ИW-	15S
Boring Drilled B						Date D	rilling S	tarted		C	Date Dr	rilling C	omple	eted		Drill	ing l	Metho	d
First Name: A	Adam		Last Name: 5	Sweet		1 2/	0 2/ d d/	2 0		<u>5</u>	1 2/	$\frac{0}{d} \frac{3}{d}$	2		<u>1</u> <u>5</u>			Soni	ic
WI Unique Well	No.	DNR W	/ell ID No.	Well Name			tatic Wa					Elevati		У	у у	Bore	hole	Diam	eter
•				MW-15S				Feet M	ISL				Feet	MS	L			6	inches
Local Grid Origi	n (es	timated:		ng Location		<u> </u>				1	Loc	al Grid	Locat	ion		L			
State Plane NE 1/4 of	NE	1/4 of S	N, Section36	5 ,T 7 N, R	_E 19_E	L	Lat ong						Fe	et_	N S				Feet E
Facility ID	2681	88800	County	Waukesha	Со	ounty Coo 68		Civil	Town /	City	y / or V	'illage	Waul	kesl	na				
Sample		face)											5	Soil	Prope	rties			
Number and Type Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)		Soil/Rock Descripti And Geologic Origin Each Major Unit	For		uscs	Graphic Log	Well	Diagram	PID/FID	Compressive Strength	Moisture	Content	Liquid Limit	Plasticity	ındex	P 200	RQD / Comments
			Grass ov	er Dark Brown Top S	oil, claye	y,				Ť	0			1			1		
			some sai	nd and gravel.							0								
		2	Brown S	Silty Sand, fine to med	ium, trac	e				Γ									
		4	gravel, n	noist.						L	0								
		7									0								
		6	- increa	se gravel						L	0								
											0								
		8									0								
		10									0								
		12		D						_	0								
		14	Light Br	own Fine Sand and Si	it, v mois	st.					0								
											0								
		<del></del> 16									0								
		18								-	0								
		20								-	0								
			- gravel	and boulders, refusal															
		22		Boring at 22 feet, Refu	sal.		1			r									
	ify that	the info	ormation on t	his form is true and co	rrect to t	he best o			e.										
Signature		III (M	<b>/</b>				Fir		PRG	anc	l Asso	ociates	s, Inc	;.					

#### SOIL BORING LOG INFORMATION

Form 4400-122

Rev. 7-98

	Rou				ewater [		ste Manag Other		]												
					•											I	Page		of	2	
Facility/Project	Name	forme	r Bask	Dry Cle	aners		Licen	se/Permi	t/Monit	oring N	umber	***************************************		Е	orin	g Nu	mbe	r	MW-	14	
Boring Drilled					and Firm		Date	Drilling S	Started		Date	Drilli	ng C	omple	eted		Dr	illing	Metho	d	_
First Name: Firm: Cascade	Randy e Drillin		Last Name:	Radke			0	5 <u>1 6</u>	2 <u>0</u>		<u>5</u> <u>0</u>	5 1 d	7	2 !	0 <u>1</u>	6			Son	ic	
WI Unique Wel			/ell ID N	0.	Well Name	e		Static W				ace El			, ,	у	Во	rehol	le Diam	eter	
					MW-1	4	_		Feet N	ISL				Feet i	MSL				6	inche	S
Local Grid Orig State Plane	in (es	imated:	) or E N,	Boring Lo	cation	Е	1	Let			T	ocal	Grid	Locat	ion	N				E	<del></del>
NE 1/4 of	NE	1/4 of S		36 , 7	Γ <u>7</u> N, R	19		Lat Long			_			Fe	et	_N _S				FeetE	
Facility ID	26818	88800	Cou	nty W	'aukesha		County C	ode 8	Civil '	Γοwn /	City / c	r Vill	age	Waul	kesha	ı					
Sample		face)												S	oil P	rope	rties	5			
Number and Type Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)		And	I/Rock Descr Geologic Ori Each Major U	igin For		USCS	Graphic Log	Well	PID/FID	Compressive	Strength	Moisture	Content Liquid	Limit	Plasticity	Index	P 200	RQD / Comments	
	tify that	2 4 6 8 10 12 14 16 18 20 22 the infe	See	ng blind o	W-14.	dogreet	to the best														
I hereby cer Signature	tify that	the info	ormation	on this fo	rm is true an	d correct	to the bes		nowled m	ge.		<del></del>									
Digitature	1	H M	₩					["		PRG	and A	ssoci	iates	s, Inc							

Page 2 of 2

C1			T		1		T	_		 7	D		_		
Number and Type Length Att. & pldums Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	uscs	Graphic Log	Well Diagram	PID/FID	Compressive	Strength		Liquid Limit	ity	maex	P 200	RQD / Comments
		24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62	Brown, fine to coarse SAND and GRAVEL, trace cobbles, occasional more fine and more coarse seams, slightly moist.  Brown, coarse SAND and fine to coarse sand, wet.  Brown, fine to medium SAND, trace silt and gravel, wet.												
							<u></u>	<u></u>				<u></u>	$\perp$		

#### SOIL BORING LOG INFORMATION

Form 4400-122

Rev. 7-98

PacilityProject Name   Former Bask Dry Cleaners   Cle		Ro	ute To:		rshed / V ediation /		iter elopment			anager Other	ment [	]			· · · · · ·					Pa	age_	1	of	2
Boring Drilled By: Name of crew chief (first, last) and Firm   Date Drilling Started   Date Drilling Completed   Drilling Method   Press   Date   Drilling Line   Drilling Method   Dril	Facility/Project	Name	forme	r Bas	sk Dry	Clean	ers		I	license	/Permit	/Mon	itorin	g Nui	nber			Boı	ing	Nun	ıber	i	MW-	15
Professional Control				ew chie	ef (first,l	ast) and			E	Date Di	rilling S	tarted			Date D	rilling	Com	plete	d		Drill	ing	Metho	d
With Unique Well No.   DNR Well ID No.   Well Name   MW-15   Final Static Water Level   Seet MSL   Surface Elevation   Feet MSL   Seet MSL   Se		-	ng, L.P.	Last Nat	me: Ra	dke			1	<u>0</u> <u>5</u>	$\frac{1}{d}$ $\frac{8}{d}$	2		<u>6</u>	<u>0</u> <u>5</u>	1 8	<u>2</u>						Soni	ic
Local Grid Origin (estimated: ) or Boring Location   E   Lat				Vell ID	No.	V	Vell Name	<del></del>				ater L	evel				tion				Bore	hole		
State Plane			<u> </u>					5 				Feet	MSL										6	inches
Sample    Sample   Soil/Rock Description   Soil/Rock D	State Plane			N	,				Е					_	Loc	cal Gri								
Soil/Rock Description And Geologic Origin For Each Major Unit  Soil/Rock Description And Geologic Origin For Each Major Unit  Soil/Rock Description And Geologic Origin For Each Major Unit  Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soil/Rock Description And Geologic Origin For Each Major Unit  Original Soi	Facility ID	2681	88800	C	ounty	Wauk	cesha		Coun		le	Civi	Tow	n/C	ity / or \	Village	W	auke	sha					
Boring blind drilled to 25 feet. See log for MW-15.  — 8 — 10 — 12 — 14 — 16 — 18 — 20 — 22  I hereby certify that the information on this form is true and correct to the best of my knowledge.			face)															Soi	l Pro	pert	ies			
Boring blind drilled to 25 feet. See log for MW-15.  — 8 — 10 — 12 — 14 — 16 — 18 — 20 — 22  I hereby certify that the information on this form is true and correct to the best of my knowledge.	Number and Type Length Att. & Recovered (in	Blow Counts	Depth in Feet below ground sur		A	And Geo	ologic Ori	gin For			SC	Graphic	Log	Diagram	PID/FID	Compressive	Moisture	Content	Liquid	Limit	Plasticity	Index	P 200	RQD / Comments
	I hereby cer	tify tha	- 4 - 6 - 8 - 10 - 12 - 14 - 16 - 18 - 20 - 22	prmati	See lo	og for M	IW-15.		t to the	e best «	of my k													
Signature Firm KPRG and Associates, Inc.	Signature											m		Gar	nd Ass	ociat	1 20	nc						

Page 2 of 2

						Τ	1		,	1 a 21 T				
Sample ⊗ .≘	- L	st urface	Sail/Book Deservation					-	7	1 110	Proper	ties		-
Number and Type Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For		υ.	,		Compressive	. e	_		ξ:		ants
Number and Type Length A1 Recovered	) w C	pth i	Each Major Unit	nscs	Graphic Log		PID/FID	mpre	Moisture	I janid	Limit	Plasticity Index	P 200	RQD / Comments
Re Re	<u> </u>	(b D		Ď.	<u>5</u> 2	× č		S 5	ĬŽ (	3   1	בֿ: בֿ	Pl <sub>E</sub>	P 2	S 8
			Boring blind drilled to 25 feet.											
		24	See log for MW-15.					1						
		26	Brown, medium SAND to coarse GRAVEL					1						
		28	trace sand and cobbles, slightly moist.					_						
		30						4						
		32						1						
		2.1												
		34						1						
		36												
		38						_						
		40						-		l				
		42						1						
			- moist											
		44						1						
		46	- increase moisture to very moist											
		40												
		48						_						
									1					
		50						┨						
			Brown medium to coarse SAND and fine											
		52	to coarse GRAVEL, trace fines, wet.					1						
		54								l				
										l				
		56	n I on 1				<u> </u>	-						
			End of Boring at 55 feet.											
		58					-	1						
		60						1						
		62						_						
						<u></u>		1						

#### SOIL BORING LOG INFORMATION

Form 4400-122

Rev. 7-98

	Ro	ute To:		rshed / Wa					anagei Other	ment [											Pa	age_	1	of	2	
Facility/Project	Name	Farma	Dos	de Day C	loone			l	icense	e/Permi	t/Mo	nitor	ing l	Vur	nber			_	Bor	ring	Nun	ber		MW-	16	
Boring Drilled I	Rv. Nar			sk Dry C					Date D	rilling	Starte	ed.			Date D	rillin	o C	omr	lete	d	Т	Drill		Metho		
First Name:	Randy		Last Nai							1 7			1	6				-			<u>6</u>	Dim	ь	Son		
Firm: Cascade WI Unique Wel		ig, L.P. DNR V	(7-11 ID	. XI.	133	/-11 N/			m m/	d d	У	У	y		0 5 m m/ Surface				У	y	У	D	ا ما ما	e Diam		
wi Unique wei	i ivo.	DNK	ven ib	NO.	"	ell Nam/ MW-1		ľ	·inai S	tatic W		t MS			Surrace	Elev		Fee	t M	SL		-	cnore	6		ches
Local Grid Orig State Plane	in (es	timated:		or Boring	Locati	on	Е		I	Lat					Loc	cal G	rid	Loca	ition		NI NI					E
NE 1/4 of	NE	1/4 of S	N Section	n 36	, T	7 N, R	19	_E	L	Lat ong								E	eet		N S				Feet	_w
Facility ID	2681	88800	C	County	Wauk	esha		Cour	ity Co 68		Civ	/il To	own /	Ci	ty / or \	√illag	je	Wa	ukes	sha						
Sample		ace)		·····							$\dagger$		_						Soi	il Pro	open	ies				
t. &	nts	Depth in Feet (below ground surface)				ck Desc										ive									,	n
ber Type th At	Blow Counts	h in l		Aı		ologic Or 1 Major I	rigin For Unit			S	hic			ram	FID	press	gth	ture	ent	p p		icity		0	/ ment	
Number and Type Length Att. & Recovered (in)	Blow	Depth in Feet (below ground sur								USC	Graphic	Log	Well	Diagram	PID/FID	Compressive	Strength	Moisture	Content	Liquid	Limit	Plasticity	Index	P 200	RQD /	;
			G	rass and c	lark br	own clay	yey top s	oil, sl	moist.																	
		2	D	ark Brow	n, SIL	ΓΥ CLA	Y, some	sand /	grave	l. •																
		·	В	Frown SIL	TY CL	AY, trac	ce sand a	and																		
		4	g	ravel, moi	ist.											}							١			
		6														1					Ì					
		8														1										
		L 10																								
		12	В	rown SIL	TY CL	AY, son	ne sang/g	gravel,	sl mo	ist. I						-										
											1					}							l			
		14	L	ight Brow	m SILT	ΓΥ SAN	D. fine to	o med	ium.							1										
			I	ace grave			_,		,																	
		16		ight Brow			ist.									1										
		18																								
			İ	ight Brow				L, fine	to																	
		20	1	oarse, trac				~								-										
			-	occasion	al laye	rs of coa	irser and	finer i	natrix																	
		22													-	1						l	-			
I hereby cer	tify tha	t the infe	i Ormati	on on this	form	is true ar	nd correc	ct to th	e best	of my	now	ledg	<u> </u>		I	<u> </u>		Ц		<u> </u>		L			1	
Signature		M V	W				<u></u>			Fi	rm	12.5	חרם		- A L-		4.	. 1								
		Fall (d	Ų —							- 1		KI	KÜ	ar	nd Ass	ocia	tes	i, II	C.							

Page 2 of 2

				T			<del></del>	<del></del>	10		rtion		
Sample		t rrface						<u> </u>	50	il Prope I	nes		1
Number and Type Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil/Rock Description And Geologic Origin For Each Major Unit	uscs	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
		24						-					
					!								
		26						<b>!</b>					
		28											
		20					1						
		30					<b></b>						
			Brown, fine to coarse SAND and GRAVEL,										
		32	trace cobbles, occasional more fine and					İ					
		34	more coarse seams, slightly moist.										
		"											
		36											
		38											l.
		40											
		42											
		44											
		46					<b> </b>	1					
		48											
		50					<u> </u>						
			Brown, SAND, fine to medium, some silt.										
		52	wet.										
		54					<u></u>						
		56						1					
			Brown medium SAND to medium GRAVEL										
		58	layered with GRAVEL, wet.					1					
		60											
			End of Doring at 60 feet										
		62	End of Boring at 60 feet.										
	L	<del></del>			I							<u> </u>	1

т	Vatershed/Wastewater[ Remediation/Redevelop		agement	MONITORING WELL CONSTRUCTION Form 4400-113A Rev. 7-98
Facility/Project Name	Local Grid Location of	Well		Well Name
former Bask Dry Cleaners		tr □s		Well Halle MW-14s
Facility License, Permit or Monitoring No.		(estimated:   ) or Long.	Well Location   or	Wis. Unique Well No. DNR Well ID No.
Castler ID	Lat.			Date Well Installed
Facility ID 268188800	St. Plane		ft. E. S/C/N	1 1 / 6 1 / 2 4 1 5 m m d d y y y y
Type of Well	Section Location of W		. <b>, ह</b> ि	Well Installed By: Name (first, last) and Firm
Well Code 11 / mw	NE 1/4 of NE 1/4	of Sec. 36 . T. 7	N, R. 19	Adam Sweet
	Location of Well Relat	tive to Waste/Source	Gov. Lot Number	
Distance from Waste/ Enf. Stds. Source ft. Apply	u Upgradient d Downgradient	s ☐ Sidegradient n ☐ Not Known		Horizon
A. Protective pipe, top elevation	ft_MSL		l. Cap and lock?	ĭ Yes □ No
B. Well casing, top elevation	ft. MSL		<ol> <li>Protective cover p</li> <li>Inside diameter</li> </ol>	1.
C. Land surface elevation	ft_MSL		b. Length:	_ <u>t</u> n.
•		76 TO 100	c. Material:	Steel 🖼 04
D. Surface seal, bottom ft. MS	SLorL ft.			Other 🗆 🎎
12. USCS classification of soil near scree	n:	PAT NECESSARY	d. Additional pro	
1	SW 🗆 SP 🐹		If yes, describe	)
	CL CH CH		• •	Bentonite □ 30
Bedrock 🗆			3. Surface scal:	Concrete 🖾 01
13. Sieve analysis performed?	Yes XINo			Other 🗆
	tary 🗆 5 0		4 Material between	well casing and protective pipe:
Hollow Stem A	• _	₩ ₩		Bentonite □ 30
	ther			Other 🗆
			5. Annular space se	
15. Drilling fluid used: Water   0 2	Air 🗆 01		J. Annular space se	nud weight Bentonite-sand slurry 35
	None 12 99	<b>XX XX</b>	bLos/gai ii	nud weight Bentonite slurry 2 31
			CLOS/gai ii	ite Benionite-cement grout 50
16. Drilling additives used?	Yes 🕱 No			volume added for any of the above
			·	T
Describe			f. How installed	Tremie pumped 🔲 02
17. Source of water (attach analysis, if req	uired):	<b>88</b> 88		Gravity 🔀 08
			6. Bentonite seal:	a. Bentonite granules  33
				(3/8 in. □ 1/2 in. Bentonite chips <b>E</b> 3 2
E. Bentonite seal, top ft. MS	Lor Ift.		C	Other 🗆
<u>-</u>	. \			
F. Fine sand, top ft. MS	SL or13_ft. \ \		7. Fine sand materi	d: Manufacturer, product name & mesh size
	\		a	
G. Filter pack, top ft. MS	SL or 13_ ft.		b. Volume added	n <sup>3</sup>
			8. Filter pack mater	ial: Manufacturer, product name & mesh size
H. Screen joint, top ft. MS	SL or 15 ft.		8	
			b. Volume adde	d ft <sup>3</sup>
I. Well bottomft_MS	SL or _ 30 ft.		9, Well casing:	Flush threaded PVC schedule 40 🕱 23
	· · ·			Flush threaded PVC schedule 80 🔲 24
J. Filter pack, bottom ft. MS	SL or 30_ft			Other 🗆 🎎
	0.	) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	0. Screen material:	PVC - 5CH 40
K. Borchole, bottom	SL or30_ft.		a. Screen type:	Factory cut 🔀 11
C	`			Continuous slot 🔲 01
L. Borehole, diameter in.		-		Other 🗆 🧱
			b. Manufacturer	
M. O.D. well casing in.		/	c. Slot size:	0. <u>o 1 0</u> in.
2		\	d. Slotted length	
N. I.D. well casing in.		1	l 1. Backfill material	(below filter pack): None X 14
				Other 🗆 🎎
I hereby certify that the information on this		ct to the best of my kno	owledge.	
Signature	Firm			
total May		KPRG and Assoc	iates, Inc.	

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chr. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

_	Vatershed/Wastew Remediation/Redex		Waste Mana	agement []	MONITORING WELL CONSTRUCT Form 4400-113A Rev. 7-98	'ION
Facility/Project Name	Remediation/Redex  Local Grid Locati	on of Well	Outer		Well Name	
former Bask Dry Cleaners		남	l	fu 🛮 E.	MM-122	
Facility License, Permit or Monitoring No.	Local Grid Origin	(estimate	d: 🗆 ) or	Well Location	Wis, Unique Well No. DNR Well ID N	o.
	Lat.	"Lo	ng			
Facility ID 268188800	St. Planc			ft. E. S/C/N	Date Well Installed	5
Type of Well	Section Location			н <b>Ж</b>	m m d d v v v  Well Installed By: Name (first, last) and	Firm
Well Code 11 / mw	NE_1/4 of NE	1/4 of Sec_3	6_,T <sup>7</sup>	N, R. 19	Adam Sweet	Luui
Distance from Waste/ Enf. Stds.	Location of Well u Upgradien	Relative to Wa	ste/Source Sidegradient	Gov. Lot Number		
Sourceft. Apply	d Downgrad		Not Known		Horizon	
	ft MSL			. Cap and lock?	¥ Yes □ N	10
	ft. MSL ·		2	2. Protective cover p	ipe:	
,, p,,				a. Inside diameter	1	
C. Land surface elevation	ft. MSL	المر	·	b. Length:		ft.
D. Surface seal, bottom ft. MS	SLor ft.	3.5.V		c. Material:	Steel <b>⊠</b> Other □	22
12. USCS classification of soil near screen			<b>1300</b>	d. Additional pro		
GP GM GC GW S	sw □ sp kal	18	1/	If yes, describe		
SM □ SC □ ML□ MH□ C	CH'O	1	# \ \ \.	•		30
Bedrock 🗆	. l	<b>133</b>	<b>***</b> \ '	3. Surface seal:	Concrete 🗸	0.1
13. Sieve analysis performed?	Yes 🛚 No		<b>※</b>		Other 🗆	
	tary 🗆 50		₩ 4	<ol> <li>Material between</li> </ol>	well casing and protective pipe:	
Sonic Hollow Stem: At			<b>※</b>			30
308/10	ther 🗷 🌼	<b>- 1</b>	<b>X</b>			22
15. Drilling fluid used: Water   0 2	Air 🗆 01			5. Annular space se	a. Granular/Chipped Bentonite	3 3 3 5
	None 120 99			bLos/gai n	-pa	31
				d % Benton		50
16. Drilling additives used?	Yes K No				volume added for any of the above	
Danaba	1		KXXI	f. How installed:		01
Describe 17. Source of water (attach analysis, if requ				•••		02
17. Source of water (attach analysis, it requ	ilrea):		₩			08
			<b>(</b>	6. Bentonite seal:	a. Bentonite granules	33
E. Bentonite seal, top ft. MS	er e re		<b>**</b>	b. □1/4 in. Æ		32
E. Deliumte seat, toptt. tvi3	or		₩ /	c	Other 🗆	
F. Fine sand, top ft. MS	Lor & ft.			7. Fine sand materia	Manufacturer, product name & mesh	size
	_	<b>\</b> \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \		a		
G. Filter pack, top ft. MS	Lor1 ft	<u>, \\\</u>	3/	b. Volume added	n3	
•			3		ial: Manufacturer, product name & mesh	size
H. Screen joint, top ft. MS	LorOft			a		
7 W W	25.0			b. Volume added	ft.3	
I. Well bottomft. MS	SL or 25_ft.			9. Well casing:	Flush threaded PVC schedule 40	
J. Filter pack, bottomft. MS	St. or 25 ft					24
3, 1 mor pack, commit	,			0. Screen material:	PVC-SeH 4b Other	
K. Borehole, bottom ft. MS	SL or 35 ft.		*	a. Screen type:		11
				Gereau types	Continuous slot	01
L. Borehole, diameter6 in.		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	<b>~</b> \		Other 🗆	
				b. Manufacturer		
M. O.D. well casing in.			/	c. Slot size:	0. 0.0	
N. I.D. well casing 2 in.			\ <u>\</u>	d. Slotted length		
N. I.D. well casing in.			1	1. Backfill material	1	1.4
I hereby certify that the information on this	form is true and a	correct to the he	st of my kno		HEAVE Other	
Signature M		irm	vi mj ano			<del></del>
total (1)			nd Associa	ates, Inc.		
					- <del> </del>	

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 1292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin Department of Natural Resources Route to: V	Watershed/Wastew	ater [	Waste Man	agement [	MONITORING WELL C Form 4400-113A		CTION
F	Remediation/Rede	velopment	Other 🔲 _			Rev. 7-98	
Facility/Project Name	Local Grid Locati	ion of Well	Ň.	ft. 🛮 🛱.	Well Name MW-14	1	
former Bask Dry Cleaners	T10-1/0-1-1		3	ft. □W.	1 ' '		- N-
Facility License, Permit or Monitoring No.				Well Location	Wis. Unique Well No. D	NK Well ID	No.
	Lat,	"Lo	ong	or	Date Well Installed		
Facility ID 268188800	St. Plane	ft N,		ft. E. S/C/N	Date Well Installed	7/201	6
	Section Location	of Waste/Source	æ	by E	m m d	7 /2 6 1	V Y
Type of Well Well Code 11 / MW	NE 1/4 of NE	1/4 of Sec. 3	6 ,T. 7	N, R. 19	Well Installed By: Name Randy Radke	(tirst, last) ai	nd Pirm
11 OH COUC/	Location of Well	Relative to Wa	stc/Source	Gov. Lot Number	Trailuy Trauke		
Distance from Waste/ Enf. Stds.	u Upgradien	t s 🔲	Sidegradient	1	Cascade Drilling		
Sourceft. Apply	d Downgrad	lient n					
A. Protective pips, top elevation	ft. MSL		_	1. Cap and lock?		Y Yes	No
B. Well casing, top elevation	ft. MSL	<del>+</del> -	N №	2. Protective cover p	•		Δ.
<b>3</b> . <b>1</b>			سنسا ا	a. Inside diameter	<u> </u>		<b>8</b> in.
C. Land surface elevation	ft. MSL	المد	h-	b. Length:			L ft.
D. Surface seal, bottom ft. MS	stor Lift	100 m		c. Material:		Steel 🔀	
			1.30			Other 🗆	4.54.110
12. USCS classification of soil near screen		Sugar.	N. Carrie	d. Additional pro		☐ Yes ☐	No
SM SC ML MH C	SW D SP A	<b>₹</b>	/ / /	If yes, describe	<u></u>	<del></del>	
Bedrock	T U CH U	` <b>&amp;</b>	<b>×</b> / `	3. Surface scal:	E	Bentonite 🛘	3 0
T	\		<b>***</b>	J. Guitace Seat.		Concrete 🗷	
13. Sieve analysis performed?	Yes DX No	₩.	<b>×</b>			Other 🛘	
14. Drilling method used: Ro	tary 🗀 5 0	₩.	<b>₩</b>	<ol> <li>Material between</li> </ol>	well casing and protective	pipe:	******
Hollow Stem Au		₩			Į .	Bentonite 🗆	
SONIC 0	ther 🗷 🚃	×	<b>×</b>			Other 🗆	
		<b></b>	<b>₩</b>	5. Annular space se	a. Granular/Chipped	Bentonite 💆	
15. Drilling fluid used: Water □ 0.2	Air 🔲 01	<b>888</b>	<b>×</b>		ud weight Bentonite-se	and slurry 🗍	35
Drilling Mud 🗆 0 3	None 2 99	<b>888</b>	<b>88</b> 7	c Lbs/gal n	ud weight Bentoni	ite slurry	3.1
14.75 791		₩	<b>88</b>	d % Benton	te Bentonite-cem	ient grout 🗆	5.0
16. Drilling additives used?	Yes X No		<b>※</b>		volume added for any of t		
1			▩	f. How installed:	· · · · · · · · · · · · · · · · · · ·	Tremie 🔲	0 1
Describe		<b>₩</b>	<b>88</b>	I. Zion monaron		pumped 🗆	
17. Source of water (attach analysis, if requ	uired):	<b>※</b>	<b>     </b>			Gravity 🗷	
			<b>88</b> 1	6. Bentonite seal:	a, Bentonite		,
		<b> </b>	<b></b>		3/8 in. □ 1/2 in. Benton	_	
E. Bentonite seal, top ft. MS	Lor ! ft.	💹	<b>⊠</b> /	c	,	Other	
		<b>\</b>		V,		(70)01	******
F. Fine sand, top ft. MS	SL or 47 ft.	<b>\</b> \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<b>×</b>	<ol><li>Fine sand materia</li></ol>	l; Manufacturer, product i	name & mes	sh size
		<b>\ 治</b>	<b>腎/</b> /	ā,			
G. Filter pack, top ft. MS	Lor 47 ft			b. Volume added	<sub>fi</sub> 3	-	
		<u> </u>			al: Manufacturer, product	name & me	sh size
H. Screen joint, top ft. MS	L or 49 ft				, p. 55-55-5	(14)110 (4)110	333
		200		b. Volume added	ft 3		1000000
I. Well bottom ft. MS	SL or <b>59</b> _ft.		<b>44</b>	9. Well casing:	Flush threaded PVC sche	đule 40 🗷	23
				- · · · · · · · · · · · · · · · · · · ·	Flush threaded PVC sche		
J. Filter pack, bottom ft. MS	SLor 59 ft				Trash unbadoa 7 1 0 00110	Other 🗆	. 99655
				0. Screen material:	PVC SCH 40	Other L	
K. Borchole, bottom	Lor 59 ft.		<b>'</b>	a. Screen type:		ctory cut	
				a. Bereen type.		ous slot	_
L. Borehole, diameter			<b>23</b> (		Comun		~ .
				b. Manufacturer		Other	
M. O.D. well casing in.				c. Slot size:	<del></del>	n a	1 6 in.
M. O.D. well casing in.			/	d. Slotted length			10 ft.
N. I.D. well casing2 in.			``	•	1		
m,			1	i. dackili matenal	(below filter pack):	None 🗵	
I hereby certify that the information on this	form in true ard	porvent to the L	ot of 1	aulada a		Other 🗆	1 000
Signature Signature			or or my kno	wieuge.			
	ļ <sub>i,</sub>	irm KDDC a	and A	latan luc			
TOM MALL		NPKG 8	and Associ	ates, inc.			

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chr. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on those forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

	Vatershed/Wastewater  Remediation/Redevelopmer	Waste Mana	igement []	MONITORING WELL CONSTRUCTION Form 4400-113A Rev. 7-98
Pacility/Project Name	Local Grid Location of We	ell 🗆 N.	пр	Well Name MW-15
	Local Grid Origin (cs	t □ S	ft. 🗇 W.	Wis, Unique Well No.  DNR Well ID No.
Facility License, Permit or Monitoring No.	Lat	Long.	Well Location U	Wis. Offique Well (10.
Facility ID	St. Plane			Date Well Installed
268188800	Section Location of Waste			m m d d y y y y
Type of Well Well Code 11 / mw	NE 1/4 of NE 1/4 of	•	N, R. 19	Well Installed By: Name (first, last) and Firm Randy Radke
Well Code//	Location of Well Relative	to Waste/Source	Gov. Lot Number	- Trainay Tradice
Sourceft. Apply	u □ Upgradient s d □ Downgradient r	Sidegradient		Cascade Drilling
	ft. MSL		. Cap and lock?	X Yes □ No
	ft. MSL	1000	2. Protective cover p a. Inside diameter	·
<u> </u>	ft. MSL		b. Length:	<u>1</u> a.
	, ,	7	c. Material:	Steel 💆 04
D. Surface seal, bottom ft. MS	74 Sec. 1			Other 🗆 🎎
12. USCS classification of soil near scree	n: SW - SP X	A K	d. Additional pro	
SM SC ML MH		即用//	If yes, describe	Bentonite □ 30
Bedrock 🗆			3. Surface scal:	Concrete 01
13. Sieve analysis performed?	Yes X No			Other 🗆
14. Drilling method used: Ro	tary 🗆 50		<ol> <li>Material between</li> </ol>	well casing and protective pipe:
Sonic Hollow Stem. At				Bentonite   30
20016	ther 🗷 🎎			Other  a. Granular/Chipped Bentonite  3 3
15. Drilling fluid used: Water   0 2	Air 🗆 01		5. Annular space se	ud weight Bentonite-sand slurry 35
Drilling Mud 🖂 0 3	None X 99			und weight Bentonite slurry   31
16. Drilling additives used?	Yes X No		d % Benton	te Bentonite-cement grout 5 0
To. Dining none ver used:	100 A 1100		V	volume added for any of the above
Describe			f. How installed:	Tremie 0 1 Tremie pumped 0 02
17. Source of water (attach analysis, if req	aired):			Gravity 🔀 08
			б. Bentonite seal:	a. Bentonite granules  33
			b. □1/4 in. □	3/8 in. 1/2 in. Bentonite chips 3 2
E. Bentonite seal, top ft. MS	L or II.		c	Other 🗆 🎇
F. Fine sand, top ft. MS	SL or 44 ft.		7. Fine sand meteric	Manufacturer, product name & mesh size
G 700	SL or 44 ft.		a	<sub>ft</sub> 3
G. Filter pack, top ft. MS	'r ot ''.		b. Volume added	ial: Manufacturer, product name & mesh size
H. Screen joint, top ft. MS	iL or 46 ft.		o. Pitter pack mater	st: Wandiscurer, product name & mean size
			b. Volume added	ft.3
I. Well bottomft. MS	SL or 56_ ft.		9. Well casing:	Flush threaded PVC schedule 40 23
J. Filter pack, bottom ft. MS	St or 56 A - \	イ富・		Flush threaded PVC schedule 80  24
			0. Screen material:	PVC 50440 Other
K. Borchole, bottom ft. MS	3L or 56 ft.		a. Screen type:	Factory cut 🗵 11
				Continuous slot   0 1
L. Borehole, diameter in.				Other 🗆 🚉
M. O.D. well casing in.			b. Manufacturer c. Slot size:	0. <u>0 1 0</u> in.
III.		\	d. Slotted length	
N. I.D. well casing in.		1	1. Backfill material	(below filter pack): None X 14
Thombur and first that the first state of the	6	dahan Cara		Other 🗆 👑
I hereby certify that the information on this	Firm	me best of my kno	wicage.	
100 (NH		PRG and Associ	ates, Inc.	
	<del></del>			

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chr. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 1292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on those forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

D	Vatershed/Wastew		Waste Mana	igement	MONITORING WELL CONSTRUCTION Form 4400-113A Rev. 7-98
Pacility/Project Name	emediation/Rede Local Grid Locat	ion of Well	Outer		Well Name
former bask Dry Cleaners			5	tr. 🛮 W.	MW-16
Facility License, Permit or Monitoring No.	Local Grid Origin	☐ (estima	ted: 🗆 ) or	Well Location	Wis. Unique Well No. DNR Well ID No.
	Lat	"ı	.ong	or	
/08/1888/11/	St. Plane			ft.E. S/C/N	Date Well Installed 05/18/2016
Type of Well	Section Location	,	rce	Пв	m m d d y y y y Well Installed By: Name (first, last) and Firm
Well Code 11 / mw	<u>NE 1/4 of NE</u>		36_,T <sup>7</sup>	N. R. 19	Randy Radke
Distance from Waste/ Enf. Stds.	Location of Well u Dugradien	Relative to W	aste/Source Sidegradient	Gov. Lot Number	
Source ft. Apply	d Downgrad		-		Cascade Drilling
	ft, MSL			. Cap and lock?	XX Yes □ No
	ft. MSL	F	7 852	Protective cover p	l' <b>2</b> .
<b>U</b> . <b>1</b>		IΓ	منرا[	a. Inside diameter	1
C. Land surface elevation	ft MSL	-	-	b. Length:	ft. Steel <b>K</b> 04
D. Surface seal, bottom ft. MS	Lor ft.			c. Material:	Other D
12. USCS classification of soil near screen		The state of	1000	d. Additional pro	
GP GM GC GW S	W 🗆 SP 🙇	1		If yes, describe	
SM C SC C ML C MH C	T CH C			3. Surface scal:	Bentonite □ 30
Bedrock □		<b> </b>		o, Surrace scar.	Concrete 🗷 01
Į	res 🗷 No		<b>X</b>		Other 🗆
	ary □ 50		<b>8</b> 4	I. Material between	well casing and protective pipe:  Bentonite □ 30
Solic Hollow Stem Au	ther 🔎				Other 🗆
				5. Annular space se	
	Air 🔲 0.1		M	Lbs/gal n	ud weight Bentonite-sand slurry 35
Drilling Mud □ 03 N	ione 2 99			cLbs/gal n	ud weight Bentonite slurry   31
16. Drilling additives used?	Yes 🔼 No			d % Benton	te Bentonite-cement grout 5 0
10. Diming additives used:	) A 140			V	volume added for any of the above
Describe				f. How installed:	
17. Source of water (attach analysis, if requ	iired):				Tremie pumped  02  Gravity  08
				6. Bentonite seal:	a. Bentonite granules  33
					3/8 in. 1/2 in. Bentonite chips 2 3 2
E. Bentonite seal, top ft. MS	L or			c	Other 🗆 🎎
7.71				7. Fine sand materia	al: Manufacturer, product name & mesh size
F. Fine sand, top ft. MS	rortt				
G. Filter pack, top ft. MS	Lor 47,5 f			b. Volume added	n <sup>3</sup>
• • • • • • • • • • • • • • • • • • • •		<b>一</b> 、III			ial: Manufacturer, product name & mesh size
H. Screen joint, top ft. MS	Lor 50 f			s	
	_	1512		b. Volume added	ft 3
I. Well bottom ft. MS	Lor_60_f			9. Well casing:	Flush threaded PVC schedule 40 🗷 23
J. Filter pack, bottom ft. MS	T GA 6				Flush threaded PVC schedule 80  24
J. Filler pack, bottom IL MS	rot65_1			^ Famour average 1.	PVC ScH 40
K. Borehole, bottom	Lor 66 B		<b>.</b>	<ol> <li>Screen material;</li> <li>Screen type;</li> </ol>	PVC Sett 40 Factory cut 🔀 11
				a. Gereen type.	Continuous slot   0 1
L Borehole, diameterin.		\ <u>\</u>			Other 🗆 🔛
				b. Manufacturer	
M. O.D. well casing in.				c. Slot size:	0. <u>01 0</u> in.
N. I.D. well casing2 in.			`.	d. Slotted length	
N. I.D. well casing in.			1	i. dackini materal	(below filter pack): None 🔀 1 4 Other 🗆
I hereby certify that the information on this	form is true and	correct to the	oest of my kno	wledge.	300
Signature		irm			
tata (11)		KPRG	and Associ	ates, Inc.	

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

# MONITORING WELL DEVELOPMENT Form 4400-1138 Rev. 7-98

. 44

Route to: Watershed/Wastewater	Waste Management
Remediation/Redevelopment S	Other [ ]
Facility/Project Name   County Name	[Well Name
Former Book Dry Cleaners Way	Cesha   MU ) 140   Wis, Unique Well Number   DNR Well ID Number
Facility License, Permit or Monitoring Number County Code	Wis, Unique Well Number DNR Well ID Number
1. Can this well be purged dry?	Before Development After Development  11. Depth to Water
2. Well development method	(from top of a 47.75 ft.
surged with bailer and bailed   4 1	well casing)
surged with bailer and pumped   61	
surged with block and bailed   4 2	Date 3 511 912 016 051 191 2016
surged with block and pumped 2 62	Date b. 5 / 9 / 2 0 / 6 0 5 / 19 / 2 0 16 m m d d y y y y
surged with block, bailed and pumped 🔲 70	gam. A Fam.
compressed air 🔲 20	Time c. 10:00 p.m. 10:55 p.m.
bailed only 📋 10	
pumped only 5 1	12. Sediment in well inches inches
pumped slowly	bottom
Other	13. Water clarity Clear 10 Clear 22 20 Turbid 0 15 Turbid 25
3. Time spent developing well 5_5 min.	(Describe) (Describe)
4. Depth of well (from top of well casising) $\underline{\mathcal{L}}_{q}$ . $\underline{\mathcal{L}}_{q}$	Gradient additional control of the c
5. Inside diameter of well	
6. Volume of water in filter pack and well casing gal.	
7. Volume of water removed from well 5 _ 0 gal.	Fill in if drilling fluids were used and well is at solid waste facility:
7. volunte of water removed from wen	14. Total suspended mg/l
8. Volume of water added (if any) O D_ gal.	solids
9. Source of water added	15. COD mg/l
**************************************	16. Well developed by: Name (first, last) and Firm
10. Analysis performed on water added?	First Name: Randy Last Name: Radke
(If yes, attach results)	<b>7.</b>
	Firm: Cascade Drilling
17. Additional comments on development:	4
Name and Address of Facility Contact/Owner/Responsible Party	I hereby certify that the above information is true and correct to the best
First Last	of my knowledge.
Name:	
Facility/Firm:	Signature: Randy Rooke
Street:	Print Name: Randy Radka
City/State/Zip:	Firm: Cascade Drilling.

## MONITORING WELL DEVELOPMENT Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater	Waste Management
Remediation/Redevelopmen	1 ♥ Other ■
Facility/Project Name   County N	
Former Bosk Dry Cleaners Was	
Facility License, Permit or Meditaring Number County C	ode Wis. Unique Well Number DNR Well ID Number
1. Can this well be purged dry?	11. Depth to Water
2. Well development method	(from top of a 42 21 ft 43 2/ ft.
surged with bailer and bailed 4 1	well casing)
surged with bailer and pumped 🔲 61	
surged with block and bailed 🔲 42	Date b.05/19/20/6 05/19/20/6
surged with block and pumped 📈 62	mm ddyyyy mm ddyyy
surged with block, bailed and pumped 📋 70	0 00 km. " " am.
compressed air	Time c. 9:00 [sam. 4:46 ] pm.
bailed only	
pumped only	12. Sediment in well _QLinches inches
pumped slowly	bottom
Other	13. Water clarity Clear [] 10 Clear [] 20 Turbid [] 15 Turbid [] 25
3. Time spent developing wellmin.	(Describe) (Describe) Tuch dbc Clear
4. Depth of well (from top of well casising) 5 & . Dft.	- International Control of the Contr
5. Inside diameter of wellZo & in.	
6. Volume of water in filter pack and well casing gal.	
7. Volume of water removed from well	Fill in if drilling fluids were used and well is at solid waste facility:
8. Volume of water added (if any)O	14. Total suspended mg/l mg/l solids
9. Source of water added	15. COD mg/l
	- 16. Well developed by: Name (first, last) and Firm
10. Analysis performed on water added?   [] Yes YI N	
(If yes, attach results)	to First Name: Randy Last Name: Radke
Can y way to common a top too may	Firm: Cascade Drilling
17. Additional comments on development:	Commence of the Commence of th
Name and Address of Facility Contact/Owner/Responsible Party	Thombur and Su that the should inform the information in the state of the last
First i.est	I hereby certify that the above information is true and correct to the best of my knowledge.
Name: Name:	VA III J BAINTIANNEN
Facility/Firm:	Signature: Rousely Rest he
Street:	Print Name: Randy Radka
City/State/Zin:	Firm: Caccade Arillec.

## MONITORING WELL DEVELOPMENT Form 4400-113B Rev. 7-98

Route to: Watershed/Wastew	rater 🔲	Waste Management				
Remediation/Redevelopment [X] Other						
Facility/Project Name	County Name	ette ameetus saatuumen kontaalaatuun kontaataa etti aasa etti aasa etti aasa etti aasa etti aasa etti aasa ett A	Well Name			
Former Bask Dry Cleaners Facility License, Permit or Maniforing Number	Waul	cesha	1 . M	(1) - 16 DNR Well ID Number		
Facility License, Permit or Moniforing Number	County Code	Wis. Unique Well N	umber	DNR Well ID Number		
1. Can this well be purged dry?  2. Well development method surged with bailer and bailed	1	11. Depth to Water (from top of well casing)		18 ft. 43.73 ft.		
surged with bailer and pumped 6 surged with block and bailed 4 surged with block and pumped 6 surged with block, bailed and pumped 7 compressed air 2 bailed only 1	2 2 0 0	1		2   2016 05   19 12 0 1 6 y y y y y m m d d y y y y D m. 9:46 m a.m.		
bailed only   1 pumped only   5 pumped slowly   5 Other	1 0	12. Sediment in well bottom 13. Water clarity	Clear [] 1	Linches 20 inches  Clear 720 Turbid 25		
3. Time spent developing well Lhc. 1	_		(Describe)	JB/ (Describe)		
4. Depth of well (from top of well casisng)			deriteri tikritik delektrisi orani			
<ul> <li>5. Inside diameter of well Z. @</li> <li>6. Volume of water in filter pack and well</li> </ul>	<u>La</u> in.					
7. Volume of water removed from well 5.3.  8. Volume of water added (if any) 0.  9. Source of water added	Ø gal.	14. Total suspended solids		nd well is at solid waste facility; mg/l, mg/l nng/l, mg/l		
10. Analysis performed on water added?  (If yes, attach results)	s № No	16. Well developed to First Name: Row Firm: Cass C	day	Last Name: Radke  Drilling		
17. Additional comments on development:			,	•		
Name and Address of Facility Contact/Owner/Responsible First Last Name:	Party	I hereby certify the		formation is true and correct to the best		
Facility/Firm:	i dina dilingan pangangan pangan pangangan pangan pangangan pangan p	Signature:	undy	Radhe		
Street:		Print Name:	andy.	Radka		
City/State/Zip:		Firm: C	rscord.	e Dalling.		

# ATTACHMENT 2 DETAILED COSTING SHEETS

Project: Former Bask Dry Cleaner - Westbrook Shopping Center - Waukesha, WI

Task: 1 Additional Requested Work Planning/Coordination

Professional Labor Principal/Proj. Mgr. Field Eng./Sci. CADD Admin. Asst/ Word Proc.	Rate (\$/Hr.) \$135 \$68 \$60 \$45		<u>Units</u> 8 12 0 1 Total Labor	Total \$1,080.00 \$816.00 \$0.00 \$45.00 \$1,941.00
External Expenses Reproduction Field Vehicle Sampling Supplies Waukesha Fees PPE - Modified Level D PPE - Level C	Rate \$50 \$60 \$20 \$300 \$15 \$35	Type Est. Daily Daily Est. Daily Daily	Units 0 0 0 1 0 0 Total Expenses	Total \$0.00 \$0.00 \$0.00 \$300.00 \$0.00 \$300.00
<u>Contractors</u> None.	<u>Rate</u>	<u>Type</u>	<u>Units</u> Total Contractors	Total \$0.00 \$0.00

TASK TOTAL:	\$2,241.00

Project: Former Bask Dry Cleaner - Westbrook Shopping Center - Waukesha, WI

Task: 2 New Well Installation Costs

Professional Labor Principal/Proj. Mgr. Field Eng./Sci. CADD Admin. Asst/ Word Proc.	Rate (\$/Hr.) \$135 \$68 \$60 \$45		Units 4 80 0 2 Total Labor	Total \$540.00 \$5,440.00 \$0.00 \$90.00 \$6,070.00
External Expenses PID Field Vehicle Sampling Supplies Drums Waukesha Permit PPE - Level C	Rate \$75 \$60 \$20 \$55 \$300 \$35	Type Daily Daily Daily Each Est. Daily	Units  8  8  0  0  0  0  atal Expenses	Total \$600.00 \$480.00 \$0.00 \$0.00 \$0.00 \$1,080.00
Contractors Cascade Surveyor IDW Disposal	<u>Rate</u> \$22,500 \$1,200 \$175	Type Est. Est. per Drum Total Contractors TASK TOTAL:	<u>Units</u> 1 1 10 _	Total \$22,500.00 \$1,200.00 \$1,750.00 \$25,450.00

Project: Former Bask Dry Cleaner - Westbrook Shopping Center - Waukesha, WI

Task: 3 Additional Groundwater Sampling (2 Rounds)

Professional Labor	Rate (\$/Hr.)		<u>Units</u>	<u>Total</u>
Principal/Proj. Mgr.	\$135		4	\$540.00
Field Eng./Sci.	\$68		100	\$6,800.00
CADD	\$60		0	\$0.00
Admin. Asst/ Word Proc.	\$45		2	\$90.00
			Total Labor	\$7,430.00
External Expenses	<u>Rate</u>	<u>Type</u>	<u>Units</u>	<u>Total</u>
Reproduction	\$50	Est.	0	\$0.00
Field Vehicle	\$60	Daily	6	\$360.00
Water Quality Meter	\$175	Daily	6	\$1,050.00
Water Depth Meter	\$25	Daily	6	\$150.00
Disposable Bailers	\$15	Ea.	40	\$600.00
Shipping	\$50	Est.	1	\$50.00
		Т	otal Expenses	\$2,210.00
Contractors	Rate	<u>Type</u>	<u>Units</u>	<u>Total</u>
Analytical	\$65	Est.	44	\$2,860.00
		Total Contractor	s	\$2,860.00
		TASK TOTAL:		\$12,500.00

Project: Former Bask Dry Cleaner - Westbrook Shopping Center - Waukesha, WI

Task: 4 Additional Reporting

Professional Labor	<u>Rate (\$/Hr.)</u>		<u>Units</u>	<u>Total</u>
Principal/Proj. Mgr.	\$135		6	\$810.00
Field Eng./Sci.	\$68		24	\$1,632.00
CADD	\$60		4	\$240.00
Admin. Asst/ Word Proc.	\$45		2	\$90.00
			Total Labor	\$2,772.00
External Expenses	<u>Rate</u>	<u>Type</u>	<u>Units</u>	<u>Total</u>
Reproduction	\$50	Est.	0	\$0.00
Field Vehicle	\$60	Daily	0	\$0.00
Water Quality Meter	\$175	Daily	0	\$0.00
Water Depth Meter	\$25	Daily	0	\$0.00
PPE - Modified Level D	\$15	Daily	0	\$0.00
Reproduction	\$50	Est.	1	\$50.00
			Total Expenses	\$50.00
Contractors	<u>Rate</u>	<u>Type</u>	<u>Units</u>	<u>Total</u>

<u>1700 01110 10101</u>

**Total Contractors** 

\$0.00

TASK TOTAL:

\$2,822.00

Project: Former Bask Dry Cleaner - Westbrook Shopping Center - Waukesha, WI

Task: 5 Operation and Maintenance

<u>Professional Labor</u>	Rate (\$/Hr.)		<u>Units</u>	<u>Total</u>	
Principal/Proj. Mgr.	\$135		2	\$270.00	
Field Eng./Sci.	\$68		16	\$1,088.00	
CADD	\$60		0	\$0.00	
Admin. Asst/ Word Proc.	\$45		1	\$45.00	
			Total Labor	\$1,403.00	
External Expenses	<u>Rate</u>	<u>Type</u>	<u>Units</u>	<u>Total</u>	
Reproduction	\$50	Est.	0	\$0.00	
Field Vehicle	\$60	Daily	1	\$60.00	
Water Quality Meter	\$175	Daily	0	\$0.00	
Water Depth Meter	\$25	Daily	0	\$0.00	
PPE - Modified Level D	\$15	Daily	0	\$0.00	
Reproduction	\$50	Est.	0	\$0.00	
			Total Expenses	\$60.00	
Contractors	Rate	<u>Type</u>	<u>Units</u>	<u>Total</u>	
Driller	\$5,450	Est	1	\$5,450.00	
	To	\$5,450.00			

TASK TOTAL:

\$6,913.00