



Wisconsin Public Service Corporation

700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001

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December 13, 2018

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

**RE: November 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 October 2018 Monthly Progress Report to United States Environmental Protection Agency (USEPA) by November 15, 2018.
- Final submittal of South Focus Area Remedial Action Sampling and Analysis Plan Revision 1 to USEPA on November 1, 2018.
- Completed post-construction clay sampling November 5, 2018.
- Completed sand cover placement and subsequently, sand cover thickness verification on November 9, 2018.
- Participated in North Focus Area (NFA) Design Work Groups.
- On November 8th, 2018, held a Navigation Coordination meeting among US Coast Guard, US Army Corps of Engineers, Wisconsin Department of Natural Resources, Port of Green Bay, the Lower Fox River, LLC and WPSC.
- Received USEPA's Review of South Focus Area Final Remedial Design Report and Response to Comments on November 28th, 2018.
- Completed November semi-annual groundwater monitoring event.

2) ANALYTICAL AND OTHER TESTING RESULTS RECEIVED

- Post-removal Clay Sample analytical data and are provided in the Attachments to this Monthly Progress Report
- Groundwater analytical data were received November 26th and included in the Attachments to this Monthly Progress Report
- Air monitoring analytical data were received November 28th and December 3rd and will be tabulated for the next Monthly Progress Report and compared to baseline data.

Wisconsin Public Service Corporation | A subsidiary of the WEC Energy Group

3) PROJECTED WORK

WPSC Actions

- Submit monthly progress report to USEPA by the 15th of the month.
- Prepare for remedial investigation (RI) data summary discussion and completion of RI report pending USEPA approval to proceed.
- Participate in work group meetings with USEPA to discuss the NFA Design.

USEPA Actions

- Participate in work group meetings to discuss NFA Design.
- Prepare for RI data summary discussion and completion of RI report.

4) PROBLEMS OR POTENTIAL PROBLEMS ENCOUNTERED

- Monitoring well MW402R was inaccessible during the November semiannual groundwater monitoring event due to asphalt pavement covering the top of the flush mount well.
- Monitoring well MW401BR groundwater was sampled but not analyzed during the November semiannual groundwater monitoring event. The purge water had notable sheen during sample collection, which is not typical at this location. Sheen was notable around the top of the well casing and appeared to be due to rainfall runoff from the fresh asphalt pavement which had been chipped away from the top of the well.

5) ACTUAL OR PLANNED RESOLUTION OF PROBLEMS OR POTENTIAL PROBLEMS

- Replacement of monitoring well MW402R or a request for removal of MW402R from the groundwater monitoring network is currently being evaluated.
- No action is proposed or anticipated for monitoring well MW401BR.

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

Sincerely,



Frank Dombrowski
Principal Environmental Consultant
WEC Business Services – Environmental Dept.

Enclosures: Table 1. Clay Confirmation Analytical Results Summary
 Table 2. November Semi-Annual Groundwater Analytical Results Summary
 Figure 1 Post-Removal Sample Location
 Figure 2 Groundwater Monitoring Locations

For distribution to: Ms. Cheryl Bougie, WDNR (via email)
Ms. Jennifer Knoepfle, Jacobs (via email)
Mr. William Fitzpatrick, WDNR (via email)
Mr. Tauren Beggs, WDNR (via email)
WDNR Northeast Region (via email to DNRRRNER@wisconsin.gov)
Ms. Staci Goetz, OBG (via email)



Tables

Table 1. Clay Confirmation Analytical Results Summary

Former Green Bay MGP Sediment
 Green Bay, WI
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

9-digit Code	Sample Location	QC Code	Sample Depth (feet)	Sample Date	PAH		PAH		PAH		PAH		PAH		PAH		PAH		PAH		PAH		PAH		PAH		PAH		PAH													
					TPAH(13)	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene																				
Reporting Units:					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg												
					Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag												
110518003	GB-SFA-PC-001	O	0-0.5	11/05/2018	0.1042		< 0.0063	U	< 0.0049	U	< 0.0042	U	< 0.0072	U	0.0090	J	0.0068	J	0.0082	J	0.0053	J	0.0039	J	0.0082	J	< 0.0028	U	0.0167	J	< 0.0052	U	< 0.0028	U	< 0.0106	U	0.0207	J	0.0147	J		
110518001	GB-SFA-PC-002	P	0-0.5	11/05/2018	3.0626		0.188		0.0944		0.0616	J	0.0853	J	0.0855		0.0630		0.0660		0.0360	J	0.0337	J	0.0601	J	< 0.0142	U	0.196		0.0790	J	0.0282	J	1.810		0.277		0.151			
110518002	GB-SFA-PC-002	DUP	0-0.5	11/05/2018	8.365		0.520		0.417		0.218		0.410		0.373		0.322		0.340		0.168		0.153		0.321		0.0373	J	0.938		0.364		0.147		2.430		1.320		0.759			
110518004	GB-SFA-PC-003	O	0-0.5	11/05/2018	3.9713		0.198		0.327		0.0350		0.209		0.194		0.178		0.212		0.0921		0.0813		0.160		0.0244		0.527		0.219		0.0851		0.686		0.762		0.381			
110518005	GB-SFA-PC-003	O	1.3-1.8	11/05/2018	0.4253		0.0202	J	0.0239		0.0054	J	0.0292		0.0222		0.0175		0.0211		0.0109		0.0097	J	0.0233		< 0.0028	U	0.0529		0.0193		0.0065	J	0.0876		0.0712		0.0420			
110518006	GB-SFA-PC-004	O	0-0.5	11/05/2018	227.07		13.400		12.100		5.310		11.500		7.340		5.900		6.520		3.420		2.640		7.140		0.677	J	20.600		9.620		2.740		91.100		31.400		15.900			
110518008	GB-SFA-PC-005	O	0-0.5	11/05/2018	6.2908		0.610		0.653		0.141		0.363		0.279		0.219		0.225		0.109		0.0898		0.257		0.0273	J	0.616		0.420		0.0880		1.020		1.330		0.678			
110518007	GB-SFA-PC-006	O	0-0.5	11/05/2018	106.87		9.330		5.980		3.100		6.340		3.730		3.220		3.360		1.670		1.540		3.450		0.380	J	9.650		5.210		1.430		37.300		16.100		7.890			
110518009	GB-SFA-PC-007	O	0-0.5	11/05/2018	0.9081		< 0.0066	U	0.423		0.0068	J	0.0338		0.0068	J	0.0057	J	0.0057	J	0.0051	J	< 0.0033	U	0.0066	J	< 0.0030	U	< 0.0069	U	0.156		< 0.0029	U	0.0841		0.166		0.0085	J		
110518012	GB-SFA-PC-008	O	0-0.5	11/05/2018	0.0424		< 0.0065	U	< 0.0051	U	< 0.0043	U	< 0.0074	U	0.0045	J	< 0.0033	U	< 0.0037	U	< 0.0026	U	< 0.0033	U	< 0.0044	U	< 0.0029	U	< 0.0068	U	< 0.0054	U	< 0.0029	U	< 0.0110	U	< 0.0152	U	< 0.0059	U		
110518010	GB-SFA-PC-009	O	0.2-0.5	11/05/2018	0.477		0.0606		0.0262		0.0206		0.0244		0.0267		0.0244		0.0279		0.0103		0.0111		0.0252		< 0.0028	U	0.0533		0.0212		0.0086	J	0.102		0.0632		0.0508			
110518011	GB-SFA-PC-010	O	0-0.5	11/05/2018	0.7518		0.0075	J	< 0.0047	U	< 0.0040	U	< 0.0069	U	< 0.0038	U	< 0.0030	U	< 0.0034	U	< 0.0024	U	< 0.0030	U	< 0.0041	U	< 0.0027	U	< 0.0063	U	< 0.0050	U	< 0.0027	U	0.720		< 0.0140	U	< 0.0054	U		
Total Number of Samples Analyzed:					12		12		12		12		12		12		12		12		12		12		12		12		12		12		12		12		12		12		12	
Number of Detections:					12		9		9		9		9		11		10		10		10		9		10		5		9		9		8		10		10		10		10	
Min:					0.0424		0.0075		0.0239		0.0054		0.0244		0.0045		0.0057		0.0057		0.0051		0.0039		0.0066		0.0244		0.0167		0.0193		0.0065		0.0841		0.0207		0.0085		0.0085	
Max:					227.07		13.4		12.1		5.31		11.5		7.34		5.9		6.52		3.42		2.64		7.14		0.677		20.6		9.62		2.74		91.1		31.4		15.9		15.9	

Notes:
 < = Concentration is less than reported limit
 DUP = Quality Control Field Duplicate Sample
 GEO = Geotechnical Property
 J = Estimated concentration
 mg/kg = milligrams per kilogram
 PAH = Polycyclic Aromatic Hydrocarbon
 PVOC = Petroleum Volatile Organic Compound: 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Benzene, Ethylbenzene, Toluene, and Total Xylenes (BTEX)
 U = Concentration was not detected above the reported limit

- The following rules apply to the summation of Total PAH (13) calculated by OBG:
 - Where no detections were observed, the maximum individual reported detection limit is presented.
 - Where detections were observed, 1/2 the reported detection limit for non-detects was used in the summation.
 - The list of Total PAH (13) is as follows: Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene and Pyrene.

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



Table 1. Clay Confirmation Analytical Results Summary

Former Green Bay MGP Sediment
 Green Bay, WI
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

9-digit Code	Sample Location	QC Code	Sample Depth (feet)	Sample Date	PVOC		PVOC		PVOC		PVOC		PVOC		PVOC		Phenol		Phenol		Phenol		Phenol					
					1,2,4-Trimethylbenzene		1,3,5-Trimethylbenzene		Benzene		Ethylbenzene		Toluene		Xylene, o		Xylenes, m + p		Xylenes, Total		2,4-Dimethylphenol		2-Methylphenol		3 & 4-Methylphenol		Phenol	
					mg/kg	Flag	mg/kg	Flag	mg/kg	Flag	mg/kg	Flag	mg/kg	Flag	mg/kg	Flag	mg/kg	Flag	mg/kg	Flag	mg/kg	Flag	mg/kg	Flag	mg/kg	Flag	mg/kg	Flag
110518003	GB-SFA-PC-001	O	0-0.5	11/05/2018	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0500	U	< 0.0750	U	< 0.0415	U	< 0.0381	U	< 0.0385	U	< 0.0498	U		
110518001	GB-SFA-PC-002	P	0-0.5	11/05/2018	0.117		0.0430	J	5.160		0.154		0.138		0.0860		0.202		0.288		0.477		< 0.0385	U	< 0.0388	U	0.135	J
110518002	GB-SFA-PC-002	DUP	0-0.5	11/05/2018	0.159		0.0501	J	5.350		0.174		0.126		0.0949		0.234		0.329		0.273		< 0.0387	U	< 0.0390	U	0.106	J
110518004	GB-SFA-PC-003	O	0-0.5	11/05/2018	0.120		0.0583	J	< 0.0250	U	0.0903	J	< 0.0250	U	0.0496	J	0.0857	J	0.135	J	< 0.0533	U	< 0.0489	U	< 0.0494	U	< 0.0639	U
110518005	GB-SFA-PC-003	O	1.3-1.8	11/05/2018	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0500	U	< 0.0750	U	< 0.0411	U	< 0.0378	U	< 0.0381	U	< 0.0493	U		
110518006	GB-SFA-PC-004	O	0-0.5	11/05/2018	10.800	J	< 5.000	U	12.600	J	13.300	J	< 5.000	U	< 5.000	U	17.700	J	24.400	J	< 0.179	U	< 0.164	U	< 0.166	U	< 0.215	U
110518008	GB-SFA-PC-005	O	0-0.5	11/05/2018	0.0341	J	< 0.0250	U	< 0.0250	U	0.0684	J	< 0.0250	U	< 0.0250	U	< 0.0500	U	< 0.0750	U	< 0.806	U	< 0.741	U	< 0.747	U	< 0.967	U
110518007	GB-SFA-PC-006	O	0-0.5	11/05/2018	1.820	J	1.270	J	1.170	J	3.030		< 0.500	U	< 0.500	U	2.670	J	3.460	J	< 0.582	U	< 0.534	U	< 0.539	U	< 0.698	U
110518009	GB-SFA-PC-007	O	0-0.5	11/05/2018	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0500	U	< 0.0750	U	< 0.0436	U	< 0.0401	U	< 0.0404	U	< 0.0524	U		
110518012	GB-SFA-PC-008	O	0-0.5	11/05/2018	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0500	U	< 0.0750	U	< 0.0430	U	< 0.0395	U	< 0.0398	U	< 0.0516	U		
110518010	GB-SFA-PC-009	O	0.2-0.5	11/05/2018	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0250	U	< 0.0500	U	< 0.0750	U	< 0.0416	U	< 0.0382	U	< 0.0385	U	< 0.0499	U		
110518011	GB-SFA-PC-010	O	0-0.5	11/05/2018	0.0490	J	< 0.0250	U	< 0.0250	U	0.0718	J	< 0.0250	U	< 0.0250	U	< 0.0500	U	< 0.0750	U	< 0.0398	U	< 0.0366	U	< 0.0369	U	< 0.0478	U
Total Number of Samples Analyzed:					12		12		12		12		12		12		12		12		12		12		12			
Number of Detections:					7		4		4		7		2		3		5		5		2		0		0		2	
Min:					0.0341		0.043		1.17		0.0684		0.126		0.0496		0.0857		0.135		0.273		0		0		0.106	
Max:					10.8		1.27		12.6		13.3		0.138		0.0949		17.7		24.4		0.477		0		0		0.135	

Notes:
 < = Concentration is less than reported limit
 DUP = Quality Control Field Duplicate Sample
 GEO = Geotechnical Property
 J = Estimated concentration
 mg/kg = milligrams per kilogram
 PAH = Polycyclic Aromatic Hydrocarbon
 PVOC = Petroleum Volatile Organic Compound: 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Benzene, Ethylbenzene, Toluene, and Total Xylenes (BTEX)
 U = Concentration was not detected above the reported limit

- The following rules apply to the summation of Total PAH (13) calculated by OBG:
 - Where no detections were observed, the maximum individual reported detection limit is presented.
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 - The list of Total PAH (13) is as follows: Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene and Pyrene.

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Table 1. Clay Confirmation Analytical Results Summary

Former Green Bay MGP Sediment
 Green Bay, WI
 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

9-digit Code	Sample Location	QC Code	Sample Depth (feet)	Sample Date	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Metal	Cyanide	GEO	
					Aluminum, Total	Antimony, Total	Arsenic, Total	Barium, Total	Cadmium, Total	Chromium, Total	Copper, Total	Iron, Total	Lead, Total	Manganese, Total	Mercury, Total	Nickel, Total	Selenium, Total	Silver, Total	Vanadium, Total	Zinc, Total	Cyanide, Total	Percent Moisture
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Reporting Units:					Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
110518003	GB-SFA-PC-001	O	0-0.5	11/05/2018	16,900	< 0.20 U	5.4	68.6	< 0.12 U	32.4	27.5	24,300	7.2	697	< 0.040 U	26.9	3.4	< 0.11 U	41.7	42.0	< 0.11 U	20.6
110518001	GB-SFA-PC-002	P	0-0.5	11/05/2018	19,400	0.65 J	6.9	104	0.45 J	37.9	30.9	26,100	7.3	450	< 0.042 U	31.2	4.5	0.21 J	47.4	49.4	0.15 J	21.1
110518002	GB-SFA-PC-002	DUP	0-0.5	11/05/2018	18,800	0.23 J	6.4	105	< 0.13 U	36.7	31.2	26,100	7.0	449	< 0.041 U	30.5	4.1	< 0.12 U	45.8	49.5	< 0.098 U	21.6
110518004	GB-SFA-PC-003	O	0-0.5	11/05/2018	6,800	0.30 J	3.1	33.8	0.25 J	13.6	9.6	11,100	4.3	231	< 0.056 U	9.7	2.6	< 0.15 U	22.2	22.4 J	0.26 J	38.1
110518005	GB-SFA-PC-003	O	1.3-1.8	11/05/2018	17,000	< 0.20 U	5.2	80.1	< 0.12 U	32.7	27.3	24,200	5.9	597	< 0.040 U	26.8	3.6	< 0.11 U	42.1	41.1	< 0.13 U	19.7
110518006	GB-SFA-PC-004	O	0-0.5	11/05/2018	14,400	< 0.22 U	5.7	71.9	< 0.13 U	30.5	26.3	23,000	7.7	395	< 0.045 U	24.2	3.7	< 0.13 U	39.5	41.6	0.22 J	26.2
110518008	GB-SFA-PC-005	O	0-0.5	11/05/2018	13,900	< 0.19 U	4.8	66.3	< 0.11 U	28.6	27.6	22,400	7.0	510	< 0.038 U	23.3	3.3	< 0.11 U	41.5	46.9	0.18 J	18.2
110518007	GB-SFA-PC-006	O	0-0.5	11/05/2018	12,800	< 0.37 U	4.7	69.3	< 0.22 U	25.2	23.7	18,500	6.0	373	< 0.070 U	20.8	3.3	< 0.20 U	39.6	37.1 J	0.41 J	54.5
110518009	GB-SFA-PC-007	O	0-0.5	11/05/2018	18,400	< 0.21 U	7.5	92.4	< 0.12 U	35.2	29.1	27,700	6.4	667	< 0.041 U	29.2	3.9	< 0.12 U	44.6	45.6	0.21 J	24.5
110518012	GB-SFA-PC-008	O	0-0.5	11/05/2018	17,600	< 0.21 U	5.8	101	< 0.13 U	34.0	28.6	23,900	6.3	423	< 0.040 U	27.0	3.8	< 0.12 U	43.8	42.2	< 0.11 U	23.3
110518010	GB-SFA-PC-009	O	0.2-0.5	11/05/2018	15,900	< 0.20 U	5.8	92.3	< 0.12 U	31.9	26.1	23,100	6.5	399	0.040 J	25.9	3.3	< 0.11 U	40.4	43.3	< 0.11 U	20.5
110518011	GB-SFA-PC-010	O	0-0.5	11/05/2018	16,100	< 0.19 U	5.7	74.8	< 0.12 U	35.1	28.2	24,600	6.4	499	< 0.039 U	26.6	3.6	< 0.11 U	45.3	47.1	0.13 J	17.1
Total Number of Samples Analyzed:					12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Number of Detections:					12	3	12	12	2	12	12	12	12	12	1	12	12	1	12	12	7	12
Min:					6,800	0.23	3.1	33.8	0.25	13.6	9.6	11,100	4.3	231	0.04	9.7	2.6	0.21	22.2	22.4	0.13	17.1
Max:					19,400	0.65	7.5	105	0.45	37.9	31.2	27,700	7.7	697	0.04	31.2	4.5	0.21	47.4	49.5	0.41	54.5

[O:MGP: 11/28/18, C:SGW 11/29/18]

Notes:

< = Concentration is less than reported limit
 DUP = Quality Control Field Duplicate Sample
 GEO = Geotechnical Property
 J = Estimated concentration
 mg/kg = milligrams per kilogram
 PAH = Polycyclic Aromatic Hydrocarbon
 PVOC = Petroleum Volatile Organic Compound: 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Benzene, Ethylbenzene, Toluene, and Total Xylenes (BTEX)
 U = Concentration was not detected above the reported limit

- The following rules apply to the summation of Total PAH (13) calculated by OBG:
 - Where no detections were observed, the maximum individual reported detection limit is presented.
 - Where detections were observed, ½ the reported detection limit for non-detects was used in the summation.
 - The list of Total PAH (13) is as follows: Acenaphthene, Acenaphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Fluorene, Naphthalene, Phenanthrene and Pyrene.

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



Table 2 - November 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	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	PAH	
			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	
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
110518001	MW-418	11/5/2018	<0.0061 U	<0.0051 U	<0.0063 U	<0.0051 U	<0.011 U	<0.0078 U	<0.011 U	<0.0059 U	<0.0070 U	<0.0078 U	<0.013 U	<0.010 U	<0.011 U	<0.0082 U	<0.018 U	<0.019 U	<0.014 U	<0.0079 U
110518002	MW-417	11/5/2018	<0.0068 U	<0.0056 U	<0.0070 U	<0.0057 U	<0.012 U	<0.0087 U	<0.012 U	<0.0066 U	<0.0078 U	<0.0087 U	<0.015 U	<0.012 U	<0.012 U	<0.0092 U	<0.020 U	<0.021 U	<0.016 U	<0.0088 U
110518003	MW-407	11/5/2018	<0.0067 U	<0.0056 U	<0.0069 U	<0.0057 U	<0.012 U	<0.0086 U	<0.012 U	<0.0065 U	<0.0077 U	<0.0086 U	<0.015 U	<0.011 U	<0.012 U	<0.0091 U	<0.020 U	<0.021 U	<0.016 U	0.0095 J
110518004	MW-412	11/5/2018	<0.0072 U	0.0067 J	<0.0074 U	<0.0061 U	0.015 J	<0.0092 U	<0.013 U	<0.0070 U	<0.0083 U	<0.0092 U	<0.016 U	<0.012 U	<0.013 U	<0.0097 U	<0.022 U	<0.022 U	<0.017 U	<0.0093 U
110618006	MW-413	11/6/2018	<0.0063 U	<0.0052 U	0.016 J	<0.0053 U	<0.011 U	<0.0080 U	<0.011 U	<0.0061 U	<0.0072 U	<0.0080 U	<0.014 U	<0.011 U	<0.011 U	<0.0085 U	<0.019 U	<0.020 U	<0.015 U	<0.0081 U
110618007	MW-410R	11/6/2018	0.029 J	<0.0053 U	0.024 J	0.022 J	0.17	0.012 J	<0.011 U	0.023 J	0.019 J	0.017 J	0.021 J	<0.011 U	0.038 J	0.01 J	<0.019 U	<0.020 U	<0.015 U	0.035 J
110618008/110618009 (N)	MW-411AR	11/6/2018	8.3	0.42	2.1	1.5	0.24	<0.0080 U	<0.011 U	0.023 J	0.022 J	0.022 J	0.045 J	<0.011 U	0.13	0.97	<0.019 U	3.3	0.91	0.17
110618010	MW-416	11/6/2018	<0.0065 U	0.0071 J	0.012 J	<0.0055 U	0.033 J	0.022 J	0.057 J	0.14	0.090	0.11	0.16	0.014 J	0.25	<0.0088 U	0.079 J	<0.020 U	0.12	0.20
110618011/110618012 (N)	MW-415A	11/6/2018	0.0082 J	0.0099 J	0.008 J	<0.0053 U	0.023 J	0.013 J	0.057 J	0.12	0.074	0.082	0.11	0.011 J	0.20	<0.0089 U	0.064 J	<0.020 U	0.12	0.15
110618013	MW-415B	11/6/2018	0.0093 J	0.013 J	0.008 J	<0.0055 U	<0.012 U	<0.0084 U	<0.012 U	0.023 J	0.019 J	0.019 J	0.027 J	<0.011 U	0.037 J	<0.0089 U	<0.020 U	0.025 J	0.023 J	0.032 J
110618014	MW-414	11/6/2018	<0.0069 U	<0.0057 U	<0.0071 U	<0.0058 U	<0.012 U	<0.0088 U	<0.012 U	<0.0067 U	<0.0079 U	<0.0088 U	<0.015 U	<0.012 U	<0.012 U	<0.0093 U	<0.021 U	<0.021 U	<0.016 U	0.0095 J
110618015	MW-408	11/6/2018	0.029 J	0.011 J	0.098	0.062	0.31	1.0	2.2	3.9	2.6	2.0	3.0	0.31	7.9	0.29	1.9	0.038 J	2.5	5.4
110618016	MW-404	11/6/2018	145	<0.11 U	11.3	8.9	2.1	<0.17 U	<0.23 U	<0.13 U	<0.15 U	<0.17 U	<0.29 U	<0.22 U	0.61 J	3.5	<0.39 U	6.1	6.4	0.77 J
110618017	MW-406	11/6/2018	<0.0063 U	<0.0053 U	0.022 J	0.040	0.072	0.36	1.2	2.4	1.7	1.2	1.5	0.18	2.6	0.028 J	1.3	0.032 J	0.83	1.9
110618018	MW-409A	11/6/2018	0.017 J	<0.0049 U	0.008 J	0.023 J	0.092	0.066	0.25	0.36	0.30	0.26	0.36	0.036 J	0.60	0.022 J	0.22	0.024 J	0.18	0.52
110718021	MW-411B	11/7/2018	<0.0065 U	<0.0054 U	<0.0067 U	<0.0055 U	0.015 J	0.041 J	0.18	0.31	0.24	0.21	0.29	0.026 J	0.45	<0.0088 U	0.17	<0.020 U	0.15	0.38
110718022	MW-405B	11/7/2018	0.026 J	0.018 J	0.11	0.13	0.39	2.5	4.4	8.4	5.3	3.1	5.0	0.78	10.8	0.25	4.2	0.19	4.2	8.9
110718023	MW-403R	11/7/2018	28.8	13.8	7.6	1.4 J	0.83 J	<0.42 U	<0.58 U	0.35 J	<0.38 U	<0.42 U	0.8 J	<0.56 U	0.68 J	4.1	<0.98 U	600	4.6	0.98 J
110718024	MW-409B	11/7/2018	<0.0061 U	<0.0051 U	0.0084 J	0.015 J	<0.011 U	0.42	0.60	1.3	0.81	0.49	0.83	0.12	1.6	0.015 J	0.58	<0.019 U	0.42	1.3
110518005	EB01	11/5/2018	<0.0060 U	<0.0049 U	<0.0061 U	<0.0050 U	<0.011 U	<0.0076 U	<0.011 U	0.0068 J	<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
110618019	EB02	11/6/2018	<0.0067 U	<0.0056 U	<0.0069 U	<0.0057 U	<0.012 U	<0.0086 U	<0.012 U	0.012 J	0.0083 J	<0.0086 U	<0.015 U	<0.011 U	0.019 J	<0.0091 U	<0.020 U	<0.021 U	<0.016 U	0.02 J
110718025	EB03	11/7/2018	<0.0063 U	<0.0052 U	<0.0065 U	<0.0053 U	<0.011 U	<0.0080 U	<0.011 U	<0.0061 U	<0.0072 U	<0.0080 U	<0.014 U	<0.011 U	<0.011 U	<0.0085 U	<0.019 U	<0.020 U	<0.015 U	<0.0081 U
110718026	TB01	11/7/2018	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Total Number of Samples Analyzed:	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
Number of Detections:	9	8	13	9	12	9	8	12	11	11	11	12	8	13	9	8	8	12	15	15
Min:	0.0082	0.0067	0.008	0.015	0.015	0.012	0.057	0.023	0.019	0.017	0.021	0.011	0.037	0.01	0.064	0.024	0.023	0.0095	0.0095	0.0095
Max:	145	14	11	9	2	3	4	8	5	3	5	1	11	4	4	600	6	9	9	9
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	250	250
Number of Samples that Exceed Groundwater SL:	0	0	0	0	0	0	5	7	0	0	7	0	0	0	0	1	0	0	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	50	50
Number of Samples that Meet or Exceed WI PAL:	0	0	0	0	0	0	8	12	0	0	12	0	0	0	0	1	0	0	0	0
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	120	120
Number of Samples that Exceed Tap Water RSL:	3	0	0	0	0	6	8	7	0	1	0	6	0	0	4	4	0	0	0	0



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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	
			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
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:			5	700	800	NS	NS	2,000	NS	NS	480	10	2,000	5	100	NS	15	300	2	50	50
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
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
110518001	MW-418	11/5/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	2.6 J	283	2.2 J	<5.1 U	<553 U	2.3 J	365	<0.084 U	5.8	0.93 J
110518002	MW-417	11/5/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	<2.8 U	744	<1.5 U	<10.2 U	14,100	<2.4 U	966	<0.17 U	<3.2 U	<1.0 U
110518003	MW-407	11/5/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	4.6 J	328	1.5 J	<5.1 U	11,900	1.8 J	512	<0.084 U	2.2 J	0.77 J
110518004	MW-412	11/5/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	3.5	365	0.49 J	<2.0 U	22,600	<0.47 U	932	<0.084 U	0.93 J	<0.20 U
110618006	MW-413	11/6/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	0.59 J	151	<0.30 U	<2.0 U	13,400	<0.47 U	417	<0.084 U	<0.63 U	<0.20 U
110618007	MW-410R	11/6/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	<1.4 U	401	<0.76 U	<5.1 U	2,070	<1.2 U	643	<0.17 U	<1.6 U	<0.50 U
110618008/110618009 (N)	MW-411AR	11/6/2018	1,720	120	2.9 J	3.4 J	<4.7 U	<15.0 U	<8.4 U	<8.7 U	<17.1 U	41.8	131	<3.0 U	<20.4 U	<2,210 U	<4.7 U	156	<0.17 U	<6.3 U	<2.0 U
110618010	MW-416	11/6/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	<5.6 U	393	<3.0 U	<20.4 U	5770	<4.7 U	3,370	<0.34 U	<6.3 U	<2.0 U
110618011/110618012 (N)	MW-415A	11/6/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	<1.4 U	129	<0.76 U	<5.1 U	<553 U	<1.2 U	24.7 J	<0.084 U	<1.6 U	<0.50 U
110618013	MW-415B	11/6/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	<1.4 U	20.7 J	<0.76 U	<5.1 U	<553 U	<1.2 U	<13.5 U	<0.084 U	<1.6 U	<0.50 U
110618014	MW-414	11/6/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	<2.8 U	399	<1.5 U	<10.2 U	<1,110 U	<2.4 U	787	<0.084 U	<3.2 U	<1.0 U
110618015	MW-408	11/6/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	2.8 J	350	<0.76 U	<5.1 U	32,200	<1.2 U	3,280	<0.084 U	<1.6 U	<0.50 U
110618016	MW-404	11/6/2018	15.5	102	2.8 J	14.6	2.4	17.0	3.5	1.4 J	4.9 J	1.5 J	137	<0.76 U	<5.1 U	3,860	<1.2 U	337	<0.084 U	<1.6 U	<0.50 U
110618017	MW-406	11/6/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	<2.8 U	143	<1.5 U	<10.2 U	<1,110 U	<2.4 U	700	<0.17 U	<3.2 U	<1.0 U
110618018	MW-409A	11/6/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	<5.6 U	327	<3.0 U	<20.4 U	6880	<4.7 U	1,470	<0.84 U	<6.3 U	<2.0 U
110718021	MW-411B	11/7/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	<1.4 U	57.8	<0.76 U	<5.1 U	<553 U	<1.2 U	365	<0.084 U	<1.6 U	<0.50 U
110718022	MW-405B	11/7/2018	1.7	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	<5.6 U	96.5 J	<3.0 U	<20.4 U	<2,210 U	<4.7 U	260	<0.17 U	<6.3 U	<2.0 U
110718023	MW-403R	11/7/2018	854	54.5	12.1 J	47.1	35.3	82.4	16.7 J	<8.7 U	16.7 J	<5.6 U	148	<3.0 U	<20.4 U	<2,210 U	<4.7 U	<54.0 U	<0.17 U	<6.3 U	<2.0 U
110718024	MW-409B	11/7/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	0.87 J	24.8	<0.30 U	<2.0 U	<221 U	<0.47 U	354	<0.084 U	<0.63 U	<0.20 U
110518005	EB01	11/5/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	<0.28 U	<1.5 U	<0.15 U	<1.0 U	<111 U	<0.24 U	<2.7 U	<0.084 U	<0.32 U	<0.10 U
110618019	EB02	11/6/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	<0.28 U	<1.5 U	<0.15 U	<1.0 U	<111 U	<0.24 U	<2.7 U	<0.084 U	<0.32 U	<0.10 U
110718025	EB03	11/7/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	<0.28 U	<1.5 U	<0.15 U	<1.0 U	<111 U	<0.24 U	<2.7 U	<0.084 U	<0.32 U	<0.10 U
110718026	TB01	11/7/2018	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<1.71 U	--	--	--	--	--	--	--	--	--	--

Total Number of Samples Analyzed:	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	
Number of Detections:	4	3	3	3	2	2	2	2	2	1	2	8	19	3	0	9	2	17	0	3	2
Min:	1.7	54.5	2.8	3.4	2.4	17	3.5	1.4	4.9	0.59	20.7	0.49	0	2,070	1.8	24.7	0	0.93	0	0.77	
Max:	1,720	120	12	47	35	82	17	1	17	42	744	2	0	32,200	2	3,370	0	6	0	1	
Groundwater SL:	5	700	800	NS	NS	2,000	NS	NS	480	10	2,000	5	100	NS	15	300	2	50	50	50	
Number of Samples that Exceed Groundwater SL:	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	14	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	10	
Number of Samples that Meet or Exceed WI PAL:	4	0	0	0	0	0	0	0	0	6	2	2	0	9	2	16	0	0	0	0	
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	94	
Number of Samples that Exceed Tap Water RSL:	4	3	0	0	0	0	0	0	0	8	0	0	0	3	0	9	0	0	0	0	



Table 2 - November 2018 Groundwater Sample Results

Wisconsin Public Service Corporation
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 BRRTS#: 02-05-000254 UPSEPA#: WIN000509948

9-digit Code	Sample Location	Sample Date	Inorganic	Inorganic	RNA	RNA	RNA	RNA	RNA	RNA	RNA
			Nitrogen, NO ₂ + NO ₃ , Total	Sulfate, Total	Dissolved Oxygen	Groundwater, depth to	Oxidation Reduction Potential	PH, Field	Specific Conductance, Field	Temperature, Water	Turbidity, Quantitative
Reporting Units:			µg/L	µg/L	mg/L	feet	millivolts	s.u.	µS/cm	Deg C	NTUs
Groundwater SL:			NS	NS	NS	NS	NS	NS	NS	NS	NS
WI Groundwater PAL:			<u>2,000</u>	<u>125,000</u>	<u>NS</u>	<u>NS</u>	<u>NS</u>	<u>NS</u>	<u>NS</u>	<u>NS</u>	<u>NS</u>
Tap Water RSL:			NS	NS	NS	NS	NS	NS	NS	NS	NS
110518001	MW-418	11/5/2018	<u>3,400</u>	84,800	0.46	6.11	--	6.88	3189.6	15.57	4.34
110518002	MW-417	11/5/2018	<95 U	12200 J	0.15	5.08	--	6.90	11884.9	15.44	80.18
110518003	MW-407	11/5/2018	<95 U	44,700	0.13	4.07	-109.9	7.12	5729.2	14.00	43.85
110518004	MW-412	11/5/2018	<95 U	<5,000 U	0.18	6.46	-97.7	--	5024.6	14.15	4.21
110618006	MW-413	11/6/2018	<95 U	<5,000 U	--	4.53	-57.8	6.45	1060.8	12.32	7.18
110618007	MW-410R	11/6/2018	<95 U	75,100	--	3.26	-195.8	6.64	--	15.41	--
110618008/110618009 (N)	MW-411AR	11/6/2018	430	<u>287,000</u>	--	3.35	-183.7	7.91	16514.5	14.59	35.69
110618010	MW-416	11/6/2018	<95 U	<u>334,000</u>	0.16	3.62	-9.7	--	32222.8	14.63	5.81
110618011/110618012 (N)	MW-415A	11/6/2018	<95 U	<u>293,000</u>	0.31	2.98	24.4	6.85	5975.9	12.92	14.36
110618013	MW-415B	11/6/2018	200 J	<u>1,670,000</u>	3.01	5.92	22.6	--	2672.4	11.06	5.44
110618014	MW-414	11/6/2018	470	88,300	0.21	4.73	-19.6	7.09	8596.8	12.79	19.92
110618015	MW-408	11/6/2018	<95 U	<u>138,000</u>	0.19	1.86	-97.5	6.52	--	15.28	--
110618016	MW-404	11/6/2018	<95 U	<u>249,000</u>	0.16	2.00	-22.2	6.71	7846.1	15.73	18.37
110618017	MW-406	11/6/2018	<95 U	<u>161,000</u>	0.20	2.59	-62.6	6.89	13113.6	13.49	7.32
110618018	MW-409A	11/6/2018	<95 U	<u>848,000</u>	0.18	3.01	-82.7	6.75	44494.8	14.68	6.58
110718021	MW-411B	11/7/2018	200 J	<u>665,000</u>	--	9.02	144.8	7.42	5966.4	12.12	4.47
110718022	MW-405B	11/7/2018	<95 U	<u>231,000</u>	0.51	6.2	--	7.91	14071.8	11.74	24.56
110718023	MW-403R	11/7/2018	<95 U	<u>2,220,000</u>	0.14	2.79	-281.9	8.35	17698.1	11.14	4.77
110718024	MW-409B	11/7/2018	<95 U	<u>553,000</u>	0.92	7.34	-71.5	7.85	2517.7	13.05	13.07
110518005	EB01	11/5/2018	<95 U	<5,000 U	--	--	--	--	--	--	--
110618019	EB02	11/6/2018	<95 U	<5,000 U	--	--	--	--	--	--	--
110718025	EB03	11/7/2018	<95 U	<5,000 U	--	--	--	--	--	--	--
110718026	TB01	11/7/2018	--	--	--	--	--	--	--	--	--

Total Number of Samples Analyzed:	19	19	15	19	16	16	17	19	17
Number of Detections:	5	17	15	19	16	16	17	19	17
Min:	200	12,200	0.13	2	-281.9	6	1,061	11	4.21
Max:	3,400	2,220,000	3	9	145	8	44,495	16	80
Groundwater SL:	NS	NS	NS	NS	NS	NS	NS	NS	NS
Number of Samples that Exceed Groundwater SL:	0	0	0	0	0	0	0	0	0
WI Groundwater PAL:	<u>2,000</u>	<u>125,000</u>	NS	NS	NS	NS	NS	NS	NS
Number of Samples that Meet or Exceed WI PAL:	<u>1</u>	<u>12</u>	0	0	0	0	0	0	0
Tap Water RSL:	NS	NS	NS	NS	NS	NS	NS	NS	NS
Number of Samples that Exceed Tap Water RSL:	0	0	0	0	0	0	0	0	0

[O:ECK 12/6/18][C:MGP 12/6/18][Q:JQW 12/7/18]

Sorted by 9-digit Code

Analyte concentration exceeds the standard for:

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

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

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

< = Concentration is less than reported limit

µg/L = micrograms per liter

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

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

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, only 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.

Groundwater and Tap Water Screening Levels used on this table were presented in the Multi-Site Risk Assessment Framework (RAF) Addendum Revision 6, issued in August 2017. Since that time, three revisions of the RSLs have been published by EPA in November 2017, May 2018, and November 2018. As a result of these three 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 - November 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
110518001	MW-418	11/05/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<0.019 U
110518002	MW-417	11/05/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<0.021 U
110518003	MW-407	11/05/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<0.021 U
110518004	MW-412	11/05/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<0.022 U
110618006	MW-413	11/06/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<0.020 U
110618007	MW-410R	11/06/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<0.020 U
110618008/110618009 (N)	MW-411AR	11/06/18	1,720	120	2.9 J	3.4 J	<4.7 U	<15.0 U	<8.4 U	<8.7 U	3.3
110618010	MW-416	11/06/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<0.020 U
110618011/110618012 (N)	MW-415A	11/06/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<0.020 U
110618013	MW-415B	11/06/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	0.025 J
110618014	MW-414	11/06/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<0.021 U
110618015	MW-408	11/06/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	0.038 J
110618016	MW-404	11/06/18	15.5	102	2.8 J	14.6	2.4	17.0	3.5	1.4 J	6.1
110618017	MW-406	11/06/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	0.032 J
110618018	MW-409A	11/06/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	0.024 J
110718021	MW-411B	11/07/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<0.020 U
110718022	MW-405B	11/07/18	1.7	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	0.19
110718023	MW-403R	11/07/18	854	54.5	12.1 J	47.1	35.3	82.4	16.7 J	<8.7 U	600
110718024	MW-409B	11/07/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<0.019 U
110518005	Equipment Blank 01	11/05/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<0.019 U
110618019	Equipment Blank 02	11/06/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<0.021 U
110718025	Equipment Blank 03	11/07/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	<0.020 U
110718026	Trip Blank 01	11/07/18	<0.25 U	<0.22 U	<0.17 U	<0.26 U	<0.47 U	<1.5 U	<0.84 U	<0.87 U	--
Total Number of Samples Analyzed:			23	23	23	23	23	23	23	23	22
Number of Detections:			4	3	3	3	2	2	2	1	8
Min:			1.7	54.5	2.8	3.4	2.4	17	3.5	1.4	0.024
Max:			1,720	120	12	47	35	82	17	1	600
Groundwater VISL, Industrial:			6.9	15	80,700	2,070	1,490	1,620	1,040	733	20
Number of Samples that Exceed Groundwater VISL, Industrial:			3	3	0	0	0	0	0	0	1
Groundwater VISL, Residential:			1.6	3.5	19,200	492	355	385	248	175	4.6
Number of Samples that Exceed Groundwater VISL, Residential:			4	3	0	0	0	0	0	0	2

[O:ECK 12/5/18][C:MGP 12/6/18] [Q: JQW 12/7/18]

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

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

< = 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

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

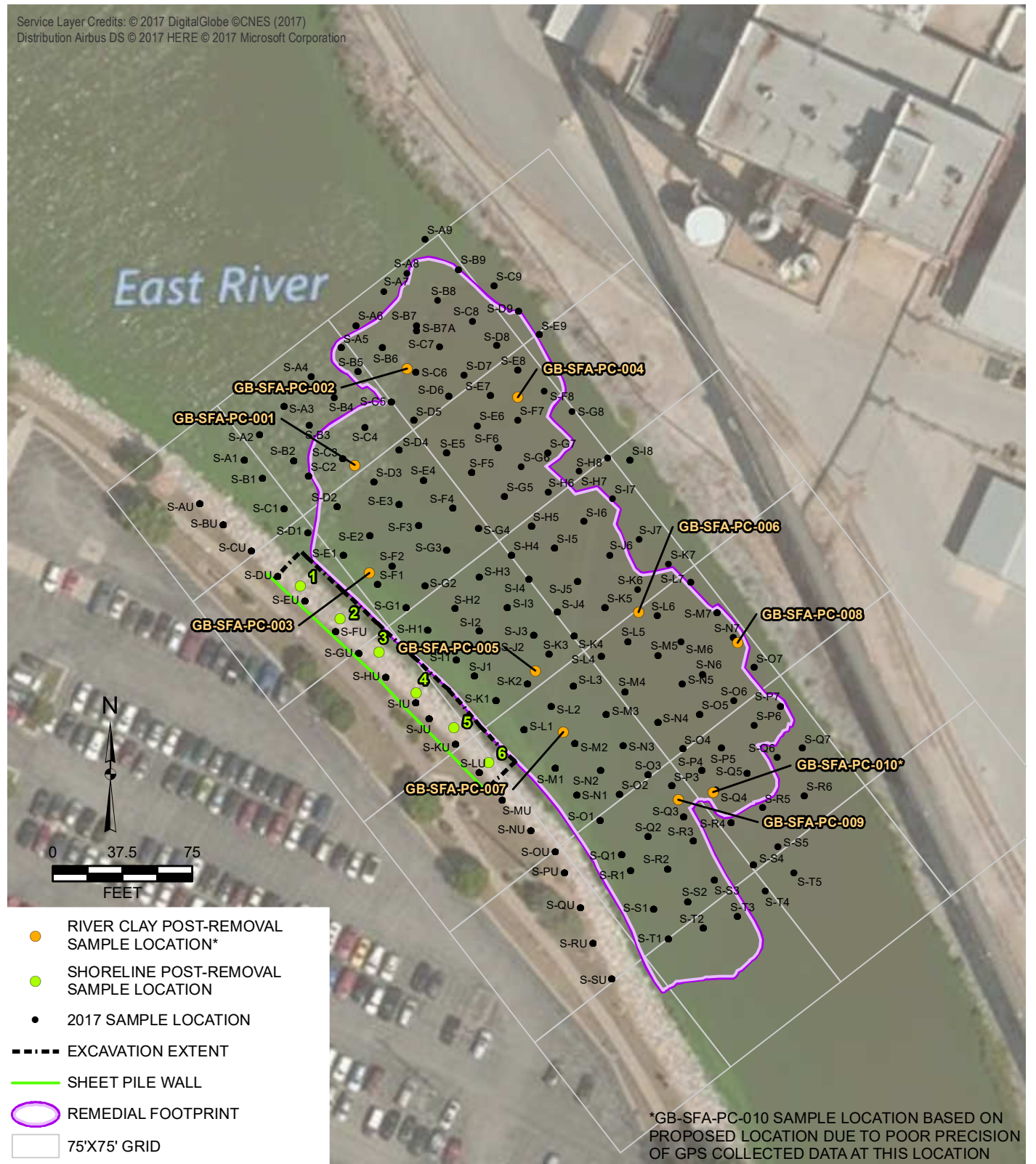
Screening Levels used on this table were presented in the Multi-Site Risk Assessment Framework (RAF) Addendum Revision 6, issued in August 2017. Since that time, three revisions of the RSLs have been published by EPA in November 2017, May 2018, and November 2018. As a result of these three revisions, 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



*GB-SFA-PC-010 SAMPLE LOCATION BASED ON PROPOSED LOCATION DUE TO POOR PRECISION OF GPS COLLECTED DATA AT THIS LOCATION

Y:\GIS\Projects\151584\MXD\Sediment\South Focus Area Post-Construction\Figure 4_Post-Removal Sample Locations.mxd Author: Galarrn\MC, Date/Time: 12/4/2018, 9:14:55 AM

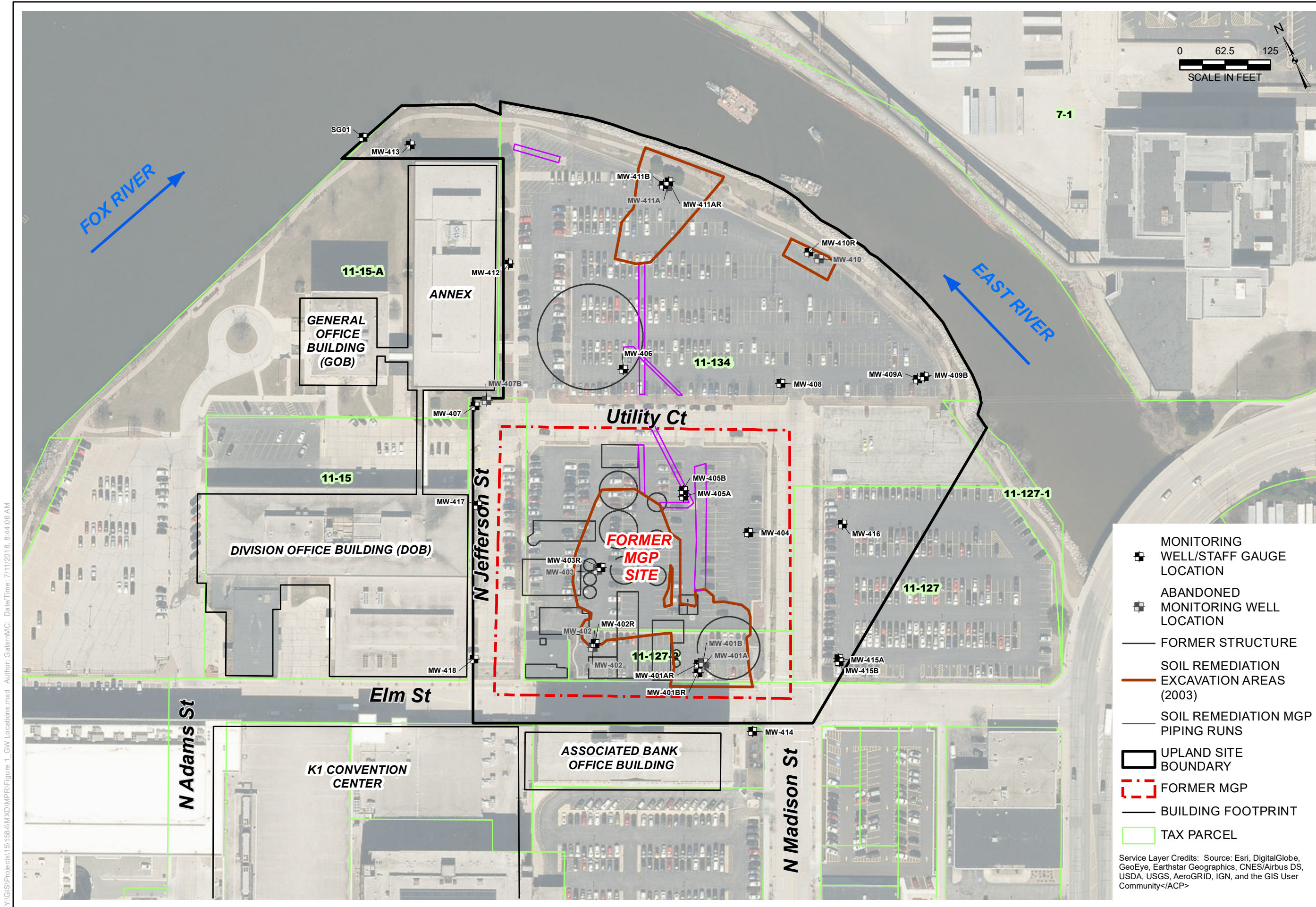
DRAWN BY/DATE:
 STJ 8/9/18
 REVIEWED BY/DATE:
 EJH 8/9/18
 APPROVED BY/DATE:
 EJH 10/2/18

SOUTH FOCUS AREA POST-REMOVAL SAMPLE LOCATIONS

FORMER GREEN BAY MGP, GREEN BAY, WISCONSIN
 WISCONSIN PUBLIC SERVICE COMPANY
 SOUTH FOCUS AREA REMEDIAL ACTION

PROJECT NO: 67983
 FIGURE NO: 1





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: 2

- MONITORING WELL/STAFF GAUGE LOCATION
- ABANDONED MONITORING WELL LOCATION
- FORMER STRUCTURE
- SOIL REMEDIATION EXCAVATION AREAS (2003)
- SOIL REMEDIATION MGP PIPING RUNS
- UPLAND SITE BOUNDARY
- FORMER MGP
- BUILDING FOOTPRINT
- TAX PARCEL

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