



Wisconsin Public Service Corporation

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July 16, 2018

Ms. Sarah Rolfes
Project Manager
United States Environmental Protection Agency
77 W. Jackson Boulevard
Chicago, Illinois 60604-3590

**RE: June 2018 Monthly Progress Report
Green Bay Former Manufactured Gas Plant
Green Bay, Wisconsin
Wisconsin Public Services Corporation
CERCLA Docket No. V-W-06-C-847, CERCLIS ID – WIN000509948**

Dear Ms. Rolfes:

Wisconsin Public Services Corporation (WPSC) is providing this monthly progress report for the WPSC Former Green Bay Manufactured Gas Plant (MGP) Site.

1) PROGRESS MADE DURING THE PAST MONTH

- Prepared and submitted May 2018 Monthly Progress Report to United States Environmental Protection Agency (USEPA) by June 15, 2018.
- Continued participation in Lower Fox River Group sediment delineation activities. Received USEPA comments on the South Focus Area (SFA) Design Report on June 13, 2018 and provided response on June 22, 2018.

2) ANALYTICAL AND OTHER TESTING RESULTS RECEIVED

- Routine groundwater sampling results from May 2018 and a site map are attached to this Progress Report.

3) PROJECTED WORK

WPSC Actions

- Submit monthly progress report to USEPA by the 15th of the month.
- Submit revised SFA Design Report in mid-July. Construction of South Focus Area scheduled to start July 9, 2018 through November 9, 2018.
- Issue third party notification to Wisconsin Department of Natural Resources (WDNR) and respective property owners on groundwater monitoring results within 10 days of this Progress Report.
- Prepare for remedial investigation (RI) data summary discussion and completion of RI report pending USEPA approval to proceed.

USEPA Actions

- Review NAPL Mobility Report.
- Review revised South Focus Area Remedial Design Report.
- Prepare for remedial investigation data summary discussion and completion of RI report.

4) PROBLEMS OR POTENTIAL PROBLEMS ENCOUNTERED

- None

5) ACTUAL OR PLANNED RESOLUTION OF PROBLEMS OR POTENTIAL PROBLEMS

- None

If you have any questions, please don't hesitate to contact me at (414) 221-2156 or frank.dombrowski@wecenergygroup.com.

Sincerely,

Frank Dombrowski
Principal Environmental Consultant

Enclosures: Table 1. May 2018 Groundwater Sample Results
 Table 2. May 2018 Groundwater Sample Results Compared to VISLs
 Figure 1. Groundwater Monitoring Well Locations

For distribution to: Ms. Cheryl Bougie, WDNR (via US Mail and email)
 Ms. Jennifer Knoepfle, Jacobs (via email)
 Mr. William Fitzpatrick, WDNR (via email)
 Mr. Tauren Beggs, WDNR (via US Mail and email)
 WDNR Northeast Region (via email to DNRRNER@wisconsin.gov)
 Mr. Brian Hennings, OBG (via email)



Tables

Table 1 - May 2018 Groundwater Sample Results

Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, Wisconsin
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

9-digit Code	Sample Location	Sample Date	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
Reporting Units:			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Groundwater SL:			NS	NS	NS	NS	3,000	NS	0.2	0.2	NS	NS	0.2	NS	400	400	NS	100	3,000	250
WI Groundwater PAL:			NS	NS	NS	NS	600	NS	0.02	0.02	NS	NS	0.02	NS	80	80	NS	10	NS	50
Tap Water RSL:			1.1	36	530	530	1,800	0.03	0.025	0.25	120	2.5	25	0.025	800	290	0.25	0.17	1,800	120
052918001	MW-418	5/29/2018	<0.0058 U	<0.0048 U	<0.0060 U	<0.0049 U	<0.010 U	<0.0074 U	<0.010 U	<0.0056 U	<0.0066 U	<0.0074 U	<0.013 U	<0.0098 U	<0.010 U	<0.0078 U	<0.017 U	<0.018 U	<0.014 U	<0.0075 U
052918002	MW-417	5/29/2018	<0.0059 U	<0.0049 U	<0.0061 U	<0.0050 U	<0.010 U	<0.0076 U	<0.011 U	<0.0057 U	<0.0068 U	<0.0076 U	<0.013 U	<0.010 U	<0.011 U	<0.0080 U	<0.018 U	<0.018 U	<0.014 U	<0.0076 U
052918003	MW-407	5/29/2018	<0.0059 U	<0.0049 U	<0.0061 U	<0.0050 U	<0.010 U	<0.0076 U	<0.011 U	<0.0057 U	<0.0068 U	<0.0076 U	<0.013 U	<0.010 U	<0.011 U	<0.0080 U	<0.018 U	<0.018 U	<0.014 U	0.0081 J
052918004/052918005 (N)	MW-412	5/29/2018	<0.0060 U	<0.0049 U	<0.0061 U	<0.0050 U	<0.011 U	<0.0076 U	<0.011 U	<0.0058 U	<0.0068 U	<0.0076 U	<0.013 U	<0.010 U	<0.011 U	<0.0081 U	<0.018 U	<0.019 U	<0.014 U	<0.0077 U
052918006	MW-413	5/29/2018	<0.0061 U	<0.0051 U	0.0067 J	<0.0052 U	<0.011 U	<0.0079 U	<0.011 U	<0.0060 U	<0.0071 U	<0.0079 U	<0.014 U	<0.010 U	<0.011 U	<0.0083 U	<0.018 U	<0.019 U	<0.014 U	<0.0080 U
053018008	MW-401BR	5/30/2018	<0.0060 U	<0.0050 U	<0.0062 U	<0.0051 U	<0.011 U	<0.0077 U	<0.011 U	0.029 J	0.024 J	0.015 J	0.036 J	<0.010 U	0.053 J	<0.0081 U	0.019 J	<0.019 U	0.024 J	0.044
053018009	MW-416	5/30/2018	<0.0059 U	<0.0049 U	<0.0061 U	<0.0050 U	<0.010 U	<0.0076 U	<0.011 U	0.021 J	0.0087 J	<0.0076 U	0.020 J	<0.010 U	0.034 J	<0.0080 U	<0.018 U	<0.018 U	0.019 J	0.026 J
053018010/053018011 (N)	MW-415A	5/30/2018	<0.0059 U	<0.0049 U	<0.0061 U	<0.0050 U	0.011 J	0.022 J	0.037 J	0.11	0.064	0.058	0.11	0.011 J	0.18	<0.0080 U	0.056 J	<0.018 U	0.067 J	0.12
053018012	MW-415B	5/30/2018	<0.0060 U	<0.0049 U	<0.0061 U	<0.0050 U	<0.011 U	<0.0076 U	<0.011 U	0.012 J	0.0077 J	<0.0076 U	0.014 J	<0.010 U	0.014 J	<0.0081 U	<0.018 U	<0.019 U	0.020 J	0.022 J
053018013	MW-411AR	5/30/2018	1.2	0.68	0.39	0.10	0.094	<0.0076 U	<0.011 U	0.014 J	0.012 J	<0.0076 U	0.026 J	<0.010 U	0.11	0.32	<0.018 U	4.3	0.62	0.15
053018014	MW-410R	5/30/2018	0.037	0.011 J	0.020 J	0.015 J	0.097	<0.0076 U	<0.011 U	0.012 J	0.0095 J	<0.0076 U	<0.013 U	<0.010 U	<0.011 U	<0.0080 U	<0.018 U	0.096	<0.014 U	0.017 J
053018015	MW-409A	5/30/2018	0.014 J	0.0065 J	0.028 J	0.050	0.27	0.55	1.2	2.8	1.4	0.99	2.6	0.17	7.3	0.055	1.2	0.053 J	2.6	4.6
053018016	MW-408	5/30/2018	0.023 J	0.0067 J	0.024 J	0.016 J	0.14	0.20	0.39	0.78	0.43	0.32	0.78	0.052	2.6	0.12	0.35	<0.018 U	0.77	1.6
053018017	MW-414	5/30/2018	<0.0060 U	<0.0050 U	<0.0062 U	<0.0051 U	<0.011 U	<0.0077 U	<0.011 U	0.0072 J	<0.0069 U	<0.0077 U	<0.013 U	<0.010 U	0.011 J	<0.0081 U	<0.018 U	<0.019 U	<0.014 U	0.013 J
053018018	MW-406	5/30/2018	0.025 J	0.0069 J	0.024 J	0.046	0.13	0.086	0.095	0.29	0.13	0.11	0.35	0.011 J	1.1	0.025 J	0.11	0.045 J	0.28	0.80
053018019	MW-402R	5/30/2018	122	10.0	22.6	2.6	1.7 J	<0.38 U	<0.53 U	<0.29 U	<0.34 U	<0.38 U	<0.65 U	<0.50 U	0.77 J	17.4	<0.88 U	326	15.7	0.71 J
053018020/053018021 (N)	MW-404	5/30/2018	210	<0.094 U	12.4	10.0	3.0	<0.15 U	<0.20 U	<0.11 U	<0.13 U	<0.15 U	<0.25 U	<0.19 U	0.84 J	1.3	<0.34 U	8.3	10.6	1.2
053018022	MW-405B	5/30/2018	0.0074 J	0.0055 J	0.025 J	0.017 J	0.069	0.25	0.58	1.0	0.58	0.42	0.92	0.077	1.8	0.050	0.48	0.032 J	0.88	1.3
053118024	MW-409B	5/31/2018	0.0076 J	0.0072 J	<0.0061 U	<0.0050 U	0.012 J	0.011 J	0.098	0.20	0.13	0.10	0.22	0.014 J	0.35	<0.0080 U	0.10	0.032 J	0.11	0.28
053118025	MW-403R	5/31/2018	69.2	26.4	14.8	2.7 J	<2.1 U	<1.5 U	<2.1 U	<1.1 U	<1.4 U	<1.5 U	<2.6 U	<2.0 U	<2.1 U	8.2	<3.5 U	1,260	13.7 J	1.7 J
053118026	MW-411B ²	5/31/2018	0.013 J	0.014 J	0.076	0.061	0.36	1.6	2.9	5.6	3.2	2.0	4.6	0.40	9.0	0.15	2.7	0.049 J	3.1	6.5
053118029	MW-401AR	5/31/2018	--	--	--	--	--	--	==	==	--	--	==	--	--	--	--	--	--	--
053118030	MW-405A	5/31/2018	--	--	--	--	--	--	==	==	--	--	==	--	--	--	--	--	--	--
053118031	SG01	5/31/2018	--	--	--	--	--	--	==	==	--	--	==	--	--	--	--	--	--	--
052918007	Equipment Blank	5/29/2018	<0.0057 U	<0.0047 U	<0.0058 U	<0.0048 U	<0.010 U	<0.0073 U	<0.010 U	<0.0055 U	<0.0065 U	<0.0073 U	<0.013 U	<0.0096 U	<0.010 U	<0.0077 U	<0.017 U	<0.018 U	<0.013 U	<0.0074 U
053018023	Equipment Blank	5/30/2018	<0.0058 U	0.0067 J	<0.0060 U	<0.0049 U	<0.010 U	<0.0075 U	<0.010 U	<0.0057 U	<0.0067 U	<0.0075 U	<0.013 U	<0.0099 U	<0.011 U	<0.0079 U	<0.017 U	<0.018 U	<0.014 U	<0.0076 U
053118027	Equipment Blank	5/31/2018	<0.0058 U	0.0072 J	<0.0060 U	<0.0049 U	<0.010 U	<0.0074 U	<0.010 U	<0.0056 U	<0.0066 U	<0.0074 U	<0.013 U	<0.0098 U	<0.010 U	<0.0078 U	<0.017 U	0.020 J	<0.014 U	<0.0075 U
053118028	Trip Blank	5/31/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Total Number of Samples Analyzed:	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Number of Detections:	11	10	11	10	11	7	7	13	12	8	11	7	14	9	8	10	14	17		
Min:	0.0074	0.0055	0.0067	0.015	0.011	0.011	0.037	0.0072	0.0077	0.015	0.014	0.011	0.011	0.025	0.019	0.032	0.019	0.0081		
Max:	210	26.4	22.6	10	3	1.6	2.9	5.6	3.2	2	4.6	0.4	9	17.4	2.7	1260	15.7	6.5		
Groundwater SL:	NS	NS	NS	NS	3,000	NS	0.2	0.2	NS	NS	0.2	NS	400	400	NS	100	3,000	250		
Number of Samples that Exceed Groundwater SL:	0	0	0	0	0	0	4	5	0	0	6	0	0	0	0	2	0	0		
WI Groundwater PAL:	NS	NS	NS	NS	600	NS	0.02	0.02	NS	NS	0.02	NS	80	80	NS	10	NS	50		
Number of Samples that Meet or Exceed WI PAL:	0	0	0	0	0	0	2	9	0	0	10	0	0	0	0	2	0	0		
Tap Water RSL:	1.1	36	530	530	1800	0.03	0.025	0.25	120	2.5	25	0.025	800	290	0.25	0.17	1800	120		
Number of Samples that Exceed Tap Water RSL:	4	0	0	0	0	5	7	5	0	0	0	4	0	0	4	4	0	0		



Table 1 - May 2018 Groundwater Sample Results

Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, Wisconsin
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

9-digit Code	Sample Location	Sample Date	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	VOC	VOC	VOC	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Inorganic	Inorganic
			Benzene	Ethylbenzene	Toluene	Xylene, o	Xylenes, m + p	Xylenes, Total	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Trimethylbenzenes, Total ¹	Arsenic, Dissolved	Barium, Dissolved	Cadmium, Dissolved	Chromium, Dissolved	Iron, Dissolved	Lead, Dissolved	Manganese, Dissolved	Mercury, Dissolved	Selenium, Dissolved	Silver, Dissolved	Nitrogen, NO ₂ + NO ₃ , Total	Sulfate, Total
Reporting Units:			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Groundwater SL:			5	700	800	NS	NS	2,000	NS	NS	480	10	2,000	5	100	NS	15	300	2	50	50	NS	NS
WI Groundwater PAL:			0.5	140	160	NS	NS	400	NS	NS	96	1	400	0.5	10	150	1.5	25	0.2	10	10	2,000	125,000
Tap Water RSL:			0.46	1.5	1,100	190	190	190	56	60	NS	0.052	3,800	9.2	22,000	14,000	15	430	5.7	100	94	NS	NS
052918001	MW-418	5/29/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<0.56 U	223	<0.16 U	<2.0 U	<221 U	<0.39 U	23.6	<0.13 U	<u>12.5</u>	<0.20 U	<u>6,500</u>	69,000
052918002	MW-417	5/29/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<u>1.4 J</u>	366	<u>2.0 J</u>	<2.0 U	<u>4,930</u>	<u>1.7 J</u>	446	<0.13 U	4.8	<0.20 U	1,300	94,200
052918003	MW-407	5/29/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<u>1.7 J</u>	<u>532</u>	<0.16 U	<2.0 U	<u>11,100</u>	<0.39 U	819	<0.25 U	<0.63 U	<0.20 U	<95 U	48,600
052918004/052918005 (N)	MW-412	5/29/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<u>4.7 J</u>	<u>594</u>	<u>1.3 J</u>	<10.2 U	<u>30,800</u>	<2.0 U	1,020	<0.13 U	3.4 J	<1.0 U	<u>2,700</u>	65,200
052918006	MW-413	5/29/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<0.56 U	119	<0.16 U	<2.0 U	<u>10,800</u>	<0.39 U	406	<0.13 U	<0.63 U	<0.20 U	<95 U	<5,000 U
053018008	MW-401BR	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<0.56 U	25.2	<0.16 U	<2.0 U	<221 U	<0.39 U	<5.4 U	<0.13 U	<0.63 U	<0.20 U	330	<u>1,140,000</u>
053018009	MW-416	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<u>3.2 J</u>	294	<u>1.1 J</u>	<10.2 U	<u>3,710</u>	<2.0 U	3,270	<0.50 U	<3.2 U	<1.0 U	<95 U	<500,000 U
053018010/053018011 (N)	MW-415A	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<0.56 U	113	<0.16 U	<2.0 U	<221 U	<0.39 U	<5.4 U	<0.13 U	<0.63 U	<0.20 U	<95 U	<u>282,000</u>
053018012	MW-415B	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<0.56 U	20.0	0.27 J	<2.0 U	<221 U	<0.39 U	<5.4 U	<0.13 U	<0.63 U	<0.20 U	250 J	<u>1,580,000</u>
053018013	MW-411AR	5/30/2018	64.2	2.7	0.67 J	0.53 J	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<u>9.7 J</u>	233	<1.6 U	<20.4 U	<2,210 U	<3.9 U	<54.0 U	<0.50 U	<6.3 U	<2.0 U	<95 U	<u>201,000</u>
053018014	MW-410R	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<2.8 U	<u>414</u>	<0.81 U	<10.2 U	<u>2,750 J</u>	<2.0 U	755	<0.25 U	<3.2 U	<1.0 U	<95 U	<u>215,000</u>
053018015	MW-409A	5/30/2018	<u>0.57 J</u>	4.3	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<5.6 U	165	<1.6 U	<20.4 U	<2,210 U	<3.9 U	505	<0.50 U	<6.3 U	<2.0 U	<95 U	<u>421,000</u>
053018016	MW-408	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<2.8 U	<u>581</u>	<0.81 U	<10.2 U	<u>55,400</u>	<2.0 U	5,740	<0.25 U	<3.2 U	<1.0 U	<95 U	<u>218,000</u>
053018017	MW-414	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<2.8 U	<u>545</u>	<u>0.92 J</u>	<10.2 U	<1,110 U	<2.0 U	400	<0.25 U	<3.2 U	<1.0 U	1,500	90,500
053018018	MW-406	5/30/2018	<u>0.62 J</u>	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<u>2.9 J</u>	139	<0.81 U	<10.2 U	<u>1,480 J</u>	<2.0 U	665	<0.25 U	<3.2 U	<1.0 U	<95 U	<u>131,000</u>
053018019	MW-402R	5/30/2018	418	83.4	41.4	60.2	64.2	124	48.3	5.0	53.3	<u>5.9 J</u>	2,270	<1.6 U	<20.4 U	<u>26,100</u>	<3.9 U	2,190	<0.50 U	<6.3 U	<2.0 U	<95 U	<100,000 U
053018020/053018021 (N)	MW-404	5/30/2018	145	75.4	0.66 J	18.1	8.9	26.6	17.9	2.2	20.1	<2.8 U	128	<0.81 U	<10.2 U	<u>1,790 J</u>	<2.0 U	352	<0.13 U	<3.2 U	<1.0 U	<95 U	<u>324,000</u>
053018022	MW-405B	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<5.6 U	120	<1.6 U	<20.4 U	<2,210 U	<3.9 U	286	<0.25 U	<6.3 U	<2.0 U	<95 U	<u>240,000</u>
053118024	MW-409B	5/31/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<u>0.78 J</u>	33.0	0.22 J	<2.0 U	<221 U	<0.39 U	<u>130</u>	<0.13 U	<0.63 U	<0.20 U	<95 U	<u>546,000</u>
053118025	MW-403R	5/31/2018	1,000	112	41.4	107	121	228	35.7	4.5	40.2	<u>5.7 J</u>	88.5	<1.6 U	<20.4 U	<2,210 U	<3.9 U	85.3 J	<0.25 U	<6.3 U	<2.0 U	<95 U	<u>1,010,000</u>
053118026	MW-411B ²	5/31/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<2.8 U	103	<0.81 U	<10.2 U	<1,110 U	<2.0 U	<u>50.6 J</u>	<0.25 U	<3.2 U	<1.0 U	270	<u>634,000</u>
053118029	MW-401AR	5/31/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
053118030	MW-405A	5/31/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
053118031	SG01	5/31/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
052918007	Equipment Blank	5/29/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<0.28 U	<0.34 U	<0.081 U	<1.0 U	<111 U	<0.20 U	<2.7 U	<0.13 U	<0.32 U	<0.10 U	<95 U	<1,000 U
053018023	Equipment Blank	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<0.28 U	<0.34 U	<0.081 U	<1.0 U	<111 U	<0.20 U	<2.7 U	<0.13 U	<0.32 U	<0.10 U	<95 U	<1,000 U
053118027	Equipment Blank	5/31/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	<0.28 U	<0.34 U	<0.081 U	<1.0 U	<111 U	<0.20 U	<2.7 U	<0.13 U	<0.32 U	<0.10 U	<95 U	<1,000 U
053118028	Trip Blank	5/31/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<1.00 U	--	--	--	--	--	--	--	--	--	--	--	--
Total Number of Samples Analyzed:			21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
Number of Detections:			6	5	4	4	3	3	3	3	3	9	21	6	0	10	1	17	0	3	0	7	18
Min:			0.57	2.7	0.66	0.53	8.9	26.6	17.9	2.2	20.1	0.78	20	0.22	0	1480	1.7	23.6	0	3.4	0	250	48600
Max:			1000	112	41.4	107	121	228	48.3	5	53.3	9.7	2270	2	0	55400	1.7	5740	0	12.5	0	6500	1580000
Groundwater SL:			5	700	800	NS	NS	2,000	NS	NS	480	10	2,000	5	100	NS	15	300	2	50	50	NS	NS
Number of Samples that Exceed Groundwater SL:			4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	12	0	0	0	0	0
WI Groundwater PAL:			0.5	140	160	NS	NS	400	NS	NS	96	1	400	0.5	10	150	1.5	25	0.2	10	10	2,000	125,000
Number of Samples that Meet or Exceed WI PAL:			6	0	0	0	0	0	0	0	0	8	6	4	0	10	1	16	0	1	0	2	13
Tap Water RSL:			0.46	1.5	1100	190	190	190	56	60	NS	0.052	3800	9.2	22000	14000	15	430	5.7	100	94	NS	NS
Number of Samples that Exceed Tap Water RSL:			6	5	0	0	0	1	0	0	0	9	0	0	0	3	0	9	0	0	0	0	0



Table 1 - May 2018 Groundwater Sample Results

Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, Wisconsin
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

9-digit Code	Sample Location	Sample Date	RNA Dissolved oxygen	RNA Groundwater, depth to	RNA Oxidation Reduction Potential	RNA pH, Field	RNA Specific Conductance, Field	RNA Temperature, Water	RNA Turbidity, Quantitative
Reporting Units:			mg/L	feet	millivolts	s.u.	µS/cm	Deg C	NTUs
Groundwater SL:			NS	NS	NS	NS	NS	NS	NS
WI Groundwater PAL:			NS	NS	NS	NS	NS	NS	NS
Tap Water RSL:			NS	NS	NS	NS	NS	NS	NS
052918001	MW-418	5/29/2018	4.21	5.82	214.1	6.80	3,477	16.34	5.27
052918002	MW-417	5/29/2018	0.66	4.72	-64.5	6.97	7,142	16.70	54.15
052918003	MW-407	5/29/2018	0.11	3.95	-69.1	6.83	8,445	16.21	35.09
052918004/052918005 (N)	MW-412	5/29/2018	1.38	6.09	-80.0	6.78	10,026	16.93	8.41
052918006	MW-413	5/29/2018	0.19	4.02	-155.2	6.43	1,004	13.07	171.18
053018008	MW-401BR	5/30/2018	1.41	9.80	223.6	7.15	3,785	15.56	4.99
053018009	MW-416	5/30/2018	0.17	3.06	12.2	6.40	26,844	17.21	8.47
053018010/053018011 (N)	MW-415A	5/30/2018	0.52	2.96	88.7	6.81	5,170	17.16	10.53
053018012	MW-415B	5/30/2018	2.34	7.33	93.9	7.42	2,642	18.28	0.00
053018013	MW-411AR	5/30/2018	0.53	2.78	-194.4	8.26	17,043	16.21	34.93
053018014	MW-410R	5/30/2018	0.14	2.98	-254.5	6.62	11,550	17.27	28.86
053018015	MW-409A	5/30/2018	0.22	2.48	-62.2	7.01	30,832	17.69	46.47
053018016	MW-408	5/30/2018	0.25	1.56	-104.2	6.44	14,062	18.34	102.51
053018017	MW-414	5/30/2018	0.25	4.79	41.6	7.01	14,992	16.65	14.47
053018018	MW-406	5/30/2018	0.26	2.38	-112.0	7.01	9,381	18.85	30.34
053018019	MW-402R	5/30/2018	0.10	3.79	-178.1	6.97	30,316	17.12	7.48
053018020/053018021 (N)	MW-404	5/30/2018	0.20	1.23	-23.9	6.73	7,794	19.06	8.20
053018022	MW-405B	5/30/2018	0.33	6.35	19.6	7.34	17,251	16.20	0.00
053118024	MW-409B	5/31/2018	0.53	9.11	211.1	7.65	4,050	17.98	0.00
053118025	MW-403R	5/31/2018	0.09	1.82	-293.4	9.31	16,352	16.57	15.00
053118026	MW-411B ²	5/31/2018	--	8.39	--	--	--	--	--
053118029	MW-401AR	5/31/2018	--	3.30	--	--	--	--	--
053118030	MW-405A	5/31/2018	--	2.75	--	--	--	--	--
053118031	SG01	5/31/2018	--	3.24	--	--	--	--	--
052918007	Equipment Blank	5/29/2018	--	--	--	--	--	--	--
053018023	Equipment Blank	5/30/2018	--	--	--	--	--	--	--
053118027	Equipment Blank	5/31/2018	--	--	--	--	--	--	--
053118028	Trip Blank	5/31/2018	--	--	--	--	--	--	--

Total Number of Samples Analyzed:	20	21	20	20	20	20	20
Number of Detections:	20	21	20	20	20	20	20
Min:	0.09	1.23	-293.4	6.4	1004	13.07	0
Max:	4.21	9.8	223.6	9.31	30832	19.06	171.18
Groundwater SL:	NS	NS	NS	NS	NS	NS	NS
Number of Samples that Exceed Groundwater SL:	0	0	0	0	0	0	0
WI Groundwater PAL:	NS	NS	NS	NS	NS	NS	NS
Number of Samples that Meet or Exceed WI PAL:	0	0	0	0	0	0	0
Tap Water RSL:	NS	NS	NS	NS	NS	NS	NS
Number of Samples that Exceed Tap Water RSL:	0	0	0	0	0	0	0

[O:ECK 7/10/18, C:SGW 7/11/18][QA: KLT 7/12/18]

Sorted by 9-digit Code

Analyte concentration exceeds the standard for:

BOLD	Groundwater SL
<u>Underline</u>	<u>WI Groundwater PAL</u>
<i>Italic</i>	<i>Tap Water RSL</i>

Yellow Highlighting in Statistics = detected Exceedances

Pink highlighting in the table = a GW SL exceedance; results only exceeding the PAL and/or Tap Water criteria are not highlighted.

Statistics exclude the quality control samples (Field and Trip Blanks)

-- = Analysis not performed

< = Concentration is less than reported limit

µS/cm = microsiemens per centimeter (aka micromhos per centimeter)

BRRTS = Bureau for Remediation and Redevelopment Tracking System (Wisconsin Dept of Natural Resources (WDNR))

BTEX = Benzene, Toluene, Ethylbenzene and Xylene

Deg C = degrees Celsius

J = Estimated Concentration

Lab comments and definitions can be found in associated laboratory reports.

mg/L = milligrams per liter

MGP = Manufactured Gas Plant

(N) = Normalized sample locations created from combining parent and field duplicate samples following EPA protocol

NS = No Screening Level

NTU = Nephelometric Turbidity Unit

PAH = Polycyclic Aromatic Hydrocarbon

PAL = Preventive Action Limit; results that attain or exceed this criteria are considered in exceedance of the PAL

RNA = Remediation by Natural Attenuation (lab and field)

RSL = Regional Screening Level

s.u. = standard units

SL = Screening Level

U = Concentration was not detected above the reported limit

VOC = Volatile Organic Compound

ug/L = micrograms per liter

1. Total Trimethylbenzenes were calculated by OBG as follows:

- Where no detections were observed, the sum of the reporting limits is presented.
- Where detections were observed, the detected results were added together for the total summation.
- Analytes used for the calculation are 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene.

2. MW411B was a Direct Sample

Screening Levels:

Groundwater and Tap Water Screening Levels used on this table were presented in the Multi-Site Risk Assessment Framework (RAF) Addendum Revision 6 (Exponent, August 2017).

RAF Addendum (Revision 6) was issued in August 2017. Since that time two revisions of the RSLs have been published by EPA in November 2017 and in May 2018. As a result of these two revisions there were no updates to the RSLs necessary for the MGP-related constituents evaluated in this table.

WI Groundwater PAL from Chapter NR 140 for Groundwater Quality from Wisconsin Admin Code (Feb 2017)



Table 2 - May 2018 Groundwater Sample Results Compared to VISLs

Wisconsin Public Service Corporation
 Green Bay Former Manufactured Gas Plant Site 700 N Adams St, Green Bay, Wisconsin
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

9-digit Code	Sample Location	Sample Date	BTEX	BTEX	BTEX	BTEX	BTEX	BTEX	VOC	VOC	PAH
			Benzene	Ethylbenzene	Toluene	Xylene, o	Xylenes, m + p	Xylenes, Total	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene
Reporting Units:			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Groundwater VISL, Industrial:			6.9	15	80,700	2,070	1,490	1,620	1,040	733	20
Groundwater VISL, Residential:			1.6	3.5	19,200	492	355	385	248	175	4.6
052918001	MW-418	5/29/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.018 U
052918002	MW-417	5/29/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.018 U
052918003	MW-407	5/29/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.018 U
052918004/052918005 (N)	MW-412	5/29/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.019 U
052918006	MW-413	5/29/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.019 U
053018008	MW-401BR	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.019 U
053018009	MW-416	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.018 U
053018010/053018011 (N)	MW-415A	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.018 U
053018012	MW-415B	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.019 U
053018013	MW-411AR	5/30/2018	64.2	2.7	0.67 J	0.53 J	<1.0 U	<1.5 U	<0.50 U	<0.50 U	4.3
053018014	MW-410R	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	0.096
053018015	MW-409A	5/30/2018	0.57 J	4.3	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	0.053 J
053018016	MW-408	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.018 U
053018017	MW-414	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.019 U
053018018	MW-406	5/30/2018	0.62 J	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	0.045 J
053018019	MW-402R	5/30/2018	418	83.4	41.4	60.2	64.2	124	48.3	5.0	326
053018020/053018021 (N)	MW-404	5/30/2018	145	75.4	0.66 J	18.1	8.9	26.6	17.9	2.2	8.3
053018022	MW-405B	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	0.032 J
053118024	MW-409B	5/31/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	0.032 J
053118025	MW-403R	5/31/2018	1,000	112	41.4	107	121	228	35.7	4.5	1,260
053118026	MW-411B ¹	5/31/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	0.049 J
052918007	Equipment Blank	5/29/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.018 U
053018023	Equipment Blank	5/30/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	<0.018 U
053118027	Equipment Blank	5/31/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	0.020 J
053118028	Trip Blank	5/31/2018	<0.50 U	<0.50 U	<0.50 U	<0.50 U	<1.0 U	<1.5 U	<0.50 U	<0.50 U	--

Total Number of Samples Analyzed:	21	21	21	21	21	21	21	21	21	21
Number of Detections:	6	5	4	4	3	3	3	3	3	10
Min:	0.57	2.7	0.66	0.53	8.9	26.6	17.9	2.2	0.032	0.032
Max:	1000	112	41.4	107	121	228	48.3	5	1260	1260
Groundwater VISL, Industrial:	6.9	15	80700	2070	1490	1620	1040	733	20	20
Number of Samples that Exceed Groundwater VISL, Industrial:	4	3	0	0	0	0	0	0	2	2
Groundwater VISL, Residential:	1.6	3.5	19200	492	355	385	248	175	4.6	4.6
Number of Samples that Exceed Groundwater VISL, Residential:	4	4	0	0	0	0	0	0	3	3

[O:ECK 7/10/18, C:SGW 7/11/18][QA: KLT 7/12/18]

Only parameters with VISL will be presented; please refer to Table 1 for results for other parameters

Sorted by 9-digit Code

Analyte concentration exceeds the standard for:

BOLD	Groundwater VISL, Industrial
<u>Underline</u>	Groundwater VISL, Residential

Yellow Highlighting in Statistics = detected Exceedances

Pink highlighting in result table = result exceeds one or more screening criteria

Statistics exclude the quality control samples (Field and Trip Blanks)

-- = Analysis not performed

< = Concentration is less than reported limit

µg/L = micrograms per liter

BRRTS = Bureau for Remediation and Redevelopment Tracking System (Wisconsin Dept of Natural Resources (WDNR))

BTEX = benzene, toluene, ethylbenzene and xylenes

J = Estimated Concentration

Lab comments and definitions can be found in associated laboratory reports.

MGP = Manufactured Gas Plant

(N) = Normalized sample locations created from combining parent and field duplicate samples following EPA protocol

PAH = Polycyclic Aromatic Hydrocarbon

RAF = Risk Assessment Framework

RSL = Regional Screening Level

U = Concentration was not detected above the reported limit

VISLs = Vapor Intrusion Screening Levels

VOC = Volatile Organic Compound

1. MW411B was a Direct Sample

Screening Levels used on this table were presented in the Multi-Site Risk Assessment Framework (RAF) Addendum Revision 6 (Exponent, August 2017).

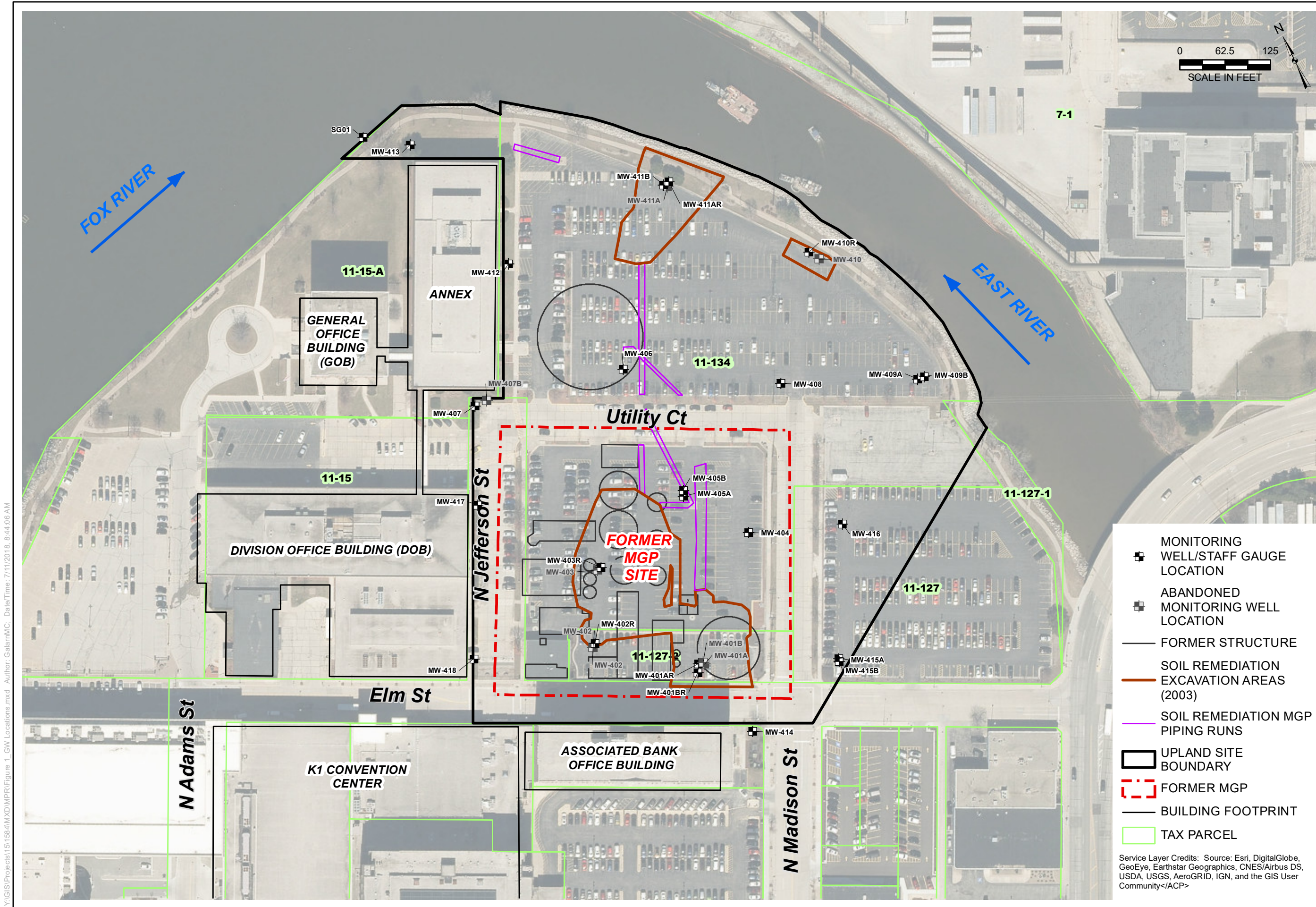
RAF Addendum (Revision 6) was issued in August 2017. Since that time two revisions of the RSLs have been published by EPA in November 2017 and in May 2018. As a result of these two revisions there were no updates to the RSLs necessary for the MGP related constituents evaluated in this table.

VISLs for groundwater vapor were obtained using the USEPA's on-line VISL calculator (USEPA May 2018).





Figures



DRAWN BY/DATE:
MPG 7/3/18
REVIEWED BY/DATE:
BGH 7/3/18
APPROVED BY/DATE:
BGH 7/11/18

GROUNDWATER MONITORING LOCATIONS
FORMER GREEN BAY MANUFACTURED GAS PLANT SITE
WISCONSIN PUBLIC SERVICE CORPORATION
CITY OF GREEN BAY, WISCONSIN

PROJECT NO: 67983

FIGURE NO: 1



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