April 2024

Monitoring Well Groundwater Data Attachments

Badger Army Ammunition Plant

Central Plume

Deterrent Burning Ground Plume

Nitrocellulose Production Area Plume

Propellant Burning Ground Plume

List of Attachments

Figure 1 April 2024 Sampled Wells

Figure 2 Total DNT April 2024 DBG Plume

Figure 3 Total DNT April 2024 NC Plume

Figure 4 Total DNT April 2024 PBG Plume

Table 1 DNT Summary Table DBG Plume

Table 2 DNT Summary Table PBG Plume

Graph of Total DNT vs Groundwater Elevation in PBN-8202A

April 2024 Sampled Wells List

Residential Groundwater Results Summary - April 2024

Environmental Monitoring Data Certification Forms per License Area

Groundwater Monitoring Exceedance & Hits Reports per License Area

Badger Army Ammunition Plant

Landfill #5

Deterrent Burning Ground

S1134R
ELN-8203A
ELN-8203B
ELN-8203C
ELM-8909
ELM-8901
DBM-8202
ELN-8902B
DBM-8201
DBN-1001B
DBN-1001C
DBN-1001E
ELM-8908
ELM-8907
DBN-1002C
DBN-1002E
ELN-9107A
ELN-9107B
DBM-8903
DBN-9501A
DBN-9501B
DBN-9501C
DBN-9501E
E12375A

Deterrent Burning Ground Plume

ELN-1503A
ELN-1503C
ELN-1502A
ELN-1502C
ELM-9501
ELN-0801B
ELN-0801C
ELN-0801E
S7655
ELN-1003A
ELN-1003B
ELN-1003C
ELN-1003E
ELN-2301B
ELN-1504B
ELN-1001B
ELN-1001C
ELN-1001E
S1121
ELN-1002A
ELN-1002B
ELN-1002C
ELN-1002E

RIM-1002

Nitrocellulose Production Area Plume

RIM-0705
RIN-1001A
S1125

Central Plume

(Scheduled for sampling during June 2024)

PBM-9801
PBM-0001
PBM-0002
PBM-0006
PBM-0008
PBN-8202A
PBN-8202B
PBN-8202C
PBN-1401A
PBN-1401B
PBN-1401C
PBN-8910D
PBN-8205A
PBN-8205B
PBN-8205C
PBN-8503A
PBN-8903B
PBN-8903C
PBN-8502A
PBN-8902BR
PBN-8902C
PBN-9301B
PBN-9301C
PBN-1404B
PBN-1404C
PBN-1404D
PBN-8912A
PBN-8912B
PBN-9112C
PBN-9112D
PBN-9303B
PBN-9303C
PBN-9303D
PBN-1001C
S1147
SPN-8903B
SPN-8903C
SPN-9103D
PBN-9304D
PBN-9902D
PBN-1302A
PBN-1302B
PBN-1302C
PBN-1302D
PBN-1304A
PBN-1304B
PBN-1304C
PBN-1304D
S1148
SPN-8904B
SPN-8904C
SPN-9104D
PBN-1303A
PBN-1303B
PBN-1303C
PBN-1303D
PBN-9903A
PBN-9903B
PBN-9903C
PBN-9903D
WE-XK342

Propellant Burning Ground Plume

PBN-2301B
PBN-2301C
PBN-2301D
SWN-9103B
SWN-9103C
SWN-9103D
SWN-9103E
SWN-9104C
SWN-9104D
PBN-9101C
PBM-9001D

Weigand's Bay
Wisconsin River

12
78

Figure 1
April 2024 Sampled Wells
Badger Army Ammunition Plant

Legend

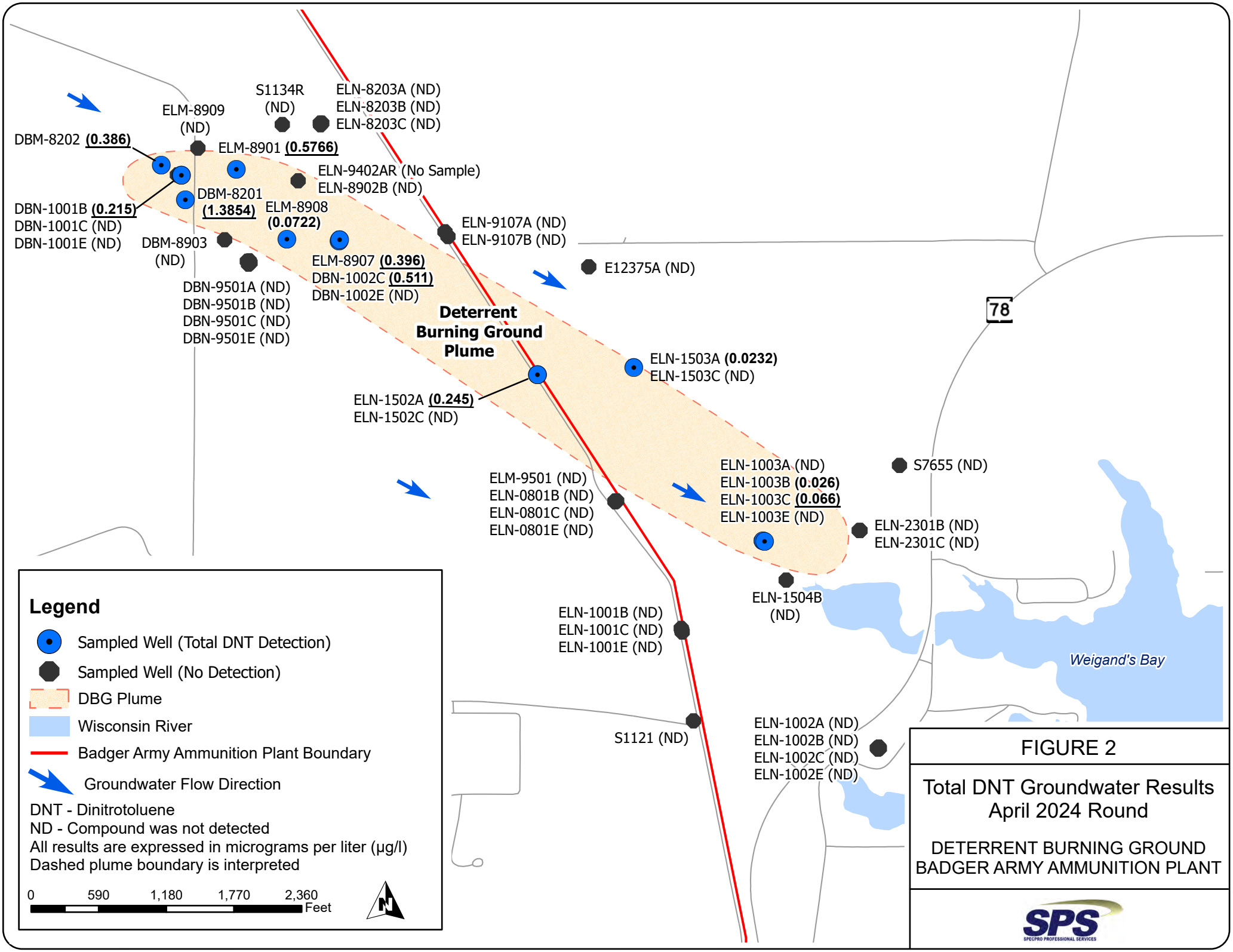
- Sampled Monitoring Well
- Sampled Residential Well
- Interpreted Groundwater Plume
- Groundwater Flow Direction
- Source Area
- Road
- BAAP Boundary

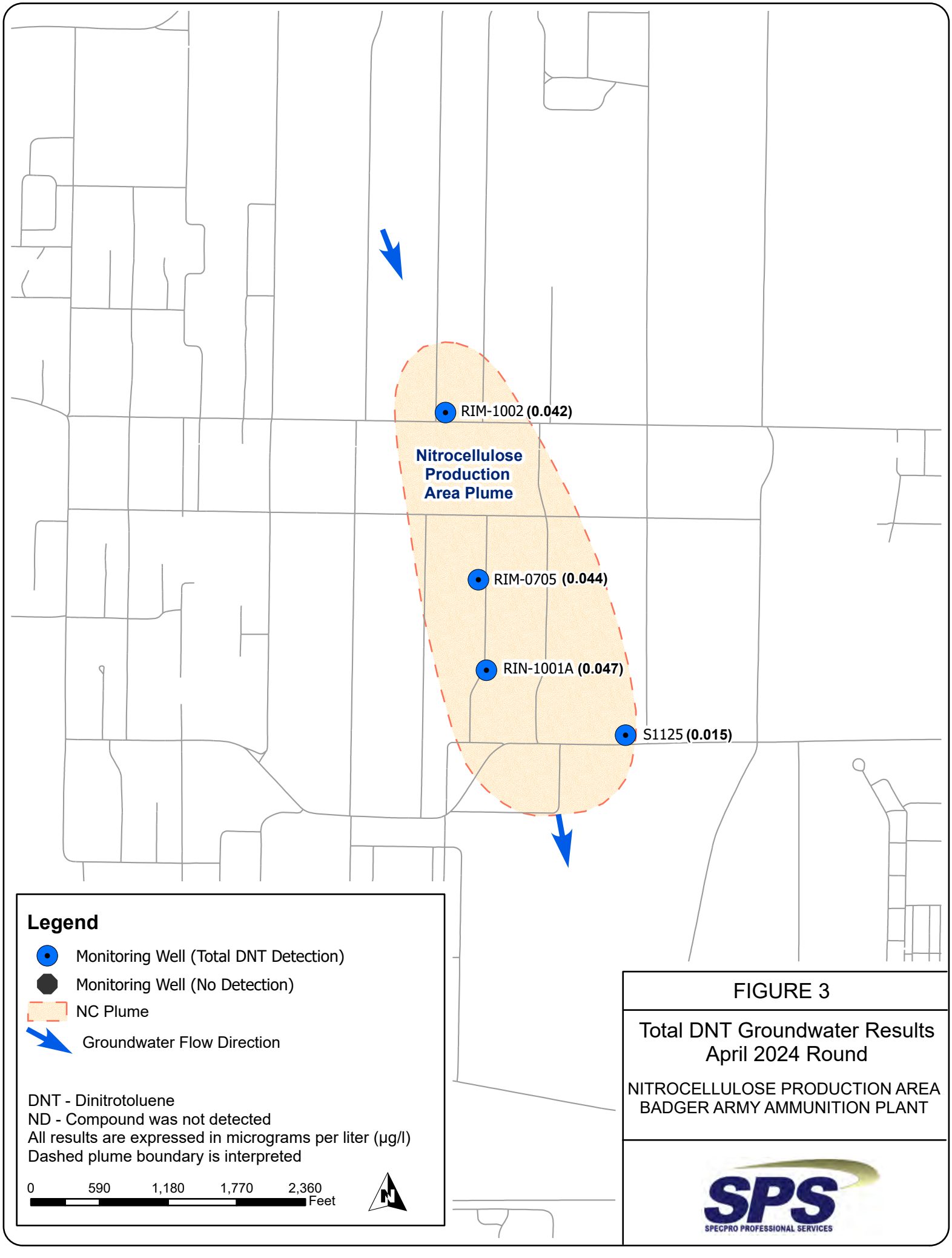
Map Scale 1:10,000

0 1,000 2,000 4,000 6,000 8,000 Feet

SPS SPECPRO PROFESSIONAL SERVICES

Plot Date: 6/12/24


S1134R
(ND)
ELN-8203A (ND)
ELN-8203B (ND)
ELN-8203C (ND)
ELM-8909
(ND)
DBM-8202 (0.386)
ELM-8901 (0.5766)
ELN-9402AR (No Sample)
ELN-8902B (ND)
DBM-8201
(1.3854)
ELM-8908
(0.0722)
DBN-1001B (0.215)
DBN-1001C (ND)
DBN-1001E (ND)
DBM-8903
(ND)
ELN-9107A (ND)
ELN-9107B (ND)
E12375A (ND)
ELM-8907 (0.396)
DBN-1002C (0.511)
DBN-1002E (ND)
DBN-9501A (ND)
DBN-9501B (ND)
DBN-9501C (ND)
DBN-9501E (ND)
Deterrent
Burning Ground
Plume
78
ELN-1503A (0.0232)
ELN-1503C (ND)
ELN-1502A (0.245)
ELN-1502C (ND)
ELN-1003A (ND)
ELN-1003B (0.026)
ELN-1003C (0.066)
ELN-1003E (ND)
S7655 (ND)
ELM-9501 (ND)
ELN-0801B (ND)
ELN-0801C (ND)
ELN-0801E (ND)
ELN-2301B (ND)
ELN-2301C (ND)
ELN-1504B
(ND)
ELN-1001B (ND)
ELN-1001C (ND)
ELN-1001E (ND)
Weigand's Bay
S1121 (ND)
ELN-1002A (ND)
ELN-1002B (ND)
ELN-1002C (ND)
ELN-1002E (ND)
Legend
Sampled Well (Total DNT Detection)
Sampled Well (No Detection)
DBG Plume
Wisconsin River
Badger Army Ammunition Plant Boundary
Groundwater Flow Direction
DNT - Dinitrotoluene
ND - Compound was not detected
All results are expressed in micrograms per liter (µg/l)
Dashed plume boundary is interpreted
0
590
1,180
1,770
2,360
Feet
N
FIGURE 2
Total DNT Groundwater Results
April 2024 Round
DETERRENT BURNING GROUND
BADGER ARMY AMMUNITION PLANT
SPS
SPECPRO PROFESSIONAL SERVICES


RIM-1002 (0.042)
Nitrocellulose Production Area Plume
RIM-0705 (0.044)
RIN-1001A (0.047)
S1125 (0.015)
Legend
Monitoring Well (Total DNT Detection)
Monitoring Well (No Detection)
NC Plume
Groundwater Flow Direction
DNT - Dinitrotoluene
ND - Compound was not detected
All results are expressed in micrograms per liter (µg/l)
Dashed plume boundary is interpreted
0
590
1,180
1,770
2,360
Feet
N
FIGURE 3
Total DNT Groundwater Results
April 2024 Round
NITROCELLULOSE PRODUCTION AREA
BADGER ARMY AMMUNITION PLANT
SPS
SPECPRO PROFESSIONAL SERVICES

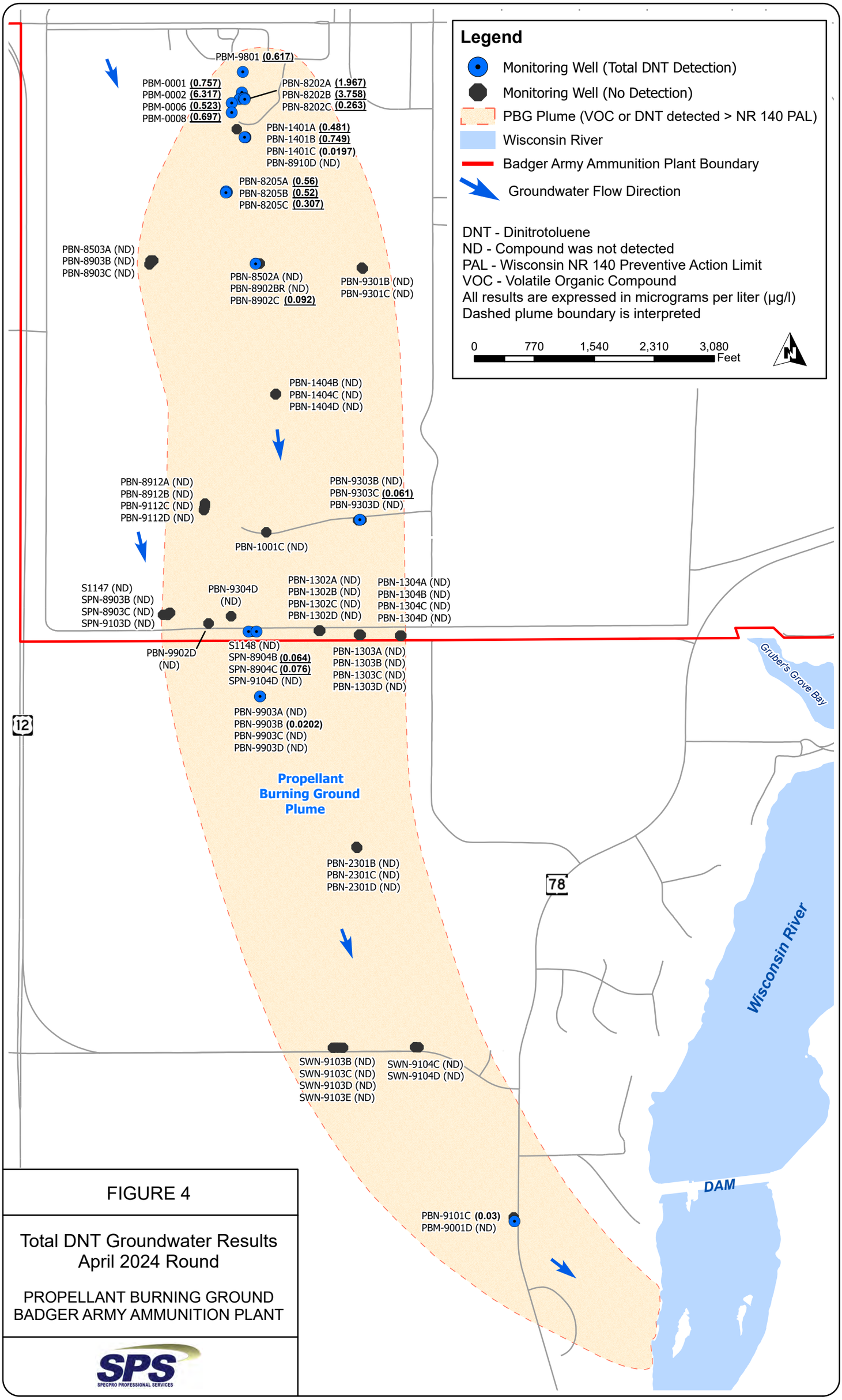


FIGURE 4

Total DNT Groundwater Results
April 2024 Round

PROPELLANT BURNING GROUND
BADGER ARMY AMMUNITION PLANT

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Table 1
2016 - 2024 Summary
Dinitrotoluene Groundwater Results
Deterrent Burning Ground
Badger Army Ammunition Plant

						Dinitrotoluenes						
Plume	**Well Name**	**Well ID**	**License**	**Sample Level**	**Date**	**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	**0.051**
					9/12/17	0.014 (J)	<0.0082	<0.0031	<0.0041	0.054	<0.0041	**0.068**
					4/26/18	0.029 (J)	**0.026 (J)**	0.028 (J)	**0.024 (J)**	0.1	0.025 (J)	**0.232**
					4/26/18 (D)	0.029 (J)	**0.024 (J)**	0.027 (J)	**0.023 (J)**	0.097	0.025 (J)	**0.225**
					5/14/18	0.03	<0.008	<0.003	**0.036**	0.12	<0.004	**0.186**
					6/28/18	0.059	<0.0076	<0.0029	<0.0038	0.12	<0.0038	**0.179**
					10/3/18	0.032	<0.0078	<0.0029	**0.01 (J)**	0.15	<0.0039	**0.192**
					10/3/18 (D)	0.031	<0.0081	<0.003	**0.01 (J)**	0.13	<0.004	**0.171**
					11/15/18	0.078	<0.0081	<0.003	**0.072**	0.17	<0.004	**0.32**
					4/23/19	0.045	<0.0078	<0.0029	<0.0039	0.12	<0.0039	**0.165**
					6/13/19	0.033	<0.0078	<0.0029	**0.02 (J)**	0.13	<0.0039	**0.183**
					6/13/19 (D)	0.033	<0.0077	<0.0029	**0.019 (J)**	0.13	<0.0038	**0.182**
					9/17/19	0.048	<0.0082	<0.0031	**0.023 (J)**	0.16	<0.0041	**0.231**
					9/17/19 (D)	0.048	<0.0082	<0.0031	**0.022 (J)**	0.15	<0.0041	**0.22**
					11/20/19	0.053	<0.0078	<0.0029	<0.0039	0.17	<0.0039	**0.223**
					5/6/20	<0.0063	<0.0083	<0.0031	<0.0042	0.13	<0.0042	**0.13**
					6/11/20	0.051	<0.0081	<0.003	<0.004	0.13	<0.004	**0.181**
					9/22/20	0.041	<0.0076	<0.0029	<0.0038	0.13	<0.0038	**0.171**
					11/9/20	0.04	<0.0082	<0.0031	<0.0041	0.13	<0.0041	**0.17**
					4/22/21	0.051 (J)	<0.0084	<0.0053	**0.022 (J)**	0.12	<0.0053	**0.193**
					4/22/21 (D)	0.048 (J)	<0.0082	<0.0051	**0.022 (J)**	0.12	<0.0051	**0.19**
					6/8/21	0.051 (J)	<0.0082	<0.0052	**0.027 (J)**	0.1	<0.0052	**0.178**
					6/8/21 (D)	0.053	<0.0084	<0.0053	**0.029 (J)**	0.1	<0.0053	**0.182**
					9/30/21	0.037 (J)	<0.0082	<0.0051	<0.0051	0.083	<0.0051	**0.12**
					11/9/21	0.038 (J)	<0.0077	<0.0048	<0.0048	0.086	<0.0048	**0.124**
					5/5/22	0.038 (J)	<0.0078	<0.0049	<0.0049	0.083	<0.0049	**0.121**
					7/7/22	0.041 (J)	<0.0078	<0.0049	<0.0049	0.084	<0.0049	**0.125**
					9/26/22	0.022 (J)	<0.0077	<0.0048	<0.0048	0.047 (J)	<0.0048	**0.069**
					11/9/22	0.038 (J)	<0.0076	<0.0048	<0.0048	0.092	<0.0048	**0.13**
					4/25/23	0.034 (J)	<0.0076	<0.0048	<0.0048	0.062	<0.0048	**0.096**
					6/27/23	0.022 (J)	<0.0077	<0.0048	<0.0048	0.061	<0.0048	**0.083**
					9/13/23	<0.0059	<0.0078	<0.0049	<0.0049	0.027 (J)	<0.0049	**0.027 (J)**
					9/13/23 (D)	<0.0058	<0.0077	<0.0048	<0.0048	0.025 (J)	<0.0048	**0.025 (J)**
					11/14/23	<0.0058	<0.0077	<0.0048	<0.0048	0.054	<0.0048	**0.054**
					4/10/24	<0.0057	<0.0076	<0.0048	<0.0048	0.026 (J)	<0.0048	**0.026 (J)**

Table 1
2016 - 2024 Summary
Dinitrotoluene Groundwater Results
Deterrent Burning Ground
Badger Army Ammunition Plant

						Dinitrotoluenes						
Plume	**Well Name**	**Well ID**	**License**	**Sample Level**	**Date**	**2,3-Dinitrotoluene**	**2,4-Dinitrotoluene**	**2,5-Dinitrotoluene**	**2,6-Dinitrotoluene**	**3,4-Dinitrotoluene**	**3,5-Dinitrotoluene**	**Dinitrotoluene, Total**
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	**0.074**
					5/14/18	<0.0061	<0.0081	<0.003	**0.029 (J)**	0.079	<0.004	**0.108**
					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	**0.1327**
					11/15/18	0.07	<0.0078	<0.0029	**0.068**	0.14	<0.0039	**0.278**
					4/23/19	<0.0058	<0.0078	<0.0029	<0.0039	0.09	<0.0039	**0.09**
					4/23/19 (D)	<0.0058	<0.0078	<0.0029	<0.0039	0.093	<0.0039	**0.093**
					6/13/19	0.028 (J)	<0.0082	<0.0031	**0.022 (J)**	0.11	<0.0041	**0.16**
					9/17/19	0.039	<0.0082	<0.0031	**0.022 (J)**	0.11	<0.0041	**0.171**
					11/20/19	<0.0059	<0.0079	<0.003	<0.004	0.13	<0.004	**0.13**
					11/20/19 (D)	<0.0059	<0.0079	<0.003	<0.004	0.13	<0.004	**0.13**
					5/6/20	<0.0064	<0.0085	<0.0032	<0.0043	0.13	<0.0043	**0.13**
					5/6/20 (D)	<0.0064	<0.0085	<0.0032	<0.0043	0.11	<0.0043	**0.11**
					6/11/20	0.05	<0.0084	<0.0032	**0.035**	0.13	<0.0042	**0.215**
					9/22/20	0.039	<0.0078	<0.0029	<0.0039	0.13	<0.0039	**0.169**
					11/9/20	0.038	<0.0082	<0.0031	<0.0041	0.14	<0.0041	**0.178**
					4/22/21	0.048 (J)	<0.0083	<0.0052	**0.026 (J)**	0.13	<0.0052	**0.204**
					6/8/21	0.054	<0.0084	<0.0053	**0.031 (J)**	0.12	<0.0053	**0.205**
					9/30/21	0.037 (J)	<0.008	<0.005	**0.024 (J)**	0.11	<0.005	**0.171**
					11/9/21	0.045 (J)	<0.0081	<0.0051	<0.0051	0.11	<0.0051	**0.155**
					5/5/22	0.046 (J)	<0.0083	<0.0052	**0.033 (J)**	0.11	<0.0052	**0.189**
					5/5/22 (D)	0.045 (J)	<0.0081	<0.0051	<0.0051	0.11	<0.0051	**0.155**
					7/7/22	0.044 (J)	<0.0079	<0.005	**0.035 (J)**	0.11	<0.005	**0.189**
					9/26/22	0.028 (J)	<0.0078	<0.0049	<0.0049	0.077	<0.0049	**0.105**
					11/9/22	0.047 (J)	<0.0076	<0.0048	**0.031 (J)**	0.13	<0.0048	**0.208**
					11/9/22 (D)	0.051	<0.008	<0.005	**0.037 (J)**	0.13	<0.005	**0.218**
					4/25/23	0.042 (J)	<0.008	<0.005	**0.023 (J)**	0.099	<0.005	**0.164**
					4/25/23 (D)	0.039 (J)	<0.0077	<0.0048	**0.02 (J)**	0.091	<0.0048	**0.15**
					6/27/23	0.032 (J)	<0.0079	<0.005	**0.018 (J)**	0.097	<0.005	**0.147**
					9/13/23	0.012 (J)	<0.0077	<0.0048	<0.0048	0.054	<0.0048	**0.066**
					11/14/23	0.036 (J)	<0.0078	<0.0049	<0.0049	0.08	<0.0048	**0.116**
					4/10/24	0.011 (J)	<0.0078	<0.0049	<0.0049	0.055	<0.0049	**0.066**

Table 1
2016 - 2024 Summary
Dinitrotoluene Groundwater Results
Deterrent Burning Ground
Badger Army Ammunition Plant

						Dinitrotoluenes						
Plume	**Well Name**	**Well ID**	**License**	**Sample Level**	**Date**	**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	**0.195**
					4/18/17	0.11	<0.0082	<0.0031	**0.011 (J)**	0.28	<0.0041	**0.401**
					4/18/17 (D)	0.12	<0.0084	<0.0032	**0.012 (J)**	0.31	<0.0042	**0.442**
					9/5/17	0.13	<0.0082	<0.0031	<0.0041	0.28	0.023 (J)	**0.433**
					9/5/17 (D)	0.13	<0.008	<0.003	<0.004	0.34	0.022 (J)	**0.492**
					4/24/18	0.14	<0.0083	<0.0031	**0.03 (J)**	0.39	0.034	**0.594**
					4/24/18 (D)	0.13	<0.008	<0.003	**0.027 (J)**	0.38	<0.004	**0.537**
					5/14/18	0.17	<0.008	<0.003	**0.08**	0.44	<0.004	**0.69**
					9/4/18	0.16	<0.0082	<0.0031	**0.011 (J)**	0.42	0.036	**0.627**
					9/4/18 (D)	0.21	<0.008	<0.003	**0.02 (J)**	0.53	0.041	**0.801**
					4/1/19	0.17	<0.0082	<0.0031	**0.024 (J)**	0.37	0.054	**0.618**
					4/1/19 (D)	0.16	<0.0082	<0.0031	**0.023 (J)**	0.35	0.053	**0.586**
					9/10/19	0.13	<0.0083	<0.0031	**0.026 (J)**	0.3	0.051	**0.507**
					9/10/19 (D)	0.14	<0.0081	<0.003	**0.027 (J)**	0.32	0.05	**0.537**
					4/6/20	0.085	<0.0087	<0.0033	<0.0043	0.19	<0.0043	**0.275**
					4/6/20 (D)	0.076	<0.0082	<0.0031	<0.0041	0.17	<0.0041	**0.246**
					9/21/20	0.078	<0.008	<0.003	<0.004	0.16	0.03	**0.268**
					4/5/21	0.059	**0.022 (J)**	<0.0051	**0.011 (J)**	0.12	0.028 (J)	**0.24**
					4/5/21 (D)	0.058	**0.027 (J)**	<0.0052	**0.012 (J)**	0.12	0.028 (J)	**0.245**
					9/9/21	0.06	<0.0079	<0.005	<0.005	0.13	0.027 (J)	**0.217**
					9/9/21 (D)	0.061	<0.0078	<0.0049	**0.018 (J)**	0.13	0.026 (J)	**0.235**
					4/25/22	0.067	<0.0082	<0.0051	<0.0051	0.11	<0.0051	**0.177**
					4/25/22 (D)	0.069	<0.008	<0.005	<0.005	0.12	<0.005	**0.189**
					9/15/22	0.067	<0.0078	<0.0049	<0.0049	0.13	0.025 (J)	**0.222**
					4/10/23	0.091	<0.008	<0.005	<0.005	0.17	<0.005	**0.261**
					4/10/23 (D)	0.094	<0.005	<0.005	<0.005	0.17	<0.005	**0.264**
					9/11/23	0.084	<0.0082	<0.005	<0.005	0.17	<0.005	**0.254**
					9/11/23 (D)	0.091	<0.0079	<0.005	<0.005	0.2	<0.005	**0.291**
					4/8/24	0.072	<0.0078	<0.0049	<0.0049	0.16	0.013 (J)	**0.245**
					4/8/24 (D)	0.067	<0.0077	<0.0048	<0.0048	0.15	0.012 (J)	**0.229**

Table 1
2016 - 2024 Summary
Dinitrotoluene Groundwater Results
Deterrent Burning Ground
Badger Army Ammunition Plant

						Dinitrotoluenes						
Plume	**Well Name**	**Well ID**	**License**	**Sample Level**	**Date**	**2,3-Dinitrotoluene**	**2,4-Dinitrotoluene**	**2,5-Dinitrotoluene**	**2,6-Dinitrotoluene**	**3,4-Dinitrotoluene**	**3,5-Dinitrotoluene**	**Dinitrotoluene, Total**
DBG	ELN-1503A	535	2813	A	4/26/21	<0.0065	<0.0087	<0.0054	<0.0054	<0.0054	<0.0054	<0.0087
					9/28/21	<0.0058	<0.0077	<0.0048	<0.0048	<0.0048	<0.0048	<0.0077
					11/9/21	0.035 (J)	<0.0081	<0.0051	<0.0051	0.05 (J)	<0.0051	**0.085 (J)**
					4/28/22	0.043 (J)	<0.008	<0.005	<0.005	0.07	<0.005	**0.113**
					4/28/22 (D)	0.04 (J)	<0.008	<0.005	<0.005	0.067	<0.005	**0.107**
					7/7/22	<0.006	<0.008	<0.005	<0.005	<0.005	<0.005	<0.008
					7/7/22 (D)	0.037 (J)	<0.008	<0.005	<0.005	<0.005	<0.005	**0.037 (J)**
					9/22/22	0.018 (J)	<0.008	<0.005	<0.005	0.02 (J)	<0.005	**0.038 (J)**
					11/8/22	<0.0058	<0.0078	<0.005	<0.005	<0.005	<0.005	<0.0078
					4/27/23	0.041 (J)	<0.008	<0.005	<0.005	0.064	<0.005	**0.105**
					4/27/23 (D)	0.04 (J)	<0.008	<0.005	<0.005	0.06	<0.005	**0.1**
					6/27/23	<0.006	<0.008	<0.005	<0.005	0.034 (J)	<0.005	**0.034 (J)**
					9/13/23	<0.0058	<0.0077	<0.0048	<0.0048	0.012 (J)	<0.0048	**0.012 (J)**
					11/14/23	<0.0061	<0.0081	<0.0051	<0.0051	<0.0051	<0.0051	<0.0081
					4/10/24	0.0062 (J)	<0.0079	<0.005	<0.005	0.017 (J)	<0.005	**0.0232 (J)**
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 - 2024 Summary
Dinitrotoluene Groundwater Results
Propellant Burning Ground
Badger Army Ammunition Plant

						Dinitrotoluenes						
Plume	**Well Name**	**Well ID**	**License**	**Sample Level**	**Date**	**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	**0.11**	<0.0031	**0.2**	0.058	<0.0041	**0.548**
					9/17/18	0.48	**2**	0.028	**0.81**	0.19	0.074	**3.582**
					9/25/19	0.31	**5.7**	0.039	**0.61**	0.13	0.07	**6.859**
					9/1/20	0.37	**110**	<0.0032	**2.1**	0.18	<0.0042	**112.65**
					9/21/21	0.45	**64**	0.044 (J)	**2.2**	0.2	0.081	**66.975**
					5/4/22	0.44	**0.26**	0.055	**0.28**	0.19	0.078	**1.303**
					9/21/22	0.41	**0.16**	0.031 (J)	**0.11**	0.18	0.059	**0.95**
					4/26/23	0.34	**0.12**	0.057	**0.1**	0.17	0.07	**0.857**
					9/20/23	0.31	**0.08**	<0.005	**0.08**	0.12	0.038 (J)	**0.628**
					4/15/24	0.27	**0.084**	0.016 (J)	**0.1**	0.11	0.037 (J)	**0.617**
PBG	PBN-8202A	613	2814	A	9/20/17	0.91	**0.059**	0.02 (J)	**0.07**	0.27	0.14	**1.469**
					9/20/17 (D)	0.83	**0.056**	0.019 (J)	**0.066**	0.25	0.12	**1.341**
					4/23/18	45	**2.1**	0.14	**27**	17	2.1	**93.34**
					4/23/18 (D)	48	**2.2**	0.15	**24**	18	2.3	**94.65**
					5/14/18	78	**33**	0.094	**270**	35	4.2	**420.294**
					9/17/18	70	**6.3**	0.12	**2**	32	6	**116.42**
					9/17/18 (D)	62	**5.1**	0.12	**4.4**	27	4.7	**103.32**
					4/8/19	20	**0.26**	0.12	**0.31**	4.6	5.2	**30.49**
					9/25/19	75	**9.1**	0.14	**110**	15	6.5	**215.74**
					1/14/20	49	**30**	<0.14	**79**	13	4.9	**175.9**
					1/14/20 (D)	49	**39**	<0.14	**88**	15	5	**196**
					4/30/20	72	**670**	<0.15	**500**	35	9.9	**1,286.9**
					6/8/20	17	**0.35**	0.1	**17**	7.9	1.9	**44.25**
					6/8/20 (D)	18	**0.4**	0.12	**15**	8.1	2.6	**44.22**
					9/1/20	9.1	**0.3**	0.078	**0.14**	3.3	1.2	**14.118**
					4/7/21	14	**0.24**	0.065	**0.17**	2.1	1	**17.575**
					9/21/21	21	**0.38**	0.082	**0.22**	1.8	1.4	**24.882**
					9/21/21 (D)	19	**0.37**	0.081	**0.22**	1.7	1.4	**22.771**
					5/4/22	36	**2.3**	0.051	**0.2**	12	3.4	**53.951**
					9/21/22	13	**0.27**	0.032 (J)	**0.17**	1.6	1.3	**16.372**
					4/26/23	0.38	**0.11**	0.06	**0.085**	0.4	0.093	**1.128**
					9/20/23	1.9	**0.11**	<0.0048	**0.11**	0.3	0.32	**2.740**
					4/15/24	1.3	**0.091**	0.018 (J)	**0.088**	0.24	0.23	**1.967**

Table 2
2017 - 2024 Summary
Dinitrotoluene Groundwater Results
Propellant Burning Ground
Badger Army Ammunition Plant

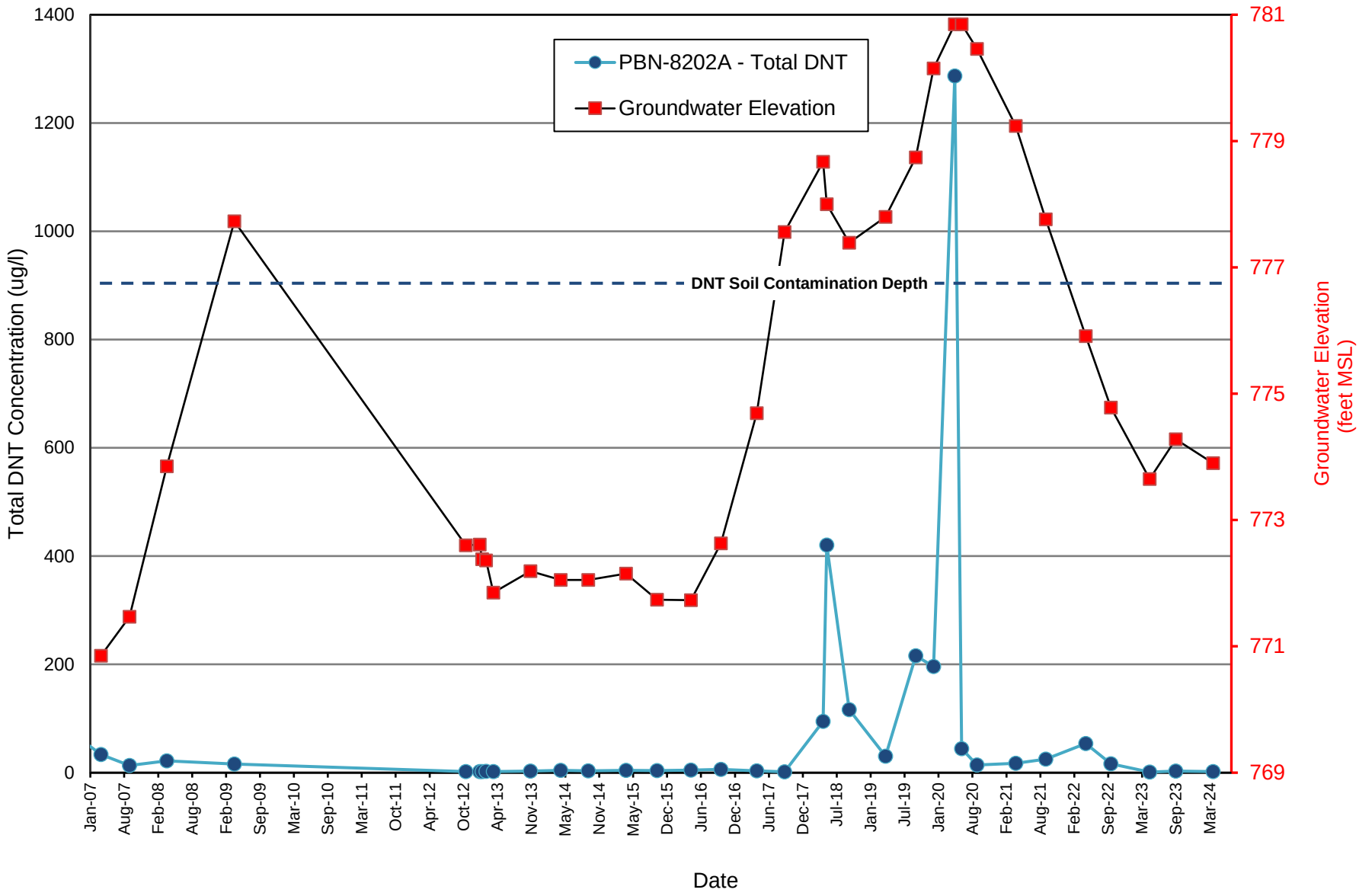
						Dinitrotoluenes						
Plume	**Well Name**	**Well ID**	**License**	**Sample Level**	**Date**	**2,3-Dinitrotoluene**	**2,4-Dinitrotoluene**	**2,5-Dinitrotoluene**	**2,6-Dinitrotoluene**	**3,4-Dinitrotoluene**	**3,5-Dinitrotoluene**	**Dinitrotoluene, Total**
PBG	PBN-8202B	614	2814	B	9/20/17	0.54	**0.055**	<0.0031	**0.049**	0.15	0.087	**0.881**
					4/23/18	0.99	<0.0081	<0.003	**0.12**	0.36	0.13	**1.6**
					9/17/18	9.2	**0.26**	0.054	**0.038**	4.6	0.46	**14.612**
					4/8/19	39	**0.63**	0.13	**0.54**	36	8.8	**85.1**
					9/25/19	16	**0.18**	0.12	**0.26**	6.3	1.6	**24.46**
					1/14/20	9.9	**0.44**	<0.029	**0.25**	2.8	1	**14.39**
					4/30/20	11	**0.35**	0.091	**0.21**	1.7	1.2	**14.551**
					6/8/20	8.7	**0.2**	0.075	**0.055**	1.2	1.1	**11.33**
					9/1/20	7.3	**0.22**	0.4	**0.058**	0.71	0.88	**9.208**
					4/7/21	4.2	**0.11**	0.032 (J)	**0.086**	0.2	0.53	**5.158**
					9/21/21	2.4	**0.19**	0.049 (J)	**0.13**	0.13	0.28	**3.179**
					5/4/22	15	**0.18**	0.076	**0.16**	0.35	0.82	**16.586**
					9/21/22	24	**0.18**	0.063	**0.19**	0.8	1.1	**26.333**
					4/26/23	2.5	**0.23**	0.055	**0.15**	0.38	0.46	**3.775**
					9/20/23	4.2	**<0.04**	<0.025	**<0.025**	0.32	0.44	**4.96**
					4/15/24	2.9	**0.13 (J)**	<0.024	**0.078 (J)**	0.24	0.41	**3.758**
PBG	PBN-8202C	615	2814	C	9/20/17	0.15	**0.061**	<0.0031	**0.078**	0.055	0.033	**0.377**
					4/23/18	0.16	**0.19**	0.04	**0.19**	0.091	0.065	**0.736**
					9/17/18	0.2	**0.19**	0.036	**0.16**	0.11	0.075	**0.77**
					4/8/19	0.13	**0.088**	0.054	**0.064**	0.081	0.065	**0.482**
					9/25/19	0.19	**0.16**	0.082	**0.078**	0.12	0.095	**0.725**
					1/14/20	0.13	**0.12**	0.059	**0.062**	0.078	0.07	**0.519**
					4/30/20	<0.0062	**0.39**	0.08	**0.44**	0.14	0.13	**1.18**
					6/8/20	<0.0058	**0.47**	0.06	**0.46**	0.11	0.11	**1.21**
					9/1/20	0.17	**0.29**	<0.0031	**0.26**	0.072	0.076	**0.868**
					4/7/21	0.091	**0.16**	0.038 (J)	**0.093**	0.043 (J)	0.057	**0.482**
					9/21/21	0.099	**0.26**	0.044 (J)	**0.094**	0.053	0.063	**0.613**
					5/4/22	0.45	**0.15**	0.047 (J)	**0.1**	0.072	0.094	**0.913**
					9/21/22	0.49	**0.094**	0.032 (J)	**0.074**	0.045 (J)	0.076	**0.811**
					4/26/23	8.2	**0.2**	0.075	**0.095**	1.2	1	**10.77**
					9/20/23	0.11	**0.034 (J)**	<0.0049	**0.053**	0.022 (J)	0.034 (J)	**0.253**
					4/15/24	0.081	**0.043 (J)**	0.017 (J)	**0.058**	0.026 (J)	0.038 (J)	**0.263**

Table 2
2017 - 2024 Summary
Dinitrotoluene Groundwater Results
Propellant Burning Ground
Badger Army Ammunition Plant

						Dinitrotoluenes						
Plume	**Well Name**	**Well ID**	**License**	**Sample Level**	**Date**	**2,3-Dinitrotoluene**	**2,4-Dinitrotoluene**	**2,5-Dinitrotoluene**	**2,6-Dinitrotoluene**	**3,4-Dinitrotoluene**	**3,5-Dinitrotoluene**	**Dinitrotoluene, Total**
PBG	PBM-0001	367	2814	A	9/20/17	0.41	**0.059**	0.015	**0.059**	0.11	0.048	**0.701**
					4/23/18	0.74	<0.008	<0.003	**0.13**	0.23	0.099	**1.199**
					9/17/18	8.7	**0.24**	0.07	**0.19**	3.1	0.68	**12.98**
					4/23/19	14	**0.19**	0.12	**0.068**	6.2	1.6	**22.178**
					9/25/19	2.9	**0.15**	0.085	**0.12**	1.3	0.39	**4.945**
					1/14/20	1	**0.38**	0.069	**0.43**	0.2	0.17	**2.249**
					4/30/20	8	**0.25**	0.18	**0.22**	1.5	0.9	**11.05**
					9/1/20	5.6	**0.25**	0.093	**0.15**	0.62	0.58	**7.293**
					4/7/21	8.5	**0.13**	0.058	**0.1**	0.4	0.58	**9.768**
					9/21/21	4.9	**0.26**	0.083	**0.15**	0.45	0.46	**6.303**
					5/4/22	2.6	**0.2**	0.088	**0.24**	0.28	0.28	**3.688**
					9/21/22	29	**110**	0.059	**130**	9.4	1.8	**280.259**
					4/26/23	7.6	**0.24**	0.068	**0.13**	0.86	1.1	**9.998**
					9/20/23	0.98	**0.066**	<0.0049	**0.081**	0.058	0.15	**1.335**
					4/15/24	0.42	**0.059**	0.011 (J)	**0.081**	0.11	0.076	**0.757**
PBG	PBM-0006	372	2814	A	9/20/17	0.42	**0.063**	0.016 (J)	**0.046**	0.27	0.068	**0.883**
					4/23/18	0.79	0.27	0.04	**0.11**	0.62	0.14	**1.97**
					9/17/18	0.73	**0.27**	0.031	**0.11**	0.57	0.13	**1.841**
					4/8/19	0.34	**0.12**	0.042	**0.057**	0.31	0.086	**0.955**
					9/25/19	0.58	**0.16**	0.048	**0.12**	0.53	0.12	**1.588**
					4/30/20	0.84	**0.16**	0.068	**0.13**	0.73	0.14	**2.068**
					9/1/20	0.63	**0.13**	<0.0031	**0.067**	0.52	0.098	**1.445**
					4/7/21	0.72	**0.12**	0.034 (J)	**0.069**	0.5	0.11	**1.553**
					4/7/21 (D)	0.7	**0.13**	0.033 (J)	**0.065**	0.48	0.11	**1.518**
					9/21/21	0.77	**0.2**	0.043 (J)	**0.088**	0.55	0.11	**1.761**
					5/4/22	0.64	**0.17**	0.06	**0.12**	0.54	0.12	**1.65**
					5/4/2022 (D)	0.64	**0.18**	0.059	**0.12**	0.52	0.12	**1.639**
					9/21/22	0.39	**0.09**	0.03 (J)	**0.082**	0.36	0.074	**1.026**
					4/26/23	7.8	**0.21**	0.14	**0.098**	0.16	0.55	**10.398**
					9/20/23	0.27	**0.061**	<0.0049	**0.062**	0.22	0.046 (J)	**0.659**
					4/15/24	0.2	**0.046 (J)**	0.011 (J)	**0.055**	0.17	0.041 (J)	**0.523**
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 - 2024**



April 2024
Badger Army Ammunition Plant
Sampled Wells List

License Area	Well ID	Reporting Name	Date	Sample Frequency	Plume
3497	435	WE-XK342	4/11/2024	Quarterly	Central Plume
2813	210	ELN-8203A	4/9/2024	Semiannual	Deterrent Burning Ground
2813	211	ELN-8203B	4/9/2024	Semiannual	Deterrent Burning Ground
2813	212	ELN-8203C	4/9/2024	Semiannual	Deterrent Burning Ground
2813	216	ELM-8901	4/9/2024	Semiannual	Deterrent Burning Ground
2813	220	ELM-8907	4/8/2024	Semiannual	Deterrent Burning Ground
2813	221	ELM-8908	4/9/2024	Semiannual	Deterrent Burning Ground
2813	222	ELM-8909	4/9/2024	Semiannual	Deterrent Burning Ground
2813	224	ELN-8902B	4/9/2024	Semiannual	Deterrent Burning Ground
2813	227	ELN-9107A	4/8/2024	Semiannual	Deterrent Burning Ground
2813	228	ELN-9107B	4/8/2024	Semiannual	Deterrent Burning Ground
2813	234	ELM-9501	4/8/2024	Semiannual	Deterrent Burning Ground
2813	236	S1134R	4/9/2024	Semiannual	Deterrent Burning Ground
2813	455	ELN-0801B	4/8/2024	Semiannual	Deterrent Burning Ground
2813	456	ELN-0801C	4/8/2024	Semiannual	Deterrent Burning Ground
2813	457	ELN-0801E	4/8/2024	Semiannual	Deterrent Burning Ground
2813	460	ELN-1001B	4/8/2024	Semiannual	Deterrent Burning Ground
2813	461	ELN-1001C	4/8/2024	Semiannual	Deterrent Burning Ground
2813	462	ELN-1001E	4/8/2024	Semiannual	Deterrent Burning Ground
2813	463	ELN-1002A	4/10/2024	Semiannual	Deterrent Burning Ground
2813	464	ELN-1002B	4/10/2024	Semiannual	Deterrent Burning Ground
2813	465	ELN-1002C	4/10/2024	Semiannual	Deterrent Burning Ground
2813	466	ELN-1002E	4/10/2024	Semiannual	Deterrent Burning Ground
2813	467	ELN-1003A	4/10/2024	Quarterly	Deterrent Burning Ground
2813	468	ELN-1003B	4/10/2024	Quarterly	Deterrent Burning Ground
2813	469	ELN-1003C	4/10/2024	Quarterly	Deterrent Burning Ground
2813	470	ELN-1003E	4/10/2024	Quarterly	Deterrent Burning Ground
2813	533	ELN-1502A	4/8/2024	Semiannual	Deterrent Burning Ground
2813	534	ELN-1502C	4/8/2024	Semiannual	Deterrent Burning Ground
2813	535	ELN-1503A	4/10/2024	Quarterly	Deterrent Burning Ground
2813	536	ELN-1503C	4/10/2024	Quarterly	Deterrent Burning Ground
2813	537	ELN-1504B	4/10/2024	Quarterly	Deterrent Burning Ground
2813	547	ELN-2301B	4/10/2024	Quarterly	Deterrent Burning Ground
2813	548	ELN-2301C	4/10/2024	Quarterly	Deterrent Burning Ground
3037	301	DBM-8201	4/9/2024	Semiannual	Deterrent Burning Ground
3037	302	DBM-8202	4/9/2024	Semiannual	Deterrent Burning Ground
3037	306	DBM-8903	4/9/2024	Semiannual	Deterrent Burning Ground
3037	314	DBN-9501A	4/8/2024	Semiannual	Deterrent Burning Ground
3037	315	DBN-9501B	4/8/2024	Semiannual	Deterrent Burning Ground
3037	316	DBN-9501C	4/8/2024	Semiannual	Deterrent Burning Ground
3037	317	DBN-9501E	4/8/2024	Semiannual	Deterrent Burning Ground
3037	472	DBN-1001B	4/9/2024	Semiannual	Deterrent Burning Ground
3037	473	DBN-1001C	4/9/2024	Semiannual	Deterrent Burning Ground
3037	474	DBN-1001E	4/9/2024	Semiannual	Deterrent Burning Ground
3037	476	DBN-1002C	4/8/2024	Semiannual	Deterrent Burning Ground
3037	477	DBN-1002E	4/8/2024	Semiannual	Deterrent Burning Ground

April 2024
Badger Army Ammunition Plant
Sampled Wells List

License Area	Well ID	Reporting Name	Date	Sample Frequency	Plume
3038	755	S1121	4/8/2024	Semiannual	Deterrent Burning Ground
3497	803	E12375A	4/10/2024	Quarterly	Deterrent Burning Ground
3497	916	S7655	4/10/2024	Quarterly	Deterrent Burning Ground
3487	442	RIM-0705	4/10/2024	Semiannual	Nitrocellulose Production Area
3487	478	RIM-1002	4/10/2024	Semiannual	Nitrocellulose Production Area
3487	480	RIN-1001A	4/10/2024	Semiannual	Nitrocellulose Production Area
3487	504	S1125	4/10/2024	Semiannual	Nitrocellulose Production Area
2814	360	PBM-9801	4/15/2024	Semiannual	Propellant Burning Ground
2814	367	PBM-0001	4/15/2024	Semiannual	Propellant Burning Ground
2814	368	PBM-0002	4/15/2024	Semiannual	Propellant Burning Ground
2814	372	PBM-0006	4/15/2024	Semiannual	Propellant Burning Ground
2814	374	PBM-0008	4/15/2024	Semiannual	Propellant Burning Ground
2814	544	PBN-2301B	4/11/2024	Semiannual	Propellant Burning Ground
2814	545	PBN-2301C	4/11/2024	Semiannual	Propellant Burning Ground
2814	546	PBN-2301D	4/11/2024	Semiannual	Propellant Burning Ground
2814	595	PBN-1001C	4/24/2024	Semiannual	Propellant Burning Ground
2814	613	PBN-8202A	4/15/2024	Semiannual	Propellant Burning Ground
2814	614	PBN-8202B	4/15/2024	Semiannual	Propellant Burning Ground
2814	615	PBN-8202C	4/15/2024	Semiannual	Propellant Burning Ground
2814	622	PBN-8205A	4/15/2024	Semiannual	Propellant Burning Ground
2814	623	PBN-8205B	4/15/2024	Semiannual	Propellant Burning Ground
2814	624	PBN-8205C	4/15/2024	Semiannual	Propellant Burning Ground
2814	632	PBN-8502A	4/15/2024	Semiannual	Propellant Burning Ground
2814	633	PBN-8503A	4/16/2024	Semiannual	Propellant Burning Ground
2814	645	PBN-8902C	4/15/2024	Semiannual	Propellant Burning Ground
2814	646	PBN-8903B	4/16/2024	Semiannual	Propellant Burning Ground
2814	647	PBN-8903C	4/16/2024	Semiannual	Propellant Burning Ground
2814	653	PBN-8910D	4/15/2024	Semiannual	Propellant Burning Ground
2814	654	PBN-8912A	4/16/2024	Semiannual	Propellant Burning Ground
2814	655	PBN-8912B	4/16/2024	Semiannual	Propellant Burning Ground
2814	665	PBN-9112C	4/16/2024	Semiannual	Propellant Burning Ground
2814	666	PBN-9112D	4/16/2024	Semiannual	Propellant Burning Ground
2814	668	PBN-9301B	4/16/2024	Semiannual	Propellant Burning Ground
2814	669	PBN-9301C	4/16/2024	Semiannual	Propellant Burning Ground
2814	673	PBN-9303B	4/24/2024	Semiannual	Propellant Burning Ground
2814	674	PBN-9303C	4/24/2024	Semiannual	Propellant Burning Ground
2814	675	PBN-9303D	4/24/2024	Semiannual	Propellant Burning Ground
2814	687	PBN-9304D	4/23/2024	Semiannual	Propellant Burning Ground
2814	691	PBN-9902D	4/16/2024	Semiannual	Propellant Burning Ground
2814	692	PBN-9903A	4/23/2024	Semiannual	Propellant Burning Ground
2814	693	PBN-9903B	4/23/2024	Semiannual	Propellant Burning Ground
2814	694	PBN-9903C	4/23/2024	Semiannual	Propellant Burning Ground
2814	695	PBN-9903D	4/23/2024	Semiannual	Propellant Burning Ground
2814	770	PBN-1302A	4/23/2024	Semiannual	Propellant Burning Ground
2814	771	PBN-1302B	4/23/2024	Semiannual	Propellant Burning Ground
2814	772	PBN-1302C	4/23/2024	Semiannual	Propellant Burning Ground

April 2024
Badger Army Ammunition Plant
Sampled Wells List

License Area	Well ID	Reporting Name	Date	Sample Frequency	Plume
2814	773	PBN-1302D	4/23/2024	Semiannual	Propellant Burning Ground
2814	774	PBN-1303A	4/24/2024	Semiannual	Propellant Burning Ground
2814	775	PBN-1303B	4/24/2024	Semiannual	Propellant Burning Ground
2814	776	PBN-1303C	4/24/2024	Semiannual	Propellant Burning Ground
2814	777	PBN-1303D	4/24/2024	Semiannual	Propellant Burning Ground
2814	778	PBN-1304A	4/24/2024	Semiannual	Propellant Burning Ground
2814	779	PBN-1304B	4/24/2024	Semiannual	Propellant Burning Ground
2814	780	PBN-1304C	4/24/2024	Semiannual	Propellant Burning Ground
2814	781	PBN-1304D	4/24/2024	Semiannual	Propellant Burning Ground
2814	782	PBN-1401A	4/15/2024	Semiannual	Propellant Burning Ground
2814	783	PBN-1401B	4/15/2024	Semiannual	Propellant Burning Ground
2814	784	PBN-1401C	4/15/2024	Semiannual	Propellant Burning Ground
2814	791	PBN-1404B	4/16/2024	Semiannual	Propellant Burning Ground
2814	792	PBN-1404C	4/16/2024	Semiannual	Propellant Burning Ground
2814	793	PBN-1404D	4/16/2024	Semiannual	Propellant Burning Ground
2814	795	PBN-8902BR	4/15/2024	Semiannual	Propellant Burning Ground
3485	981	PBM-9001D	4/11/2024	Semiannual	Propellant Burning Ground
3493	561	PBN-9101C	4/11/2024	Semiannual	Propellant Burning Ground
3493	571	SWN-9103B	4/11/2024	Semiannual	Propellant Burning Ground
3493	572	SWN-9103C	4/11/2024	Semiannual	Propellant Burning Ground
3493	573	SWN-9103D	4/11/2024	Semiannual	Propellant Burning Ground
3493	574	SWN-9103E	4/11/2024	Semiannual	Propellant Burning Ground
3493	575	SWN-9104C	4/11/2024	Semiannual	Propellant Burning Ground
3493	576	SWN-9104D	4/11/2024	Semiannual	Propellant Burning Ground
3499	709	S1147	4/16/2024	Semiannual	Propellant Burning Ground
3499	710	S1148	4/23/2024	Semiannual	Propellant Burning Ground
3499	718	SPN-8903B	4/16/2024	Semiannual	Propellant Burning Ground
3499	719	SPN-8903C	4/16/2024	Semiannual	Propellant Burning Ground
3499	720	SPN-8904B	4/23/2024	Semiannual	Propellant Burning Ground
3499	721	SPN-8904C	4/23/2024	Semiannual	Propellant Burning Ground
3499	725	SPN-9103D	4/16/2024	Semiannual	Propellant Burning Ground
3499	726	SPN-9104D	4/23/2024	Semiannual	Propellant Burning Ground

Residential Groundwater Results Summary - April 2024 Sampling Event

Apr '24 Round	Level of Detection	Level of Quantitation
2,3-DNT	0.0058	0.049
2,4-DNT	0.0078	0.049
2,5-DNT	0.0049	0.049
2,6-DNT	0.0049	0.049
3,4-DNT	0.0049	0.049
3,5-DNT	0.0049	0.049

*Level of detection and level of quantitation may change each round.

= Under PAL and ES
= Over Preventive Action Limit (PAL)
= Over Enforcement Standard (ES)
= No PAL or ES established
= Not Tested
ND = Compound was not detected

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

Well No.	Well Name or Address	*Shared With*	Analyzed By	Sample Date	Chloroform	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2,3-Dinitrotoluene	3,4-Dinitrotoluene	2,5-Dinitrotoluene	3,5-Dinitrotoluene	Dinitrotoluene, Total
435	**WE-XK342**	***S8741, S8737***	**CT Lab**	**4/11/2024**	**0.14**	ND	ND	ND	ND	ND	ND	ND
803	**E12375A**		**CT Lab**	**4/10/2024**		ND	ND	ND	ND	ND	ND	ND
916	**S7655**		**CT Lab**	**4/10/2024**		ND	ND	ND	ND	ND	ND	ND

(D) = Duplicate
CT Lab = CT Laboratories, LLC
2,4-DNT, 2,6-DNT & Total DNT - NR 140 PAL = 0.005 µg/l
2,4-DNT, 2,6-DNT & Total DNT - NR 140 ES = 0.05 µg/l

State of Wisconsin
Department of Natural Resources

Environmental Monitoring Data Certification

Form 4400-231(R 1/04)

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.
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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.
- 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 - Landfill #5	02813	157005530	4/8 - 4/10/24

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

April 2024

Type of Data Submitted (Check all that apply)

- [x] Groundwater monitoring data from monitoring wells
- [ ] Groundwater monitoring data from private water supply wells
- [ ] Leachate monitoring data
- [ ] Gas monitoring data
- [ ] Air monitoring data
- [ ] Other (specify)

Notification attached?

- [ ] No. No groundwater standards or explosive gas limits were exceeded.
- [x] 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.

Joel Janssen 6/18/24

Signature Date

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 2024
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Thirty-three (33) monitoring wells were sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) in the Deterrent Burning Ground Plume. No water was present in ELN-9402AR; therefore, it could not be sampled.

Total DNT exceeded the Enforcement Standard (ES) in ELM-8901 (216), ELM-8907 (220), ELM-8908 (221), ELN-1003C (469), and ELN-1502A (533).

2,4-DNT and 2,6-DNT exceeded the Preventive Action Limit (PAL) in ELM-8901 (216). Total DNT exceeded the PAL in ELN-1003B (468) and ELN-1503A (535).

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

1,1,2-Trichloroethane exceeded the PAL in ELN-8203B (211).

VOC 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.

Sulfate analysis was also performed by CT Lab using method SW 846 9056A.

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2024 Report Date: 6/18/2024

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
Sulfate	2813	210	ELN-8203A	4/9/2024	1	1100	mg/l	125	250
1,1,2-Trichloroethane	2813	211	ELN-8203B	4/9/2024	1	1.1	ug/l	0.5	5
Sulfate	2813	211	ELN-8203B	4/9/2024	1	860	mg/l	125	250
2,4-Dinitrotoluene	2813	216	ELM-8901	4/9/2024	1	0.0086	ug/l	0.005	0.05
2,6-Dinitrotoluene	2813	216	ELM-8901	4/9/2024	1	0.018	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	216	ELM-8901	4/9/2024	1	0.5766	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	220	ELM-8907	4/8/2024	1	0.396	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	221	ELM-8908	4/9/2024	1	0.0722	ug/l	0.005	0.05
Sulfate	2813	236	S1134R	4/9/2024	1	280	mg/l	125	250
Total Dinitrotoluenes	2813	468	ELN-1003B	4/10/2024	1	0.026	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	469	ELN-1003C	4/10/2024	1	0.066	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	533	ELN-1502A	4/8/2024	1	0.245	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	533	ELN-1502A	4/8/2024	2	0.229	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	535	ELN-1503A	4/10/2024	1	0.0232	ug/l	0.005	0.05

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

April 2024 GROUNDWATER MONITORING ALL HITS REPORT

License No: 2813 Report Date: 6/18/2024

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
1,1,2-Trichloroethane	210	ELN-8203A	4/9/2024	1	0.38	0.2	0.4	ug/l	0.5	5
1,2-Dichloropropane	210	ELN-8203A	4/9/2024	1	0.21	0.1	0.2	ug/l	0.5	5
Ethyl ether	210	ELN-8203A	4/9/2024	1	0.44	0.1	0.2	ug/l	100	1000
Sulfate	210	ELN-8203A	4/9/2024	1	1100	40	150	mg/l	125	250
1,1,1-Trichloroethane	211	ELN-8203B	4/9/2024	1	0.11	0.1	0.2	ug/l	40	200
1,1,2-Trichloroethane	211	ELN-8203B	4/9/2024	1	1.1	0.2	0.4	ug/l	0.5	5
1,2-Dichloropropane	211	ELN-8203B	4/9/2024	1	0.34	0.1	0.2	ug/l	0.5	5
Dichlorodifluoromethane	211	ELN-8203B	4/9/2024	1	0.27	0.1	0.2	ug/l	200	1000
Ethyl ether	211	ELN-8203B	4/9/2024	1	0.19	0.1	0.2	ug/l	100	1000
Sulfate	211	ELN-8203B	4/9/2024	1	860	40	150	mg/l	125	250
Tetrahydrofuran	211	ELN-8203B	4/9/2024	1	7.4	1	2	ug/l	10	50
1,1,2-Trichloroethane	212	ELN-8203C	4/9/2024	1	0.37	0.2	0.4	ug/l	0.5	5
Sulfate	212	ELN-8203C	4/9/2024	1	110	4	15	mg/l	125	250
1,1,1-Trichloroethane	216	ELM-8901	4/9/2024	1	0.76	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	216	ELM-8901	4/9/2024	1	0.27	0.0059	0.049	ug/l		
2,4-Dinitrotoluene	216	ELM-8901	4/9/2024	1	0.0086	0.0078	0.049	ug/l	0.005	0.05
2,6-Dinitrotoluene	216	ELM-8901	4/9/2024	1	0.018	0.0049	0.049	ug/l	0.005	0.05
3,4-Dinitrotoluene	216	ELM-8901	4/9/2024	1	0.16	0.0049	0.049	ug/l		
3,5-Dinitrotoluene	216	ELM-8901	4/9/2024	1	0.12	0.0049	0.049	ug/l		
Sulfate	216	ELM-8901	4/9/2024	1	53	4	15	mg/l	125	250
Total Dinitrotoluenes	216	ELM-8901	4/9/2024	1	0.5766	0.0078	0.049	ug/l	0.005	0.05
1,1,1-Trichloroethane	220	ELM-8907	4/8/2024	1	0.14	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	220	ELM-8907	4/8/2024	1	0.26	0.0059	0.049	ug/l		
3,4-Dinitrotoluene	220	ELM-8907	4/8/2024	1	0.08	0.0049	0.049	ug/l		
3,5-Dinitrotoluene	220	ELM-8907	4/8/2024	1	0.056	0.0049	0.049	ug/l		
Sulfate	220	ELM-8907	4/9/2024	1	18	0.8	3	mg/l	125	250
Total Dinitrotoluenes	220	ELM-8907	4/8/2024	1	0.396	0.0078	0.049	ug/l	0.005	0.05
2,3-Dinitrotoluene	221	ELM-8908	4/9/2024	1	0.04	0.006	0.05	ug/l		
3,4-Dinitrotoluene	221	ELM-8908	4/9/2024	1	0.023	0.005	0.05	ug/l		
3,5-Dinitrotoluene	221	ELM-8908	4/9/2024	1	0.0092	0.005	0.05	ug/l		
Sulfate	221	ELM-8908	4/9/2024	1	18	0.8	3	mg/l	125	250
Total Dinitrotoluenes	221	ELM-8908	4/9/2024	1	0.0722	0.008	0.05	ug/l	0.005	0.05
1,1,1-Trichloroethane	222	ELM-8909	4/9/2024	1	0.65	0.1	0.2	ug/l	40	200
Sulfate	222	ELM-8909	4/9/2024	1	9.6	0.8	3	mg/l	125	250
Sulfate	224	ELN-8902B	4/9/2024	1	15	0.8	3	mg/l	125	250
Sulfate	227	ELN-9107A	4/9/2024	1	21	0.8	3	mg/l	125	250
Sulfate	228	ELN-9107B	4/9/2024	1	21	0.8	3	mg/l	125	250
1,1,2-Trichloroethane	236	S1134R	4/9/2024	1	0.23	0.2	0.4	ug/l	0.5	5
Sulfate	236	S1134R	4/9/2024	1	280	8	30	mg/l	125	250
3,4-Dinitrotoluene	468	ELN-1003B	4/10/2024	1	0.026	0.0048	0.048	ug/l		
Total Dinitrotoluenes	468	ELN-1003B	4/10/2024	1	0.026	0.0076	0.048	ug/l	0.005	0.05
2,3-Dinitrotoluene	469	ELN-1003C	4/10/2024	1	0.011	0.0058	0.049	ug/l		
3,4-Dinitrotoluene	469	ELN-1003C	4/10/2024	1	0.055	0.0049	0.049	ug/l		
Total Dinitrotoluenes	469	ELN-1003C	4/10/2024	1	0.066	0.0078	0.049	ug/l	0.005	0.05
2,3-Dinitrotoluene	533	ELN-1502A	4/8/2024	2	0.067	0.0058	0.048	ug/l		
2,3-Dinitrotoluene	533	ELN-1502A	4/8/2024	1	0.072	0.0058	0.049	ug/l		
3,4-Dinitrotoluene	533	ELN-1502A	4/8/2024	1	0.16	0.0049	0.049	ug/l		
3,4-Dinitrotoluene	533	ELN-1502A	4/8/2024	2	0.15	0.0048	0.048	ug/l		

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
3,5-Dinitrotoluene	533	ELN-1502A	4/8/2024	1	0.013	0.0049	0.049	ug/l		
3,5-Dinitrotoluene	533	ELN-1502A	4/8/2024	2	0.012	0.0048	0.048	ug/l		
Total Dinitrotoluenes	533	ELN-1502A	4/8/2024	2	0.229	0.0077	0.048	ug/l	0.005	0.05
Total Dinitrotoluenes	533	ELN-1502A	4/8/2024	1	0.245	0.0078	0.049	ug/l	0.005	0.05
1,1,1-Trichloroethane	534	ELN-1502C	4/8/2024	1	0.63	0.1	0.2	ug/l	40	200
Dichlorodifluoromethane	534	ELN-1502C	4/8/2024	1	0.15	0.1	0.2	ug/l	200	1000
2,3-Dinitrotoluene	535	ELN-1503A	4/10/2024	1	0.0062	0.0059	0.05	ug/l		
3,4-Dinitrotoluene	535	ELN-1503A	4/10/2024	1	0.017	0.005	0.05	ug/l		
Total Dinitrotoluenes	535	ELN-1503A	4/10/2024	1	0.0232	0.0079	0.05	ug/l	0.005	0.05
Dichlorodifluoromethane	536	ELN-1503C	4/10/2024	1	0.31	0.1	0.2	ug/l	200	1000

State of Wisconsin
Department of Natural Resources

Environmental Monitoring Data Certification

Form 4400-231(R 1/04)

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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@SpecProSvcs.com

Facility name:	License # / Monitoring ID	Facility ID [FID]	Actual sampling dates (e.g., July 2-6, 2003)
BAAP - Propellant Burning Grounds	02814	157005420	4/11 - 4/24/24

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

April 2024

Type of Data Submitted (Check all that apply)

- [X] Groundwater monitoring data from monitoring wells
- [ ] Groundwater monitoring data from private water supply wells
- [ ] Leachate monitoring data
- [ ] Gas monitoring data
- [ ] Air monitoring data
- [ ] Other (specify)

Notification attached?

- [ ] No. No groundwater standards or explosive gas limits were exceeded.
- [X] 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.

Joel Janssen 6/18/24

Signature Date

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Case Narrative
Groundwater Monitoring
License Number 2814
Propellant Burning Grounds
April 2024
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Contamination from the Propellant Burning Ground (PBG) impacts groundwater quality in wells associated with this license. Fifty-five (55) monitoring wells were sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) and volatile organic compounds (VOCs) in the PBG Plume.

2,4-DNT, 2,6-DNT, and total DNT exceeded the Enforcement Standards (ES) in PBM-9801 (360), PBM-0001 (367), PBM-0002 (368), PBM-0008 (374), PBN-8202A (613), and PBN-8202B (614). 2,6-DNT and total DNT exceeded the ES in PBM-0006 (372), PBN-8202C (615), PBN-8205A (622), PBN-8205B (623), PBN-1401A (782), and PBN-1401B (783). Total DNT exceeded the ES in PBN-8205C (624), PBN-8902C (645), and PBN-9303C (674).

2,4-DNT exceeded the Preventive Action Limit (PAL) in PBM-0006 (372), PBN-8202C (615), PBN-8205A (622), PBN-8205B (623), PBN-8205C (624), PBN-1401A (782), and PBN-1401B (783). 2,6-DNT exceeded the PAL in PBN-8205C (624) and PBN-8902C (645). Total DNT exceeded the PAL in PBN-9903B (693) and PBN-1401C (784).

Bromodichloromethane exceeded the PAL in PBN-1001C (595), PBN-9301C (669), PBN-9303C (674), PBN-9903C (694), and PBN-1404C (792).

Carbon tetrachloride exceeded the ES in PBN-8502A (632), PBN-9903C (694), and the PAL in 27 wells.

Chloroform exceeded the PAL in PBN-1001C (595), PBN-9301C (669), PBN-9303B (673), PBN-9303C (674), PBN-9903C (694), PBN-1302C (772), and PBN-1404C (792).

Nitrate plus nitrite exceeded the PAL in PBM-0001 (367), PBM-0002 (368), and PBM-0006 (372).

Trichloroethene exceeded the PAL in PBN-8202B (614), PBN-8502A (632), PBN-9903B (693), PBN-9903C (694), PBN-1404B (791) and PBN-8902BR (795).

VOC 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 analysis was also performed by CT Lab using method SW 9056A.

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2024 Report Date: 6/18/2024

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	2814	360	PBM-9801	4/15/2024	1	0.084	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	360	PBM-9801	4/15/2024	1	0.1	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	360	PBM-9801	4/15/2024	1	0.617	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	367	PBM-0001	4/15/2024	1	0.059	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	367	PBM-0001	4/15/2024	1	0.081	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	367	PBM-0001	4/15/2024	1	3.9	mg/l	2	10
Total Dinitrotoluenes	2814	367	PBM-0001	4/15/2024	1	0.757	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	368	PBM-0002	4/15/2024	1	0.15	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	368	PBM-0002	4/15/2024	1	0.087	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	368	PBM-0002	4/15/2024	1	4.9	mg/l	2	10
Total Dinitrotoluenes	2814	368	PBM-0002	4/15/2024	1	6.317	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	372	PBM-0006	4/15/2024	1	0.046	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	372	PBM-0006	4/15/2024	1	0.055	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	372	PBM-0006	4/15/2024	1	2.9	mg/l	2	10
Total Dinitrotoluenes	2814	372	PBM-0006	4/15/2024	1	0.523	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	374	PBM-0008	4/15/2024	1	0.061	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	374	PBM-0008	4/15/2024	1	0.075	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	374	PBM-0008	4/15/2024	1	0.697	ug/l	0.005	0.05
Carbon tetrachloride	2814	544	PBN-2301B	4/11/2024	1	2.4	ug/l	0.5	5
Carbon tetrachloride	2814	544	PBN-2301B	4/11/2024	2	2.3	ug/l	0.5	5
Carbon tetrachloride	2814	545	PBN-2301C	4/11/2024	1	3.3	ug/l	0.5	5
Bromodichloromethane	2814	595	PBN-1001C	4/24/2024	1	0.22	ug/l	0.06	0.6
Carbon tetrachloride	2814	595	PBN-1001C	4/24/2024	1	0.9	ug/l	0.5	5
Chloroform	2814	595	PBN-1001C	4/24/2024	1	1.4	ug/l	0.6	6
2,4-Dinitrotoluene	2814	613	PBN-8202A	4/15/2024	1	0.091	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	613	PBN-8202A	4/15/2024	1	0.088	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	613	PBN-8202A	4/15/2024	1	1.967	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	614	PBN-8202B	4/15/2024	1	0.13	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	614	PBN-8202B	4/15/2024	1	0.078	ug/l	0.005	0.05
Carbon tetrachloride	2814	614	PBN-8202B	4/15/2024	1	0.81	ug/l	0.5	5
Total Dinitrotoluenes	2814	614	PBN-8202B	4/15/2024	1	3.758	ug/l	0.005	0.05
Trichloroethene	2814	614	PBN-8202B	4/15/2024	1	0.81	ug/l	0.5	5
2,4-Dinitrotoluene	2814	615	PBN-8202C	4/15/2024	1	0.043	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	615	PBN-8202C	4/15/2024	1	0.058	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	615	PBN-8202C	4/15/2024	1	0.263	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	622	PBN-8205A	4/15/2024	1	0.022	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	622	PBN-8205A	4/15/2024	1	0.067	ug/l	0.005	0.05
Carbon tetrachloride	2814	622	PBN-8205A	4/15/2024	1	2.2	ug/l	0.5	5
Total Dinitrotoluenes	2814	622	PBN-8205A	4/15/2024	1	0.56	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	623	PBN-8205B	4/15/2024	1	0.021	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	623	PBN-8205B	4/15/2024	1	0.058	ug/l	0.005	0.05
Carbon tetrachloride	2814	623	PBN-8205B	4/15/2024	1	1.8	ug/l	0.5	5
Total Dinitrotoluenes	2814	623	PBN-8205B	4/15/2024	1	0.52	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	624	PBN-8205C	4/15/2024	1	0.012	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	624	PBN-8205C	4/15/2024	1	0.028	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	624	PBN-8205C	4/15/2024	1	0.307	ug/l	0.005	0.05
Carbon tetrachloride	2814	632	PBN-8502A	4/15/2024	1	6	ug/l	0.5	5
Trichloroethene	2814	632	PBN-8502A	4/15/2024	1	0.82	ug/l	0.5	5

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
Carbon tetrachloride	2814	633	PBN-8503A	4/16/2024	1	0.89	ug/l	0.5	5
2,6-Dinitrotoluene	2814	645	PBN-8902C	4/15/2024	1	0.02	ug/l	0.005	0.05
Carbon tetrachloride	2814	645	PBN-8902C	4/15/2024	1	1.1	ug/l	0.5	5
Total Dinitrotoluenes	2814	645	PBN-8902C	4/15/2024	1	0.092	ug/l	0.005	0.05
Carbon tetrachloride	2814	646	PBN-8903B	4/16/2024	1	0.76	ug/l	0.5	5
Carbon tetrachloride	2814	665	PBN-9112C	4/16/2024	1	0.5	ug/l	0.5	5
Carbon tetrachloride	2814	668	PBN-9301B	4/16/2024	1	2.1	ug/l	0.5	5
Bromodichloromethane	2814	669	PBN-9301C	4/16/2024	1	0.19	ug/l	0.06	0.6
Carbon tetrachloride	2814	669	PBN-9301C	4/16/2024	1	0.59	ug/l	0.5	5
Chloroform	2814	669	PBN-9301C	4/16/2024	1	1.5	ug/l	0.6	6
Carbon tetrachloride	2814	673	PBN-9303B	4/24/2024	1	3.6	ug/l	0.5	5
Chloroform	2814	673	PBN-9303B	4/24/2024	1	0.68	ug/l	0.6	6
Bromodichloromethane	2814	674	PBN-9303C	4/24/2024	1	0.12	ug/l	0.06	0.6
Carbon tetrachloride	2814	674	PBN-9303C	4/24/2024	1	1.7	ug/l	0.5	5
Chloroform	2814	674	PBN-9303C	4/24/2024	1	1	ug/l	0.6	6
Total Dinitrotoluenes	2814	674	PBN-9303C	4/24/2024	1	0.061	ug/l	0.005	0.05
Carbon tetrachloride	2814	692	PBN-9903A	4/23/2024	1	0.99	ug/l	0.5	5
Carbon tetrachloride	2814	693	PBN-9903B	4/23/2024	1	2.3	ug/l	0.5	5
Total Dinitrotoluenes	2814	693	PBN-9903B	4/23/2024	1	0.0202	ug/l	0.005	0.05
Trichloroethene	2814	693	PBN-9903B	4/23/2024	1	0.71	ug/l	0.5	5
Bromodichloromethane	2814	694	PBN-9903C	4/23/2024	1	0.13	ug/l	0.06	0.6
Carbon tetrachloride	2814	694	PBN-9903C	4/23/2024	1	6.9	ug/l	0.5	5
Chloroform	2814	694	PBN-9903C	4/23/2024	1	1	ug/l	0.6	6
Trichloroethene	2814	694	PBN-9903C	4/23/2024	1	2.6	ug/l	0.5	5
Carbon tetrachloride	2814	770	PBN-1302A	4/23/2024	1	3.6	ug/l	0.5	5
Carbon tetrachloride	2814	771	PBN-1302B	4/23/2024	1	3.6	ug/l	0.5	5
Carbon tetrachloride	2814	772	PBN-1302C	4/23/2024	1	2.4	ug/l	0.5	5
Chloroform	2814	772	PBN-1302C	4/23/2024	1	0.87	ug/l	0.6	6
Carbon tetrachloride	2814	774	PBN-1303A	4/24/2024	1	1.8	ug/l	0.5	5
Carbon tetrachloride	2814	775	PBN-1303B	4/24/2024	1	2	ug/l	0.5	5
Carbon tetrachloride	2814	776	PBN-1303C	4/24/2024	1	2.4	ug/l	0.5	5
Carbon tetrachloride	2814	776	PBN-1303C	4/24/2024	2	2.3	ug/l	0.5	5
Carbon tetrachloride	2814	778	PBN-1304A	4/24/2024	1	0.5	ug/l	0.5	5
Carbon tetrachloride	2814	779	PBN-1304B	4/24/2024	1	0.73	ug/l	0.5	5
Carbon tetrachloride	2814	780	PBN-1304C	4/24/2024	1	0.84	ug/l	0.5	5
2,4-Dinitrotoluene	2814	782	PBN-1401A	4/15/2024	1	0.018	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	782	PBN-1401A	4/15/2024	1	0.05	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	782	PBN-1401A	4/15/2024	1	0.481	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	783	PBN-1401B	4/15/2024	1	0.027	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	783	PBN-1401B	4/15/2024	2	0.026	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	783	PBN-1401B	4/15/2024	1	0.084	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	783	PBN-1401B	4/15/2024	2	0.081	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	783	PBN-1401B	4/15/2024	1	0.749	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	783	PBN-1401B	4/15/2024	2	0.716	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	784	PBN-1401C	4/15/2024	1	0.0197	ug/l	0.005	0.05
Carbon tetrachloride	2814	791	PBN-1404B	4/16/2024	1	3.4	ug/l	0.5	5
Trichloroethene	2814	791	PBN-1404B	4/16/2024	1	0.66	ug/l	0.5	5
Bromodichloromethane	2814	792	PBN-1404C	4/16/2024	1	0.13	ug/l	0.06	0.6
Chloroform	2814	792	PBN-1404C	4/16/2024	1	0.91	ug/l	0.6	6
Carbon tetrachloride	2814	795	PBN-8902BR	4/15/2024	1	1.7	ug/l	0.5	5
Trichloroethene	2814	795	PBN-8902BR	4/15/2024	1	0.54	ug/l	0.5	5

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

April 2024 GROUNDWATER MONITORING ALL HITS REPORT

License No: 2814 Report Date: 6/18/2024

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,3-Dinitrotoluene	360	PBM-9801	4/15/2024	1	0.27	0.0058	0.049	ug/l		
2,4-Dinitrotoluene	360	PBM-9801	4/15/2024	1	0.084	0.0078	0.049	ug/l	0.005	0.05
2,5-Dinitrotoluene	360	PBM-9801	4/15/2024	1	0.016	0.0049	0.049	ug/l		
2,6-Dinitrotoluene	360	PBM-9801	4/15/2024	1	0.1	0.0049	0.049	ug/l	0.005	0.05
3,4-Dinitrotoluene	360	PBM-9801	4/15/2024	1	0.11	0.0049	0.049	ug/l		
3,5-Dinitrotoluene	360	PBM-9801	4/15/2024	1	0.037	0.0049	0.049	ug/l		
Total Dinitrotoluenes	360	PBM-9801	4/15/2024	1	0.617	0.0078	0.049	ug/l	0.005	0.05
2,3-Dinitrotoluene	367	PBM-0001	4/15/2024	1	0.42	0.0057	0.048	ug/l		
2,4-Dinitrotoluene	367	PBM-0001	4/15/2024	1	0.059	0.0076	0.048	ug/l	0.005	0.05
2,5-Dinitrotoluene	367	PBM-0001	4/15/2024	1	0.011	0.0048	0.048	ug/l		
2,6-Dinitrotoluene	367	PBM-0001	4/15/2024	1	0.081	0.0048	0.048	ug/l	0.005	0.05
3,4-Dinitrotoluene	367	PBM-0001	4/15/2024	1	0.11	0.0048	0.048	ug/l		
3,5-Dinitrotoluene	367	PBM-0001	4/15/2024	1	0.076	0.0048	0.048	ug/l		
Carbon tetrachloride	367	PBM-0001	4/15/2024	1	0.23	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	367	PBM-0001	4/15/2024	1	3.9	0.05	0.5	mg/l	2	10
Total Dinitrotoluenes	367	PBM-0001	4/15/2024	1	0.757	0.0076	0.048	ug/l	0.005	0.05
Trichloroethene	367	PBM-0001	4/15/2024	1	0.26	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	368	PBM-0002	4/15/2024	1	4.9	0.03	0.25	ug/l		
2,4-Dinitrotoluene	368	PBM-0002	4/15/2024	1	0.15	0.04	0.25	ug/l	0.005	0.05
2,5-Dinitrotoluene	368	PBM-0002	4/15/2024	1	0.07	0.025	0.25	ug/l		
2,6-Dinitrotoluene	368	PBM-0002	4/15/2024	1	0.087	0.025	0.25	ug/l	0.005	0.05
3,4-Dinitrotoluene	368	PBM-0002	4/15/2024	1	0.87	0.025	0.25	ug/l		
3,5-Dinitrotoluene	368	PBM-0002	4/15/2024	1	0.24	0.025	0.25	ug/l		
Carbon tetrachloride	368	PBM-0002	4/15/2024	1	0.24	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	368	PBM-0002	4/15/2024	1	4.9	0.05	0.5	mg/l	2	10
Total Dinitrotoluenes	368	PBM-0002	4/15/2024	1	6.317	0.008	0.05	ug/l	0.005	0.05
Trichloroethene	368	PBM-0002	4/15/2024	1	0.45	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	372	PBM-0006	4/15/2024	1	0.2	0.006	0.05	ug/l		
2,4-Dinitrotoluene	372	PBM-0006	4/15/2024	1	0.046	0.008	0.05	ug/l	0.005	0.05
2,5-Dinitrotoluene	372	PBM-0006	4/15/2024	1	0.011	0.005	0.05	ug/l		
2,6-Dinitrotoluene	372	PBM-0006	4/15/2024	1	0.055	0.005	0.05	ug/l	0.005	0.05
3,4-Dinitrotoluene	372	PBM-0006	4/15/2024	1	0.17	0.005	0.05	ug/l		
3,5-Dinitrotoluene	372	PBM-0006	4/15/2024	1	0.041	0.005	0.05	ug/l		
Carbon tetrachloride	372	PBM-0006	4/15/2024	1	0.33	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	372	PBM-0006	4/15/2024	1	2.9	0.05	0.5	mg/l	2	10
Total Dinitrotoluenes	372	PBM-0006	4/15/2024	1	0.523	0.008	0.05	ug/l	0.005	0.05
Trichloroethene	372	PBM-0006	4/15/2024	1	0.45	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	374	PBM-0008	4/15/2024	1	0.29	0.0067	0.056	ug/l		
2,4-Dinitrotoluene	374	PBM-0008	4/15/2024	1	0.061	0.0089	0.056	ug/l	0.005	0.05
2,5-Dinitrotoluene	374	PBM-0008	4/15/2024	1	0.027	0.0056	0.056	ug/l		
2,6-Dinitrotoluene	374	PBM-0008	4/15/2024	1	0.075	0.0056	0.056	ug/l	0.005	0.05
3,4-Dinitrotoluene	374	PBM-0008	4/15/2024	1	0.17	0.0056	0.056	ug/l		
3,5-Dinitrotoluene	374	PBM-0008	4/15/2024	1	0.074	0.0056	0.056	ug/l		
Carbon tetrachloride	374	PBM-0008	4/15/2024	1	0.24	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	374	PBM-0008	4/15/2024	1	0.697	0.0089	0.056	ug/l	0.005	0.05
Trichloroethene	374	PBM-0008	4/15/2024	1	0.36	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	544	PBN-2301B	4/11/2024	2	0.24	0.1	0.2	ug/l	40	200
1,1,1-Trichloroethane	544	PBN-2301B	4/11/2024	1	0.25	0.1	0.2	ug/l	40	200

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
Carbon tetrachloride	544	PBN-2301B	4/11/2024	1	2.4	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	544	PBN-2301B	4/11/2024	2	2.3	0.1	0.2	ug/l	0.5	5
Chloroform	544	PBN-2301B	4/11/2024	1	0.3	0.1	0.2	ug/l	0.6	6
Chloroform	544	PBN-2301B	4/11/2024	2	0.28	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	545	PBN-2301C	4/11/2024	1	0.37	0.1	0.2	ug/l	40	200
Carbon tetrachloride	545	PBN-2301C	4/11/2024	1	3.3	0.1	0.2	ug/l	0.5	5
Chloroform	545	PBN-2301C	4/11/2024	1	0.39	0.1	0.2	ug/l	0.6	6
1,1-Dichloroethane	546	PBN-2301D	4/11/2024	1	0.27	0.1	0.2	ug/l	85	850
Ethyl ether	546	PBN-2301D	4/11/2024	1	2.3	0.1	0.2	ug/l	100	1000
1,1,1-Trichloroethane	595	PBN-1001C	4/24/2024	1	0.12	0.1	0.2	ug/l	40	200
Bromodichloromethane	595	PBN-1001C	4/24/2024	1	0.22	0.1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	595	PBN-1001C	4/24/2024	1	0.9	0.1	0.2	ug/l	0.5	5
Chloroform	595	PBN-1001C	4/24/2024	1	1.4	0.1	0.2	ug/l	0.6	6
Toluene	595	PBN-1001C	4/24/2024	1	0.11	0.1	0.2	ug/l	160	800
Trichloroethene	595	PBN-1001C	4/24/2024	1	0.29	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	613	PBN-8202A	4/15/2024	1	1.3	0.0067	0.056	ug/l		
2,4-Dinitrotoluene	613	PBN-8202A	4/15/2024	1	0.091	0.0089	0.056	ug/l	0.005	0.05
2,5-Dinitrotoluene	613	PBN-8202A	4/15/2024	1	0.018	0.0056	0.056	ug/l		
2,6-Dinitrotoluene	613	PBN-8202A	4/15/2024	1	0.088	0.0056	0.056	ug/l	0.005	0.05
3,4-Dinitrotoluene	613	PBN-8202A	4/15/2024	1	0.24	0.0056	0.056	ug/l		
3,5-Dinitrotoluene	613	PBN-8202A	4/15/2024	1	0.23	0.0056	0.056	ug/l		
Carbon tetrachloride	613	PBN-8202A	4/15/2024	1	0.28	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	613	PBN-8202A	4/15/2024	1	1.967	0.0089	0.056	ug/l	0.005	0.05
Trichloroethene	613	PBN-8202A	4/15/2024	1	0.31	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	614	PBN-8202B	4/15/2024	1	2.9	0.029	0.24	ug/l		
2,4-Dinitrotoluene	614	PBN-8202B	4/15/2024	1	0.13	0.038	0.24	ug/l	0.005	0.05
2,6-Dinitrotoluene	614	PBN-8202B	4/15/2024	1	0.078	0.024	0.24	ug/l	0.005	0.05
3,4-Dinitrotoluene	614	PBN-8202B	4/15/2024	1	0.24	0.024	0.24	ug/l		
3,5-Dinitrotoluene	614	PBN-8202B	4/15/2024	1	0.41	0.024	0.24	ug/l		
Carbon tetrachloride	614	PBN-8202B	4/15/2024	1	0.81	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	614	PBN-8202B	4/15/2024	1	3.758	0.0077	0.048	ug/l	0.005	0.05
Trichloroethene	614	PBN-8202B	4/15/2024	1	0.81	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	615	PBN-8202C	4/15/2024	1	0.081	0.0058	0.049	ug/l		
2,4-Dinitrotoluene	615	PBN-8202C	4/15/2024	1	0.043	0.0078	0.049	ug/l	0.005	0.05
2,5-Dinitrotoluene	615	PBN-8202C	4/15/2024	1	0.017	0.0049	0.049	ug/l		
2,6-Dinitrotoluene	615	PBN-8202C	4/15/2024	1	0.058	0.0049	0.049	ug/l	0.005	0.05
3,4-Dinitrotoluene	615	PBN-8202C	4/15/2024	1	0.026	0.0049	0.049	ug/l		
3,5-Dinitrotoluene	615	PBN-8202C	4/15/2024	1	0.038	0.0049	0.049	ug/l		
Total Dinitrotoluenes	615	PBN-8202C	4/15/2024	1	0.263	0.0078	0.049	ug/l	0.005	0.05
Trichloroethene	615	PBN-8202C	4/15/2024	1	0.12	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	622	PBN-8205A	4/15/2024	1	0.19	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	622	PBN-8205A	4/15/2024	1	0.28	0.0058	0.048	ug/l		
2,4-Dinitrotoluene	622	PBN-8205A	4/15/2024	1	0.022	0.0077	0.048	ug/l	0.005	0.05
2,5-Dinitrotoluene	622	PBN-8205A	4/15/2024	1	0.014	0.0048	0.048	ug/l		
2,6-Dinitrotoluene	622	PBN-8205A	4/15/2024	1	0.067	0.0048	0.048	ug/l	0.005	0.05
3,4-Dinitrotoluene	622	PBN-8205A	4/15/2024	1	0.12	0.0048	0.048	ug/l		
3,5-Dinitrotoluene	622	PBN-8205A	4/15/2024	1	0.057	0.0048	0.048	ug/l		
Carbon tetrachloride	622	PBN-8205A	4/15/2024	1	2.2	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	622	PBN-8205A	4/15/2024	1	0.56	0.0077	0.048	ug/l	0.005	0.05
Trichloroethene	622	PBN-8205A	4/15/2024	1	0.49	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	623	PBN-8205B	4/15/2024	1	0.13	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	623	PBN-8205B	4/15/2024	1	0.26	0.0058	0.048	ug/l		
2,4-Dinitrotoluene	623	PBN-8205B	4/15/2024	1	0.021	0.0077	0.048	ug/l	0.005	0.05
2,5-Dinitrotoluene	623	PBN-8205B	4/15/2024	1	0.014	0.0048	0.048	ug/l		
2,6-Dinitrotoluene	623	PBN-8205B	4/15/2024	1	0.058	0.0048	0.048	ug/l	0.005	0.05
3,4-Dinitrotoluene	623	PBN-8205B	4/15/2024	1	0.11	0.0048	0.048	ug/l		
3,5-Dinitrotoluene	623	PBN-8205B	4/15/2024	1	0.057	0.0048	0.048	ug/l		

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
Carbon tetrachloride	623	PBN-8205B	4/15/2024	1	1.8	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	623	PBN-8205B	4/15/2024	1	0.52	0.0077	0.048	ug/l	0.005	0.05
Trichloroethene	623	PBN-8205B	4/15/2024	1	0.48	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	624	PBN-8205C	4/15/2024	1	0.13	0.0057	0.048	ug/l		
2,4-Dinitrotoluene	624	PBN-8205C	4/15/2024	1	0.012	0.0076	0.048	ug/l	0.005	0.05
2,5-Dinitrotoluene	624	PBN-8205C	4/15/2024	1	0.012	0.0048	0.048	ug/l		
2,6-Dinitrotoluene	624	PBN-8205C	4/15/2024	1	0.028	0.0048	0.048	ug/l	0.005	0.05
3,4-Dinitrotoluene	624	PBN-8205C	4/15/2024	1	0.07	0.0048	0.048	ug/l		
3,5-Dinitrotoluene	624	PBN-8205C	4/15/2024	1	0.055	0.0048	0.048	ug/l		
Total Dinitrotoluenes	624	PBN-8205C	4/15/2024	1	0.307	0.0076	0.048	ug/l	0.005	0.05
Trichloroethene	624	PBN-8205C	4/15/2024	1	0.14	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	632	PBN-8502A	4/15/2024	1	0.31	0.1	0.2	ug/l	40	200
Carbon tetrachloride	632	PBN-8502A	4/15/2024	1	6	0.1	0.2	ug/l	0.5	5
Trichloroethene	632	PBN-8502A	4/15/2024	1	0.82	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	633	PBN-8503A	4/16/2024	1	0.89	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	645	PBN-8902C	4/15/2024	1	0.11	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	645	PBN-8902C	4/15/2024	1	0.054	0.0058	0.048	ug/l		
2,6-Dinitrotoluene	645	PBN-8902C	4/15/2024	1	0.02	0.0048	0.048	ug/l	0.005	0.05
3,4-Dinitrotoluene	645	PBN-8902C	4/15/2024	1	0.018	0.0048	0.048	ug/l		
Carbon tetrachloride	645	PBN-8902C	4/15/2024	1	1.1	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	645	PBN-8902C	4/15/2024	1	0.092	0.0077	0.048	ug/l	0.005	0.05
Trichloroethene	645	PBN-8902C	4/15/2024	1	0.47	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	646	PBN-8903B	4/16/2024	1	0.76	0.1	0.2	ug/l	0.5	5
1,1-Dichloroethane	653	PBN-8910D	4/15/2024	1	0.12	0.1	0.2	ug/l	85	850
Carbon tetrachloride	655	PBN-8912B	4/16/2024	1	0.34	0.1	0.2	ug/l	0.5	5
o-Xylene	655	PBN-8912B	4/16/2024	1	0.13	0.1	0.2	ug/l	400	2000
Tetrachloroethene	655	PBN-8912B	4/16/2024	1	0.11	0.1	0.2	ug/l	0.5	5
Toluene	655	PBN-8912B	4/16/2024	1	1.7	0.1	0.2	ug/l	160	800
Trichloroethene	655	PBN-8912B	4/16/2024	1	0.35	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	665	PBN-9112C	4/16/2024	1	0.5	0.1	0.2	ug/l	0.5	5
Chloroform	665	PBN-9112C	4/16/2024	1	0.12	0.1	0.2	ug/l	0.6	6
Trichloroethene	665	PBN-9112C	4/16/2024	1	0.16	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	668	PBN-9301B	4/16/2024	1	0.12	0.1	0.2	ug/l	40	200
Carbon tetrachloride	668	PBN-9301B	4/16/2024	1	2.1	0.1	0.2	ug/l	0.5	5
Chloroform	668	PBN-9301B	4/16/2024	1	0.32	0.1	0.2	ug/l	0.6	6
Trichloroethene	668	PBN-9301B	4/16/2024	1	0.2	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	669	PBN-9301C	4/16/2024	1	0.34	0.1	0.2	ug/l	40	200
Bromodichloromethane	669	PBN-9301C	4/16/2024	1	0.19	0.1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	669	PBN-9301C	4/16/2024	1	0.59	0.1	0.2	ug/l	0.5	5
Chloroform	669	PBN-9301C	4/16/2024	1	1.5	0.1	0.2	ug/l	0.6	6
Trichloroethene	669	PBN-9301C	4/16/2024	1	0.16	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	673	PBN-9303B	4/24/2024	1	0.28	0.1	0.2	ug/l	40	200
Carbon tetrachloride	673	PBN-9303B	4/24/2024	1	3.6	0.1	0.2	ug/l	0.5	5
Chloroform	673	PBN-9303B	4/24/2024	1	0.68	0.1	0.2	ug/l	0.6	6
Trichloroethene	673	PBN-9303B	4/24/2024	1	0.19	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	674	PBN-9303C	4/24/2024	1	1.1	0.1	0.2	ug/l	40	200
1,1-Dichloroethene	674	PBN-9303C	4/24/2024	1	0.1	0.1	0.2	ug/l	0.7	7
2,5-Dinitrotoluene	674	PBN-9303C	4/24/2024	1	0.061	0.0048	0.048	ug/l		
Bromodichloromethane	674	PBN-9303C	4/24/2024	1	0.12	0.1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	674	PBN-9303C	4/24/2024	1	1.7	0.1	0.2	ug/l	0.5	5
Chloroform	674	PBN-9303C	4/24/2024	1	1	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	674	PBN-9303C	4/24/2024	1	0.061	0.0076	0.048	ug/l	0.005	0.05
Trichloroethene	674	PBN-9303C	4/24/2024	1	0.2	0.1	0.2	ug/l	0.5	5
1,1-Dichloroethane	675	PBN-9303D	4/24/2024	1	0.92	0.1	0.2	ug/l	85	850
1,1-Dichloroethene	675	PBN-9303D	4/24/2024	1	0.17	0.1	0.2	ug/l	0.7	7
Ethyl ether	675	PBN-9303D	4/24/2024	1	29	0.5	1	ug/l	100	1000
1,2-Dichloroethane	687	PBN-9304D	4/23/2024	2	0.21	0.1	0.2	ug/l	0.5	5

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
1,2-Dichloroethane	687	PBN-9304D	4/23/2024	1	0.22	0.1	0.2	ug/l	0.5	5
Ethyl ether	687	PBN-9304D	4/23/2024	2	31	0.5	1	ug/l	100	1000
Ethyl ether	687	PBN-9304D	4/23/2024	1	34	0.5	1	ug/l	100	1000
Ethyl ether	691	PBN-9902D	4/16/2024	2	0.11	0.1	0.2	ug/l	100	1000
Carbon tetrachloride	692	PBN-9903A	4/23/2024	1	0.99	0.1	0.2	ug/l	0.5	5
Chloroform	692	PBN-9903A	4/23/2024	1	0.13	0.1	0.2	ug/l	0.6	6
Trichloroethene	692	PBN-9903A	4/23/2024	1	0.31	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	693	PBN-9903B	4/23/2024	1	0.17	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	693	PBN-9903B	4/23/2024	1	0.013	0.0057	0.048	ug/l		
3,4-Dinitrotoluene	693	PBN-9903B	4/23/2024	1	0.0072	0.0048	0.048	ug/l		
Carbon tetrachloride	693	PBN-9903B	4/23/2024	1	2.3	0.1	0.2	ug/l	0.5	5
Chloroform	693	PBN-9903B	4/23/2024	1	0.29	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	693	PBN-9903B	4/23/2024	1	0.0202	0.0076	0.048	ug/l	0.005	0.05
Trichloroethene	693	PBN-9903B	4/23/2024	1	0.71	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	694	PBN-9903C	4/23/2024	1	0.35	0.1	0.2	ug/l	40	200
Bromodichloromethane	694	PBN-9903C	4/23/2024	1	0.13	0.1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	694	PBN-9903C	4/23/2024	1	6.9	0.1	0.2	ug/l	0.5	5
Chloroform	694	PBN-9903C	4/23/2024	1	1	0.1	0.2	ug/l	0.6	6
Trichloroethene	694	PBN-9903C	4/23/2024	1	2.6	0.1	0.2	ug/l	0.5	5
Ethyl ether	695	PBN-9903D	4/23/2024	1	0.73	0.1	0.2	ug/l	100	1000
1,1,1-Trichloroethane	770	PBN-1302A	4/23/2024	1	0.2	0.1	0.2	ug/l	40	200
Carbon tetrachloride	770	PBN-1302A	4/23/2024	1	3.6	0.1	0.2	ug/l	0.5	5
Chloroform	770	PBN-1302A	4/23/2024	1	0.43	0.1	0.2	ug/l	0.6	6
Trichloroethene	770	PBN-1302A	4/23/2024	1	0.17	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	771	PBN-1302B	4/23/2024	1	0.19	0.1	0.2	ug/l	40	200
Carbon tetrachloride	771	PBN-1302B	4/23/2024	1	3.6	0.1	0.2	ug/l	0.5	5
Chloroform	771	PBN-1302B	4/23/2024	1	0.52	0.1	0.2	ug/l	0.6	6
Trichloroethene	771	PBN-1302B	4/23/2024	1	0.33	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	772	PBN-1302C	4/23/2024	1	0.97	0.1	0.2	ug/l	40	200
1,1-Dichloroethene	772	PBN-1302C	4/23/2024	1	0.12	0.1	0.2	ug/l	0.7	7
Carbon tetrachloride	772	PBN-1302C	4/23/2024	1	2.4	0.1	0.2	ug/l	0.5	5
Chloroform	772	PBN-1302C	4/23/2024	1	0.87	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	774	PBN-1303A	4/24/2024	1	0.38	0.1	0.2	ug/l	40	200
Carbon tetrachloride	774	PBN-1303A	4/24/2024	1	1.8	0.1	0.2	ug/l	0.5	5
Chloroform	774	PBN-1303A	4/24/2024	1	0.34	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	775	PBN-1303B	4/24/2024	1	0.43	0.1	0.2	ug/l	40	200
Carbon tetrachloride	775	PBN-1303B	4/24/2024	1	2	0.1	0.2	ug/l	0.5	5
Chloroform	775	PBN-1303B	4/24/2024	1	0.37	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	776	PBN-1303C	4/24/2024	2	0.77	0.1	0.2	ug/l	40	200
1,1,1-Trichloroethane	776	PBN-1303C	4/24/2024	1	0.78	0.1	0.2	ug/l	40	200
Carbon tetrachloride	776	PBN-1303C	4/24/2024	1	2.4	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	776	PBN-1303C	4/24/2024	2	2.3	0.1	0.2	ug/l	0.5	5
Chloroform	776	PBN-1303C	4/24/2024	1	0.55	0.1	0.2	ug/l	0.6	6
Chloroform	776	PBN-1303C	4/24/2024	2	0.55	0.1	0.2	ug/l	0.6	6
Trichloroethene	776	PBN-1303C	4/24/2024	2	0.16	0.1	0.2	ug/l	0.5	5
Trichloroethene	776	PBN-1303C	4/24/2024	1	0.15	0.1	0.2	ug/l	0.5	5
1,1-Dichloroethane	777	PBN-1303D	4/24/2024	1	0.57	0.1	0.2	ug/l	85	850
Ethyl ether	777	PBN-1303D	4/24/2024	1	1.1	0.1	0.2	ug/l	100	1000
1,1,1-Trichloroethane	778	PBN-1304A	4/24/2024	1	0.28	0.1	0.2	ug/l	40	200
Carbon tetrachloride	778	PBN-1304A	4/24/2024	1	0.5	0.1	0.2	ug/l	0.5	5
Chloroform	778	PBN-1304A	4/24/2024	1	0.19	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	779	PBN-1304B	4/24/2024	1	0.33	0.1	0.2	ug/l	40	200
Carbon tetrachloride	779	PBN-1304B	4/24/2024	1	0.73	0.1	0.2	ug/l	0.5	5
Chloroform	779	PBN-1304B	4/24/2024	1	0.26	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	780	PBN-1304C	4/24/2024	1	0.39	0.1	0.2	ug/l	40	200
Carbon tetrachloride	780	PBN-1304C	4/24/2024	1	0.84	0.1	0.2	ug/l	0.5	5
Chloroform	780	PBN-1304C	4/24/2024	1	0.26	0.1	0.2	ug/l	0.6	6

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
1,1-Dichloroethane	781	PBN-1304D	4/24/2024	1	0.34	0.1	0.2	ug/l	85	850
2,3-Dinitrotoluene	782	PBN-1401A	4/15/2024	1	0.31	0.0058	0.048	ug/l		
2,4-Dinitrotoluene	782	PBN-1401A	4/15/2024	1	0.018	0.0077	0.048	ug/l	0.005	0.05
2,5-Dinitrotoluene	782	PBN-1401A	4/15/2024	1	0.017	0.0048	0.048	ug/l		
2,6-Dinitrotoluene	782	PBN-1401A	4/15/2024	1	0.05	0.0048	0.048	ug/l	0.005	0.05
3,4-Dinitrotoluene	782	PBN-1401A	4/15/2024	1	0.056	0.0048	0.048	ug/l		
3,5-Dinitrotoluene	782	PBN-1401A	4/15/2024	1	0.03	0.0048	0.048	ug/l		
Total Dinitrotoluenes	782	PBN-1401A	4/15/2024	1	0.481	0.0077	0.048	ug/l	0.005	0.05
Trichloroethene	782	PBN-1401A	4/15/2024	1	0.15	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	783	PBN-1401B	4/15/2024	2	0.48	0.0058	0.049	ug/l		
2,3-Dinitrotoluene	783	PBN-1401B	4/15/2024	1	0.5	0.0058	0.048	ug/l		
2,4-Dinitrotoluene	783	PBN-1401B	4/15/2024	2	0.026	0.0078	0.049	ug/l	0.005	0.05
2,4-Dinitrotoluene	783	PBN-1401B	4/15/2024	1	0.027	0.0077	0.048	ug/l	0.005	0.05
2,5-Dinitrotoluene	783	PBN-1401B	4/15/2024	1	0.018	0.0048	0.048	ug/l		
2,5-Dinitrotoluene	783	PBN-1401B	4/15/2024	2	0.016	0.0049	0.049	ug/l		
2,6-Dinitrotoluene	783	PBN-1401B	4/15/2024	2	0.081	0.0049	0.049	ug/l	0.005	0.05
2,6-Dinitrotoluene	783	PBN-1401B	4/15/2024	1	0.084	0.0048	0.048	ug/l	0.005	0.05
3,4-Dinitrotoluene	783	PBN-1401B	4/15/2024	2	0.077	0.0049	0.049	ug/l		
3,4-Dinitrotoluene	783	PBN-1401B	4/15/2024	1	0.081	0.0048	0.048	ug/l		
3,5-Dinitrotoluene	783	PBN-1401B	4/15/2024	2	0.036	0.0049	0.049	ug/l		
3,5-Dinitrotoluene	783	PBN-1401B	4/15/2024	1	0.039	0.0048	0.048	ug/l		
Total Dinitrotoluenes	783	PBN-1401B	4/15/2024	1	0.749	0.0077	0.048	ug/l	0.005	0.05
Total Dinitrotoluenes	783	PBN-1401B	4/15/2024	2	0.716	0.0078	0.049	ug/l	0.005	0.05
Trichloroethene	783	PBN-1401B	4/15/2024	2	0.11	0.1	0.2	ug/l	0.5	5
Trichloroethene	783	PBN-1401B	4/15/2024	1	0.11	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	784	PBN-1401C	4/15/2024	1	0.0087	0.0058	0.048	ug/l		
3,4-Dinitrotoluene	784	PBN-1401C	4/15/2024	1	0.011	0.0048	0.048	ug/l		
Total Dinitrotoluenes	784	PBN-1401C	4/15/2024	1	0.0197	0.0077	0.048	ug/l	0.005	0.05
1,1,1-Trichloroethane	791	PBN-1404B	4/16/2024	1	0.19	0.1	0.2	ug/l	40	200
Carbon tetrachloride	791	PBN-1404B	4/16/2024	1	3.4	0.1	0.2	ug/l	0.5	5
Chloroform	791	PBN-1404B	4/16/2024	1	0.49	0.1	0.2	ug/l	0.6	6
Trichloroethene	791	PBN-1404B	4/16/2024	1	0.66	0.1	0.2	ug/l	0.5	5
Bromodichloromethane	792	PBN-1404C	4/16/2024	1	0.13	0.1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	792	PBN-1404C	4/16/2024	1	0.35	0.1	0.2	ug/l	0.5	5
Chloroform	792	PBN-1404C	4/16/2024	1	0.91	0.1	0.2	ug/l	0.6	6
Trichloroethene	792	PBN-1404C	4/16/2024	1	0.17	0.1	0.2	ug/l	0.5	5
Ethyl ether	793	PBN-1404D	4/16/2024	1	54	1	2	ug/l	100	1000
1,1,1-Trichloroethane	795	PBN-8902BR	4/15/2024	1	0.14	0.1	0.2	ug/l	40	200
Carbon tetrachloride	795	PBN-8902BR	4/15/2024	1	1.7	0.1	0.2	ug/l	0.5	5
Chloroform	795	PBN-8902BR	4/15/2024	1	0.15	0.1	0.2	ug/l	0.6	6
Trichloroethene	795	PBN-8902BR	4/15/2024	1	0.54	0.1	0.2	ug/l	0.5	5

State of Wisconsin
Department of Natural Resources

Environmental Monitoring Data Certification

Form 4400-231(R 1/04)

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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 - Deterrent Burning Grounds	03037	157065260	4/8 & 4/9/24

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

April 2024

Type of Data Submitted (Check all that apply)

- [x] Groundwater monitoring data from monitoring wells
- [ ] Groundwater monitoring data from private water supply wells
- [ ] Leachate monitoring data
- [ ] Gas monitoring data
- [ ] Air monitoring data
- [ ] Other (specify)

Notification attached?

- [ ] No. No groundwater standards or explosive gas limits were exceeded.
- [x] 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.

Joel Janssen 6/18/24

Signature Date

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Case Narrative
Groundwater Monitoring
License Number 3037
Deterrent Burning Grounds
April 2024
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Twelve (12) monitoring wells were sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) in the Deterrent Burning Ground Plume.

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

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.

Sulfate analysis was also performed by CT Lab using method SW 846 9056A.

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2024 Report Date: 6/18/2024

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	3037	301	DBM-8201	4/9/2024	1	0.0094	ug/l	0.005	0.05
2,6-Dinitrotoluene	3037	301	DBM-8201	4/9/2024	1	0.046	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	301	DBM-8201	4/9/2024	1	1.3854	ug/l	0.005	0.05
2,6-Dinitrotoluene	3037	302	DBM-8202	4/9/2024	1	0.017	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	302	DBM-8202	4/9/2024	1	0.386	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	472	DBN-1001B	4/9/2024	1	0.215	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	472	DBN-1001B	4/9/2024	2	0.187	ug/l	0.005	0.05
2,6-Dinitrotoluene	3037	476	DBN-1002C	4/8/2024	1	0.01	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	476	DBN-1002C	4/8/2024	1	0.511	ug/l	0.005	0.05

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

April 2024 GROUNDWATER MONITORING ALL HITS REPORT

License No: 3037 Report Date: 6/18/2024

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
1,1,1-Trichloroethane	301	DBM-8201	4/9/2024	1	0.16	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	301	DBM-8201	4/9/2024	1	0.77	0.0059	0.05	ug/l		
2,4-Dinitrotoluene	301	DBM-8201	4/9/2024	1	0.0094	0.0079	0.05	ug/l	0.005	0.05
2,6-Dinitrotoluene	301	DBM-8201	4/9/2024	1	0.046	0.005	0.05	ug/l	0.005	0.05
3,4-Dinitrotoluene	301	DBM-8201	4/9/2024	1	0.22	0.005	0.05	ug/l		
3,5-Dinitrotoluene	301	DBM-8201	4/9/2024	1	0.34	0.005	0.05	ug/l		
Sulfate	301	DBM-8201	4/9/2024	1	19	0.8	3	mg/l	125	250
Total Dinitrotoluenes	301	DBM-8201	4/9/2024	1	1.3854	0.0079	0.05	ug/l	0.005	0.05
1,1,1-Trichloroethane	302	DBM-8202	4/9/2024	1	0.61	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	302	DBM-8202	4/9/2024	1	0.25	0.0058	0.048	ug/l		
2,6-Dinitrotoluene	302	DBM-8202	4/9/2024	1	0.017	0.0048	0.048	ug/l	0.005	0.05
3,4-Dinitrotoluene	302	DBM-8202	4/9/2024	1	0.022	0.0048	0.048	ug/l		
3,5-Dinitrotoluene	302	DBM-8202	4/9/2024	1	0.097	0.0048	0.048	ug/l		
Sulfate	302	DBM-8202	4/9/2024	1	19	0.8	3	mg/l	125	250
Total Dinitrotoluenes	302	DBM-8202	4/9/2024	1	0.386	0.0077	0.048	ug/l	0.005	0.05
1,1,1-Trichloroethane	472	DBN-1001B	4/9/2024	1	1	0.1	0.2	ug/l	40	200
1,1,1-Trichloroethane	472	DBN-1001B	4/9/2024	2	0.89	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	472	DBN-1001B	4/9/2024	1	0.065	0.0057	0.048	ug/l		
2,3-Dinitrotoluene	472	DBN-1001B	4/9/2024	2	0.057	0.0058	0.049	ug/l		
3,4-Dinitrotoluene	472	DBN-1001B	4/9/2024	1	0.15	0.0048	0.048	ug/l		
3,4-Dinitrotoluene	472	DBN-1001B	4/9/2024	2	0.13	0.0049	0.049	ug/l		
Total Dinitrotoluenes	472	DBN-1001B	4/9/2024	1	0.215	0.0076	0.048	ug/l	0.005	0.05
Total Dinitrotoluenes	472	DBN-1001B	4/9/2024	2	0.187	0.0078	0.049	ug/l	0.005	0.05
2,3-Dinitrotoluene	476	DBN-1002C	4/8/2024	1	0.25	0.0058	0.049	ug/l		
2,6-Dinitrotoluene	476	DBN-1002C	4/8/2024	1	0.01	0.0049	0.049	ug/l	0.005	0.05
3,4-Dinitrotoluene	476	DBN-1002C	4/8/2024	1	0.22	0.0049	0.049	ug/l		
3,5-Dinitrotoluene	476	DBN-1002C	4/8/2024	1	0.031	0.0049	0.049	ug/l		
Sulfate	476	DBN-1002C	4/9/2024	1	18	0.8	3	mg/l	125	250
Total Dinitrotoluenes	476	DBN-1002C	4/8/2024	1	0.511	0.0078	0.049	ug/l	0.005	0.05
Sulfate	477	DBN-1002E	4/9/2024	1	19	0.8	3	mg/l	125	250

State of Wisconsin
Department of Natural Resources

Environmental Monitoring Data Certification

Form 4400-231(R 1/04)

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Instructions:

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- **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	4/8/24

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

April 2024

Type of Data Submitted (Check all that apply)

- [x] Groundwater monitoring data from monitoring wells
- [ ] Groundwater monitoring data from private water supply wells
- [ ] Leachate monitoring data
- [ ] Gas monitoring data
- [ ] Air monitoring data
- [ ] Other (specify) _____

Notification attached?

- [x] 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.

Joel Janssen 6/18/24

Signature Date

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Case Narrative
Groundwater Monitoring
License Number 3038
Southeast Boundary
April 2024
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. One monitoring well, S1121 (755), was sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) in the Deterrent Burning Ground Plume.

No compounds were detected in S1121.

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.

State of Wisconsin
Department of Natural Resources

Environmental Monitoring Data Certification

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- 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 - Off-Site Plume Wells	03485 & 03493	157005530	4/11/24

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

April 2024

Type of Data Submitted (Check all that apply)

- [x] Groundwater monitoring data from monitoring wells
- [ ] Groundwater monitoring data from private water supply wells
- [ ] Leachate monitoring data
- [ ] Gas monitoring data
- [ ] Air monitoring data
- [ ] Other (specify)

Notification attached?

- [ ] No. No groundwater standards or explosive gas limits were exceeded.
- [x] 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 6/18/24

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Case Narrative
Groundwater Monitoring
License Number 3485 & 3493
Off-Site Plume Wells
April 2024
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Contamination from the Propellant Burning Ground (PBG) impacts groundwater quality in monitoring wells associated with these licenses. Eight (8) monitoring wells were sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) and volatile organic compounds (VOCs) in the PBG Plume.

2,4-DNT, 2,6-DNT, and total DNT exceeded the Preventive Action Limit (PAL) in PBN-9101C (561).

Benzene exceeded the PAL in 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).

Ethyl ether exceeded the ES in SWN-9103D (573). This is the third time ethyl ether has exceeded the ES in SWN-9103D.

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

VOC 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.

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2024 Report Date: 6/18/2024

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
Benzene	3485	981	PBM-9001D	4/11/2024	1	0.51	ug/l	0.5	5
Carbon tetrachloride	3485	981	PBM-9001D	4/11/2024	1	8.3	ug/l	0.5	5
Trichloroethene	3485	981	PBM-9001D	4/11/2024	1	1.8	ug/l	0.5	5

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

April 2024 GROUNDWATER MONITORING ALL HITS REPORT

License No: 3485 Report Date: 6/18/2024

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
1,1,1-Trichloroethane	981	PBM-9001D	4/11/2024	1	0.15	0.1	0.2	ug/l	40	200
Benzene	981	PBM-9001D	4/11/2024	1	0.51	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	981	PBM-9001D	4/11/2024	1	8.3	0.1	0.2	ug/l	0.5	5
Chloroform	981	PBM-9001D	4/11/2024	1	0.47	0.1	0.2	ug/l	0.6	6
Toluene	981	PBM-9001D	4/11/2024	1	0.88	0.1	0.2	ug/l	160	800
Trichloroethene	981	PBM-9001D	4/11/2024	1	1.8	0.1	0.2	ug/l	0.5	5

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2024 Report Date: 6/18/2024

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	3493	561	PBN-9101C	4/11/2024	1	0.008	ug/l	0.005	0.05
2,6-Dinitrotoluene	3493	561	PBN-9101C	4/11/2024	1	0.022	ug/l	0.005	0.05
Carbon tetrachloride	3493	561	PBN-9101C	4/11/2024	1	16	ug/l	0.5	5
Chloroform	3493	561	PBN-9101C	4/11/2024	1	1.5	ug/l	0.6	6
Total Dinitrotoluenes	3493	561	PBN-9101C	4/11/2024	1	0.03	ug/l	0.005	0.05
Trichloroethene	3493	561	PBN-9101C	4/11/2024	1	3.9	ug/l	0.5	5
Carbon tetrachloride	3493	571	SWN-9103B	4/11/2024	1	1	ug/l	0.5	5
Ethyl ether	3493	573	SWN-9103D	4/11/2024	1	2000	ug/l	100	1000
Carbon tetrachloride	3493	575	SWN-9104C	4/11/2024	1	3.8	ug/l	0.5	5
Carbon tetrachloride	3493	576	SWN-9104D	4/11/2024	1	4.3	ug/l	0.5	5

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

April 2024 GROUNDWATER MONITORING ALL HITS REPORT

License No: 3493 Report Date: 6/18/2024

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
1,1,1-Trichloroethane	561	PBN-9101C	4/11/2024	1	0.18	0.1	0.2	ug/l	40	200
2,4-Dinitrotoluene	561	PBN-9101C	4/11/2024	1	0.008	0.008	0.05	ug/l	0.005	0.05
2,6-Dinitrotoluene	561	PBN-9101C	4/11/2024	1	0.022	0.005	0.05	ug/l	0.005	0.05
Carbon tetrachloride	561	PBN-9101C	4/11/2024	1	16	0.2	0.4	ug/l	0.5	5
Chloroform	561	PBN-9101C	4/11/2024	1	1.5	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	561	PBN-9101C	4/11/2024	1	0.03	0.008	0.05	ug/l	0.005	0.05
Trichloroethene	561	PBN-9101C	4/11/2024	1	3.9	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	571	SWN-9103B	4/11/2024	1	0.15	0.1	0.2	ug/l	40	200
Carbon tetrachloride	571	SWN-9103B	4/11/2024	1	1	0.1	0.2	ug/l	0.5	5
Chloroform	571	SWN-9103B	4/11/2024	1	0.11	0.1	0.2	ug/l	0.6	6
Trichloroethene	571	SWN-9103B	4/11/2024	1	0.14	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	572	SWN-9103C	4/11/2024	1	0.13	0.1	0.2	ug/l	0.5	5
Ethyl ether	573	SWN-9103D	4/11/2024	1	2000	20	40	ug/l	100	1000
Carbon tetrachloride	574	SWN-9103E	4/11/2024	1	0.18	0.1	0.2	ug/l	0.5	5
Ethyl ether	574	SWN-9103E	4/11/2024	1	26	0.5	1	ug/l	100	1000
Toluene	574	SWN-9103E	4/11/2024	1	0.18	0.1	0.2	ug/l	160	800
1,1,1-Trichloroethane	575	SWN-9104C	4/11/2024	1	0.39	0.1	0.2	ug/l	40	200
Carbon tetrachloride	575	SWN-9104C	4/11/2024	1	3.8	0.1	0.2	ug/l	0.5	5
Chloroform	575	SWN-9104C	4/11/2024	1	0.47	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	576	SWN-9104D	4/11/2024	1	0.27	0.1	0.2	ug/l	40	200
1,1-Dichloroethane	576	SWN-9104D	4/11/2024	1	0.11	0.1	0.2	ug/l	85	850
Carbon tetrachloride	576	SWN-9104D	4/11/2024	1	4.3	0.1	0.2	ug/l	0.5	5
Chloroform	576	SWN-9104D	4/11/2024	1	0.58	0.1	0.2	ug/l	0.6	6

State of Wisconsin
Department of Natural Resources

Environmental Monitoring Data Certification

Form 4400-231(R 1/04)

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 - Nitroglycerine Pond/Rocket Paste Area	03487	157005530	4/10/24

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

April 2024

Type of Data Submitted (Check all that apply)

- [X] Groundwater monitoring data from monitoring wells
- [ ] Groundwater monitoring data from private water supply wells
- [ ] Leachate monitoring data
- [ ] Gas monitoring data
- [ ] Air monitoring data
- [ ] Other (specify)

Notification attached?

- [ ] No. No groundwater standards or explosive gas limits were exceeded.
- [X] 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 6/18/24

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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 3487
Nitroglycerine Pond/Rocket Paste Area
April 2024
Badger Army Ammunition Plant

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

2,4-DNT, 2,6-DNT and Total DNT exceeded the Preventive Action Limit (PAL) in RIM-0705 (442), RIM-1002 (478), and RIN-1001A (480). 2,6-DNT and Total DNT exceeded the PAL in 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.

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2024 Report Date: 6/18/2024

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	3487	442	RIM-0705	4/10/2024	1	0.017	ug/l	0.005	0.05
2,6-Dinitrotoluene	3487	442	RIM-0705	4/10/2024	1	0.027	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	442	RIM-0705	4/10/2024	1	0.044	ug/l	0.005	0.05
2,4-Dinitrotoluene	3487	478	RIM-1002	4/10/2024	1	0.022	ug/l	0.005	0.05
2,6-Dinitrotoluene	3487	478	RIM-1002	4/10/2024	1	0.02	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	478	RIM-1002	4/10/2024	1	0.042	ug/l	0.005	0.05
2,4-Dinitrotoluene	3487	480	RIN-1001A	4/10/2024	1	0.018	ug/l	0.005	0.05
2,6-Dinitrotoluene	3487	480	RIN-1001A	4/10/2024	1	0.029	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	480	RIN-1001A	4/10/2024	1	0.047	ug/l	0.005	0.05
2,6-Dinitrotoluene	3487	504	S1125	4/10/2024	1	0.015	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	504	S1125	4/10/2024	1	0.015	ug/l	0.005	0.05

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

April 2024 GROUNDWATER MONITORING ALL HITS REPORT

License No: 3487 Report Date: 6/18/2024

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,4-Dinitrotoluene	442	RIM-0705	4/10/2024	1	0.017	0.0077	0.048	ug/l	0.005	0.05
2,6-Dinitrotoluene	442	RIM-0705	4/10/2024	1	0.027	0.0048	0.048	ug/l	0.005	0.05
Total Dinitrotoluenes	442	RIM-0705	4/10/2024	1	0.044	0.0077	0.048	ug/l	0.005	0.05
2,4-Dinitrotoluene	478	RIM-1002	4/10/2024	1	0.022	0.0076	0.048	ug/l	0.005	0.05
2,6-Dinitrotoluene	478	RIM-1002	4/10/2024	1	0.02	0.0048	0.048	ug/l	0.005	0.05
Total Dinitrotoluenes	478	RIM-1002	4/10/2024	1	0.042	0.0076	0.048	ug/l	0.005	0.05
2,4-Dinitrotoluene	480	RIN-1001A	4/10/2024	1	0.018	0.008	0.05	ug/l	0.005	0.05
2,6-Dinitrotoluene	480	RIN-1001A	4/10/2024	1	0.029	0.005	0.05	ug/l	0.005	0.05
Total Dinitrotoluenes	480	RIN-1001A	4/10/2024	1	0.047	0.008	0.05	ug/l	0.005	0.05
2,6-Dinitrotoluene	504	S1125	4/10/2024	1	0.015	0.0048	0.048	ug/l	0.005	0.05
Total Dinitrotoluenes	504	S1125	4/10/2024	1	0.015	0.0077	0.048	ug/l	0.005	0.05

State of Wisconsin
Department of Natural Resources

Environmental Monitoring Data Certification

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Instructions:

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- 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 - Off-Site Residential Wells	03497	157005530	4/10 - 4/11/24

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

April 2024

Type of Data Submitted (Check all that apply)

- ☐ Groundwater monitoring data from monitoring wells
- ☒ Groundwater monitoring data from private water supply wells
- ☐ Leachate monitoring data
- ☐ Gas monitoring data
- ☐ Air monitoring data
- ☐ 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.

Joel Janssen 6/18/24

Signature Date

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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 3497
Off-Site Residential Wells
April 2024
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 and two residential wells located east of the Deterrent Burning Ground Plume were sampled during this round.

No compounds were detected above the Preventive Action Limit (PAL) in either WE-XK342 (435), E12375A (803) or S7655 (916).

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.

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

April 2024 GROUNDWATER MONITORING ALL HITS REPORT

License No: 3497 Report Date: 6/18/2024

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
Chloroform	435	WE-XK342	4/11/2024	1	0.14	0.1	0.2	ug/l	0.6	6

State of Wisconsin
Department of Natural Resources

Environmental Monitoring Data Certification

Form 4400-231(R 1/04)

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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.**
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- 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	4/16 - 4/23/24

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

April 2024

Type of Data Submitted (Check all that apply)

- [x] Groundwater monitoring data from monitoring wells
- [ ] Groundwater monitoring data from private water supply wells
- [ ] Leachate monitoring data
- [ ] Gas monitoring data
- [ ] Air monitoring data
- [ ] Other (specify) _____

Notification attached?

- [ ] No. No groundwater standards or explosive gas limits were exceeded.
- [x] 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.

Joel Janssen 6/18/24

Signature Date

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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 3499
Settling Ponds
April 2024
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Contamination from the Propellant Burning Ground (PBG) largely impacts groundwater quality in monitoring wells associated with this license. Eight (8) monitoring wells were sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) and volatile organic compounds (VOCs) in the PBG Plume.

Total DNT exceeded the Enforcement Standard (ES) in SPN-8904B (720) and SPN-8904C (721). 2,6-DNT exceeded the Preventive Action Limit (PAL) in SPN-8904B (720) and SPN-8904C (721).

Carbon tetrachloride exceeded the PAL in SPN-8903B (718), SPN-8903C (719), SPN-8904B (720), and SPN-8904C (721).

Ethyl ether exceeded the PAL in SPN-9104D (726).

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

VOC 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.

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

GROUNDWATER MONITORING EXCEEDANCE REPORT

April 2024 Report Date: 6/18/2024

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
Carbon tetrachloride	3499	718	SPN-8903B	4/16/2024	1	0.66	ug/l	0.5	5
Carbon tetrachloride	3499	719	SPN-8903C	4/16/2024	1	0.53	ug/l	0.5	5
2,6-Dinitrotoluene	3499	720	SPN-8904B	4/23/2024	1	0.014	ug/l	0.005	0.05
Carbon tetrachloride	3499	720	SPN-8904B	4/23/2024	1	1.8	ug/l	0.5	5
Total Dinitrotoluenes	3499	720	SPN-8904B	4/23/2024	1	0.064	ug/l	0.005	0.05
Trichloroethene	3499	720	SPN-8904B	4/23/2024	1	0.57	ug/l	0.5	5
2,6-Dinitrotoluene	3499	721	SPN-8904C	4/23/2024	1	0.019	ug/l	0.005	0.05
Carbon tetrachloride	3499	721	SPN-8904C	4/23/2024	1	2.6	ug/l	0.5	5
Total Dinitrotoluenes	3499	721	SPN-8904C	4/23/2024	1	0.076	ug/l	0.005	0.05
Trichloroethene	3499	721	SPN-8904C	4/23/2024	1	1.1	ug/l	0.5	5
Ethyl ether	3499	726	SPN-9104D	4/23/2024	1	370	ug/l	100	1000

Badger Army Ammunition Plant

SpecPro Professional Services, LLC

April 2024 GROUNDWATER MONITORING ALL HITS REPORT

License No: 3499 Report Date: 6/18/2024

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
Carbon tetrachloride	718	SPN-8903B	4/16/2024	1	0.66	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	719	SPN-8903C	4/16/2024	1	0.53	0.1	0.2	ug/l	0.5	5
Chloroform	719	SPN-8903C	4/16/2024	1	0.4	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	720	SPN-8904B	4/23/2024	1	0.15	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	720	SPN-8904B	4/23/2024	1	0.035	0.0058	0.048	ug/l		
2,6-Dinitrotoluene	720	SPN-8904B	4/23/2024	1	0.014	0.0048	0.048	ug/l	0.005	0.05
3,4-Dinitrotoluene	720	SPN-8904B	4/23/2024	1	0.015	0.0048	0.048	ug/l		
Carbon tetrachloride	720	SPN-8904B	4/23/2024	1	1.8	0.1	0.2	ug/l	0.5	5
Chloroform	720	SPN-8904B	4/23/2024	1	0.26	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	720	SPN-8904B	4/23/2024	1	0.064	0.0077	0.048	ug/l	0.005	0.05
Trichloroethene	720	SPN-8904B	4/23/2024	1	0.57	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	721	SPN-8904C	4/23/2024	1	0.2	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	721	SPN-8904C	4/23/2024	1	0.037	0.0058	0.049	ug/l		
2,6-Dinitrotoluene	721	SPN-8904C	4/23/2024	1	0.019	0.0049	0.049	ug/l	0.005	0.05
3,4-Dinitrotoluene	721	SPN-8904C	4/23/2024	1	0.02	0.0049	0.049	ug/l		
Carbon tetrachloride	721	SPN-8904C	4/23/2024	1	2.6	0.1	0.2	ug/l	0.5	5
Chloroform	721	SPN-8904C	4/23/2024	1	0.37	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	721	SPN-8904C	4/23/2024	1	0.076	0.0078	0.049	ug/l	0.005	0.05
Trichloroethene	721	SPN-8904C	4/23/2024	1	1.1	0.1	0.2	ug/l	0.5	5
Ethyl ether	726	SPN-9104D	4/23/2024	1	370	5	10	ug/l	100	1000