



DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
US ARMY ENVIRONMENTAL COMMAND
2455 REYNOLDS ROAD
JOINT BASE SAN ANTONIO FORT SAM HOUSTON, TX 78234-7588

AMIM-AEC-M (1200C)

May 27, 2021

SUBJECT: April 2021 Monitoring and Residential Well Groundwater Data
WDNR BRRTS #02-57-001002
Badger Army Ammunition Plant

Mr. Steve Martin
Wisconsin Department of Natural Resources
GEF2 Central Office
PO Box 7921
Madison, WI 53707-7921

Dear Mr. Martin:

Enclosed is the Badger Army Ammunition Plant (BAAP) April 2021 Monitoring Well and Residential Well Groundwater Data. This was a quarterly & semi-annual sampling event. During April 2021, SpecPro Professional Services, LLC (SPS) collected groundwater samples from 115 monitoring wells associated with the Deterrent Burning Ground (DBG) Plume, Nitrocellulose Production Area (NC) Plume, and Propellant Burning Ground (PBG) Plume. On April 15 and May 5, 2021, SPS collected groundwater samples from one residential well associated with the Central Plume.

The enclosed files contain the signed Environmental Monitoring Data Certification Forms, a concentration graph, a list of wells sampled, a map showing the well locations, and residential well lab results. Also attached are data summary tables for selective wells associated with the DBG and PBG Plumes.

Deterrent Burning Ground Plume

Based on the WDNR 2014 Monitoring Well Optimization Plan email approval dated May 27, 2014 and a subsequent modification dated July 15, 2016, 45 monitoring wells associated with the DBG Plume were sampled between April 5 and 26, 2021.

The groundwater results indicate that dinitrotoluene (DNT) concentrations in the DBG Plume have continued to decrease over the past four years except in three monitoring wells, ELN-1003B, ELN-1003C, and ELN-1502A. The enclosed Table 1 compares the DNT results from ELN-1003B, ELN-1003C, and ELN-1502A from September 2016 through April 2021.

The total DNT concentration in ELN-1502A increased from 0.195 micrograms per liter ($\mu\text{g/l}$) during September 2016 to 0.801 $\mu\text{g/l}$ during September 2018 but dropped to 0.245 $\mu\text{g/l}$ during April 2021. ELN-1502A is located at the eastern plant boundary and

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0.7 miles southeast of the DBG source area. ELN-1502A will be sampled again during September 2021.

The total DNT concentration in ELN-1003B increased from <0.008 (below the detection limit) during September 2016 to 0.223 µg/l during November 2019 but dropped to 0.193 µg/l during April 2021. The total DNT concentration in ELN-1003C increased from <0.0081 during September 2016 to 0.204 µg/l during April 2021. Both ELN-1003B and ELN-1003C are located 0.5 mile southeast of ELN-1502A. Both ELN-1003B and ELN-1003C will be sampled again during September 2021.

Nitrocellulose Production Area Plume

Per the WDNR's October 3, 2014 request, we have included DNT groundwater data from four monitoring wells located near the former DNT Screen House. These monitoring wells help define the extents of DNT in the NC Plume. The groundwater results indicate that DNT concentrations in this area have remained stable. These monitoring wells associated with the NC Plume will be sampled again during September 2021.

Propellant Burning Ground Plume

Based on the WDNR Propellant Burning Ground Monitoring Requirements dated January 5, 2015, 66 monitoring wells associated with the PBG Plume were sampled between April 7 and 20, 2021.

The groundwater results indicate that volatile organic compound (VOC) concentrations in the PBG Plume were relatively unchanged since September 2017. PBN-8202C had a benzene concentration of 0.27 µg/l, which was below the Chapter NR 140 Preventive Action Limit (PAL) of 0.5 µg/l. The benzene concentrations in PBN-8202C were 37 µg/l, 41 µg/l, and 3.3 µg/l during April, June, and September 2020, respectively. Benzene is not a standard contaminant of concern in the PBG Plume. PBN-8202C is located directly downgradient of the PBG source area.

DNT concentrations near the PBG source area have increased since September 2017. The enclosed Table 2 compares the DNT results from PBM-9801, PBN-8202A and PBN-8202B from September 2017 through April 2021. PBM-9801 is located within the PBG source area but was not required to be sampled during April 2021. PBM-9801 will be sampled again during September 2021. PBN-8202A and PBN-8202B are located adjacent to and downgradient of the PBG source area. Both PBN-8202A and PBN-8202B will be sampled again during September 2021.

The total DNT concentration in PBN-8202A increased from 1.469 µg/l during September 2017 to 420.294 µg/l during May 2018. Since May 2018, the total DNT concentration in PBN-8202A has fluctuated. During April 2019, the total DNT

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concentration in PBN-8202A dropped to 30.49 µg/l. In April 2020, the total DNT concentration in PBN-8202A increased to 1,286.9 µg/l. During April 2021, the total DNT concentration in PBN-8202A decreased to 17.575 µg/l. The total DNT concentration in PBN-8202B increased from 0.881 µg/l during September 2017 to 85.1 µg/l during April 2019 and has decreased to 5.158 µg/l during April 2021.

Total DNT concentrations have also been increasing in one other monitoring well located beneath the capped PBG Waste Pits. The total DNT concentration in PBM-0001 increased from 0.701 µg/l (September 2017) to 9.768 µg/l (April 2021).

These are unexpected increases in DNT concentrations over recent sampling events. The recent increase in DNT concentrations near the source area may be related to the recent rise in groundwater levels. Over the past four years, the groundwater table at the PBG source area has risen eight feet and above the estimated depth of DNT contaminated soil remaining beneath the PBG cap. The enclosed graph compares the total DNT concentration in PBN-8202A versus the groundwater elevation from 2007 to 2021. The graph shows that as the groundwater elevation in PBN-8202A has dropped over the past year, the total DNT concentration has also dropped.

Residential Wells

Residential well WE-XK342, located in the Water's Edge Subdivision (Central Plume), was sampled for DNT and VOCs on April 15, 2021. A duplicate sample was also collected from WE-XK342. WE-XK342 has been quarterly sampled by the Army since August 2019. WE-XK342 is a shared well that was constructed in 2014 to a depth of 80 feet in the sand aquifer.

Total DNT was detected above the NR 140 Enforcement Standard (ES) in WE-XK342 at a concentration of 0.105 and 0.131 µg/l in the April 15, 2021 regular and duplicate samples, respectively. Both the regular and duplicate samples had detections for 2,4-DNT, 2,6-DNT, and 3,4-DNT. WE-XK342 has a history of 2,6-DNT detections above the NR 140 PAL but below the NR 140 ES. The two homeowners were offered bottled water by the Army.

On May 5, 2021, the Army collected additional groundwater samples from WE-XK342 to verify the DNT results. 2,6-DNT and total DNT were detected above the NR 140 PAL but below the NR 140 ES in WE-XK342 at a concentration of 0.027 and 0.028 µg/l in the regular and duplicate samples, respectively.

During June 2021, the Army will collect additional groundwater samples from WE-XK342 to evaluate the DNT concentrations. The Army will evaluate replacing WE-XK342 if total DNT is detected above the NR 140 ES in the additional groundwater samples.

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The Army conducts semi-annual sampling of two monitoring wells that are located approximately 150 feet east of WE-XK342. Monitoring wells SEN-0502A (33 feet deep) and SEN-0502D (187 feet deep) are screened in the sand aquifer. Both monitoring wells do not have a history of DNT detections. They were most recently sampled during November 2020 and are scheduled to be sampling during June 2021.

Quality Review

SPS conducted an internal quality control review of the groundwater data. The internal review did not find any issues with the groundwater data. All groundwater samples were analyzed by CT Laboratories, LLC (CT Lab) in Baraboo, Wisconsin. CT Lab is a WDNR Chapter NR 149 certified laboratory and accredited by the Department of Defense Environmental Laboratory Accreditation Program (DoD ELAP).

Please do not hesitate to contact me at 210-466-1351 if you have any questions.

Sincerely,



Digitally signed by
LYNCH.BRYAN.PATRICK.10215612
54
Date: 2021.05.27 10:54:08 -05'00'

Bryan P. Lynch
Commander's Representative

Enclosures

Copy furn: Joel Janssen, SpecPro Professional Services, LLC

Table 1
2016 - 2021 Summary
Dinitrotoluene Groundwater Results
Deterrent Burning Ground
Badger Army Ammunition Plant

Plume	Well Name	Well ID	License	Sample Level	Date	Dinitrotoluenes						
						2,3-Dinitrotoluene	2,4-Dinitrotoluene	2,5-Dinitrotoluene	2,6-Dinitrotoluene	3,4-Dinitrotoluene	3,5-Dinitrotoluene	Dinitrotoluene, Total
DBG	ELN-1003B	468	2813	B	9/19/16	<0.006	<0.008	<0.003	<0.004	<0.004	<0.004	<0.008
					9/19/16 (D)	<0.006	<0.008	<0.003	<0.004	<0.004	<0.004	<0.008
					4/25/17	<0.006	<0.008	<0.003	<0.004	0.051	<0.004	<u>0.051</u>
					9/12/17	0.014 (J)	<0.0082	<0.0031	<0.0041	0.054	<0.0041	<u>0.068</u>
					4/26/18	0.029 (J)	0.026 (J)	0.028 (J)	0.024 (J)	0.1	0.025 (J)	<u>0.232</u>
					4/26/18 (D)	0.029 (J)	0.024 (J)	0.027 (J)	0.023 (J)	0.097	0.025 (J)	<u>0.225</u>
					5/14/18	0.03	<0.008	<0.003	0.036	0.12	<0.004	<u>0.186</u>
					6/28/18	0.059	<0.0076	<0.0029	<0.0038	0.12	<0.0038	<u>0.179</u>
					10/3/18	0.032	<0.0078	<0.0029	0.01 (J)	0.15	<0.0039	<u>0.192</u>
					10/3/18 (D)	0.031	<0.0081	<0.003	0.01 (J)	0.13	<0.004	<u>0.171</u>
					11/15/18	0.078	<0.0081	<0.003	<u>0.072</u>	0.17	<0.004	<u>0.32</u>
					4/23/19	0.045	<0.0078	<0.0029	<0.0039	0.12	<0.0039	<u>0.165</u>
					6/13/19	0.033	<0.0078	<0.0029	0.02 (J)	0.13	<0.0039	<u>0.183</u>
					6/13/19 (D)	0.033	<0.0077	<0.0029	0.019 (J)	0.13	<0.0038	<u>0.182</u>
					9/17/19	0.048	<0.0082	<0.0031	0.023 (J)	0.16	<0.0041	<u>0.231</u>
					9/17/19 (D)	0.048	<0.0082	<0.0031	0.022 (J)	0.15	<0.0041	<u>0.22</u>
					11/20/19	0.053	<0.0078	<0.0029	<0.0039	0.17	<0.0039	<u>0.223</u>
					5/6/20	<0.0063	<0.0083	<0.0031	<0.0042	0.13	<0.0042	<u>0.13</u>
					6/11/20	0.051	<0.0081	<0.003	<0.004	0.13	<0.004	<u>0.181</u>
					9/22/20	0.041	<0.0076	<0.0029	<0.0038	0.13	<0.0038	<u>0.171</u>
11/9/20	0.04	<0.0082	<0.0031	<0.0041	0.13	<0.0041	<u>0.17</u>					
4/22/21	0.051 (J)	<0.0084	<0.0053	0.022 (J)	0.12	<0.0053	<u>0.193</u>					
4/22/21 (D)	0.048 (J)	<0.0082	<0.0051	0.022 (J)	0.12	<0.0051	<u>0.19</u>					
DBG	ELN-1003C	469	2813	C	9/19/16	<0.0061	<0.0081	<0.003	<0.004	<0.004	<0.004	<0.0081
					4/25/17	<0.006	<0.008	<0.003	0.0085 (J)	<0.004	<0.004	0.0085 (J)
					9/12/17	<0.0064	<0.0085	<0.0032	<0.0043	<0.0043	<0.0043	<0.0085
					4/26/18	0.025 (J)	0.026 (J)	<0.003	0.023 (J)	<0.004	<0.004	<u>0.074</u>
					5/14/18	<0.0061	<0.0081	<0.003	0.029 (J)	0.079	<0.004	<u>0.108</u>
					6/28/18	<0.0057	<0.0076	<0.0029	<0.0038	<0.0038	<0.0038	<0.0076
					6/28/18 (D)	<0.0058	<0.0077	<0.0029	<0.0038	<0.0038	<0.0038	<0.0077
					10/3/18	0.024 (J)	<0.0078	<0.0029	0.0087 (J)	0.1	<0.0039	<u>0.1327</u>
					11/15/18	0.07	<0.0078	<0.0029	<u>0.068</u>	0.14	<0.0039	<u>0.278</u>
					4/23/19	<0.0058	<0.0078	<0.0029	<0.0039	0.09	<0.0039	<u>0.09</u>
					4/23/19 (D)	<0.0058	<0.0078	<0.0029	<0.0039	0.093	<0.0039	<u>0.093</u>
					6/13/19	0.028 (J)	<0.0082	<0.0031	0.022 (J)	0.11	<0.0041	<u>0.16</u>
					9/17/19	0.039	<0.0082	<0.0031	0.022 (J)	0.11	<0.0041	<u>0.171</u>
					11/20/19	<0.0059	<0.0079	<0.003	<0.004	0.13	<0.004	<u>0.13</u>
					11/20/19 (D)	<0.0059	<0.0079	<0.003	<0.004	0.13	<0.004	<u>0.13</u>
					5/6/20	<0.0064	<0.0085	<0.0032	<0.0043	0.13	<0.0043	<u>0.13</u>
					5/6/20 (D)	<0.0064	<0.0085	<0.0032	<0.0043	0.11	<0.0043	<u>0.11</u>
					6/11/20	0.05	<0.0084	<0.0032	0.035	0.13	<0.0042	<u>0.215</u>
					9/22/20	0.039	<0.0078	<0.0029	<0.0039	0.13	<0.0039	<u>0.169</u>
					11/9/20	0.038	<0.0082	<0.0031	<0.0041	0.14	<0.0041	<u>0.178</u>
4/22/21	0.048 (J)	<0.0083	<0.0052	0.026 (J)	0.13	<0.0052	<u>0.204</u>					

**Table 1
2016 - 2021 Summary
Dinitrotoluene Groundwater Results
Deterrent Burning Ground
Badger Army Ammunition Plant**

Plume	Well Name	Well ID	License	Sample Level	Date	Dinitrotoluenes						
						2,3-Dinitrotoluene	2,4-Dinitrotoluene	2,5-Dinitrotoluene	2,6-Dinitrotoluene	3,4-Dinitrotoluene	3,5-Dinitrotoluene	Dinitrotoluene, Total
DBG	ELN-1502A	533	2813	A	9/15/16	0.065	<0.008	<0.003	<0.004	0.13	<0.004	<u>0.195</u>
					4/18/17	0.11	<0.0082	<0.0031	0.011 (J)	0.28	<0.0041	<u>0.401</u>
					4/18/17 (D)	0.12	<0.0084	<0.0032	0.012 (J)	0.31	<0.0042	<u>0.442</u>
					9/5/17	0.13	<0.0082	<0.0031	<0.0041	0.28	0.023 (J)	<u>0.433</u>
					9/5/17 (D)	0.13	<0.008	<0.003	<0.004	0.34	0.022 (J)	<u>0.492</u>
					4/24/18	0.14	<0.0083	<0.0031	0.03 (J)	0.39	0.034	<u>0.594</u>
					4/24/18 (D)	0.13	<0.008	<0.003	0.027 (J)	0.38	<0.004	<u>0.537</u>
					5/14/18	0.17	<0.008	<0.003	0.08	0.44	<0.004	<u>0.69</u>
					9/4/18	0.16	<0.0082	<0.0031	0.011 (J)	0.42	0.036	<u>0.627</u>
					9/4/18 (D)	0.21	<0.008	<0.003	0.02 (J)	0.53	0.041	<u>0.801</u>
					4/1/19	0.17	<0.0082	<0.0031	0.024 (J)	0.37	0.054	<u>0.618</u>
					4/1/19 (D)	0.16	<0.0082	<0.0031	0.023 (J)	0.35	0.053	<u>0.586</u>
					9/10/19	0.13	<0.0083	<0.0031	0.026 (J)	0.3	0.051	<u>0.507</u>
					9/10/19 (D)	0.14	<0.0081	<0.003	0.027 (J)	0.32	0.05	<u>0.537</u>
					4/6/20	0.085	<0.0087	<0.0033	<0.0043	0.19	<0.0043	<u>0.275</u>
					4/6/20 (D)	0.076	<0.0082	<0.0031	<0.0041	0.17	<0.0041	<u>0.246</u>
					9/21/20	0.078	<0.008	<0.003	<0.004	0.16	0.03	<u>0.268</u>
4/5/21	0.059	0.022 (J)	<0.0051	0.011 (J)	0.12	0.028 (J)	<u>0.24</u>					
4/5/21 (D)	0.058	0.027 (J)	<0.0052	0.012 (J)	0.12	0.028 (J)	<u>0.245</u>					
Chapter NR 140 PAL						NE	0.005	NE	0.005	NE	NE	0.005
Chapter NR 140 ES						NE	0.05	NE	0.05	NE	NE	0.05

Notes:

DBG - Deterrent Burning Ground

The Sample Level references the typical well depth configuration

All results are expressed in micrograms per liter (µg/l)

DNT analysis was performed by CT Laboratories

D = Duplicate sample

J = Analytical result is between the Limit of Detection (LOD) and Limit of Quantitation (LOQ)

NE = Not Established

Chapter NR 140 PAL - Chapter NR 140, Wisconsin Administrative Code, Preventive Action Limit (bold values)

Chapter NR 140 ES - Chapter NR 140, Wisconsin Administrative Code, Enforcement Standard (bold & underline values)

**Table 2
2017 - 2021 Summary
Dinitrotoluene Groundwater Results
Propellant Burning Ground
Badger Army Ammunition Plant**

Plume	Well Name	Well ID	License	Sample Level	Date	Dinitrotoluenes						
						2,3-Dinitrotoluene	2,4-Dinitrotoluene	2,5-Dinitrotoluene	2,6-Dinitrotoluene	3,4-Dinitrotoluene	3,5-Dinitrotoluene	Dinitrotoluene, Total
PBG	PBM-9801	360	2814	A	9/20/17	0.18	<u>0.11</u>	<0.0031	<u>0.2</u>	0.058	<0.0041	<u>0.548</u>
					9/17/18	0.48	<u>2</u>	0.028	<u>0.81</u>	0.19	0.074	<u>3.582</u>
					9/25/19	0.31	<u>5.7</u>	0.039	<u>0.61</u>	0.13	0.07	<u>6.859</u>
					9/1/20	0.37	<u>110</u>	<0.0032	<u>2.1</u>	0.18	<0.0042	<u>112.65</u>
PBG	PBN-8202A	613	2814	A	9/20/17	0.91	<u>0.059</u>	0.02 (J)	<u>0.07</u>	0.27	0.14	<u>1.469</u>
					9/20/17 (D)	0.83	<u>0.056</u>	0.019 (J)	<u>0.066</u>	0.25	0.12	<u>1.341</u>
					4/23/18	45	<u>2.1</u>	0.14	<u>27</u>	17	2.1	<u>93.34</u>
					4/23/18 (D)	48	<u>2.2</u>	0.15	<u>24</u>	18	2.3	<u>94.65</u>
					5/14/18	78	<u>33</u>	0.094	<u>270</u>	35	4.2	<u>420.294</u>
					9/17/18	70	<u>6.3</u>	0.12	<u>2</u>	32	6	<u>116.42</u>
					9/17/18 (D)	62	<u>5.1</u>	0.12	<u>4.4</u>	27	4.7	<u>103.32</u>
					4/8/19	20	<u>0.26</u>	0.12	<u>0.31</u>	4.6	5.2	<u>30.49</u>
					9/25/19	75	<u>9.1</u>	0.14	<u>110</u>	15	6.5	<u>215.74</u>
					1/14/20	49	<u>30</u>	<0.14	<u>79</u>	13	4.9	<u>175.9</u>
					1/14/20 (D)	49	<u>39</u>	<0.14	<u>88</u>	15	5	<u>196</u>
					4/30/20	72	<u>670</u>	<0.15	<u>500</u>	35	9.9	<u>1,286.9</u>
					6/8/20	17	<u>0.35</u>	0.1	<u>17</u>	7.9	1.9	<u>44.25</u>
					6/8/20 (D)	18	<u>0.4</u>	0.12	<u>15</u>	8.1	2.6	<u>44.22</u>
					9/1/20	9.1	<u>0.3</u>	0.078	<u>0.14</u>	3.3	1.2	<u>14.118</u>
4/7/21	14	<u>0.24</u>	0.065	<u>0.17</u>	2.1	1	<u>17.575</u>					
PBG	PBN-8202B	614	2814	B	9/20/17	0.54	<u>0.055</u>	<0.0031	<u>0.049</u>	0.15	0.087	<u>0.881</u>
					4/23/18	0.99	<0.0081	<0.003	<u>0.12</u>	0.36	0.13	<u>1.6</u>
					9/17/18	9.2	<u>0.26</u>	0.054	<u>0.038</u>	4.6	0.46	<u>14.612</u>
					4/8/19	39	<u>0.63</u>	0.13	<u>0.54</u>	36	8.8	<u>85.1</u>
					9/25/19	16	<u>0.18</u>	0.12	<u>0.26</u>	6.3	1.6	<u>24.46</u>
					1/14/20	9.9	<u>0.44</u>	<0.029	<u>0.25</u>	2.8	1	<u>14.39</u>
					4/30/20	11	<u>0.35</u>	0.091	<u>0.21</u>	1.7	1.2	<u>14.551</u>
					6/8/20	8.7	<u>0.2</u>	0.075	<u>0.055</u>	1.2	1.1	<u>11.33</u>
					9/1/20	7.3	<u>0.22</u>	0.4	<u>0.058</u>	0.71	0.88	<u>9.208</u>
4/7/21	4.2	<u>0.11</u>	0.032 (J)	<u>0.086</u>	0.2	0.53	<u>5.158</u>					
Chapter NR 140 PAL						NE	0.005	NE	0.005	NE	NE	0.005
Chapter NR 140 ES						NE	0.05	NE	0.05	NE	NE	0.05

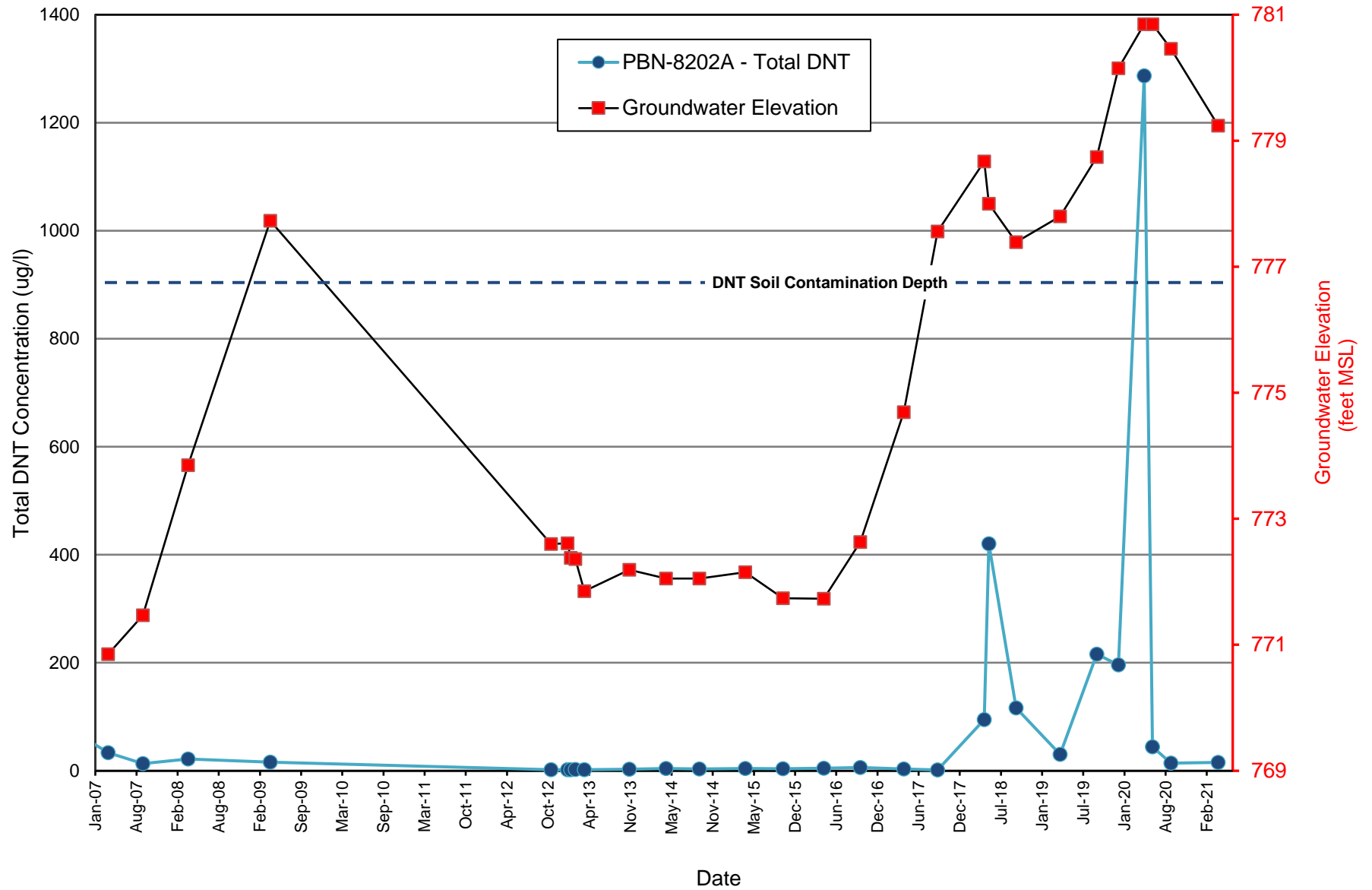
Notes:

- PBG - Propellant Burning Ground
- The Sample Level references the typical well depth configuration
- All results are expressed in micrograms per liter (µg/l)
- DNT analysis was performed by CT Laboratories
- D = Duplicate sample
- J = Analytical result is between the Limit of Detection (LOD) and Limit of Quantitation (LOQ)
- NE = Not Established
- Chapter NR 140 PAL - Chapter NR 140, Wisconsin Administrative Code, Preventive Action Limit (bold values)
- Chapter NR 140 ES - Chapter NR 140, Wisconsin Administrative Code, Enforcement Standard (bold & underline values)

PBN-8202A

Total Dinitrotoluene vs Groundwater Elevation

2007 - 2021



April 2021

Monitoring Well and Residential Well Groundwater Data

Central Plume

Deterrent Burning Ground Plume

Nitrocellulose Production Area Plume

Propellant Burning Ground Plume

Badger Army Ammunition Plant

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- Prepare one form for each license or monitoring ID.
- Please type or print legibly.
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact - WA/5
Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvc.com

Facility name:	License # / Monitoring ID	Facility ID FID	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Landfill #5	02813	157005530	4/6 - 4/26/21

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

April 2021

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) _____ |

Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen Project Manager (608) 438-1110
Facility Representative Name (Print) Title (Area Code) Telephone No.

Signature Joel Janssen Date 5/27/21

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

Found uploading problems on _____ Initials _____

Notified contact of problems on _____ Uploaded data successfully on _____

EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other _____

Case Narrative
Groundwater Monitoring
License Number 2813
Landfill #5
April 2021
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities.

Total Dinitrotoluene (DNT) exceeded the Enforcement Standard (ES) in ELM-8901 (216), ELM-8907 (220), ELM-8908 (221), ELN-0801E (457), ELN-1003B (468), ELN-1003C (469), and ELN-1502A (533). Total DNT exceeded the Preventive Action Limit (PAL) in ELM-9501 (234), ELN-0801B (455), ELN-0801C (456), and ELN-1504B (537).

2,4-DNT exceeded the PAL in ELM-8901 (216), ELM-8907 (220), ELM-9501 (234), ELN-0801B (455), ELN-0801C (456), ELN-0801E (457), ELN-1502A (533), and ELN-1504B (537).

2,6-DNT exceeded the PAL in ELM-8901 (216), ELM-8907 (220), ELM-9501 (234), ELN-0801B (455), ELN-0801C (456), ELN-0801E (457), ELN-1003B (468), ELN-1003C (469), and ELN-1502A (533).

Sulfate exceeded the ES in ELN-8203A (210) and ELN-8203B (211) and the PAL in S1134R (236).

1,2-Dichloropropane exceeded the PAL in ELN-8203A (210) and S1134R (236).

1,1,2-Trichloroethane exceeded the PAL in ELN-8203A (210), ELN-8203B (211), and S1134R (236).

Volatile organic compounds (VOCs) analysis was performed by CT Laboratories (CT Lab) using method EPA 8260C.

DNT analysis was performed by CT Lab using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

Sulfate analyses were performed by CT Lab using method SW 846 9056A.

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2021

Report Date: 5/26/2021

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
1,1,2-Trichloroethane	2813	210	ELN-8203A	4/6/2021	1	1.5	ug/l	0.5	5
1,2-Dichloropropane	2813	210	ELN-8203A	4/6/2021	1	0.66	ug/l	0.5	5
Sulfate	2813	210	ELN-8203A	4/6/2021	1	1300	mg/l	125	250
1,1,2-Trichloroethane	2813	211	ELN-8203B	4/6/2021	1	1	ug/l	0.5	5
Sulfate	2813	211	ELN-8203B	4/6/2021	1	1300	mg/l	125	250
2,4-Dinitrotoluene	2813	216	ELM-8901	4/6/2021	1	0.028	ug/l	0.005	0.05
2,6-Dinitrotoluene	2813	216	ELM-8901	4/6/2021	1	0.018	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	216	ELM-8901	4/6/2021	1	0.756	ug/l	0.005	0.05
2,4-Dinitrotoluene	2813	220	ELM-8907	4/7/2021	1	0.022	ug/l	0.005	0.05
2,6-Dinitrotoluene	2813	220	ELM-8907	4/7/2021	1	0.017	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	220	ELM-8907	4/7/2021	1	0.746	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	221	ELM-8908	4/6/2021	1	0.127	ug/l	0.005	0.05
2,4-Dinitrotoluene	2813	234	ELM-9501	4/5/2021	1	0.024	ug/l	0.005	0.05
2,6-Dinitrotoluene	2813	234	ELM-9501	4/5/2021	1	0.012	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	234	ELM-9501	4/5/2021	1	0.036	ug/l	0.005	0.05
1,1,2-Trichloroethane	2813	236	S1134R	4/6/2021	1	1.8	ug/l	0.5	5
1,2-Dichloropropane	2813	236	S1134R	4/6/2021	1	0.5	ug/l	0.5	5
Sulfate	2813	236	S1134R	4/6/2021	1	200	mg/l	125	250
2,4-Dinitrotoluene	2813	455	ELN-0801B	4/5/2021	1	0.025	ug/l	0.005	0.05
2,6-Dinitrotoluene	2813	455	ELN-0801B	4/5/2021	1	0.011	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	455	ELN-0801B	4/5/2021	1	0.036	ug/l	0.005	0.05
2,4-Dinitrotoluene	2813	456	ELN-0801C	4/5/2021	1	0.028	ug/l	0.005	0.05
2,6-Dinitrotoluene	2813	456	ELN-0801C	4/5/2021	1	0.015	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	456	ELN-0801C	4/5/2021	1	0.043	ug/l	0.005	0.05
2,4-Dinitrotoluene	2813	457	ELN-0801E	4/5/2021	1	0.03	ug/l	0.005	0.05
2,6-Dinitrotoluene	2813	457	ELN-0801E	4/5/2021	1	0.023	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	457	ELN-0801E	4/5/2021	1	0.053	ug/l	0.005	0.05
2,6-Dinitrotoluene	2813	468	ELN-1003B	4/22/2021	1	0.022	ug/l	0.005	0.05
2,6-Dinitrotoluene	2813	468	ELN-1003B	4/22/2021	2	0.022	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	468	ELN-1003B	4/22/2021	1	0.193	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	468	ELN-1003B	4/22/2021	2	0.19	ug/l	0.005	0.05
2,6-Dinitrotoluene	2813	469	ELN-1003C	4/22/2021	1	0.026	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	469	ELN-1003C	4/22/2021	1	0.204	ug/l	0.005	0.05
2,4-Dinitrotoluene	2813	533	ELN-1502A	4/5/2021	1	0.022	ug/l	0.005	0.05
2,4-Dinitrotoluene	2813	533	ELN-1502A	4/5/2021	2	0.027	ug/l	0.005	0.05
2,6-Dinitrotoluene	2813	533	ELN-1502A	4/5/2021	1	0.011	ug/l	0.005	0.05
2,6-Dinitrotoluene	2813	533	ELN-1502A	4/5/2021	2	0.012	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	533	ELN-1502A	4/5/2021	1	0.24	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	533	ELN-1502A	4/5/2021	2	0.245	ug/l	0.005	0.05
2,4-Dinitrotoluene	2813	537	ELN-1504B	4/22/2021	1	0.041	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	537	ELN-1504B	4/22/2021	1	0.041	ug/l	0.005	0.05

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

April 2021

GROUNDWATER MONITORING ALL HITS REPORT

License No: 2813

Report Date: 5/26/2021

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
1,1,2-Trichloroethane	210	ELN-8203A	4/6/2021	1	1.5	0.2	0.4	ug/l	0.5	5
1,2-Dichloropropane	210	ELN-8203A	4/6/2021	1	0.66	0.1	0.2	ug/l	0.5	5
cis-1,2-Dichloroethene	210	ELN-8203A	4/6/2021	1	0.15	0.1	0.2	ug/l	7	70
Dichlorodifluoromethane	210	ELN-8203A	4/6/2021	1	0.1	0.1	0.2	ug/l	200	1000
Ethyl ether	210	ELN-8203A	4/6/2021	1	3.7	0.1	0.2	ug/l	100	1000
Sulfate	210	ELN-8203A	4/6/2021	1	1300	40	150	mg/l	125	250
1,1,1-Trichloroethane	211	ELN-8203B	4/6/2021	1	0.12	0.1	0.2	ug/l	40	200
1,1,2-Trichloroethane	211	ELN-8203B	4/6/2021	1	1	0.2	0.4	ug/l	0.5	5
1,2-Dichloropropane	211	ELN-8203B	4/6/2021	1	0.33	0.1	0.2	ug/l	0.5	5
Dichlorodifluoromethane	211	ELN-8203B	4/6/2021	1	0.25	0.1	0.2	ug/l	200	1000
Ethyl ether	211	ELN-8203B	4/6/2021	1	0.16	0.1	0.2	ug/l	100	1000
Sulfate	211	ELN-8203B	4/6/2021	1	1300	16	60	mg/l	125	250
Tetrahydrofuran	211	ELN-8203B	4/6/2021	1	1	1	2	ug/l	10	50
1,1,2-Trichloroethane	212	ELN-8203C	4/6/2021	1	0.27	0.2	0.4	ug/l	0.5	5
Sulfate	212	ELN-8203C	4/6/2021	1	72	4	15	mg/l	125	250
1,1,1-Trichloroethane	216	ELM-8901	4/6/2021	1	1.2	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	216	ELM-8901	4/6/2021	1	0.26	0.0063	0.052	ug/l		
2,4-Dinitrotoluene	216	ELM-8901	4/6/2021	1	0.028	0.0083	0.052	ug/l	0.005	0.05
2,6-Dinitrotoluene	216	ELM-8901	4/6/2021	1	0.018	0.0052	0.052	ug/l	0.005	0.05
3,4-Dinitrotoluene	216	ELM-8901	4/6/2021	1	0.31	0.0052	0.052	ug/l		
3,5-Dinitrotoluene	216	ELM-8901	4/6/2021	1	0.14	0.0052	0.052	ug/l		
Sulfate	216	ELM-8901	4/6/2021	1	75	4	15	mg/l	125	250
Total Dinitrotoluenes	216	ELM-8901	4/6/2021	1	0.756	0.0083	0.052	ug/l	0.005	0.05
2,3-Dinitrotoluene	220	ELM-8907	4/7/2021	1	0.48	0.0062	0.052	ug/l		
2,4-Dinitrotoluene	220	ELM-8907	4/7/2021	1	0.022	0.0082	0.052	ug/l	0.005	0.05
2,6-Dinitrotoluene	220	ELM-8907	4/7/2021	1	0.017	0.0052	0.052	ug/l	0.005	0.05
3,4-Dinitrotoluene	220	ELM-8907	4/7/2021	1	0.14	0.0052	0.052	ug/l		
3,5-Dinitrotoluene	220	ELM-8907	4/7/2021	1	0.087	0.0052	0.052	ug/l		
Sulfate	220	ELM-8907	4/7/2021	1	15	0.8	3	mg/l	125	250
Total Dinitrotoluenes	220	ELM-8907	4/7/2021	1	0.746	0.0082	0.052	ug/l	0.005	0.05
2,3-Dinitrotoluene	221	ELM-8908	4/6/2021	1	0.043	0.0065	0.054	ug/l		
3,4-Dinitrotoluene	221	ELM-8908	4/6/2021	1	0.056	0.0054	0.054	ug/l		
3,5-Dinitrotoluene	221	ELM-8908	4/6/2021	1	0.028	0.0054	0.054	ug/l		
Sulfate	221	ELM-8908	4/6/2021	1	18	0.8	3	mg/l	125	250
Total Dinitrotoluenes	221	ELM-8908	4/6/2021	1	0.127	0.0086	0.054	ug/l	0.005	0.05
1,1,1-Trichloroethane	222	ELM-8909	4/6/2021	1	0.31	0.1	0.2	ug/l	40	200
Sulfate	222	ELM-8909	4/6/2021	1	8.1	0.8	3	mg/l	125	250
Sulfate	224	ELN-8902B	4/6/2021	1	16	0.8	3	mg/l	125	250
Sulfate	227	ELN-9107A	4/6/2021	1	15	0.8	3	mg/l	125	250
Sulfate	228	ELN-9107B	4/6/2021	1	18	0.8	3	mg/l	125	250
Sulfate	231	ELN-9402AR	4/22/2021	1	10	0.8	3	mg/l	125	250
2,4-Dinitrotoluene	234	ELM-9501	4/5/2021	1	0.024	0.0086	0.054	ug/l	0.005	0.05
2,6-Dinitrotoluene	234	ELM-9501	4/5/2021	1	0.012	0.0054	0.054	ug/l	0.005	0.05
Total Dinitrotoluenes	234	ELM-9501	4/5/2021	1	0.036	0.0086	0.054	ug/l	0.005	0.05
1,1,2-Trichloroethane	236	S1134R	4/6/2021	1	1.8	0.2	0.4	ug/l	0.5	5
1,2-Dichlorobenzene	236	S1134R	4/6/2021	1	0.38	0.1	0.2	ug/l	60	600
1,2-Dichloropropane	236	S1134R	4/6/2021	1	0.5	0.1	0.2	ug/l	0.5	5
Sulfate	236	S1134R	4/6/2021	1	200	8	30	mg/l	125	250

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,4-Dinitrotoluene	455	ELN-0801B	4/5/2021	1	0.025	0.0082	0.052	ug/l	0.005	0.05
2,6-Dinitrotoluene	455	ELN-0801B	4/5/2021	1	0.011	0.0052	0.052	ug/l	0.005	0.05
Total Dinitrotoluenes	455	ELN-0801B	4/5/2021	1	0.036	0.0082	0.052	ug/l	0.005	0.05
2,4-Dinitrotoluene	456	ELN-0801C	4/5/2021	1	0.028	0.0083	0.052	ug/l	0.005	0.05
2,6-Dinitrotoluene	456	ELN-0801C	4/5/2021	1	0.015	0.0052	0.052	ug/l	0.005	0.05
Total Dinitrotoluenes	456	ELN-0801C	4/5/2021	1	0.043	0.0083	0.052	ug/l	0.005	0.05
2,4-Dinitrotoluene	457	ELN-0801E	4/5/2021	1	0.03	0.0083	0.052	ug/l	0.005	0.05
2,6-Dinitrotoluene	457	ELN-0801E	4/5/2021	1	0.023	0.0052	0.052	ug/l	0.005	0.05
Total Dinitrotoluenes	457	ELN-0801E	4/5/2021	1	0.053	0.0083	0.052	ug/l	0.005	0.05
2,3-Dinitrotoluene	468	ELN-1003B	4/22/2021	2	0.048	0.0061	0.051	ug/l		
2,3-Dinitrotoluene	468	ELN-1003B	4/22/2021	1	0.051	0.0063	0.053	ug/l		
2,6-Dinitrotoluene	468	ELN-1003B	4/22/2021	2	0.022	0.0051	0.051	ug/l	0.005	0.05
2,6-Dinitrotoluene	468	ELN-1003B	4/22/2021	1	0.022	0.0053	0.053	ug/l	0.005	0.05
3,4-Dinitrotoluene	468	ELN-1003B	4/22/2021	1	0.12	0.0053	0.053	ug/l		
3,4-Dinitrotoluene	468	ELN-1003B	4/22/2021	2	0.12	0.0051	0.051	ug/l		
Total Dinitrotoluenes	468	ELN-1003B	4/22/2021	2	0.19	0.0082	0.051	ug/l	0.005	0.05
Total Dinitrotoluenes	468	ELN-1003B	4/22/2021	1	0.193	0.0084	0.053	ug/l	0.005	0.05
2,3-Dinitrotoluene	469	ELN-1003C	4/22/2021	1	0.048	0.0063	0.052	ug/l		
2,6-Dinitrotoluene	469	ELN-1003C	4/22/2021	1	0.026	0.0052	0.052	ug/l	0.005	0.05
3,4-Dinitrotoluene	469	ELN-1003C	4/22/2021	1	0.13	0.0052	0.052	ug/l		
Total Dinitrotoluenes	469	ELN-1003C	4/22/2021	1	0.204	0.0083	0.052	ug/l	0.005	0.05
2,3-Dinitrotoluene	533	ELN-1502A	4/5/2021	1	0.059	0.0061	0.051	ug/l		
2,3-Dinitrotoluene	533	ELN-1502A	4/5/2021	2	0.058	0.0063	0.052	ug/l		
2,4-Dinitrotoluene	533	ELN-1502A	4/5/2021	1	0.022	0.0082	0.051	ug/l	0.005	0.05
2,4-Dinitrotoluene	533	ELN-1502A	4/5/2021	2	0.027	0.0083	0.052	ug/l	0.005	0.05
2,6-Dinitrotoluene	533	ELN-1502A	4/5/2021	2	0.012	0.0052	0.052	ug/l	0.005	0.05
2,6-Dinitrotoluene	533	ELN-1502A	4/5/2021	1	0.011	0.0051	0.051	ug/l	0.005	0.05
3,4-Dinitrotoluene	533	ELN-1502A	4/5/2021	2	0.12	0.0052	0.052	ug/l		
3,4-Dinitrotoluene	533	ELN-1502A	4/5/2021	1	0.12	0.0051	0.051	ug/l		
3,5-Dinitrotoluene	533	ELN-1502A	4/5/2021	2	0.028	0.0052	0.052	ug/l		
3,5-Dinitrotoluene	533	ELN-1502A	4/5/2021	1	0.028	0.0051	0.051	ug/l		
Total Dinitrotoluenes	533	ELN-1502A	4/5/2021	1	0.24	0.0082	0.051	ug/l	0.005	0.05
Total Dinitrotoluenes	533	ELN-1502A	4/5/2021	2	0.245	0.0083	0.052	ug/l	0.005	0.05
1,1,1-Trichloroethane	534	ELN-1502C	4/5/2021	1	0.83	0.1	0.2	ug/l	40	200
Dichlorodifluoromethane	534	ELN-1502C	4/5/2021	1	0.2	0.1	0.2	ug/l	200	1000
2,4-Dinitrotoluene	537	ELN-1504B	4/22/2021	1	0.041	0.0082	0.051	ug/l	0.005	0.05
Total Dinitrotoluenes	537	ELN-1504B	4/22/2021	1	0.041	0.0082	0.051	ug/l	0.005	0.05

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Instructions:

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- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact - WA/5
Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvc.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Propellant Burning Grounds	02814	157005420	4/7 - 4/20/21

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

April 2021

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) _____ |

Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen Project Manager (608) 438-1110
Facility Representative Name (Print) Title (Area Code) Telephone No.

Signature Joel Janssen Date 5/27/21

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

Found uploading problems on _____ Initials _____

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EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other _____

Case Narrative
Groundwater Monitoring
License Number 2814
Propellant Burning Grounds
April 2021
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities.

2,4-Dinitrotoluene (DNT), 2,6-DNT, and total DNT exceeded the Enforcement Standards (ES) in PBM-0001 (367), PBM-0002 (368), PBM-0006 (372), PBM-0008 (374), PBN-8202A (613), PBN-8202B (614), PBN-8202C (615), PBN-1401A (782), and PBN-1401B (783). 2,4-DNT and total DNT exceeded the ES in PBN-8205A (622) and PBN-8205B (623). Total DNT exceeded the ES in PBN-8205C (624), PBN-8902C (645), PBN-9903B (693), PBN-1302C (772), and PBN-1401C (784).

2,4-DNT exceeded the Preventive Action Limit (PAL) in PBN-8205C (624), PBN-8902C (645), PBN-1302C (772), PBN-1303C (776), and PBN-1401C (784).

2,6-DNT exceeded the PAL in PBN-1001C (595), PBN-8205A (622), PBN-8205B (623), PBN-8205C (624), PBN-8902C (645), PBN-9301C (669), PBN-9903B (693), PBN-9903C (694), PBN-1302C (772), PBN-1401C (784), and PBN-8902BR (795).

Total DNT exceeded the PAL in PBN-1001C (595), PBN-9301C (669), PBN-9903C (694), PBN-1303C (776), and PBN-8902BR (795).

Bromodichloromethane exceeded the PAL in PBN-1001C (595), PBN-9301C (669), and PBN-1404C (792).

Carbon tetrachloride exceeded the ES in PBN-8502A (632) and PBN-9903C (694) and the PAL in 24 wells.

Chloroform exceeded the PAL in seven wells.

Ethyl ether exceeded the PAL in PBN-9903D (695) and PBN-1404D (793).

Nitrate plus nitrite exceeded the PAL in PBM-0001 (367) and PBM-0002 (368).

Trichloroethene exceeded the PAL in 10 wells.

Volatile organic compounds (VOCs) analysis was performed by CT Laboratories (CT Lab) using method EPA 8260C.

DNT analysis was also performed by CT Lab using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

Nitrate plus nitrite analyses were performed by CT Lab using method EPA 353.2.

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2021

Report Date: 5/26/2021

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	2814	367	PBM-0001	4/7/2021	1	0.13	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	367	PBM-0001	4/7/2021	1	0.1	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	367	PBM-0001	4/7/2021	1	3.4	mg/l	2	10
Total Dinitrotoluenes	2814	367	PBM-0001	4/7/2021	1	9.768	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	368	PBM-0002	4/7/2021	1	0.12	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	368	PBM-0002	4/7/2021	1	0.07	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	368	PBM-0002	4/7/2021	1	2.8	mg/l	2	10
Total Dinitrotoluenes	2814	368	PBM-0002	4/7/2021	1	1.072	ug/l	0.005	0.05
Trichloroethene	2814	368	PBM-0002	4/7/2021	1	0.62	ug/l	0.5	5
2,4-Dinitrotoluene	2814	372	PBM-0006	4/7/2021	1	0.12	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	372	PBM-0006	4/7/2021	2	0.13	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	372	PBM-0006	4/7/2021	1	0.069	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	372	PBM-0006	4/7/2021	2	0.065	ug/l	0.005	0.05
Carbon tetrachloride	2814	372	PBM-0006	4/7/2021	1	0.52	ug/l	0.5	5
Carbon tetrachloride	2814	372	PBM-0006	4/7/2021	2	0.5	ug/l	0.5	5
Total Dinitrotoluenes	2814	372	PBM-0006	4/7/2021	1	1.553	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	372	PBM-0006	4/7/2021	2	1.518	ug/l	0.005	0.05
Trichloroethene	2814	372	PBM-0006	4/7/2021	1	0.67	ug/l	0.5	5
Trichloroethene	2814	372	PBM-0006	4/7/2021	2	0.68	ug/l	0.5	5
2,4-Dinitrotoluene	2814	374	PBM-0008	4/7/2021	1	0.11	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	374	PBM-0008	4/7/2021	1	0.077	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	374	PBM-0008	4/7/2021	1	0.566	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	595	PBN-1001C	4/20/2021	1	0.03	ug/l	0.005	0.05
Bromodichloromethane	2814	595	PBN-1001C	4/20/2021	1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	2814	595	PBN-1001C	4/20/2021	1	1.8	ug/l	0.5	5
Chloroform	2814	595	PBN-1001C	4/20/2021	1	1.4	ug/l	0.6	6
Total Dinitrotoluenes	2814	595	PBN-1001C	4/20/2021	1	0.03	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	613	PBN-8202A	4/7/2021	1	0.24	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	613	PBN-8202A	4/7/2021	1	0.17	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	613	PBN-8202A	4/7/2021	1	17.575	ug/l	0.005	0.05
Trichloroethene	2814	613	PBN-8202A	4/7/2021	1	0.92	ug/l	0.5	5
2,4-Dinitrotoluene	2814	614	PBN-8202B	4/7/2021	1	0.11	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	614	PBN-8202B	4/7/2021	1	0.086	ug/l	0.005	0.05
Carbon tetrachloride	2814	614	PBN-8202B	4/7/2021	1	0.53	ug/l	0.5	5
Total Dinitrotoluenes	2814	614	PBN-8202B	4/7/2021	1	5.158	ug/l	0.005	0.05
Trichloroethene	2814	614	PBN-8202B	4/7/2021	1	0.59	ug/l	0.5	5
2,4-Dinitrotoluene	2814	615	PBN-8202C	4/7/2021	1	0.16	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	615	PBN-8202C	4/7/2021	1	0.093	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	615	PBN-8202C	4/7/2021	1	0.482	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	622	PBN-8205A	4/20/2021	1	0.055	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	622	PBN-8205A	4/20/2021	1	0.041	ug/l	0.005	0.05
Carbon tetrachloride	2814	622	PBN-8205A	4/20/2021	1	1.4	ug/l	0.5	5
Total Dinitrotoluenes	2814	622	PBN-8205A	4/20/2021	1	0.365	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	623	PBN-8205B	4/20/2021	1	0.053	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	623	PBN-8205B	4/20/2021	1	0.037	ug/l	0.005	0.05
Carbon tetrachloride	2814	623	PBN-8205B	4/20/2021	1	1.3	ug/l	0.5	5
Total Dinitrotoluenes	2814	623	PBN-8205B	4/20/2021	1	0.379	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	624	PBN-8205C	4/20/2021	1	0.046	ug/l	0.005	0.05

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,6-Dinitrotoluene	2814	624	PBN-8205C	4/20/2021	1	0.035	ug/l	0.005	0.05
Carbon tetrachloride	2814	624	PBN-8205C	4/20/2021	1	1.3	ug/l	0.5	5
Total Dinitrotoluenes	2814	624	PBN-8205C	4/20/2021	1	0.423	ug/l	0.005	0.05
Carbon tetrachloride	2814	632	PBN-8502A	4/20/2021	1	11	ug/l	0.5	5
Trichloroethene	2814	632	PBN-8502A	4/20/2021	1	1.3	ug/l	0.5	5
Carbon tetrachloride	2814	633	PBN-8503A	4/20/2021	1	1.8	ug/l	0.5	5
2,4-Dinitrotoluene	2814	645	PBN-8902C	4/20/2021	1	0.036	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	645	PBN-8902C	4/20/2021	1	0.041	ug/l	0.005	0.05
Carbon tetrachloride	2814	645	PBN-8902C	4/20/2021	1	1.7	ug/l	0.5	5
Total Dinitrotoluenes	2814	645	PBN-8902C	4/20/2021	1	0.162	ug/l	0.005	0.05
Trichloroethene	2814	645	PBN-8902C	4/20/2021	1	0.65	ug/l	0.5	5
Carbon tetrachloride	2814	646	PBN-8903B	4/20/2021	1	1.2	ug/l	0.5	5
Carbon tetrachloride	2814	646	PBN-8903B	4/20/2021	2	1.1	ug/l	0.5	5
Carbon tetrachloride	2814	668	PBN-9301B	4/12/2021	1	3.6	ug/l	0.5	5
2,6-Dinitrotoluene	2814	669	PBN-9301C	4/12/2021	1	0.026	ug/l	0.005	0.05
Bromodichloromethane	2814	669	PBN-9301C	4/12/2021	1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	2814	669	PBN-9301C	4/12/2021	1	0.9	ug/l	0.5	5
Chloroform	2814	669	PBN-9301C	4/12/2021	1	1.5	ug/l	0.6	6
Total Dinitrotoluenes	2814	669	PBN-9301C	4/12/2021	1	0.026	ug/l	0.005	0.05
Carbon tetrachloride	2814	673	PBN-9303B	4/12/2021	1	3.4	ug/l	0.5	5
Carbon tetrachloride	2814	674	PBN-9303C	4/12/2021	1	2.8	ug/l	0.5	5
Chloroform	2814	674	PBN-9303C	4/12/2021	1	0.92	ug/l	0.6	6
Carbon tetrachloride	2814	692	PBN-9903A	4/12/2021	1	0.96	ug/l	0.5	5
2,6-Dinitrotoluene	2814	693	PBN-9903B	4/12/2021	1	0.039	ug/l	0.005	0.05
Carbon tetrachloride	2814	693	PBN-9903B	4/12/2021	1	2.5	ug/l	0.5	5
Total Dinitrotoluenes	2814	693	PBN-9903B	4/12/2021	1	0.144	ug/l	0.005	0.05
Trichloroethene	2814	693	PBN-9903B	4/12/2021	1	0.93	ug/l	0.5	5
2,6-Dinitrotoluene	2814	694	PBN-9903C	4/12/2021	1	0.034	ug/l	0.005	0.05
Carbon tetrachloride	2814	694	PBN-9903C	4/12/2021	1	7.6	ug/l	0.5	5
Total Dinitrotoluenes	2814	694	PBN-9903C	4/12/2021	1	0.034	ug/l	0.005	0.05
Trichloroethene	2814	694	PBN-9903C	4/12/2021	1	1.2	ug/l	0.5	5
Chloroform	2814	695	PBN-9903D	4/12/2021	1	0.84	ug/l	0.6	6
Ethyl ether	2814	695	PBN-9903D	4/12/2021	1	790	ug/l	100	1000
Carbon tetrachloride	2814	770	PBN-1302A	4/14/2021	1	2.7	ug/l	0.5	5
Carbon tetrachloride	2814	771	PBN-1302B	4/14/2021	1	3.9	ug/l	0.5	5
2,4-Dinitrotoluene	2814	772	PBN-1302C	4/14/2021	1	0.045	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	772	PBN-1302C	4/14/2021	1	0.032	ug/l	0.005	0.05
Carbon tetrachloride	2814	772	PBN-1302C	4/14/2021	1	2.6	ug/l	0.5	5
Chloroform	2814	772	PBN-1302C	4/14/2021	1	0.91	ug/l	0.6	6
Total Dinitrotoluenes	2814	772	PBN-1302C	4/14/2021	1	0.077	ug/l	0.005	0.05
Carbon tetrachloride	2814	774	PBN-1303A	4/14/2021	1	0.83	ug/l	0.5	5
Carbon tetrachloride	2814	775	PBN-1303B	4/14/2021	1	1.3	ug/l	0.5	5
2,4-Dinitrotoluene	2814	776	PBN-1303C	4/14/2021	1	0.043	ug/l	0.005	0.05
Carbon tetrachloride	2814	776	PBN-1303C	4/14/2021	1	2	ug/l	0.5	5
Total Dinitrotoluenes	2814	776	PBN-1303C	4/14/2021	1	0.043	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	782	PBN-1401A	4/14/2021	1	0.062	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	782	PBN-1401A	4/14/2021	1	0.097	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	782	PBN-1401A	4/14/2021	1	0.581	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	783	PBN-1401B	4/14/2021	1	0.07	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	783	PBN-1401B	4/14/2021	1	0.098	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	783	PBN-1401B	4/14/2021	1	0.496	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	784	PBN-1401C	4/14/2021	1	0.042	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	784	PBN-1401C	4/14/2021	1	0.022	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	784	PBN-1401C	4/14/2021	1	0.157	ug/l	0.005	0.05
Carbon tetrachloride	2814	791	PBN-1404B	4/14/2021	1	3.1	ug/l	0.5	5
Chloroform	2814	791	PBN-1404B	4/14/2021	1	0.74	ug/l	0.6	6
Trichloroethene	2814	791	PBN-1404B	4/14/2021	1	0.82	ug/l	0.5	5

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
Bromodichloromethane	2814	792	PBN-1404C	4/14/2021	1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	2814	792	PBN-1404C	4/14/2021	1	0.6	ug/l	0.5	5
Chloroform	2814	792	PBN-1404C	4/14/2021	1	1.5	ug/l	0.6	6
Ethyl ether	2814	793	PBN-1404D	4/14/2021	1	300	ug/l	100	1000
2,6-Dinitrotoluene	2814	795	PBN-8902BR	4/20/2021	1	0.016	ug/l	0.005	0.05
Carbon tetrachloride	2814	795	PBN-8902BR	4/20/2021	1	3	ug/l	0.5	5
Total Dinitrotoluenes	2814	795	PBN-8902BR	4/20/2021	1	0.016	ug/l	0.005	0.05
Trichloroethene	2814	795	PBN-8902BR	4/20/2021	1	0.81	ug/l	0.5	5

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

April 2021

GROUNDWATER MONITORING ALL HITS REPORT

License No: 2814

Report Date: 5/26/2021

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,3-Dinitrotoluene	367	PBM-0001	4/7/2021	1	8.5	0.032	0.27	ug/l		
2,4-Dinitrotoluene	367	PBM-0001	4/7/2021	1	0.13	0.0086	0.054	ug/l	0.005	0.05
2,5-Dinitrotoluene	367	PBM-0001	4/7/2021	1	0.058	0.0054	0.054	ug/l		
2,6-Dinitrotoluene	367	PBM-0001	4/7/2021	1	0.1	0.0054	0.054	ug/l	0.005	0.05
3,4-Dinitrotoluene	367	PBM-0001	4/7/2021	1	0.4	0.0054	0.054	ug/l		
3,5-Dinitrotoluene	367	PBM-0001	4/7/2021	1	0.58	0.0054	0.054	ug/l		
Carbon tetrachloride	367	PBM-0001	4/7/2021	1	0.34	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	367	PBM-0001	4/7/2021	1	3.4	0.12	0.5	mg/l	2	10
Total Dinitrotoluenes	367	PBM-0001	4/7/2021	1	9.768	0.0086	0.054	ug/l	0.005	0.05
Trichloroethene	367	PBM-0001	4/7/2021	1	0.38	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	368	PBM-0002	4/7/2021	1	0.52	0.0065	0.054	ug/l		
2,4-Dinitrotoluene	368	PBM-0002	4/7/2021	1	0.12	0.0086	0.054	ug/l	0.005	0.05
2,5-Dinitrotoluene	368	PBM-0002	4/7/2021	1	0.039	0.0054	0.054	ug/l		
2,6-Dinitrotoluene	368	PBM-0002	4/7/2021	1	0.07	0.0054	0.054	ug/l	0.005	0.05
3,4-Dinitrotoluene	368	PBM-0002	4/7/2021	1	0.23	0.0054	0.054	ug/l		
3,5-Dinitrotoluene	368	PBM-0002	4/7/2021	1	0.093	0.0054	0.054	ug/l		
Carbon tetrachloride	368	PBM-0002	4/7/2021	1	0.42	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	368	PBM-0002	4/7/2021	1	2.8	0.12	0.5	mg/l	2	10
Total Dinitrotoluenes	368	PBM-0002	4/7/2021	1	1.072	0.0086	0.054	ug/l	0.005	0.05
Trichloroethene	368	PBM-0002	4/7/2021	1	0.62	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	372	PBM-0006	4/7/2021	2	0.7	0.007	0.058	ug/l		
2,3-Dinitrotoluene	372	PBM-0006	4/7/2021	1	0.72	0.0062	0.052	ug/l		
2,4-Dinitrotoluene	372	PBM-0006	4/7/2021	2	0.13	0.0093	0.058	ug/l	0.005	0.05
2,4-Dinitrotoluene	372	PBM-0006	4/7/2021	1	0.12	0.0082	0.052	ug/l	0.005	0.05
2,5-Dinitrotoluene	372	PBM-0006	4/7/2021	1	0.034	0.0052	0.052	ug/l		
2,5-Dinitrotoluene	372	PBM-0006	4/7/2021	2	0.033	0.0058	0.058	ug/l		
2,6-Dinitrotoluene	372	PBM-0006	4/7/2021	2	0.065	0.0058	0.058	ug/l	0.005	0.05
2,6-Dinitrotoluene	372	PBM-0006	4/7/2021	1	0.069	0.0052	0.052	ug/l	0.005	0.05
3,4-Dinitrotoluene	372	PBM-0006	4/7/2021	1	0.5	0.0052	0.052	ug/l		
3,4-Dinitrotoluene	372	PBM-0006	4/7/2021	2	0.48	0.0058	0.058	ug/l		
3,5-Dinitrotoluene	372	PBM-0006	4/7/2021	2	0.11	0.0058	0.058	ug/l		
3,5-Dinitrotoluene	372	PBM-0006	4/7/2021	1	0.11	0.0052	0.052	ug/l		
Carbon tetrachloride	372	PBM-0006	4/7/2021	1	0.52	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	372	PBM-0006	4/7/2021	2	0.5	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	372	PBM-0006	4/7/2021	1	1.8	0.12	0.5	mg/l	2	10
Nitrate+Nitrite Nitrogen	372	PBM-0006	4/7/2021	2	1.9	0.12	0.5	mg/l	2	10
Total Dinitrotoluenes	372	PBM-0006	4/7/2021	2	1.518	0.0093	0.058	ug/l	0.005	0.05
Total Dinitrotoluenes	372	PBM-0006	4/7/2021	1	1.553	0.0082	0.052	ug/l	0.005	0.05
Trichloroethene	372	PBM-0006	4/7/2021	2	0.68	0.1	0.2	ug/l	0.5	5
Trichloroethene	372	PBM-0006	4/7/2021	1	0.67	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	374	PBM-0008	4/7/2021	1	0.17	0.0063	0.052	ug/l		
2,4-Dinitrotoluene	374	PBM-0008	4/7/2021	1	0.11	0.0083	0.052	ug/l	0.005	0.05
2,5-Dinitrotoluene	374	PBM-0008	4/7/2021	1	0.027	0.0052	0.052	ug/l		
2,6-Dinitrotoluene	374	PBM-0008	4/7/2021	1	0.077	0.0052	0.052	ug/l	0.005	0.05
3,4-Dinitrotoluene	374	PBM-0008	4/7/2021	1	0.11	0.0052	0.052	ug/l		
3,5-Dinitrotoluene	374	PBM-0008	4/7/2021	1	0.072	0.0052	0.052	ug/l		
Carbon tetrachloride	374	PBM-0008	4/7/2021	1	0.38	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	374	PBM-0008	4/7/2021	1	0.566	0.0083	0.052	ug/l	0.005	0.05

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
Trichloroethene	374	PBM-0008	4/7/2021	1	0.49	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	595	PBN-1001C	4/20/2021	1	0.23	0.1	0.2	ug/l	40	200
2,6-Dinitrotoluene	595	PBN-1001C	4/20/2021	1	0.03	0.0053	0.053	ug/l	0.005	0.05
Bromodichloromethane	595	PBN-1001C	4/20/2021	1	0.2	0.1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	595	PBN-1001C	4/20/2021	1	1.8	0.1	0.2	ug/l	0.5	5
Chloroform	595	PBN-1001C	4/20/2021	1	1.4	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	595	PBN-1001C	4/20/2021	1	0.03	0.0084	0.053	ug/l	0.005	0.05
Trichloroethene	595	PBN-1001C	4/20/2021	1	0.31	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	613	PBN-8202A	4/7/2021	1	14	0.063	0.53	ug/l		
2,4-Dinitrotoluene	613	PBN-8202A	4/7/2021	1	0.24	0.0084	0.053	ug/l	0.005	0.05
2,5-Dinitrotoluene	613	PBN-8202A	4/7/2021	1	0.065	0.0053	0.053	ug/l		
2,6-Dinitrotoluene	613	PBN-8202A	4/7/2021	1	0.17	0.0053	0.053	ug/l	0.005	0.05
3,4-Dinitrotoluene	613	PBN-8202A	4/7/2021	1	2.1	0.0053	0.053	ug/l		
3,5-Dinitrotoluene	613	PBN-8202A	4/7/2021	1	1	0.0053	0.053	ug/l		
Carbon tetrachloride	613	PBN-8202A	4/7/2021	1	0.49	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	613	PBN-8202A	4/7/2021	1	17.575	0.0084	0.053	ug/l	0.005	0.05
Trichloroethene	613	PBN-8202A	4/7/2021	1	0.92	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	614	PBN-8202B	4/7/2021	1	4.2	0.026	0.22	ug/l		
2,4-Dinitrotoluene	614	PBN-8202B	4/7/2021	1	0.11	0.0088	0.055	ug/l	0.005	0.05
2,5-Dinitrotoluene	614	PBN-8202B	4/7/2021	1	0.032	0.0055	0.055	ug/l		
2,6-Dinitrotoluene	614	PBN-8202B	4/7/2021	1	0.086	0.0055	0.055	ug/l	0.005	0.05
3,4-Dinitrotoluene	614	PBN-8202B	4/7/2021	1	0.2	0.0055	0.055	ug/l		
3,5-Dinitrotoluene	614	PBN-8202B	4/7/2021	1	0.53	0.0055	0.055	ug/l		
Carbon tetrachloride	614	PBN-8202B	4/7/2021	1	0.53	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	614	PBN-8202B	4/7/2021	1	5.158	0.0088	0.055	ug/l	0.005	0.05
Trichloroethene	614	PBN-8202B	4/7/2021	1	0.59	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	615	PBN-8202C	4/7/2021	1	0.091	0.0063	0.052	ug/l		
2,4-Dinitrotoluene	615	PBN-8202C	4/7/2021	1	0.16	0.0083	0.052	ug/l	0.005	0.05
2,5-Dinitrotoluene	615	PBN-8202C	4/7/2021	1	0.038	0.0052	0.052	ug/l		
2,6-Dinitrotoluene	615	PBN-8202C	4/7/2021	1	0.093	0.0052	0.052	ug/l	0.005	0.05
3,4-Dinitrotoluene	615	PBN-8202C	4/7/2021	1	0.043	0.0052	0.052	ug/l		
3,5-Dinitrotoluene	615	PBN-8202C	4/7/2021	1	0.057	0.0052	0.052	ug/l		
Benzene	615	PBN-8202C	4/7/2021	1	0.27	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	615	PBN-8202C	4/7/2021	1	0.482	0.0083	0.052	ug/l	0.005	0.05
Trichloroethene	615	PBN-8202C	4/7/2021	1	0.3	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	622	PBN-8205A	4/20/2021	1	0.16	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	622	PBN-8205A	4/20/2021	1	0.1	0.0063	0.052	ug/l		
2,4-Dinitrotoluene	622	PBN-8205A	4/20/2021	1	0.055	0.0083	0.052	ug/l	0.005	0.05
2,5-Dinitrotoluene	622	PBN-8205A	4/20/2021	1	0.027	0.0052	0.052	ug/l		
2,6-Dinitrotoluene	622	PBN-8205A	4/20/2021	1	0.041	0.0052	0.052	ug/l	0.005	0.05
3,4-Dinitrotoluene	622	PBN-8205A	4/20/2021	1	0.081	0.0052	0.052	ug/l		
3,5-Dinitrotoluene	622	PBN-8205A	4/20/2021	1	0.061	0.0052	0.052	ug/l		
Carbon tetrachloride	622	PBN-8205A	4/20/2021	1	1.4	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	622	PBN-8205A	4/20/2021	1	0.365	0.0083	0.052	ug/l	0.005	0.05
Trichloroethene	622	PBN-8205A	4/20/2021	1	0.47	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	623	PBN-8205B	4/20/2021	1	0.13	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	623	PBN-8205B	4/20/2021	1	0.11	0.0061	0.051	ug/l		
2,4-Dinitrotoluene	623	PBN-8205B	4/20/2021	1	0.053	0.0082	0.051	ug/l	0.005	0.05
2,5-Dinitrotoluene	623	PBN-8205B	4/20/2021	1	0.029	0.0051	0.051	ug/l		
2,6-Dinitrotoluene	623	PBN-8205B	4/20/2021	1	0.037	0.0051	0.051	ug/l	0.005	0.05
3,4-Dinitrotoluene	623	PBN-8205B	4/20/2021	1	0.085	0.0051	0.051	ug/l		
3,5-Dinitrotoluene	623	PBN-8205B	4/20/2021	1	0.065	0.0051	0.051	ug/l		
Carbon tetrachloride	623	PBN-8205B	4/20/2021	1	1.3	0.1	0.2	ug/l	0.5	5
Chloroform	623	PBN-8205B	4/20/2021	1	0.1	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	623	PBN-8205B	4/20/2021	1	0.379	0.0082	0.051	ug/l	0.005	0.05
Trichloroethene	623	PBN-8205B	4/20/2021	1	0.46	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	624	PBN-8205C	4/20/2021	1	0.16	0.1	0.2	ug/l	40	200

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,3-Dinitrotoluene	624	PBN-8205C	4/20/2021	1	0.13	0.0064	0.053	ug/l		
2,4-Dinitrotoluene	624	PBN-8205C	4/20/2021	1	0.046	0.0085	0.053	ug/l	0.005	0.05
2,5-Dinitrotoluene	624	PBN-8205C	4/20/2021	1	0.043	0.0053	0.053	ug/l		
2,6-Dinitrotoluene	624	PBN-8205C	4/20/2021	1	0.035	0.0053	0.053	ug/l	0.005	0.05
3,4-Dinitrotoluene	624	PBN-8205C	4/20/2021	1	0.097	0.0053	0.053	ug/l		
3,5-Dinitrotoluene	624	PBN-8205C	4/20/2021	1	0.072	0.0053	0.053	ug/l		
Carbon tetrachloride	624	PBN-8205C	4/20/2021	1	1.3	0.1	0.2	ug/l	0.5	5
Chloroform	624	PBN-8205C	4/20/2021	1	0.1	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	624	PBN-8205C	4/20/2021	1	0.423	0.0085	0.053	ug/l	0.005	0.05
Trichloroethene	624	PBN-8205C	4/20/2021	1	0.49	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	632	PBN-8502A	4/20/2021	1	0.56	0.1	0.2	ug/l	40	200
Carbon tetrachloride	632	PBN-8502A	4/20/2021	1	11	0.1	0.2	ug/l	0.5	5
Chloroform	632	PBN-8502A	4/20/2021	1	0.17	0.1	0.2	ug/l	0.6	6
Trichloroethene	632	PBN-8502A	4/20/2021	1	1.3	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	633	PBN-8503A	4/20/2021	1	1.8	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	645	PBN-8902C	4/20/2021	1	0.13	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	645	PBN-8902C	4/20/2021	1	0.041	0.0061	0.051	ug/l		
2,4-Dinitrotoluene	645	PBN-8902C	4/20/2021	1	0.036	0.0082	0.051	ug/l	0.005	0.05
2,6-Dinitrotoluene	645	PBN-8902C	4/20/2021	1	0.041	0.0051	0.051	ug/l	0.005	0.05
3,4-Dinitrotoluene	645	PBN-8902C	4/20/2021	1	0.044	0.0051	0.051	ug/l		
Carbon tetrachloride	645	PBN-8902C	4/20/2021	1	1.7	0.1	0.2	ug/l	0.5	5
Chloroform	645	PBN-8902C	4/20/2021	1	0.11	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	645	PBN-8902C	4/20/2021	1	0.162	0.0082	0.051	ug/l	0.005	0.05
Trichloroethene	645	PBN-8902C	4/20/2021	1	0.65	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	646	PBN-8903B	4/20/2021	2	1.1	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	646	PBN-8903B	4/20/2021	1	1.2	0.1	0.2	ug/l	0.5	5
1,2,4-Trimethylbenzene	655	PBN-8912B	4/20/2021	1	0.17	0.1	0.2	ug/l	96	480
Benzene	655	PBN-8912B	4/20/2021	1	0.16	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	655	PBN-8912B	4/20/2021	1	0.43	0.1	0.2	ug/l	0.5	5
Ethylbenzene	655	PBN-8912B	4/20/2021	1	0.18	0.1	0.2	ug/l	140	700
m & p-Xylene	655	PBN-8912B	4/20/2021	1	0.57	0.2	0.4	ug/l	400	2000
o-Xylene	655	PBN-8912B	4/20/2021	1	0.27	0.1	0.2	ug/l	400	2000
Tetrachloroethene	655	PBN-8912B	4/20/2021	1	0.14	0.1	0.2	ug/l	0.5	5
Toluene	655	PBN-8912B	4/20/2021	1	4.2	0.1	0.2	ug/l	160	800
Trichloroethene	655	PBN-8912B	4/20/2021	1	0.39	0.1	0.2	ug/l	0.5	5
Chloroform	665	PBN-9112C	4/20/2021	1	0.22	0.1	0.2	ug/l	0.6	6
Trichloroethene	665	PBN-9112C	4/20/2021	1	0.11	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	668	PBN-9301B	4/12/2021	1	0.2	0.1	0.2	ug/l	40	200
Carbon tetrachloride	668	PBN-9301B	4/12/2021	1	3.6	0.1	0.2	ug/l	0.5	5
Chloroform	668	PBN-9301B	4/12/2021	1	0.53	0.1	0.2	ug/l	0.6	6
Trichloroethene	668	PBN-9301B	4/12/2021	1	0.24	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	669	PBN-9301C	4/12/2021	1	0.53	0.1	0.2	ug/l	40	200
2,6-Dinitrotoluene	669	PBN-9301C	4/12/2021	1	0.026	0.0056	0.056	ug/l	0.005	0.05
Bromodichloromethane	669	PBN-9301C	4/12/2021	1	0.2	0.1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	669	PBN-9301C	4/12/2021	1	0.9	0.1	0.2	ug/l	0.5	5
Chloroform	669	PBN-9301C	4/12/2021	1	1.5	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	669	PBN-9301C	4/12/2021	1	0.026	0.009	0.056	ug/l	0.005	0.05
Trichloroethene	669	PBN-9301C	4/12/2021	1	0.24	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	673	PBN-9303B	4/12/2021	1	0.41	0.1	0.2	ug/l	40	200
Carbon tetrachloride	673	PBN-9303B	4/12/2021	1	3.4	0.1	0.2	ug/l	0.5	5
Chloroform	673	PBN-9303B	4/12/2021	1	0.42	0.1	0.2	ug/l	0.6	6
Trichloroethene	673	PBN-9303B	4/12/2021	1	0.13	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	674	PBN-9303C	4/12/2021	1	1.7	0.1	0.2	ug/l	40	200
1,1-Dichloroethene	674	PBN-9303C	4/12/2021	1	0.21	0.1	0.2	ug/l	0.7	7
Carbon tetrachloride	674	PBN-9303C	4/12/2021	1	2.8	0.1	0.2	ug/l	0.5	5
Chloroform	674	PBN-9303C	4/12/2021	1	0.92	0.1	0.2	ug/l	0.6	6
Trichloroethene	674	PBN-9303C	4/12/2021	1	0.18	0.1	0.2	ug/l	0.5	5

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
1,1-Dichloroethane	675	PBN-9303D	4/12/2021	1	0.98	0.1	0.2	ug/l	85	850
1,1-Dichloroethene	675	PBN-9303D	4/12/2021	1	0.17	0.1	0.2	ug/l	0.7	7
Ethyl ether	675	PBN-9303D	4/12/2021	1	58	0.5	1	ug/l	100	1000
Ethyl ether	687	PBN-9304D	4/12/2021	1	65	2	4	ug/l	100	1000
Carbon tetrachloride	692	PBN-9903A	4/12/2021	1	0.96	0.1	0.2	ug/l	0.5	5
Chloroform	692	PBN-9903A	4/12/2021	1	0.11	0.1	0.2	ug/l	0.6	6
Trichloroethene	692	PBN-9903A	4/12/2021	1	0.3	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	693	PBN-9903B	4/12/2021	1	0.19	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	693	PBN-9903B	4/12/2021	1	0.053	0.0065	0.054	ug/l		
2,6-Dinitrotoluene	693	PBN-9903B	4/12/2021	1	0.039	0.0054	0.054	ug/l	0.005	0.05
3,4-Dinitrotoluene	693	PBN-9903B	4/12/2021	1	0.052	0.0054	0.054	ug/l		
Carbon tetrachloride	693	PBN-9903B	4/12/2021	1	2.5	0.1	0.2	ug/l	0.5	5
Chloroform	693	PBN-9903B	4/12/2021	1	0.34	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	693	PBN-9903B	4/12/2021	1	0.144	0.0087	0.054	ug/l	0.005	0.05
Trichloroethene	693	PBN-9903B	4/12/2021	1	0.93	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	694	PBN-9903C	4/12/2021	1	0.22	0.1	0.2	ug/l	40	200
2,6-Dinitrotoluene	694	PBN-9903C	4/12/2021	1	0.034	0.0051	0.051	ug/l	0.005	0.05
Carbon tetrachloride	694	PBN-9903C	4/12/2021	1	7.6	0.1	0.2	ug/l	0.5	5
Chloroform	694	PBN-9903C	4/12/2021	1	0.46	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	694	PBN-9903C	4/12/2021	1	0.034	0.0082	0.051	ug/l	0.005	0.05
Trichloroethene	694	PBN-9903C	4/12/2021	1	1.2	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	695	PBN-9903D	4/12/2021	1	0.18	0.1	0.2	ug/l	40	200
1,1-Dichloroethane	695	PBN-9903D	4/12/2021	1	0.13	0.1	0.2	ug/l	85	850
Carbon tetrachloride	695	PBN-9903D	4/12/2021	1	0.16	0.1	0.2	ug/l	0.5	5
Chloroform	695	PBN-9903D	4/12/2021	1	0.84	0.1	0.2	ug/l	0.6	6
Ethyl ether	695	PBN-9903D	4/12/2021	1	790	10	20	ug/l	100	1000
1,1,1-Trichloroethane	770	PBN-1302A	4/14/2021	1	0.29	0.1	0.2	ug/l	40	200
Carbon tetrachloride	770	PBN-1302A	4/14/2021	1	2.7	0.1	0.2	ug/l	0.5	5
Chloroform	770	PBN-1302A	4/14/2021	1	0.29	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	771	PBN-1302B	4/14/2021	1	0.27	0.1	0.2	ug/l	40	200
Carbon tetrachloride	771	PBN-1302B	4/14/2021	1	3.9	0.1	0.2	ug/l	0.5	5
Chloroform	771	PBN-1302B	4/14/2021	1	0.41	0.1	0.2	ug/l	0.6	6
Trichloroethene	771	PBN-1302B	4/14/2021	1	0.31	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	772	PBN-1302C	4/14/2021	1	1.1	0.1	0.2	ug/l	40	200
1,1-Dichloroethene	772	PBN-1302C	4/14/2021	1	0.14	0.1	0.2	ug/l	0.7	7
2,4-Dinitrotoluene	772	PBN-1302C	4/14/2021	1	0.045	0.0083	0.052	ug/l	0.005	0.05
2,6-Dinitrotoluene	772	PBN-1302C	4/14/2021	1	0.032	0.0052	0.052	ug/l	0.005	0.05
Carbon tetrachloride	772	PBN-1302C	4/14/2021	1	2.6	0.1	0.2	ug/l	0.5	5
Chloroform	772	PBN-1302C	4/14/2021	1	0.91	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	772	PBN-1302C	4/14/2021	1	0.077	0.0083	0.052	ug/l	0.005	0.05
1,1,1-Trichloroethane	774	PBN-1303A	4/14/2021	1	0.38	0.1	0.2	ug/l	40	200
Carbon tetrachloride	774	PBN-1303A	4/14/2021	1	0.83	0.1	0.2	ug/l	0.5	5
Chloroform	774	PBN-1303A	4/14/2021	1	0.22	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	775	PBN-1303B	4/14/2021	1	0.46	0.1	0.2	ug/l	40	200
Carbon tetrachloride	775	PBN-1303B	4/14/2021	1	1.3	0.1	0.2	ug/l	0.5	5
Chloroform	775	PBN-1303B	4/14/2021	1	0.27	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	776	PBN-1303C	4/14/2021	1	0.79	0.1	0.2	ug/l	40	200
2,4-Dinitrotoluene	776	PBN-1303C	4/14/2021	1	0.043	0.0082	0.052	ug/l	0.005	0.05
Carbon tetrachloride	776	PBN-1303C	4/14/2021	1	2	0.1	0.2	ug/l	0.5	5
Chloroform	776	PBN-1303C	4/14/2021	1	0.49	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	776	PBN-1303C	4/14/2021	1	0.043	0.0082	0.052	ug/l	0.005	0.05
1,1-Dichloroethane	777	PBN-1303D	4/14/2021	1	0.3	0.1	0.2	ug/l	85	850
1,1,1-Trichloroethane	778	PBN-1304A	4/14/2021	1	0.11	0.1	0.2	ug/l	40	200
Carbon tetrachloride	778	PBN-1304A	4/14/2021	1	0.13	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	779	PBN-1304B	4/14/2021	1	0.29	0.1	0.2	ug/l	40	200
Carbon tetrachloride	779	PBN-1304B	4/14/2021	1	0.35	0.1	0.2	ug/l	0.5	5
Chloroform	779	PBN-1304B	4/14/2021	1	0.19	0.1	0.2	ug/l	0.6	6

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
1,1,1-Trichloroethane	780	PBN-1304C	4/14/2021	1	0.33	0.1	0.2	ug/l	40	200
Carbon tetrachloride	780	PBN-1304C	4/14/2021	1	0.45	0.1	0.2	ug/l	0.5	5
Chloroform	780	PBN-1304C	4/14/2021	1	0.21	0.1	0.2	ug/l	0.6	6
1,1-Dichloroethane	781	PBN-1304D	4/14/2021	1	0.29	0.1	0.2	ug/l	85	850
2,3-Dinitrotoluene	782	PBN-1401A	4/14/2021	1	0.18	0.0063	0.052	ug/l		
2,4-Dinitrotoluene	782	PBN-1401A	4/14/2021	1	0.062	0.0083	0.052	ug/l	0.005	0.05
2,5-Dinitrotoluene	782	PBN-1401A	4/14/2021	1	0.055	0.0052	0.052	ug/l		
2,6-Dinitrotoluene	782	PBN-1401A	4/14/2021	1	0.097	0.0052	0.052	ug/l	0.005	0.05
3,4-Dinitrotoluene	782	PBN-1401A	4/14/2021	1	0.12	0.0052	0.052	ug/l		
3,5-Dinitrotoluene	782	PBN-1401A	4/14/2021	1	0.067	0.0052	0.052	ug/l		
Carbon tetrachloride	782	PBN-1401A	4/14/2021	1	0.12	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	782	PBN-1401A	4/14/2021	1	0.581	0.0083	0.052	ug/l	0.005	0.05
Trichloroethene	782	PBN-1401A	4/14/2021	1	0.19	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	783	PBN-1401B	4/14/2021	1	0.13	0.0062	0.052	ug/l		
2,4-Dinitrotoluene	783	PBN-1401B	4/14/2021	1	0.07	0.0082	0.052	ug/l	0.005	0.05
2,5-Dinitrotoluene	783	PBN-1401B	4/14/2021	1	0.045	0.0052	0.052	ug/l		
2,6-Dinitrotoluene	783	PBN-1401B	4/14/2021	1	0.098	0.0052	0.052	ug/l	0.005	0.05
3,4-Dinitrotoluene	783	PBN-1401B	4/14/2021	1	0.093	0.0052	0.052	ug/l		
3,5-Dinitrotoluene	783	PBN-1401B	4/14/2021	1	0.06	0.0052	0.052	ug/l		
Carbon tetrachloride	783	PBN-1401B	4/14/2021	1	0.11	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	783	PBN-1401B	4/14/2021	1	0.496	0.0082	0.052	ug/l	0.005	0.05
Trichloroethene	783	PBN-1401B	4/14/2021	1	0.14	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	784	PBN-1401C	4/14/2021	1	0.12	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	784	PBN-1401C	4/14/2021	1	0.044	0.0061	0.051	ug/l		
2,4-Dinitrotoluene	784	PBN-1401C	4/14/2021	1	0.042	0.0082	0.051	ug/l	0.005	0.05
2,6-Dinitrotoluene	784	PBN-1401C	4/14/2021	1	0.022	0.0051	0.051	ug/l	0.005	0.05
3,4-Dinitrotoluene	784	PBN-1401C	4/14/2021	1	0.049	0.0051	0.051	ug/l		
Total Dinitrotoluenes	784	PBN-1401C	4/14/2021	1	0.157	0.0082	0.051	ug/l	0.005	0.05
1,1,1-Trichloroethane	791	PBN-1404B	4/14/2021	1	0.21	0.1	0.2	ug/l	40	200
Carbon tetrachloride	791	PBN-1404B	4/14/2021	1	3.1	0.1	0.2	ug/l	0.5	5
Chloroform	791	PBN-1404B	4/14/2021	1	0.74	0.1	0.2	ug/l	0.6	6
Trichloroethene	791	PBN-1404B	4/14/2021	1	0.82	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	792	PBN-1404C	4/14/2021	1	0.21	0.1	0.2	ug/l	40	200
Bromodichloromethane	792	PBN-1404C	4/14/2021	1	0.2	0.1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	792	PBN-1404C	4/14/2021	1	0.6	0.1	0.2	ug/l	0.5	5
Chloroform	792	PBN-1404C	4/14/2021	1	1.5	0.1	0.2	ug/l	0.6	6
Trichloroethene	792	PBN-1404C	4/14/2021	1	0.22	0.1	0.2	ug/l	0.5	5
1,1-Dichloroethane	793	PBN-1404D	4/14/2021	1	0.13	0.1	0.2	ug/l	85	850
Ethyl ether	793	PBN-1404D	4/14/2021	1	300	20	40	ug/l	100	1000
1,1,1-Trichloroethane	795	PBN-8902BR	4/20/2021	1	0.22	0.1	0.2	ug/l	40	200
2,6-Dinitrotoluene	795	PBN-8902BR	4/20/2021	1	0.016	0.0052	0.052	ug/l	0.005	0.05
Carbon tetrachloride	795	PBN-8902BR	4/20/2021	1	3	0.1	0.2	ug/l	0.5	5
Chloroform	795	PBN-8902BR	4/20/2021	1	0.26	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	795	PBN-8902BR	4/20/2021	1	0.016	0.0082	0.052	ug/l	0.005	0.05
Trichloroethene	795	PBN-8902BR	4/20/2021	1	0.81	0.1	0.2	ug/l	0.5	5

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- Prepare one form for each license or monitoring ID.
- Please type or print legibly.
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to:

GEMS Data Submittal Contact - WA/5
Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvc.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Deterrent Burning Grounds	03037	157065260	4/5 - 4/7/21

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

April 2021

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) _____ |

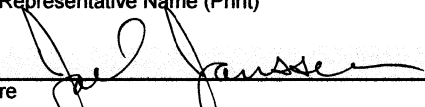
Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen Project Manager (608) 438-1110
Facility Representative Name (Print) Title (Area Code) Telephone No.

Signature  Date 5/27/21

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

Found uploading problems on _____ Initials _____

Notified contact of problems on _____ Uploaded data successfully on _____

EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other _____

Case Narrative
Groundwater Monitoring
License Number 3037
Deterrent Burning Grounds
April 2021
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities.

Total dinitrotoluene (DNT) exceeded the Enforcement Standard (ES) in DBM-8201 (301), DBM-8202 (302), DBN-1001B (472), and DBN-1002C (476).

2,4-DNT exceeded the Preventive Action Limit (PAL) in DBM-8201 (301) and DBN-1002C (476).

2,6-DNT exceeded the PAL in DBM-8201 (301), DBM-8202 (302), DBN-1001B (472), and DBN-1002C (476).

Volatile organic compounds (VOCs) analysis was performed by CT Laboratories (CT Lab) using method EPA 8260C.

DNT analysis was performed by CT Lab using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

Sulfate analyses were performed by CT Lab using method SW 846 9056A.

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2021

Report Date: 5/26/2021

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	3037	301	DBM-8201	4/6/2021	1	0.026	ug/l	0.005	0.05
2,6-Dinitrotoluene	3037	301	DBM-8201	4/6/2021	1	0.049	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	301	DBM-8201	4/6/2021	1	1.695	ug/l	0.005	0.05
2,6-Dinitrotoluene	3037	302	DBM-8202	4/6/2021	1	0.0089	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	302	DBM-8202	4/6/2021	1	0.1319	ug/l	0.005	0.05
2,6-Dinitrotoluene	3037	472	DBN-1001B	4/6/2021	1	0.0098	ug/l	0.005	0.05
2,6-Dinitrotoluene	3037	472	DBN-1001B	4/6/2021	2	0.011	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	472	DBN-1001B	4/6/2021	1	0.3228	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	472	DBN-1001B	4/6/2021	2	0.294	ug/l	0.005	0.05
2,4-Dinitrotoluene	3037	476	DBN-1002C	4/7/2021	1	0.023	ug/l	0.005	0.05
2,6-Dinitrotoluene	3037	476	DBN-1002C	4/7/2021	1	0.01	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	476	DBN-1002C	4/7/2021	1	0.512	ug/l	0.005	0.05

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

April 2021

GROUNDWATER MONITORING ALL HITS REPORT

License No: 3037

Report Date: 5/26/2021

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,3-Dinitrotoluene	301	DBM-8201	4/6/2021	1	1.1	0.0063	0.052	ug/l		
2,4-Dinitrotoluene	301	DBM-8201	4/6/2021	1	0.026	0.0083	0.052	ug/l	0.005	0.05
2,6-Dinitrotoluene	301	DBM-8201	4/6/2021	1	0.049	0.0052	0.052	ug/l	0.005	0.05
3,4-Dinitrotoluene	301	DBM-8201	4/6/2021	1	0.18	0.0052	0.052	ug/l		
3,5-Dinitrotoluene	301	DBM-8201	4/6/2021	1	0.34	0.0052	0.052	ug/l		
Sulfate	301	DBM-8201	4/6/2021	1	19	0.8	3	mg/l	125	250
Total Dinitrotoluenes	301	DBM-8201	4/6/2021	1	1.695	0.0083	0.052	ug/l	0.005	0.05
1,1,1-Trichloroethane	302	DBM-8202	4/6/2021	1	0.67	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	302	DBM-8202	4/6/2021	1	0.046	0.0065	0.054	ug/l		
2,6-Dinitrotoluene	302	DBM-8202	4/6/2021	1	0.0089	0.0054	0.054	ug/l	0.005	0.05
3,4-Dinitrotoluene	302	DBM-8202	4/6/2021	1	0.036	0.0054	0.054	ug/l		
3,5-Dinitrotoluene	302	DBM-8202	4/6/2021	1	0.041	0.0054	0.054	ug/l		
Sulfate	302	DBM-8202	4/6/2021	1	37	0.8	3	mg/l	125	250
Total Dinitrotoluenes	302	DBM-8202	4/6/2021	1	0.1319	0.0087	0.054	ug/l	0.005	0.05
1,1,1-Trichloroethane	472	DBN-1001B	4/6/2021	2	1.2	0.1	0.2	ug/l	40	200
1,1,1-Trichloroethane	472	DBN-1001B	4/6/2021	1	1.2	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	472	DBN-1001B	4/6/2021	1	0.096	0.0067	0.056	ug/l		
2,3-Dinitrotoluene	472	DBN-1001B	4/6/2021	2	0.086	0.0064	0.053	ug/l		
2,6-Dinitrotoluene	472	DBN-1001B	4/6/2021	2	0.011	0.0053	0.053	ug/l	0.005	0.05
2,6-Dinitrotoluene	472	DBN-1001B	4/6/2021	1	0.0098	0.0056	0.056	ug/l	0.005	0.05
3,4-Dinitrotoluene	472	DBN-1001B	4/6/2021	2	0.17	0.0053	0.053	ug/l		
3,4-Dinitrotoluene	472	DBN-1001B	4/6/2021	1	0.19	0.0056	0.056	ug/l		
3,5-Dinitrotoluene	472	DBN-1001B	4/6/2021	1	0.027	0.0056	0.056	ug/l		
3,5-Dinitrotoluene	472	DBN-1001B	4/6/2021	2	0.027	0.0053	0.053	ug/l		
Total Dinitrotoluenes	472	DBN-1001B	4/6/2021	2	0.294	0.0085	0.053	ug/l	0.005	0.05
Total Dinitrotoluenes	472	DBN-1001B	4/6/2021	1	0.3228	0.0089	0.056	ug/l	0.005	0.05
1,1,1-Trichloroethane	476	DBN-1002C	4/7/2021	1	0.13	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	476	DBN-1002C	4/7/2021	1	0.14	0.0061	0.051	ug/l		
2,4-Dinitrotoluene	476	DBN-1002C	4/7/2021	1	0.023	0.0082	0.051	ug/l	0.005	0.05
2,6-Dinitrotoluene	476	DBN-1002C	4/7/2021	1	0.01	0.0051	0.051	ug/l	0.005	0.05
3,4-Dinitrotoluene	476	DBN-1002C	4/7/2021	1	0.3	0.0051	0.051	ug/l		
3,5-Dinitrotoluene	476	DBN-1002C	4/7/2021	1	0.039	0.0051	0.051	ug/l		
Sulfate	476	DBN-1002C	4/7/2021	1	23	0.8	3	mg/l	125	250
Total Dinitrotoluenes	476	DBN-1002C	4/7/2021	1	0.512	0.0082	0.051	ug/l	0.005	0.05
Sulfate	477	DBN-1002E	4/7/2021	1	18	0.8	3	mg/l	125	250

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- Prepare one form for each license or monitoring ID.
- Please type or print legibly.
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact - WA/5
Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvcs.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Southeast Boundary	03038	157005530	4/5/21

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

April 2021

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) _____ |

Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen Project Manager (608) 438-1110
Facility Representative Name (Print) Title (Area Code) Telephone No.

Signature Joel Janssen Date 5/27/21

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

Found uploading problems on _____ Initials _____

Notified contact of problems on _____ Uploaded data successfully on _____

EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other _____

Case Narrative
Groundwater Monitoring
License Number 3038
Southeast Boundary
April 2021
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities.

Only one well, S1121 (755), was sampled during this sampling period. No compounds were detected in S1121.

Volatile organic compounds (VOCs) analysis was performed by CT Laboratories (CT Lab) using method EPA 8260C.

Dinitrotoluene (DNT) analysis was performed by CT Lab using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- Prepare one form for each license or monitoring ID.
- Please type or print legibly.
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact - WA/5
Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvc.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Off-Site Plume Wells	03485 & 03493	157005530	4/15/21

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

April 2021

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) _____ |

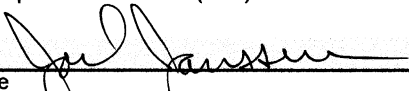
Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen Project Manager (608) 438-1110
Facility Representative Name (Print) Title (Area Code) Telephone No.

Signature  Date 5/27/21

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

Found uploading problems on _____ Initials _____

Notified contact of problems on _____ Uploaded data successfully on _____

EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other _____

Case Narrative
Groundwater Monitoring
License Number 3485 & 3493
Off-Site Plume Wells
April 2021
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Contamination from the Propellant Burning Ground impacts groundwater quality in wells associated with this license.

Total dinitrotoluene (DNT) exceeded the Enforcement Standard (ES) in PBN-9101C (561), SWN-9104C (575), and PBM-9001D (981).

2,4-DNT and 2,6-DNT exceeded the Preventive Action Limit (PAL) in PBN-9101C (561), SWN-9104C (575), and PBM-9001D (981).

Carbon tetrachloride exceeded the Enforcement Standard (ES) in PBN-9101C (561) and PBM-9001D (981). Carbon tetrachloride exceeded the PAL in SWN-9103B (571), SWN-9104C (575), and SWN-9104D (576).

Chloroform exceeded the PAL in PBN-9101C (561), SWN-9104C (575), SWN-9104D (576), and PBM-9001D (981).

Trichloroethene exceeded the PAL in PBN-9101C (561) and PBM-9001D (981).

Volatile organic compounds (VOCs) analysis was performed by CT Laboratories (CT Lab) using method EPA 8260C.

DNT analysis was also performed by CT Lab using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2021

Report Date: 5/26/2021

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	3485	981	PBM-9001D	4/15/2021	1	0.037	ug/l	0.005	0.05
2,6-Dinitrotoluene	3485	981	PBM-9001D	4/15/2021	1	0.022	ug/l	0.005	0.05
Carbon tetrachloride	3485	981	PBM-9001D	4/15/2021	1	8.3	ug/l	0.5	5
Chloroform	3485	981	PBM-9001D	4/15/2021	1	0.86	ug/l	0.6	6
Total Dinitrotoluenes	3485	981	PBM-9001D	4/15/2021	1	0.059	ug/l	0.005	0.05
Trichloroethene	3485	981	PBM-9001D	4/15/2021	1	3.5	ug/l	0.5	5

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

April 2021

GROUNDWATER MONITORING ALL HITS REPORT

License No: 3485

Report Date: 5/26/2021

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
1,1,1-Trichloroethane	981	PBM-9001D	4/15/2021	1	0.13	0.1	0.2	ug/l	40	200
2,4-Dinitrotoluene	981	PBM-9001D	4/15/2021	1	0.037	0.0085	0.053	ug/l	0.005	0.05
2,6-Dinitrotoluene	981	PBM-9001D	4/15/2021	1	0.022	0.0053	0.053	ug/l	0.005	0.05
Carbon tetrachloride	981	PBM-9001D	4/15/2021	1	8.3	0.1	0.2	ug/l	0.5	5
Chloroform	981	PBM-9001D	4/15/2021	1	0.86	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	981	PBM-9001D	4/15/2021	1	0.059	0.0085	0.053	ug/l	0.005	0.05
Trichloroethene	981	PBM-9001D	4/15/2021	1	3.5	0.1	0.2	ug/l	0.5	5

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2021

Report Date: 5/26/2021

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	3493	561	PBN-9101C	4/15/2021	1	0.044	ug/l	0.005	0.05
2,6-Dinitrotoluene	3493	561	PBN-9101C	4/15/2021	1	0.039	ug/l	0.005	0.05
Carbon tetrachloride	3493	561	PBN-9101C	4/15/2021	1	38	ug/l	0.5	5
Chloroform	3493	561	PBN-9101C	4/15/2021	1	3.1	ug/l	0.6	6
Total Dinitrotoluenes	3493	561	PBN-9101C	4/15/2021	1	0.083	ug/l	0.005	0.05
Trichloroethene	3493	561	PBN-9101C	4/15/2021	1	1.7	ug/l	0.5	5
Carbon tetrachloride	3493	571	SWN-9103B	4/15/2021	1	1.4	ug/l	0.5	5
2,4-Dinitrotoluene	3493	575	SWN-9104C	4/15/2021	1	0.038	ug/l	0.005	0.05
2,6-Dinitrotoluene	3493	575	SWN-9104C	4/15/2021	1	0.019	ug/l	0.005	0.05
Carbon tetrachloride	3493	575	SWN-9104C	4/15/2021	1	4.1	ug/l	0.5	5
Chloroform	3493	575	SWN-9104C	4/15/2021	1	0.69	ug/l	0.6	6
Total Dinitrotoluenes	3493	575	SWN-9104C	4/15/2021	1	0.057	ug/l	0.005	0.05
Carbon tetrachloride	3493	576	SWN-9104D	4/15/2021	1	3.8	ug/l	0.5	5
Chloroform	3493	576	SWN-9104D	4/15/2021	1	0.61	ug/l	0.6	6

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

April 2021

GROUNDWATER MONITORING ALL HITS REPORT

License No: 3493

Report Date: 5/26/2021

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,4-Dinitrotoluene	561	PBN-9101C	4/15/2021	1	0.044	0.0085	0.053	ug/l	0.005	0.05
2,6-Dinitrotoluene	561	PBN-9101C	4/15/2021	1	0.039	0.0053	0.053	ug/l	0.005	0.05
Carbon tetrachloride	561	PBN-9101C	4/15/2021	1	38	0.5	1	ug/l	0.5	5
Chloroform	561	PBN-9101C	4/15/2021	1	3.1	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	561	PBN-9101C	4/15/2021	1	0.083	0.0085	0.053	ug/l	0.005	0.05
Trichloroethene	561	PBN-9101C	4/15/2021	1	1.7	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	571	SWN-9103B	4/15/2021	1	0.21	0.1	0.2	ug/l	40	200
Carbon tetrachloride	571	SWN-9103B	4/15/2021	1	1.4	0.1	0.2	ug/l	0.5	5
Chloroform	571	SWN-9103B	4/15/2021	1	0.11	0.1	0.2	ug/l	0.6	6
Trichloroethene	571	SWN-9103B	4/15/2021	1	0.16	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	572	SWN-9103C	4/15/2021	1	0.38	0.1	0.2	ug/l	0.5	5
Chloroform	572	SWN-9103C	4/15/2021	1	0.11	0.1	0.2	ug/l	0.6	6
Carbon tetrachloride	573	SWN-9103D	4/15/2021	1	0.22	0.1	0.2	ug/l	0.5	5
Ethyl ether	573	SWN-9103D	4/15/2021	1	0.19	0.1	0.2	ug/l	100	1000
Ethyl ether	574	SWN-9103E	4/15/2021	1	0.27	0.1	0.2	ug/l	100	1000
1,1,1-Trichloroethane	575	SWN-9104C	4/15/2021	1	0.22	0.1	0.2	ug/l	40	200
2,4-Dinitrotoluene	575	SWN-9104C	4/15/2021	1	0.038	0.008	0.05	ug/l	0.005	0.05
2,6-Dinitrotoluene	575	SWN-9104C	4/15/2021	1	0.019	0.005	0.05	ug/l	0.005	0.05
Carbon tetrachloride	575	SWN-9104C	4/15/2021	1	4.1	0.1	0.2	ug/l	0.5	5
Chloroform	575	SWN-9104C	4/15/2021	1	0.69	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	575	SWN-9104C	4/15/2021	1	0.057	0.008	0.05	ug/l	0.005	0.05
Carbon tetrachloride	576	SWN-9104D	4/15/2021	1	3.8	0.1	0.2	ug/l	0.5	5
Chloroform	576	SWN-9104D	4/15/2021	1	0.61	0.1	0.2	ug/l	0.6	6

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Instructions:

- Prepare one form for each license or monitoring ID.
- Please type or print legibly.
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
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- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact - WA/5
Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvc.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Nitroglycerine Pond/Rocket Paste Area	03487	157005530	4/5/21

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

April 2021

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) _____ |

Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen Project Manager (608) 438-1110
Facility Representative Name (Print) Title (Area Code) Telephone No.

Signature Joel Janssen Date 5/27/21

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

Found uploading problems on _____ Initials _____

Notified contact of problems on _____ Uploaded data successfully on _____

EDD format(s): Diskette CD (Initial submittal and follow-up) E-mail (follow-up only) Other _____

Case Narrative
Groundwater Monitoring
License Number 3487
Nitroglycerine Pond/Rocket Paste Area
April 2021
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Four (4) wells were sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) in the Nitrocellulose Production Area Plume.

Total DNT exceeded the Enforcement Standard (ES) in RIM-0705 (442), RIM-1002 (478), and RIN-1001A (480). Total DNT exceeded the Preventive Action Limit (PAL) in S1125 (504).

2,4-DNT exceeded the PAL in RIM-0705 (442), RIM-1002 (478), and RIN-1001A (480).

2,6-DNT exceeded the PAL in RIM-0705 (442), RIM-1002 (478), RIN-1001A (480), and S1125 (504).

DNT analysis was performed by CT Laboratories using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2021

Report Date: 5/26/2021

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	3487	442	RIM-0705	4/5/2021	1	0.037	ug/l	0.005	0.05
2,6-Dinitrotoluene	3487	442	RIM-0705	4/5/2021	1	0.036	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	442	RIM-0705	4/5/2021	1	0.073	ug/l	0.005	0.05
2,4-Dinitrotoluene	3487	478	RIM-1002	4/5/2021	1	0.037	ug/l	0.005	0.05
2,6-Dinitrotoluene	3487	478	RIM-1002	4/5/2021	1	0.016	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	478	RIM-1002	4/5/2021	1	0.053	ug/l	0.005	0.05
2,4-Dinitrotoluene	3487	480	RIN-1001A	4/5/2021	1	0.031	ug/l	0.005	0.05
2,6-Dinitrotoluene	3487	480	RIN-1001A	4/5/2021	1	0.026	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	480	RIN-1001A	4/5/2021	1	0.057	ug/l	0.005	0.05
2,6-Dinitrotoluene	3487	504	S1125	4/5/2021	1	0.018	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	504	S1125	4/5/2021	1	0.018	ug/l	0.005	0.05

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

April 2021

GROUNDWATER MONITORING ALL HITS REPORT

License No: 3487

Report Date: 5/26/2021

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,4-Dinitrotoluene	442	RIM-0705	4/5/2021	1	0.037	0.0082	0.051	ug/l	0.005	0.05
2,6-Dinitrotoluene	442	RIM-0705	4/5/2021	1	0.036	0.0051	0.051	ug/l	0.005	0.05
Total Dinitrotoluenes	442	RIM-0705	4/5/2021	1	0.073	0.0082	0.051	ug/l	0.005	0.05
2,4-Dinitrotoluene	478	RIM-1002	4/5/2021	1	0.037	0.0081	0.051	ug/l	0.005	0.05
2,6-Dinitrotoluene	478	RIM-1002	4/5/2021	1	0.016	0.0051	0.051	ug/l	0.005	0.05
Total Dinitrotoluenes	478	RIM-1002	4/5/2021	1	0.053	0.0081	0.051	ug/l	0.005	0.05
2,4-Dinitrotoluene	480	RIN-1001A	4/5/2021	1	0.031	0.0081	0.051	ug/l	0.005	0.05
2,6-Dinitrotoluene	480	RIN-1001A	4/5/2021	1	0.026	0.0051	0.051	ug/l	0.005	0.05
Total Dinitrotoluenes	480	RIN-1001A	4/5/2021	1	0.057	0.0081	0.051	ug/l	0.005	0.05
2,6-Dinitrotoluene	504	S1125	4/5/2021	1	0.018	0.0051	0.051	ug/l	0.005	0.05
Total Dinitrotoluenes	504	S1125	4/5/2021	1	0.018	0.0081	0.051	ug/l	0.005	0.05

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Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvc.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Off-Site Residential Wells	03497	157005530	4/15/21 & 5/5/21

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

April 2021

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input checked="" type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) _____ |

Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen Project Manager (608) 438-1110
Facility Representative Name (Print) Title (Area Code) Telephone No.

Signature Joel Janssen Date 5/27/21

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

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Notified contact of problems on _____ Uploaded data successfully on _____

EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other _____

Case Narrative
Groundwater Monitoring
License Number 3497
Off-Site Residential Wells
April 2021
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. One residential well located in the Central Plume was sampled during this round.

Total dinitrotoluene (DNT) exceeded the Enforcement Standard (ES) in WE-XK342 (435) for the April 15th sampling event. 2,4-DNT and 2,6-DNT exceeded the Preventive Action Limit (PAL) in WE-XK342 (435) for the April 15th sampling event. 2,6-DNT and total DNT exceeded the PAL in WE-XK342 (435) for the May 5th sampling event.

WE-XK342 is located in the Water's Edge Subdivision at the southern end of the Central Plume. The Army has offered bottled water to the homeowners. Residential well WE-XK342 will be resampled during June 2021 to evaluate the DNT concentrations.

Volatile organic compounds (VOCs) analysis was performed by CT Laboratories (CT Lab) using method EPA 8260C.

DNT analysis was also performed by CT Lab using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2021

Report Date: 5/26/2021

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	3497	435	WE-XK342	4/15/2021	1	0.035	ug/l	0.005	0.05
2,4-Dinitrotoluene	3497	435	WE-XK342	4/15/2021	2	0.047	ug/l	0.005	0.05
2,6-Dinitrotoluene	3497	435	WE-XK342	4/15/2021	1	0.025	ug/l	0.005	0.05
2,6-Dinitrotoluene	3497	435	WE-XK342	4/15/2021	2	0.024	ug/l	0.005	0.05
2,6-Dinitrotoluene	3497	435	WE-XK342	5/5/2021	1	0.027	ug/l	0.005	0.05
2,6-Dinitrotoluene	3497	435	WE-XK342	5/5/2021	2	0.028	ug/l	0.005	0.05
Total Dinitrotoluenes	3497	435	WE-XK342	4/15/2021	1	0.105	ug/l	0.005	0.05
Total Dinitrotoluenes	3497	435	WE-XK342	4/15/2021	2	0.131	ug/l	0.005	0.05
Total Dinitrotoluenes	3497	435	WE-XK342	5/5/2021	1	0.027	ug/l	0.005	0.05
Total Dinitrotoluenes	3497	435	WE-XK342	5/5/2021	2	0.028	ug/l	0.005	0.05

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

April 2021

GROUNDWATER MONITORING ALL HITS REPORT

License No: 3497

Report Date: 5/26/2021

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,4-Dinitrotoluene	435	WE-XK342	4/15/2021	2	0.047	0.008	0.05	ug/l	0.005	0.05
2,4-Dinitrotoluene	435	WE-XK342	4/15/2021	1	0.035	0.008	0.05	ug/l	0.005	0.05
2,6-Dinitrotoluene	435	WE-XK342	4/15/2021	2	0.024	0.005	0.05	ug/l	0.005	0.05
2,6-Dinitrotoluene	435	WE-XK342	4/15/2021	1	0.025	0.005	0.05	ug/l	0.005	0.05
2,6-Dinitrotoluene	435	WE-XK342	5/5/2021	1	0.027	0.005	0.05	ug/l	0.005	0.05
2,6-Dinitrotoluene	435	WE-XK342	5/5/2021	2	0.028	0.005	0.05	ug/l	0.005	0.05
3,4-Dinitrotoluene	435	WE-XK342	4/15/2021	2	0.06	0.005	0.05	ug/l		
3,4-Dinitrotoluene	435	WE-XK342	4/15/2021	1	0.045	0.005	0.05	ug/l		
Chloroform	435	WE-XK342	4/15/2021	2	0.15	0.1	0.2	ug/l	0.6	6
Chloroform	435	WE-XK342	4/15/2021	1	0.16	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	435	WE-XK342	4/15/2021	2	0.131	0.008	0.05	ug/l	0.005	0.05
Total Dinitrotoluenes	435	WE-XK342	4/15/2021	1	0.105	0.008	0.05	ug/l	0.005	0.05
Total Dinitrotoluenes	435	WE-XK342	5/5/2021	2	0.028	0.008	0.05	ug/l	0.005	0.05
Total Dinitrotoluenes	435	WE-XK342	5/5/2021	1	0.027	0.008	0.05	ug/l	0.005	0.05

Notice: Personally identifiable information collected will be used for program administration and enforcement purposes. The Department may also provide this information to requesters as required under Wisconsin's Open Records law, ss. 19.31 to 19.39, Wis. Stats. When submitting monitoring data, the owner or operator of the facility, practice or activity is required to notify the Department in writing that a groundwater standard or an explosive gas level has been attained or exceeded, as specified in ss. NR 140.24(1)(a); NR 140.26(1)(a); NR 507.30NR 635.14(9)(a); NR 635.18(20) and NR 507.30, Wis. Adm. Code. Failure to report may result in fines, forfeitures or other penalties resulting from enforcement under ss. 289.97, 291.97 or 299.95, Wis. Stats.

Instructions:

- Prepare one form for each license or monitoring ID.
- Please type or print legibly.
- Attach a notification of any values that attain or exceed groundwater standards (that is, preventive action limits, enforcement standards or alternative concentration limits). The notification must include a preliminary analysis of the cause and significance of each value.
- Attach a notification of any gas values that attain or exceed explosive gas levels.
- Send the original signed form, any notification, and Electronic Data Deliverable [EDD] to: GEMS Data Submittal Contact - WA/5
Bureau of Waste Management
Wisconsin Department of Natural Resources
101 South Webster Street
Madison WI 53707-7921

Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

SpecPro Professional Services - Badger Army Ammunition Plant

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: Joel Janssen Phone: (608) 438-1110

E-mail: Joel.Janssen@SpecProSvcS.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Settling Ponds	03499	157005530	4/12 - 4/14/21

The enclosed results are for sampling required in the month(s) of: (e.g., June 2003)

April 2021

Type of Data Submitted (Check all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Groundwater monitoring data from monitoring wells | <input type="checkbox"/> Gas monitoring data |
| <input type="checkbox"/> Groundwater monitoring data from private water supply wells | <input type="checkbox"/> Air monitoring data |
| <input type="checkbox"/> Leachate monitoring data | <input type="checkbox"/> Other (specify) _____ |

Notification attached?

- No. No groundwater standards or explosive gas limits were exceeded.
- Yes, a notification of values exceeding a groundwater standard is attached. It includes a list of monitoring points, dates, sample values, groundwater standard and preliminary analysis of the cause and significance of any concentration.
- Yes, a notification of values exceeding an explosive gas limit is attached. It includes the monitoring points, dates, sample values and explosive gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards.

Joel Janssen Project Manager (608) 438-1110
Facility Representative Name (Print) Title (Area Code) Telephone No.

Signature Joel Janssen Date 5/27/21

FOR DNR USE ONLY. Check action taken, and record date and your initials. Describe on back side if necessary.

Found uploading problems on _____ Initials _____

Notified contact of problems on _____ Uploaded data successfully on _____

EDD format(s): Diskette CD (initial submittal and follow-up) E-mail (follow-up only) Other _____

Case Narrative
Groundwater Monitoring
License Number 3499
Settling Ponds
April 2021
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Contamination from the Propellant Burning Ground largely impacts groundwater quality in wells associated with this license.

Total dinitrotoluene (DNT) exceeded the Enforcement Standard (ES) in SPN-8904B (720) and SPN-9104D (726). Total DNT exceeded the Preventive Action Limit (PAL) in SPN-8904C (721).

2,4-DNT exceeded the PAL in SPN-8904B (720).

2,6-DNT exceeded the PAL in SPN-8904B (720) and SPN-8904C (721).

Carbon tetrachloride exceeded the ES in SPN-8904C (721) and the PAL in SPN-8903B (718) and SPN-8904B (720).

Ethyl ether exceeded the Enforcement Standard (ES) in SPN-9104D (726).

Chloroform exceeded the PAL in SPN-8904C (721).

Trichloroethene exceeded the PAL in SPN-8904B (720) and SPN-8904C (721).

Volatile organic compounds (VOCs) analysis was performed by CT Laboratories (CT Lab) using method EPA 8260C.

DNT analysis was also performed by CT Lab using method SW 8270D SIM. The following DNT isomers were reported: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT, and 3,5-DNT.

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2021

Report Date: 5/26/2021

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
Carbon tetrachloride	3499	718	SPN-8903B	4/12/2021	1	0.52	ug/l	0.5	5
2,4-Dinitrotoluene	3499	720	SPN-8904B	4/12/2021	1	0.046	ug/l	0.005	0.05
2,6-Dinitrotoluene	3499	720	SPN-8904B	4/12/2021	1	0.039	ug/l	0.005	0.05
Carbon tetrachloride	3499	720	SPN-8904B	4/12/2021	1	1.8	ug/l	0.5	5
Total Dinitrotoluenes	3499	720	SPN-8904B	4/12/2021	1	0.247	ug/l	0.005	0.05
Trichloroethene	3499	720	SPN-8904B	4/12/2021	1	0.71	ug/l	0.5	5
2,6-Dinitrotoluene	3499	721	SPN-8904C	4/12/2021	1	0.03	ug/l	0.005	0.05
Carbon tetrachloride	3499	721	SPN-8904C	4/12/2021	1	6.3	ug/l	0.5	5
Chloroform	3499	721	SPN-8904C	4/12/2021	1	0.7	ug/l	0.6	6
Total Dinitrotoluenes	3499	721	SPN-8904C	4/12/2021	1	0.03	ug/l	0.005	0.05
Trichloroethene	3499	721	SPN-8904C	4/12/2021	1	2.4	ug/l	0.5	5
Ethyl ether	3499	726	SPN-9104D	4/12/2021	1	1200	ug/l	100	1000
Total Dinitrotoluenes	3499	726	SPN-9104D	4/12/2021	1	0.061	ug/l	0.005	0.05

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

April 2021

GROUNDWATER MONITORING ALL HITS REPORT

License No: 3499

Report Date: 5/26/2021

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
Carbon tetrachloride	718	SPN-8903B	4/12/2021	1	0.52	0.1	0.2	ug/l	0.5	5
Chloroform	718	SPN-8903B	4/12/2021	1	0.34	0.1	0.2	ug/l	0.6	6
Trichloroethene	718	SPN-8903B	4/12/2021	1	0.1	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	719	SPN-8903C	4/12/2021	1	0.26	0.1	0.2	ug/l	40	200
Carbon tetrachloride	719	SPN-8903C	4/12/2021	1	0.46	0.1	0.2	ug/l	0.5	5
Chloroform	719	SPN-8903C	4/12/2021	1	0.24	0.1	0.2	ug/l	0.6	6
Trichloroethene	719	SPN-8903C	4/12/2021	1	0.29	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	720	SPN-8904B	4/12/2021	1	0.16	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	720	SPN-8904B	4/12/2021	1	0.096	0.0065	0.054	ug/l		
2,4-Dinitrotoluene	720	SPN-8904B	4/12/2021	1	0.046	0.0086	0.054	ug/l	0.005	0.05
2,6-Dinitrotoluene	720	SPN-8904B	4/12/2021	1	0.039	0.0054	0.054	ug/l	0.005	0.05
3,4-Dinitrotoluene	720	SPN-8904B	4/12/2021	1	0.066	0.0054	0.054	ug/l		
Carbon tetrachloride	720	SPN-8904B	4/12/2021	1	1.8	0.1	0.2	ug/l	0.5	5
Chloroform	720	SPN-8904B	4/12/2021	1	0.26	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	720	SPN-8904B	4/12/2021	1	0.247	0.0086	0.054	ug/l	0.005	0.05
Trichloroethene	720	SPN-8904B	4/12/2021	1	0.71	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	721	SPN-8904C	4/12/2021	1	0.34	0.1	0.2	ug/l	40	200
2,6-Dinitrotoluene	721	SPN-8904C	4/12/2021	1	0.03	0.0052	0.052	ug/l	0.005	0.05
Carbon tetrachloride	721	SPN-8904C	4/12/2021	1	6.3	0.1	0.2	ug/l	0.5	5
Chloroform	721	SPN-8904C	4/12/2021	1	0.7	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	721	SPN-8904C	4/12/2021	1	0.03	0.0083	0.052	ug/l	0.005	0.05
Trichloroethene	721	SPN-8904C	4/12/2021	1	2.4	0.1	0.2	ug/l	0.5	5
1,1-Dichloroethane	726	SPN-9104D	4/12/2021	1	0.22	0.1	0.2	ug/l	85	850
3,4-Dinitrotoluene	726	SPN-9104D	4/12/2021	1	0.061	0.0055	0.055	ug/l		
Carbon disulfide	726	SPN-9104D	4/12/2021	1	0.22	0.2	0.4	ug/l	200	1000
Ethyl ether	726	SPN-9104D	4/12/2021	1	1200	10	20	ug/l	100	1000
Total Dinitrotoluenes	726	SPN-9104D	4/12/2021	1	0.061	0.0088	0.055	ug/l	0.005	0.05

April 2021
Badger Army Ammunition Plant
Sampled Wells List

<u>License Area</u>	<u>Well ID</u>	<u>Reporting Name</u>	<u>Date</u>	<u>Plume</u>
2813	210	ELN-8203A	4/6/21	Deterrent Burning Ground
2813	211	ELN-8203B	4/6/21	Deterrent Burning Ground
2813	212	ELN-8203C	4/6/21	Deterrent Burning Ground
2813	216	ELM-8901	4/6/21	Deterrent Burning Ground
2813	220	ELM-8907	4/7/21	Deterrent Burning Ground
2813	221	ELM-8908	4/6/21	Deterrent Burning Ground
2813	222	ELM-8909	4/6/21	Deterrent Burning Ground
2813	224	ELN-8902B	4/6/21	Deterrent Burning Ground
2813	227	ELN-9107A	4/6/21	Deterrent Burning Ground
2813	228	ELN-9107B	4/6/21	Deterrent Burning Ground
2813	231	ELN-9402AR	4/22/21	Deterrent Burning Ground
2813	234	ELM-9501	4/5/21	Deterrent Burning Ground
2813	236	S1134R	4/6/21	Deterrent Burning Ground
2813	455	ELN-0801B	4/5/21	Deterrent Burning Ground
2813	456	ELN-0801C	4/5/21	Deterrent Burning Ground
2813	457	ELN-0801E	4/5/21	Deterrent Burning Ground
2813	460	ELN-1001B	4/5/21	Deterrent Burning Ground
2813	461	ELN-1001C	4/5/21	Deterrent Burning Ground
2813	462	ELN-1001E	4/5/21	Deterrent Burning Ground
2813	463	ELN-1002A	4/22/21	Deterrent Burning Ground
2813	464	ELN-1002B	4/22/21	Deterrent Burning Ground
2813	465	ELN-1002C	4/22/21	Deterrent Burning Ground
2813	466	ELN-1002E	4/22/21	Deterrent Burning Ground
2813	467	ELN-1003A	4/22/21	Deterrent Burning Ground
2813	468	ELN-1003B	4/22/21	Deterrent Burning Ground
2813	469	ELN-1003C	4/22/21	Deterrent Burning Ground
2813	470	ELN-1003E	4/22/21	Deterrent Burning Ground
2813	533	ELN-1502A	4/5/21	Deterrent Burning Ground
2813	534	ELN-1502C	4/5/21	Deterrent Burning Ground
2813	535	ELN-1503A	4/22/21	Deterrent Burning Ground
2813	535	ELN-1503A	4/26/21	Deterrent Burning Ground
2813	536	ELN-1503C	4/22/21	Deterrent Burning Ground
2813	537	ELN-1504B	4/22/21	Deterrent Burning Ground
2814	367	PBM-0001	4/7/21	Propellant Burning Ground
2814	368	PBM-0002	4/7/21	Propellant Burning Ground
2814	372	PBM-0006	4/7/21	Propellant Burning Ground
2814	374	PBM-0008	4/7/21	Propellant Burning Ground
2814	595	PBN-1001C	4/20/21	Propellant Burning Ground
2814	613	PBN-8202A	4/7/21	Propellant Burning Ground
2814	614	PBN-8202B	4/7/21	Propellant Burning Ground
2814	615	PBN-8202C	4/7/21	Propellant Burning Ground
2814	622	PBN-8205A	4/20/21	Propellant Burning Ground
2814	623	PBN-8205B	4/20/21	Propellant Burning Ground
2814	624	PBN-8205C	4/20/21	Propellant Burning Ground
2814	632	PBN-8502A	4/20/21	Propellant Burning Ground
2814	633	PBN-8503A	4/20/21	Propellant Burning Ground
2814	645	PBN-8902C	4/20/21	Propellant Burning Ground
2814	646	PBN-8903B	4/20/21	Propellant Burning Ground
2814	647	PBN-8903C	4/20/21	Propellant Burning Ground

April 2021
Badger Army Ammunition Plant
Sampled Wells List

<u>License Area</u>	<u>Well ID</u>	<u>Reporting Name</u>	<u>Date</u>	<u>Plume</u>
2814	654	PBN-8912A	4/20/21	Propellant Burning Ground
2814	655	PBN-8912B	4/20/21	Propellant Burning Ground
2814	665	PBN-9112C	4/20/21	Propellant Burning Ground
2814	666	PBN-9112D	4/20/21	Propellant Burning Ground
2814	668	PBN-9301B	4/12/21	Propellant Burning Ground
2814	669	PBN-9301C	4/12/21	Propellant Burning Ground
2814	673	PBN-9303B	4/12/21	Propellant Burning Ground
2814	674	PBN-9303C	4/12/21	Propellant Burning Ground
2814	675	PBN-9303D	4/12/21	Propellant Burning Ground
2814	687	PBN-9304D	4/12/21	Propellant Burning Ground
2814	691	PBN-9902D	4/12/21	Propellant Burning Ground
2814	692	PBN-9903A	4/12/21	Propellant Burning Ground
2814	693	PBN-9903B	4/12/21	Propellant Burning Ground
2814	694	PBN-9903C	4/12/21	Propellant Burning Ground
2814	695	PBN-9903D	4/12/21	Propellant Burning Ground
2814	770	PBN-1302A	4/14/21	Propellant Burning Ground
2814	771	PBN-1302B	4/14/21	Propellant Burning Ground
2814	772	PBN-1302C	4/14/21	Propellant Burning Ground
2814	773	PBN-1302D	4/14/21	Propellant Burning Ground
2814	774	PBN-1303A	4/14/21	Propellant Burning Ground
2814	775	PBN-1303B	4/14/21	Propellant Burning Ground
2814	776	PBN-1303C	4/14/21	Propellant Burning Ground
2814	777	PBN-1303D	4/14/21	Propellant Burning Ground
2814	778	PBN-1304A	4/14/21	Propellant Burning Ground
2814	779	PBN-1304B	4/14/21	Propellant Burning Ground
2814	780	PBN-1304C	4/14/21	Propellant Burning Ground
2814	781	PBN-1304D	4/14/21	Propellant Burning Ground
2814	782	PBN-1401A	4/14/21	Propellant Burning Ground
2814	783	PBN-1401B	4/14/21	Propellant Burning Ground
2814	784	PBN-1401C	4/14/21	Propellant Burning Ground
2814	791	PBN-1404B	4/14/21	Propellant Burning Ground
2814	792	PBN-1404C	4/14/21	Propellant Burning Ground
2814	793	PBN-1404D	4/14/21	Propellant Burning Ground
2814	795	PBN-8902BR	4/20/21	Propellant Burning Ground
3037	301	DBM-8201	4/6/21	Deterrent Burning Ground
3037	302	DBM-8202	4/6/21	Deterrent Burning Ground
3037	306	DBM-8903	4/5/21	Deterrent Burning Ground
3037	314	DBN-9501A	4/5/21	Deterrent Burning Ground
3037	315	DBN-9501B	4/5/21	Deterrent Burning Ground
3037	316	DBN-9501C	4/5/21	Deterrent Burning Ground
3037	317	DBN-9501E	4/5/21	Deterrent Burning Ground
3037	472	DBN-1001B	4/6/21	Deterrent Burning Ground
3037	473	DBN-1001C	4/6/21	Deterrent Burning Ground
3037	474	DBN-1001E	4/6/21	Deterrent Burning Ground
3037	476	DBN-1002C	4/7/21	Deterrent Burning Ground
3037	477	DBN-1002E	4/7/21	Deterrent Burning Ground
3038	755	S1121	4/5/21	Deterrent Burning Ground
3485	981	PBM-9001D	4/15/21	Propellant Burning Ground
3487	442	RIM-0705	4/5/21	Nitrocellulose Production Area

April 2021
Badger Army Ammunition Plant
Sampled Wells List

<u>License Area</u>	<u>Well ID</u>	<u>Reporting Name</u>	<u>Date</u>	<u>Plume</u>
3487	478	RIM-1002	4/5/21	Nitrocellulose Production Area
3487	480	RIN-1001A	4/5/21	Nitrocellulose Production Area
3487	504	S1125	4/5/21	Nitrocellulose Production Area
3493	561	PBN-9101C	4/15/21	Propellant Burning Ground
3493	571	SWN-9103B	4/15/21	Propellant Burning Ground
3493	572	SWN-9103C	4/15/21	Propellant Burning Ground
3493	573	SWN-9103D	4/15/21	Propellant Burning Ground
3493	574	SWN-9103E	4/15/21	Propellant Burning Ground
3493	575	SWN-9104C	4/15/21	Propellant Burning Ground
3493	576	SWN-9104D	4/15/21	Propellant Burning Ground
3497	435	WE-XK342	4/15/21	Central
3497	435	WE-XK342	5/5/21	Central
3499	709	S1147	4/12/21	Propellant Burning Ground
3499	709	S1147	4/14/21	Propellant Burning Ground
3499	710	S1148	4/12/21	Propellant Burning Ground
3499	718	SPN-8903B	4/12/21	Propellant Burning Ground
3499	719	SPN-8903C	4/12/21	Propellant Burning Ground
3499	720	SPN-8904B	4/12/21	Propellant Burning Ground
3499	721	SPN-8904C	4/12/21	Propellant Burning Ground
3499	725	SPN-9103D	4/12/21	Propellant Burning Ground
3499	726	SPN-9104D	4/12/21	Propellant Burning Ground

Badger Army Ammunition Plant

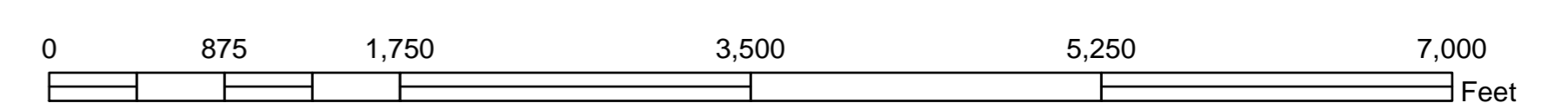
April 2021 Sampled Wells Badger Army Ammunition Plant

Legend

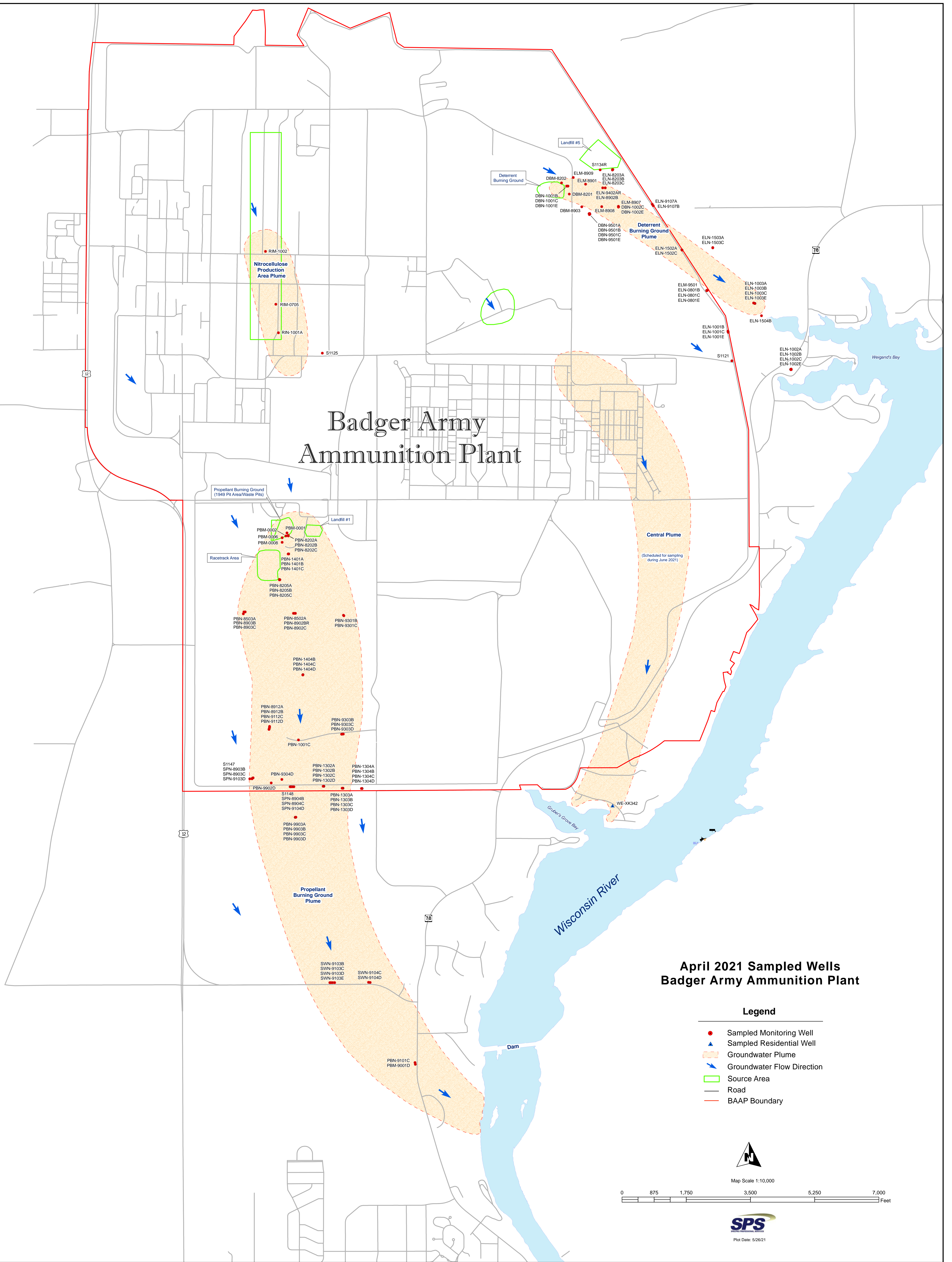
- Sampled Monitoring Well
- ▲ Sampled Residential Well
- Groundwater Plume
- Groundwater Flow Direction
- Source Area
- Road
- BAAP Boundary



Map Scale 1:10,000



Plot Date: 5/26/21



Residential Groundwater Test Results - April-May 2021 Sampling

						All results are expressed as µg/l (micrograms per liter)							
April '21 Round	Level of Detection	Level of Quantitation				Chloroform	2,6-Dinitrotoluene	2,4-Dinitrotoluene	2,3-Dinitrotoluene	3,4-Dinitrotoluene	2,5-Dinitrotoluene	3,5-Dinitrotoluene	Dinitrotoluene, Total
2,3-DNT	0.006	0.05	□	= Under PAL and ES									
2,4-DNT	0.008	0.05	■	= Over Preventive Action Limit (PAL)									
2,5-DNT	0.005	0.05	■	= Over Enforcement Standard (ES)									
2,6-DNT	0.005	0.05	■	= No PAL or ES established									
3,4-DNT	0.005	0.05	□	= Not Tested									
3,5-DNT	0.005	0.05	□	= Compound was not detected									
*Level of detection and level of quantitation may change each round.													
Last Name	Well No.	Well Name or Address	Shared With	Analyzed By	Sample Date								
Water's Edge Group	435	WE-XK342	Hallman, Keiser	CT Lab	4/15/2021	0.16	0.025	0.035	ND	0.045	ND	ND	0.105
				CT Lab (D)	4/15/2021	0.15	0.024	0.047	ND	0.06	ND	ND	0.131
Water's Edge Group	435	WE-XK342	Hallman, Keiser	CT Lab	5/5/2021	Not Tested	0.027	ND	ND	ND	ND	ND	0.027
				CT Lab (D)	5/5/2021	Not Tested	0.028	ND	ND	ND	ND	ND	0.028

(D) = Duplicate

CT Lab = CT Laboratories, LLC