DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
US ARMY ENVIRONMENTAL COMMAND
2450 CONNELL ROAD
JOINT BASE SAN ANTONIO FORT SAM HOUSTON, TX 78234-7664

IMAE-M November 4, 2020

SUBJECT: September 2020 Monitoring Well Groundwater Data
Badger Army Ammunition Plant

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

Dear Mr. Martin:

Enclosed is the Badger Army Ammunition Plant (BAAP) September 2020 Monitoring Well Groundwater Data. SpecPro Professional Services, LLC (SPS) collected groundwater samples from 240 monitoring wells associated with the Deterrent Burning Ground (DBG) Plume, Nitrocellulose Production Area (NC) Plume, and Propellant Burning Ground (PBG) Plume.

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

Deterrent Burning Ground Plume

Based on the WDNR 2014 Monitoring Well Optimization Plan email approval dated May 27, 2014 and subsequent modifications dated July 15, 2016 and July 10, 2018, 47 monitoring wells associated with the DBG Plume were sampled between September 16 and 28, 2020.

The groundwater results indicate that dinitrotoluene (DNT) concentrations in the DBG Plume have continued to decrease over the past four years except in three monitoring wells, ELN-1003B, ELN-1003C, and ELN-1502A. DNT was not detected in ELN-1504B, located downgradient of ELN-1003B and ELN-1003C. The enclosed Table 1 compares the DNT results from ELN-1003B, ELN-1003C, and ELN-1502A from September 2016 through September 2020.

The total DNT concentration in ELN-1502A increased from 0.195 micrograms per liter (µg/l) during September 2016 to 0.801 µg/l during September 2018 and has decreased to 0.268 µg/l during September 2020. ELN-1502A is located at the eastern plant boundary and 0.7 miles southeast of the DBG source area. ELN-1502A will be sampled again during April 2021.

The total DNT concentration in ELN-1003B increased from <0.008 (below the detection limit) during September 2016 to 0.32 µg/l during November 2018 and has decreased to 0.171 µg/l during September 2020. The total DNT concentration in ELN-1003C increased from <0.0081 during September 2016 to 0.278 µg/l during November 2018 and has decreased to 0.169 µg/l during September 2020. Both ELN-1003B and ELN-1003C are located 0.5 mile southeast of ELN-1502A. Both ELN-1003B and ELN-1003C will be sampled again during November 2020.

Nitrocellulose Production Area Plume

Per the WDNR's October 3, 2014 request, we have included DNT groundwater data from seven monitoring wells located near the former DNT Screen House. The seven monitoring wells were sampled on September 15, 2020. These seven monitoring wells help define the extents of DNT in the NC Plume. The groundwater results indicate that DNT concentrations in this area have remained stable. The monitoring wells associated with the NC Plume will be sampled again during April 2021.

Propellant Burning Ground Plume

Based on the WDNR Propellant Burning Ground Monitoring Requirements dated January 5, 2015, 79 monitoring wells associated with the PBG Plume were sampled. In addition to the WDNR required sampling, 107 monitoring wells both near the PBG source area and in downgradient portions of the PBG Plume were sampled. One hundred eighty-six monitoring wells were sampled between August 18 and September 24, 2020.

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

DNT concentrations near the PBG source area have increased since September 2017. The enclosed Table 2 compares the DNT results from PBM-9801, PBN-8202A, and PBN-8202B from September 2017 through September 2020. PBM-9801 is located within the PBG source area. PBN-8202A and PBN-8202B are located adjacent to and downgradient of the PBG source area.

The total DNT concentration in PBN-8202A increased from 1.469 µg/l during September 2017 to 420.294 µg/l during May 2018. Since May 2018, the total DNT concentration in PBN-8202A has fluctuated. During April 2019, the total DNT concentration in PBN-8202A dropped to 30.49 µg/l. In April 2020, the total DNT

concentration in PBN-8202A increased to 1,286.9 µg/l. During September 2020, the total DNT concentration in PBN-8202A decreased to 14.118 µg/l. The total DNT concentration in PBN-8202B increased from 0.881 µg/l during September 2017 to 85.1 µg/l during April 2019 and has decreased to 9.208 µg/l during September 2020.

Total DNT concentrations have also been increasing in three other monitoring wells located either beneath or downgradient of the capped PBG Waste Pits. The total DNT concentration in PBM-0001 increased from 0.701 µg/l (September 2017) to 7.293 µg/l (September 2020). The total DNT concentration in PBM-9902 increased from 0.835 µg/l (October 2013) to 6.49 µg/l (September 2020). The total DNT concentration in PBN-8910A increased from 0.223 µg/l (September 2014) to 16.662 µg/l (September 2020).

These are unexpected increases in DNT concentrations over recent sampling events. The recent increase in DNT concentrations near the source area may be related to the recent rise in groundwater levels. Over the past four years, the groundwater table at the PBG source area has risen eight feet and above the estimated depth of DNT contaminated soil remaining beneath the PBG cap. The enclosed graph compares the total DNT concentration in PBN-8202A versus the groundwater elevation from 2007 to 2020.

Quality Review

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

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

Sincerely,

Digitally signed by
LYNCH.BRYAN.PATRICK.1021561
254
Date: 2020.11.24 10:19:14 -06'00'

Bryan P. Lynch
Commander's Representative

Enclosures
Copy furn: Joel Janssen, SpecPro Professional Services, LLC

Table 1
September 2016 - 2020 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**
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**

Table 1
September 2016 - 2020 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**
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

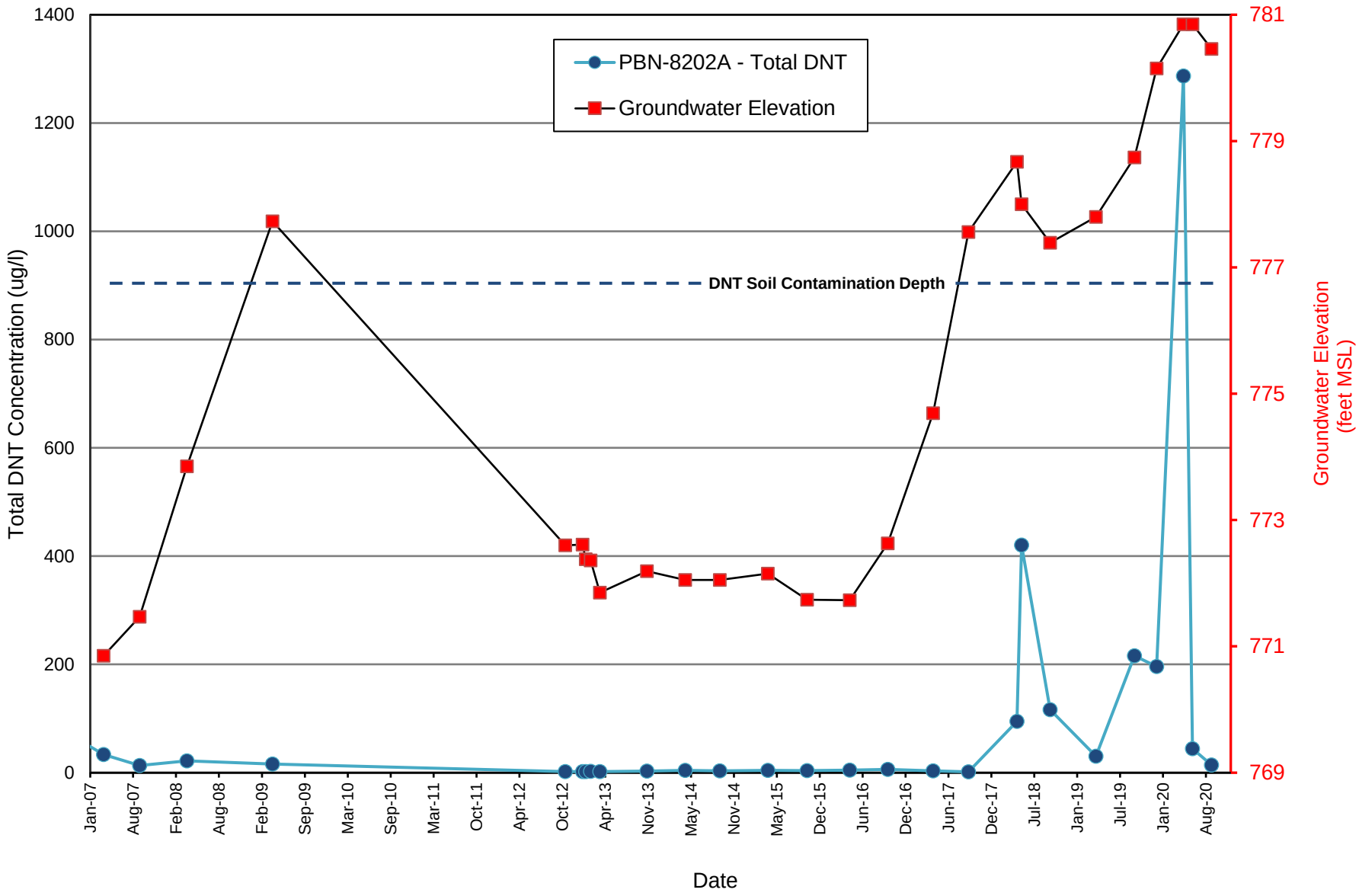
Notes:
DBG - Deterrent Burning Ground
The Sample Level references the typical well depth configuration
All results are expressed in micrograms per liter (µg/l)
DNT analysis was performed by CT Laboratories
D = Duplicate sample
J = Analytical result is between the Limit of Detection (LOD) and Limit of 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
September 2017 - 2020 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**
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**
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**
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 - 2020**



September 2020

Monitoring Well Groundwater Data

Badger Army Ammunition Plant

Deterrent Burning Ground Plume

Nitrocellulose Production Area Plume

Propellant Burning Ground Plume

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 - Landfill #5	02813	157005530	9/16 - 9/28/20

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

September 2020

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 — 11/4/20

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
September 2020
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Thirty-four (34) 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 ELM-8901 (216), ELM-8907 (220), ELM-8908 (221), ELN-1003B (468), ELN-1003C (469), and ELN-1502A (533).

2,4-DNT and 2,6-DNT exceeded the Preventive Action Limit (PAL) in ELM-8901 (216).

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

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

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

September 2020 Report Date: 11/4/2020

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	2813	216	ELM-8901	9/21/2020	1	0.043	ug/l	0.005	0.05
2,6-Dinitrotoluene	2813	216	ELM-8901	9/21/2020	1	0.037	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	216	ELM-8901	9/21/2020	1	1.2	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	220	ELM-8907	9/21/2020	1	0.875	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	221	ELM-8908	9/21/2020	1	0.128	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	468	ELN-1003B	9/22/2020	1	0.171	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	469	ELN-1003C	9/22/2020	1	0.169	ug/l	0.005	0.05
Total Dinitrotoluenes	2813	533	ELN-1502A	9/21/2020	1	0.268	ug/l	0.005	0.05

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

September 2020 GROUNDWATER MONITORING ALL HITS REPORT

License No: 2813 Report Date: 11/4/2020

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,3-Dinitrotoluene	216	ELM-8901	9/21/2020	1	0.39	0.0058	0.029	ug/l		
2,4-Dinitrotoluene	216	ELM-8901	9/21/2020	1	0.043	0.0078	0.039	ug/l	0.005	0.05
2,6-Dinitrotoluene	216	ELM-8901	9/21/2020	1	0.037	0.0039	0.029	ug/l	0.005	0.05
3,4-Dinitrotoluene	216	ELM-8901	9/21/2020	1	0.54	0.0039	0.039	ug/l		
3,5-Dinitrotoluene	216	ELM-8901	9/21/2020	1	0.19	0.0039	0.029	ug/l		
Total Dinitrotoluenes	216	ELM-8901	9/21/2020	1	1.2	0.0078	0.029	ug/l	0.005	0.05
2,3-Dinitrotoluene	220	ELM-8907	9/21/2020	1	0.6	0.0061	0.03	ug/l		
3,4-Dinitrotoluene	220	ELM-8907	9/21/2020	1	0.18	0.004	0.04	ug/l		
3,5-Dinitrotoluene	220	ELM-8907	9/21/2020	1	0.095	0.004	0.03	ug/l		
Total Dinitrotoluenes	220	ELM-8907	9/21/2020	1	0.875	0.0081	0.03	ug/l	0.005	0.05
2,3-Dinitrotoluene	221	ELM-8908	9/21/2020	1	0.044	0.0059	0.029	ug/l		
3,4-Dinitrotoluene	221	ELM-8908	9/21/2020	1	0.056	0.0039	0.039	ug/l		
3,5-Dinitrotoluene	221	ELM-8908	9/21/2020	1	0.028	0.0039	0.029	ug/l		
Total Dinitrotoluenes	221	ELM-8908	9/21/2020	1	0.128	0.0078	0.029	ug/l	0.005	0.05
2,3-Dinitrotoluene	468	ELN-1003B	9/22/2020	1	0.041	0.0057	0.029	ug/l		
3,4-Dinitrotoluene	468	ELN-1003B	9/22/2020	1	0.13	0.0038	0.038	ug/l		
Total Dinitrotoluenes	468	ELN-1003B	9/22/2020	1	0.171	0.0076	0.029	ug/l	0.005	0.05
2,3-Dinitrotoluene	469	ELN-1003C	9/22/2020	1	0.039	0.0058	0.029	ug/l		
3,4-Dinitrotoluene	469	ELN-1003C	9/22/2020	1	0.13	0.0039	0.039	ug/l		
Total Dinitrotoluenes	469	ELN-1003C	9/22/2020	1	0.169	0.0078	0.029	ug/l	0.005	0.05
2,3-Dinitrotoluene	533	ELN-1502A	9/21/2020	1	0.078	0.006	0.03	ug/l		
3,4-Dinitrotoluene	533	ELN-1502A	9/21/2020	1	0.16	0.004	0.04	ug/l		
3,5-Dinitrotoluene	533	ELN-1502A	9/21/2020	1	0.03	0.004	0.03	ug/l		
Total Dinitrotoluenes	533	ELN-1502A	9/21/2020	1	0.268	0.008	0.03	ug/l	0.005	0.05

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 - Propellant Burning Grounds	02814	157005420	8/18 - 8/27/20 9/1 - 9/24/20

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

September 2020

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 _____ Date 11/4/20

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 2814
Propellant Burning Grounds
September 2020
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. One hundred forty-four (144) 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-9902 (362), PBM-9903 (363), PBM-0001 (367), PBM-0002 (368), PBM-0003 (369), PBM-0004 (370), PBM-0005 (371), PBM-0006 (372), PBM-0007 (373), PBM-0008 (374), PBM-9803 (526), PBN-8202A (613), PBN-8202B (614), PBN-8202C (615), PBN-8910A (650), PBN-8910B (651), PBM-1201 (764), and PBM-1202 (765). 2,4-DNT and total DNT exceeded the ES in PBN-8205B (623) and PBM-1203 (766). 2,6-DNT and total DNT exceeded the ES in PBM-8503 (627), PBN-1401A (782), PBN-1401B (783), and PBN-1402B (786). Total DNT exceeded the ES in PBN-8205A (622), PBN-8205C (624), PBN-8901C (642), PBN-8904C (649), PBN-9304B (685), PBN-1402A (785), and PBN-1402C (787). 2,4-DNT exceeded the Preventive Action Limit (PAL) in PBN-8205A (622), PBN-8205C (624), PBN-1401A (782), PBN-1401B (783), PBN-1402B (786), and PBN-1402C (787). 2,6-DNT exceeded the PAL in PBN-8205B (623), PBN-8205C (624), PBM-1203 (766), and PBN-1402C (787). Total DNT exceeded the PAL in PBM-8205 (609) and PBN-8904B (648).

Benzene exceeded the PAL in PBN-8202C (615). This is the third time benzene has exceeded the PAL in PBN-8202C. PBN-8202C is located directly downgradient of the PBG source area.

Bromodichloromethane exceeded the PAL in PBN-1002C (591), PBN-1001C (595), PBN-9306C (667), PBN-9301C (669), and PBN-1404C (792).

Carbon tetrachloride exceeded the ES in PBN-1002A (589), PBN-1001B (594), PBM-8503 (627), PBN-8502A (632), PBM-8906 (636), PBN-9903C (694), and PBN-1403A (788) and the PAL in 56 wells.

Chloroform exceeded the PAL in ten wells.

Ethyl ether exceeded the ES in PBN-9903D (695) and the PAL in PBN-9304D (687) and PBN-1404D (793).

Nitrate plus nitrite exceeded the PAL in 26 wells.

Trichloroethene exceeded the PAL in 34 wells.

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 analyses were performed by CT Lab using method EPA 353.2.

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

September 2020 Report Date: 11/4/2020

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	2814	360	PBM-9801	9/1/2020	1	110	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	360	PBM-9801	9/1/2020	1	2.1	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	360	PBM-9801	9/1/2020	1	3.3	mg/l	2	10
Total Dinitrotoluenes	2814	360	PBM-9801	9/1/2020	1	112.65	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	361	PBM-9901	9/1/2020	1	4.2	mg/l	2	10
2,4-Dinitrotoluene	2814	362	PBM-9902	9/1/2020	1	0.33	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	362	PBM-9902	9/1/2020	1	0.16	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	362	PBM-9902	9/1/2020	1	3.3	mg/l	2	10
Total Dinitrotoluenes	2814	362	PBM-9902	9/1/2020	1	6.49	ug/l	0.005	0.05
Trichloroethene	2814	362	PBM-9902	9/1/2020	1	0.78	ug/l	0.5	5
2,4-Dinitrotoluene	2814	363	PBM-9903	9/1/2020	1	0.066	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	363	PBM-9903	9/1/2020	1	0.053	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	363	PBM-9903	9/1/2020	1	2.8	mg/l	2	10
Total Dinitrotoluenes	2814	363	PBM-9903	9/1/2020	1	0.241	ug/l	0.005	0.05
Trichloroethene	2814	363	PBM-9903	9/1/2020	1	0.57	ug/l	0.5	5
2,4-Dinitrotoluene	2814	367	PBM-0001	9/1/2020	1	0.25	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	367	PBM-0001	9/1/2020	1	0.15	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	367	PBM-0001	9/1/2020	1	3.5	mg/l	2	10
Total Dinitrotoluenes	2814	367	PBM-0001	9/1/2020	1	7.293	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	368	PBM-0002	9/1/2020	1	0.15	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	368	PBM-0002	9/1/2020	1	0.089	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	368	PBM-0002	9/1/2020	1	3.1	mg/l	2	10
Total Dinitrotoluenes	2814	368	PBM-0002	9/1/2020	1	1.594	ug/l	0.005	0.05
Trichloroethene	2814	368	PBM-0002	9/1/2020	1	0.57	ug/l	0.5	5
2,4-Dinitrotoluene	2814	369	PBM-0003	9/1/2020	1	0.067	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	369	PBM-0003	9/1/2020	1	0.067	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	369	PBM-0003	9/1/2020	1	3.3	mg/l	2	10
Total Dinitrotoluenes	2814	369	PBM-0003	9/1/2020	1	0.367	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	370	PBM-0004	9/2/2020	1	0.12	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	370	PBM-0004	9/2/2020	1	0.11	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	370	PBM-0004	9/2/2020	1	3.1	mg/l	2	10
Total Dinitrotoluenes	2814	370	PBM-0004	9/2/2020	1	1.285	ug/l	0.005	0.05
Trichloroethene	2814	370	PBM-0004	9/2/2020	1	0.74	ug/l	0.5	5
2,4-Dinitrotoluene	2814	371	PBM-0005	9/1/2020	1	0.09	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	371	PBM-0005	9/1/2020	1	0.069	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	371	PBM-0005	9/1/2020	1	2.7	mg/l	2	10
Total Dinitrotoluenes	2814	371	PBM-0005	9/1/2020	1	0.619	ug/l	0.005	0.05
Trichloroethene	2814	371	PBM-0005	9/1/2020	1	0.55	ug/l	0.5	5
2,4-Dinitrotoluene	2814	372	PBM-0006	9/1/2020	1	0.13	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	372	PBM-0006	9/1/2020	1	0.067	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	372	PBM-0006	9/1/2020	1	2.6	mg/l	2	10
Total Dinitrotoluenes	2814	372	PBM-0006	9/1/2020	1	1.445	ug/l	0.005	0.05
Trichloroethene	2814	372	PBM-0006	9/1/2020	1	0.56	ug/l	0.5	5
2,4-Dinitrotoluene	2814	373	PBM-0007	9/2/2020	1	0.12	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	373	PBM-0007	9/2/2020	2	0.12	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	373	PBM-0007	9/2/2020	1	0.089	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	373	PBM-0007	9/2/2020	2	0.095	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	373	PBM-0007	9/2/2020	1	3	mg/l	2	10

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
Nitrate+Nitrite Nitrogen	2814	373	PBM-0007	9/2/2020	2	3	mg/l	2	10
Total Dinitrotoluenes	2814	373	PBM-0007	9/2/2020	1	1.5	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	373	PBM-0007	9/2/2020	2	1.534	ug/l	0.005	0.05
Trichloroethene	2814	373	PBM-0007	9/2/2020	1	0.53	ug/l	0.5	5
Trichloroethene	2814	373	PBM-0007	9/2/2020	2	0.53	ug/l	0.5	5
2,4-Dinitrotoluene	2814	374	PBM-0008	9/2/2020	1	0.092	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	374	PBM-0008	9/2/2020	1	0.091	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	374	PBM-0008	9/2/2020	1	2.7	mg/l	2	10
Total Dinitrotoluenes	2814	374	PBM-0008	9/2/2020	1	0.49	ug/l	0.005	0.05
Trichloroethene	2814	374	PBM-0008	9/2/2020	1	0.84	ug/l	0.5	5
2,4-Dinitrotoluene	2814	526	PBM-9803	9/1/2020	1	0.061	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	526	PBM-9803	9/1/2020	1	0.057	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	526	PBM-9803	9/1/2020	1	3.2	mg/l	2	10
Total Dinitrotoluenes	2814	526	PBM-9803	9/1/2020	1	0.261	ug/l	0.005	0.05
Carbon tetrachloride	2814	589	PBN-1002A	9/14/2020	1	5.7	ug/l	0.5	5
Carbon tetrachloride	2814	590	PBN-1002B	9/14/2020	1	3	ug/l	0.5	5
Trichloroethene	2814	590	PBN-1002B	9/14/2020	1	1	ug/l	0.5	5
Bromodichloromethane	2814	591	PBN-1002C	9/14/2020	1	0.21	ug/l	0.06	0.6
Chloroform	2814	591	PBN-1002C	9/14/2020	1	1.5	ug/l	0.6	6
Carbon tetrachloride	2814	593	PBN-1001A	8/20/2020	1	1.7	ug/l	0.5	5
Carbon tetrachloride	2814	594	PBN-1001B	8/20/2020	1	8.4	ug/l	0.5	5
Chloroform	2814	594	PBN-1001B	8/20/2020	1	0.83	ug/l	0.6	6
Trichloroethene	2814	594	PBN-1001B	8/20/2020	1	2.2	ug/l	0.5	5
Bromodichloromethane	2814	595	PBN-1001C	8/20/2020	1	0.11	ug/l	0.06	0.6
Carbon tetrachloride	2814	595	PBN-1001C	8/20/2020	1	2.4	ug/l	0.5	5
Chloroform	2814	595	PBN-1001C	8/20/2020	1	1.1	ug/l	0.6	6
Carbon tetrachloride	2814	609	PBM-8205	8/27/2020	1	0.88	ug/l	0.5	5
Total Dinitrotoluenes	2814	609	PBM-8205	8/27/2020	1	0.037	ug/l	0.005	0.05
Carbon tetrachloride	2814	610	PBN-8201A	9/1/2020	1	0.9	ug/l	0.5	5
Trichloroethene	2814	610	PBN-8201A	9/1/2020	1	1.7	ug/l	0.5	5
2,4-Dinitrotoluene	2814	613	PBN-8202A	9/1/2020	1	0.3	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	613	PBN-8202A	9/1/2020	1	0.14	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	613	PBN-8202A	9/1/2020	1	3.2	mg/l	2	10
Total Dinitrotoluenes	2814	613	PBN-8202A	9/1/2020	1	14.118	ug/l	0.005	0.05
Trichloroethene	2814	613	PBN-8202A	9/1/2020	1	0.65	ug/l	0.5	5
2,4-Dinitrotoluene	2814	614	PBN-8202B	9/1/2020	1	0.22	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	614	PBN-8202B	9/1/2020	1	0.058	ug/l	0.005	0.05
Carbon tetrachloride	2814	614	PBN-8202B	9/1/2020	1	0.77	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	2814	614	PBN-8202B	9/1/2020	1	3.6	mg/l	2	10
Total Dinitrotoluenes	2814	614	PBN-8202B	9/1/2020	1	9.208	ug/l	0.005	0.05
Trichloroethene	2814	614	PBN-8202B	9/1/2020	1	0.88	ug/l	0.5	5
2,4-Dinitrotoluene	2814	615	PBN-8202C	9/1/2020	1	0.29	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	615	PBN-8202C	9/1/2020	1	0.26	ug/l	0.005	0.05
Benzene	2814	615	PBN-8202C	9/1/2020	1	3.3	ug/l	0.5	5
Total Dinitrotoluenes	2814	615	PBN-8202C	9/1/2020	1	0.868	ug/l	0.005	0.05
Trichloroethene	2814	615	PBN-8202C	9/1/2020	1	0.77	ug/l	0.5	5
Carbon tetrachloride	2814	616	PBN-8203A	8/26/2020	1	0.78	ug/l	0.5	5
Carbon tetrachloride	2814	617	PBN-8203B	8/26/2020	1	0.82	ug/l	0.5	5
Carbon tetrachloride	2814	618	PBN-8203C	8/26/2020	1	0.68	ug/l	0.5	5
Carbon tetrachloride	2814	621	PBN-8204C	9/24/2020	1	0.65	ug/l	0.5	5
2,4-Dinitrotoluene	2814	622	PBN-8205A	9/2/2020	1	0.046	ug/l	0.005	0.05
Carbon tetrachloride	2814	622	PBN-8205A	9/2/2020	1	1.5	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	2814	622	PBN-8205A	9/2/2020	1	2.4	mg/l	2	10
Total Dinitrotoluenes	2814	622	PBN-8205A	9/2/2020	1	0.278	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	623	PBN-8205B	9/2/2020	1	0.051	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	623	PBN-8205B	9/2/2020	1	0.044	ug/l	0.005	0.05
Carbon tetrachloride	2814	623	PBN-8205B	9/2/2020	1	1.4	ug/l	0.5	5

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
Nitrate+Nitrite Nitrogen	2814	623	PBN-8205B	9/2/2020	1	2.5	mg/l	2	10
Total Dinitrotoluenes	2814	623	PBN-8205B	9/2/2020	1	0.388	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	624	PBN-8205C	9/2/2020	1	0.041	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	624	PBN-8205C	9/2/2020	1	0.044	ug/l	0.005	0.05
Carbon tetrachloride	2814	624	PBN-8205C	9/2/2020	1	1.4	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	2814	624	PBN-8205C	9/2/2020	1	2.5	mg/l	2	10
Total Dinitrotoluenes	2814	624	PBN-8205C	9/2/2020	1	0.509	ug/l	0.005	0.05
Carbon tetrachloride	2814	625	PBM-8501	9/24/2020	1	1.2	ug/l	0.5	5
Carbon tetrachloride	2814	626	PBM-8502	8/25/2020	1	0.98	ug/l	0.5	5
2,6-Dinitrotoluene	2814	627	PBM-8503	8/26/2020	1	0.054	ug/l	0.005	0.05
Carbon tetrachloride	2814	627	PBM-8503	8/26/2020	1	5.7	ug/l	0.5	5
Total Dinitrotoluenes	2814	627	PBM-8503	8/26/2020	1	0.247	ug/l	0.005	0.05
Trichloroethene	2814	627	PBM-8503	8/26/2020	1	1	ug/l	0.5	5
Carbon tetrachloride	2814	628	PBM-8504	9/24/2020	1	2	ug/l	0.5	5
Trichloroethene	2814	628	PBM-8504	9/24/2020	1	0.87	ug/l	0.5	5
Carbon tetrachloride	2814	631	PBN-8501A	8/25/2020	1	4.2	ug/l	0.5	5
Trichloroethene	2814	631	PBN-8501A	8/25/2020	1	0.81	ug/l	0.5	5
Carbon tetrachloride	2814	632	PBN-8502A	8/26/2020	1	11	ug/l	0.5	5
Trichloroethene	2814	632	PBN-8502A	8/26/2020	1	1.1	ug/l	0.5	5
Carbon tetrachloride	2814	633	PBN-8503A	8/26/2020	1	1.7	ug/l	0.5	5
Carbon tetrachloride	2814	636	PBM-8906	9/14/2020	1	13	ug/l	0.5	5
Trichloroethene	2814	636	PBM-8906	9/14/2020	1	1.3	ug/l	0.5	5
Carbon tetrachloride	2814	637	PBM-8907	8/24/2020	1	0.87	ug/l	0.5	5
Carbon tetrachloride	2814	638	PBM-8908	9/14/2020	1	0.9	ug/l	0.5	5
Carbon tetrachloride	2814	641	PBN-8901B	8/25/2020	1	0.54	ug/l	0.5	5
Carbon tetrachloride	2814	642	PBN-8901C	8/25/2020	1	0.59	ug/l	0.5	5
Total Dinitrotoluenes	2814	642	PBN-8901C	8/25/2020	1	0.053	ug/l	0.005	0.05
Carbon tetrachloride	2814	645	PBN-8902C	8/26/2020	1	2.1	ug/l	0.5	5
Trichloroethene	2814	645	PBN-8902C	8/26/2020	1	0.68	ug/l	0.5	5
Carbon tetrachloride	2814	646	PBN-8903B	8/26/2020	1	0.65	ug/l	0.5	5
Carbon tetrachloride	2814	646	PBN-8903B	8/26/2020	2	0.68	ug/l	0.5	5
Carbon tetrachloride	2814	648	PBN-8904B	8/25/2020	1	0.82	ug/l	0.5	5
Carbon tetrachloride	2814	648	PBN-8904B	8/25/2020	2	0.91	ug/l	0.5	5
Total Dinitrotoluenes	2814	648	PBN-8904B	8/25/2020	1	0.038	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	648	PBN-8904B	8/25/2020	2	0.036	ug/l	0.005	0.05
Carbon tetrachloride	2814	649	PBN-8904C	8/25/2020	1	0.8	ug/l	0.5	5
Total Dinitrotoluenes	2814	649	PBN-8904C	8/25/2020	1	0.082	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	650	PBN-8910A	9/2/2020	1	0.15	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	650	PBN-8910A	9/2/2020	1	0.098	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	650	PBN-8910A	9/2/2020	1	3.7	mg/l	2	10
Total Dinitrotoluenes	2814	650	PBN-8910A	9/2/2020	1	16.662	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	651	PBN-8910B	9/2/2020	1	0.059	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	651	PBN-8910B	9/2/2020	1	0.058	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	651	PBN-8910B	9/2/2020	1	3.1	mg/l	2	10
Total Dinitrotoluenes	2814	651	PBN-8910B	9/2/2020	1	0.338	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	652	PBN-8910C	9/2/2020	1	4	mg/l	2	10
Carbon tetrachloride	2814	656	LOM-8901	8/26/2020	1	0.89	ug/l	0.5	5
Carbon tetrachloride	2814	657	LON-8902A	8/26/2020	1	1	ug/l	0.5	5
Trichloroethene	2814	657	LON-8902A	8/26/2020	1	0.76	ug/l	0.5	5
Carbon tetrachloride	2814	660	LON-8903B	8/26/2020	1	0.69	ug/l	0.5	5
Bromodichloromethane	2814	667	PBN-9306C	9/14/2020	1	0.13	ug/l	0.06	0.6
Chloroform	2814	667	PBN-9306C	9/14/2020	1	0.97	ug/l	0.6	6
Carbon tetrachloride	2814	668	PBN-9301B	9/14/2020	1	3	ug/l	0.5	5
Chloroform	2814	668	PBN-9301B	9/14/2020	1	0.69	ug/l	0.6	6
Bromodichloromethane	2814	669	PBN-9301C	9/14/2020	1	0.18	ug/l	0.06	0.6
Carbon tetrachloride	2814	669	PBN-9301C	9/14/2020	1	1.1	ug/l	0.5	5
Chloroform	2814	669	PBN-9301C	9/14/2020	1	1.5	ug/l	0.6	6

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
Carbon tetrachloride	2814	670	PBN-9302B	9/15/2020	1	3.3	ug/l	0.5	5
Carbon tetrachloride	2814	671	PBN-9302C	9/15/2020	1	2.1	ug/l	0.5	5
Carbon tetrachloride	2814	673	PBN-9303B	8/20/2020	1	3.2	ug/l	0.5	5
Carbon tetrachloride	2814	673	PBN-9303B	8/20/2020	2	3.2	ug/l	0.5	5
Carbon tetrachloride	2814	674	PBN-9303C	8/20/2020	1	3.7	ug/l	0.5	5
Chloroform	2814	674	PBN-9303C	8/20/2020	1	1.1	ug/l	0.6	6
Carbon tetrachloride	2814	676	PBN-9404AR	9/24/2020	1	0.64	ug/l	0.5	5
Carbon tetrachloride	2814	685	PBN-9304B	8/19/2020	1	1.4	ug/l	0.5	5
Total Dinitrotoluenes	2814	685	PBN-9304B	8/19/2020	1	0.114	ug/l	0.005	0.05
Carbon tetrachloride	2814	686	PBN-9304C	8/19/2020	1	1.7	ug/l	0.5	5
Carbon tetrachloride	2814	686	PBN-9304C	8/19/2020	2	1.6	ug/l	0.5	5
Trichloroethene	2814	686	PBN-9304C	8/19/2020	1	1.2	ug/l	0.5	5
Trichloroethene	2814	686	PBN-9304C	8/19/2020	2	1.1	ug/l	0.5	5
Ethyl ether	2814	687	PBN-9304D	8/19/2020	1	170	ug/l	100	1000
Carbon tetrachloride	2814	689	PBN-9902B	8/20/2020	1	2	ug/l	0.5	5
Trichloroethene	2814	689	PBN-9902B	8/20/2020	1	0.55	ug/l	0.5	5
Carbon tetrachloride	2814	692	PBN-9903A	8/19/2020	1	1	ug/l	0.5	5
Carbon tetrachloride	2814	693	PBN-9903B	8/19/2020	1	3.1	ug/l	0.5	5
Trichloroethene	2814	693	PBN-9903B	8/19/2020	1	1.1	ug/l	0.5	5
Carbon tetrachloride	2814	694	PBN-9903C	8/19/2020	1	8.9	ug/l	0.5	5
Trichloroethene	2814	694	PBN-9903C	8/19/2020	1	1.5	ug/l	0.5	5
Ethyl ether	2814	695	PBN-9903D	8/19/2020	1	1000	ug/l	100	1000
Carbon tetrachloride	2814	697	PBN-9901B	8/20/2020	1	1.1	ug/l	0.5	5
2,4-Dinitrotoluene	2814	764	PBM-1201	9/1/2020	1	0.27	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	764	PBM-1201	9/1/2020	1	0.097	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	764	PBM-1201	9/1/2020	1	3.4	mg/l	2	10
Total Dinitrotoluenes	2814	764	PBM-1201	9/1/2020	1	7.707	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	765	PBM-1202	9/1/2020	1	0.2	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	765	PBM-1202	9/1/2020	1	0.086	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	765	PBM-1202	9/1/2020	1	3.2	mg/l	2	10
Total Dinitrotoluenes	2814	765	PBM-1202	9/1/2020	1	3.896	ug/l	0.005	0.05
Trichloroethene	2814	765	PBM-1202	9/1/2020	1	0.52	ug/l	0.5	5
2,4-Dinitrotoluene	2814	766	PBM-1203	9/1/2020	1	0.055	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	766	PBM-1203	9/1/2020	1	0.044	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	766	PBM-1203	9/1/2020	1	2.9	mg/l	2	10
Total Dinitrotoluenes	2814	766	PBM-1203	9/1/2020	1	0.552	ug/l	0.005	0.05
Carbon tetrachloride	2814	767	PBN-1301A	8/27/2020	1	0.54	ug/l	0.5	5
Trichloroethene	2814	767	PBN-1301A	8/27/2020	1	0.66	ug/l	0.5	5
Carbon tetrachloride	2814	770	PBN-1302A	8/18/2020	1	2.7	ug/l	0.5	5
Carbon tetrachloride	2814	771	PBN-1302B	8/18/2020	1	3.6	ug/l	0.5	5
Carbon tetrachloride	2814	771	PBN-1302B	8/18/2020	2	3.8	ug/l	0.5	5
Carbon tetrachloride	2814	772	PBN-1302C	8/18/2020	1	2.8	ug/l	0.5	5
Chloroform	2814	772	PBN-1302C	8/18/2020	1	0.91	ug/l	0.6	6
Carbon tetrachloride	2814	774	PBN-1303A	8/18/2020	1	0.86	ug/l	0.5	5
Carbon tetrachloride	2814	775	PBN-1303B	8/18/2020	1	1.3	ug/l	0.5	5
Carbon tetrachloride	2814	776	PBN-1303C	8/18/2020	1	1.9	ug/l	0.5	5
2,4-Dinitrotoluene	2814	782	PBN-1401A	9/24/2020	1	0.043	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	782	PBN-1401A	9/24/2020	1	0.076	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	782	PBN-1401A	9/24/2020	1	3.1	mg/l	2	10
Total Dinitrotoluenes	2814	782	PBN-1401A	9/24/2020	1	0.493	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	783	PBN-1401B	9/24/2020	1	0.049	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	783	PBN-1401B	9/24/2020	1	0.078	ug/l	0.005	0.05
Nitrate+Nitrite Nitrogen	2814	783	PBN-1401B	9/24/2020	1	3.1	mg/l	2	10
Total Dinitrotoluenes	2814	783	PBN-1401B	9/24/2020	1	0.37	ug/l	0.005	0.05
Carbon tetrachloride	2814	785	PBN-1402A	9/24/2020	1	3.7	ug/l	0.5	5
Total Dinitrotoluenes	2814	785	PBN-1402A	9/24/2020	1	0.13	ug/l	0.005	0.05
Trichloroethene	2814	785	PBN-1402A	9/24/2020	1	0.62	ug/l	0.5	5

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,4-Dinitrotoluene	2814	786	PBN-1402B	9/24/2020	1	0.045	ug/l	0.005	0.05
2,4-Dinitrotoluene	2814	786	PBN-1402B	9/24/2020	2	0.048	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	786	PBN-1402B	9/24/2020	1	0.07	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	786	PBN-1402B	9/24/2020	2	0.069	ug/l	0.005	0.05
Carbon tetrachloride	2814	786	PBN-1402B	9/24/2020	1	1.9	ug/l	0.5	5
Carbon tetrachloride	2814	786	PBN-1402B	9/24/2020	2	2	ug/l	0.5	5
Total Dinitrotoluenes	2814	786	PBN-1402B	9/24/2020	1	0.692	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	786	PBN-1402B	9/24/2020	2	0.713	ug/l	0.005	0.05
Trichloroethene	2814	786	PBN-1402B	9/24/2020	1	0.55	ug/l	0.5	5
Trichloroethene	2814	786	PBN-1402B	9/24/2020	2	0.58	ug/l	0.5	5
2,4-Dinitrotoluene	2814	787	PBN-1402C	9/24/2020	1	0.042	ug/l	0.005	0.05
2,6-Dinitrotoluene	2814	787	PBN-1402C	9/24/2020	1	0.03	ug/l	0.005	0.05
Total Dinitrotoluenes	2814	787	PBN-1402C	9/24/2020	1	0.342	ug/l	0.005	0.05
Carbon tetrachloride	2814	788	PBN-1403A	9/15/2020	1	11	ug/l	0.5	5
Trichloroethene	2814	788	PBN-1403A	9/15/2020	1	1.2	ug/l	0.5	5
Carbon tetrachloride	2814	789	PBN-1403B	9/15/2020	1	4.4	ug/l	0.5	5
Trichloroethene	2814	789	PBN-1403B	9/15/2020	1	1.6	ug/l	0.5	5
Carbon tetrachloride	2814	790	PBN-1403C	9/15/2020	1	2.6	ug/l	0.5	5
Trichloroethene	2814	790	PBN-1403C	9/15/2020	1	0.8	ug/l	0.5	5
Carbon tetrachloride	2814	791	PBN-1404B	9/14/2020	1	2.5	ug/l	0.5	5
Chloroform	2814	791	PBN-1404B	9/14/2020	1	0.77	ug/l	0.6	6
Trichloroethene	2814	791	PBN-1404B	9/14/2020	1	0.87	ug/l	0.5	5
Bromodichloromethane	2814	792	PBN-1404C	9/14/2020	1	0.19	ug/l	0.06	0.6
Carbon tetrachloride	2814	792	PBN-1404C	9/14/2020	1	0.6	ug/l	0.5	5
Chloroform	2814	792	PBN-1404C	9/14/2020	1	1.4	ug/l	0.6	6
Ethyl ether	2814	793	PBN-1404D	9/14/2020	1	570	ug/l	100	1000
Carbon tetrachloride	2814	795	PBN-8902BR	8/26/2020	1	2.6	ug/l	0.5	5
Trichloroethene	2814	795	PBN-8902BR	8/26/2020	1	0.78	ug/l	0.5	5

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

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License No: 2814 Report Date: 11/4/2020

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
1,2,4-Trimethylbenzene	360	PBM-9801	9/1/2020	1	0.15	0.1	0.2	ug/l	96	480
2,3-Dinitrotoluene	360	PBM-9801	9/1/2020	1	0.37	0.0063	0.032	ug/l		
2,4-Dinitrotoluene	360	PBM-9801	9/1/2020	1	110	2.1	11	ug/l	0.005	0.05
2,6-Dinitrotoluene	360	PBM-9801	9/1/2020	1	2.1	0.0042	0.032	ug/l	0.005	0.05
3,4-Dinitrotoluene	360	PBM-9801	9/1/2020	1	0.18	0.0042	0.042	ug/l		
Nitrate+Nitrite Nitrogen	360	PBM-9801	9/1/2020	1	3.3	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	360	PBM-9801	9/1/2020	1	112.65	0.0084	0.032	ug/l	0.005	0.05
Carbon tetrachloride	361	PBM-9901	9/1/2020	2	0.14	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	361	PBM-9901	9/1/2020	1	0.13	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	361	PBM-9901	9/1/2020	1	4.2	0.08	0.3	mg/l	2	10
2,3-Dinitrotoluene	362	PBM-9902	9/1/2020	1	4.7	0.032	0.16	ug/l		
2,4-Dinitrotoluene	362	PBM-9902	9/1/2020	1	0.33	0.0085	0.043	ug/l	0.005	0.05
2,6-Dinitrotoluene	362	PBM-9902	9/1/2020	1	0.16	0.0043	0.032	ug/l	0.005	0.05
3,4-Dinitrotoluene	362	PBM-9902	9/1/2020	1	0.86	0.0043	0.043	ug/l		
3,5-Dinitrotoluene	362	PBM-9902	9/1/2020	1	0.44	0.0043	0.032	ug/l		
Carbon tetrachloride	362	PBM-9902	9/1/2020	1	0.46	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	362	PBM-9902	9/1/2020	1	3.3	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	362	PBM-9902	9/1/2020	1	6.49	0.0085	0.032	ug/l	0.005	0.05
Trichloroethene	362	PBM-9902	9/1/2020	1	0.78	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	363	PBM-9903	9/1/2020	1	0.058	0.0066	0.033	ug/l		
2,4-Dinitrotoluene	363	PBM-9903	9/1/2020	1	0.066	0.0088	0.044	ug/l	0.005	0.05
2,6-Dinitrotoluene	363	PBM-9903	9/1/2020	1	0.053	0.0044	0.033	ug/l	0.005	0.05
3,4-Dinitrotoluene	363	PBM-9903	9/1/2020	1	0.064	0.0044	0.044	ug/l		
Carbon tetrachloride	363	PBM-9903	9/1/2020	1	0.29	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	363	PBM-9903	9/1/2020	1	2.8	0.08	0.3	mg/l	2	10
Toluene	363	PBM-9903	9/1/2020	1	0.17	0.1	0.2	ug/l	160	800
Total Dinitrotoluenes	363	PBM-9903	9/1/2020	1	0.241	0.0088	0.033	ug/l	0.005	0.05
Trichloroethene	363	PBM-9903	9/1/2020	1	0.57	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	367	PBM-0001	9/1/2020	1	5.6	0.032	0.16	ug/l		
2,4-Dinitrotoluene	367	PBM-0001	9/1/2020	1	0.25	0.0085	0.043	ug/l	0.005	0.05
2,5-Dinitrotoluene	367	PBM-0001	9/1/2020	1	0.093	0.0032	0.032	ug/l		
2,6-Dinitrotoluene	367	PBM-0001	9/1/2020	1	0.15	0.0043	0.032	ug/l	0.005	0.05
3,4-Dinitrotoluene	367	PBM-0001	9/1/2020	1	0.62	0.0043	0.043	ug/l		
3,5-Dinitrotoluene	367	PBM-0001	9/1/2020	1	0.58	0.0043	0.032	ug/l		
Carbon tetrachloride	367	PBM-0001	9/1/2020	1	0.29	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	367	PBM-0001	9/1/2020	1	3.5	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	367	PBM-0001	9/1/2020	1	7.293	0.0085	0.032	ug/l	0.005	0.05
Trichloroethene	367	PBM-0001	9/1/2020	1	0.48	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	368	PBM-0002	9/1/2020	1	0.82	0.0065	0.033	ug/l		
2,4-Dinitrotoluene	368	PBM-0002	9/1/2020	1	0.15	0.0087	0.043	ug/l	0.005	0.05
2,5-Dinitrotoluene	368	PBM-0002	9/1/2020	1	0.055	0.0033	0.033	ug/l		
2,6-Dinitrotoluene	368	PBM-0002	9/1/2020	1	0.089	0.0043	0.033	ug/l	0.005	0.05
3,4-Dinitrotoluene	368	PBM-0002	9/1/2020	1	0.35	0.0043	0.043	ug/l		
3,5-Dinitrotoluene	368	PBM-0002	9/1/2020	1	0.13	0.0043	0.033	ug/l		
Carbon tetrachloride	368	PBM-0002	9/1/2020	1	0.31	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	368	PBM-0002	9/1/2020	1	3.1	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	368	PBM-0002	9/1/2020	1	1.594	0.0087	0.033	ug/l	0.005	0.05
Trichloroethene	368	PBM-0002	9/1/2020	1	0.57	0.1	0.2	ug/l	0.5	5

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,3-Dinitrotoluene	369	PBM-0003	9/1/2020	1	0.11	0.0063	0.031	ug/l		
2,4-Dinitrotoluene	369	PBM-0003	9/1/2020	1	0.067	0.0083	0.042	ug/l	0.005	0.05
2,6-Dinitrotoluene	369	PBM-0003	9/1/2020	1	0.067	0.0042	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	369	PBM-0003	9/1/2020	1	0.08	0.0042	0.042	ug/l		
3,5-Dinitrotoluene	369	PBM-0003	9/1/2020	1	0.043	0.0042	0.031	ug/l		
Carbon tetrachloride	369	PBM-0003	9/1/2020	1	0.22	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	369	PBM-0003	9/1/2020	1	3.3	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	369	PBM-0003	9/1/2020	1	0.367	0.0083	0.031	ug/l	0.005	0.05
Trichloroethene	369	PBM-0003	9/1/2020	1	0.42	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	370	PBM-0004	9/2/2020	1	0.47	0.0062	0.031	ug/l		
2,4-Dinitrotoluene	370	PBM-0004	9/2/2020	1	0.12	0.0082	0.041	ug/l	0.005	0.05
2,5-Dinitrotoluene	370	PBM-0004	9/2/2020	1	0.065	0.0031	0.031	ug/l		
2,6-Dinitrotoluene	370	PBM-0004	9/2/2020	1	0.11	0.0041	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	370	PBM-0004	9/2/2020	1	0.38	0.0041	0.041	ug/l		
3,5-Dinitrotoluene	370	PBM-0004	9/2/2020	1	0.14	0.0041	0.031	ug/l		
Carbon tetrachloride	370	PBM-0004	9/2/2020	1	0.29	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	370	PBM-0004	9/2/2020	1	3.1	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	370	PBM-0004	9/2/2020	1	1.285	0.0082	0.031	ug/l	0.005	0.05
Trichloroethene	370	PBM-0004	9/2/2020	1	0.74	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	371	PBM-0005	9/1/2020	1	0.19	0.0061	0.031	ug/l		
2,4-Dinitrotoluene	371	PBM-0005	9/1/2020	1	0.09	0.0082	0.041	ug/l	0.005	0.05
2,6-Dinitrotoluene	371	PBM-0005	9/1/2020	1	0.069	0.0041	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	371	PBM-0005	9/1/2020	1	0.22	0.0041	0.041	ug/l		
3,5-Dinitrotoluene	371	PBM-0005	9/1/2020	1	0.05	0.0041	0.031	ug/l		
Carbon tetrachloride	371	PBM-0005	9/1/2020	1	0.3	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	371	PBM-0005	9/1/2020	1	2.7	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	371	PBM-0005	9/1/2020	1	0.619	0.0082	0.031	ug/l	0.005	0.05
Trichloroethene	371	PBM-0005	9/1/2020	1	0.55	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	372	PBM-0006	9/1/2020	1	0.63	0.0063	0.031	ug/l		
2,4-Dinitrotoluene	372	PBM-0006	9/1/2020	1	0.13	0.0083	0.042	ug/l	0.005	0.05
2,6-Dinitrotoluene	372	PBM-0006	9/1/2020	1	0.067	0.0042	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	372	PBM-0006	9/1/2020	1	0.52	0.0042	0.042	ug/l		
3,5-Dinitrotoluene	372	PBM-0006	9/1/2020	1	0.098	0.0042	0.031	ug/l		
Carbon tetrachloride	372	PBM-0006	9/1/2020	1	0.29	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	372	PBM-0006	9/1/2020	1	2.6	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	372	PBM-0006	9/1/2020	1	1.445	0.0083	0.031	ug/l	0.005	0.05
Trichloroethene	372	PBM-0006	9/1/2020	1	0.56	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	373	PBM-0007	9/2/2020	2	0.68	0.006	0.03	ug/l		
2,3-Dinitrotoluene	373	PBM-0007	9/2/2020	1	0.66	0.006	0.03	ug/l		
2,4-Dinitrotoluene	373	PBM-0007	9/2/2020	1	0.12	0.008	0.04	ug/l	0.005	0.05
2,4-Dinitrotoluene	373	PBM-0007	9/2/2020	2	0.12	0.008	0.04	ug/l	0.005	0.05
2,5-Dinitrotoluene	373	PBM-0007	9/2/2020	2	0.059	0.003	0.03	ug/l		
2,5-Dinitrotoluene	373	PBM-0007	9/2/2020	1	0.051	0.003	0.03	ug/l		
2,6-Dinitrotoluene	373	PBM-0007	9/2/2020	1	0.089	0.004	0.03	ug/l	0.005	0.05
2,6-Dinitrotoluene	373	PBM-0007	9/2/2020	2	0.095	0.004	0.03	ug/l	0.005	0.05
3,4-Dinitrotoluene	373	PBM-0007	9/2/2020	1	0.44	0.004	0.04	ug/l		
3,4-Dinitrotoluene	373	PBM-0007	9/2/2020	2	0.45	0.004	0.04	ug/l		
3,5-Dinitrotoluene	373	PBM-0007	9/2/2020	2	0.13	0.004	0.03	ug/l		
3,5-Dinitrotoluene	373	PBM-0007	9/2/2020	1	0.14	0.004	0.03	ug/l		
Carbon tetrachloride	373	PBM-0007	9/2/2020	1	0.23	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	373	PBM-0007	9/2/2020	2	0.23	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	373	PBM-0007	9/2/2020	2	3	0.08	0.3	mg/l	2	10
Nitrate+Nitrite Nitrogen	373	PBM-0007	9/2/2020	1	3	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	373	PBM-0007	9/2/2020	2	1.534	0.008	0.03	ug/l	0.005	0.05
Total Dinitrotoluenes	373	PBM-0007	9/2/2020	1	1.5	0.008	0.03	ug/l	0.005	0.05
Trichloroethene	373	PBM-0007	9/2/2020	1	0.53	0.1	0.2	ug/l	0.5	5
Trichloroethene	373	PBM-0007	9/2/2020	2	0.53	0.1	0.2	ug/l	0.5	5

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,3-Dinitrotoluene	374	PBM-0008	9/2/2020	1	0.14	0.006	0.03	ug/l		
2,4-Dinitrotoluene	374	PBM-0008	9/2/2020	1	0.092	0.008	0.04	ug/l	0.005	0.05
2,6-Dinitrotoluene	374	PBM-0008	9/2/2020	1	0.091	0.004	0.03	ug/l	0.005	0.05
3,4-Dinitrotoluene	374	PBM-0008	9/2/2020	1	0.099	0.004	0.04	ug/l		
3,5-Dinitrotoluene	374	PBM-0008	9/2/2020	1	0.068	0.004	0.03	ug/l		
Carbon tetrachloride	374	PBM-0008	9/2/2020	1	0.36	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	374	PBM-0008	9/2/2020	1	2.7	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	374	PBM-0008	9/2/2020	1	0.49	0.008	0.03	ug/l	0.005	0.05
Trichloroethene	374	PBM-0008	9/2/2020	1	0.84	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	526	PBM-9803	9/1/2020	1	0.059	0.0063	0.031	ug/l		
2,4-Dinitrotoluene	526	PBM-9803	9/1/2020	1	0.061	0.0083	0.042	ug/l	0.005	0.05
2,6-Dinitrotoluene	526	PBM-9803	9/1/2020	1	0.057	0.0042	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	526	PBM-9803	9/1/2020	1	0.051	0.0042	0.042	ug/l		
3,5-Dinitrotoluene	526	PBM-9803	9/1/2020	1	0.033	0.0042	0.031	ug/l		
Carbon tetrachloride	526	PBM-9803	9/1/2020	1	0.22	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	526	PBM-9803	9/1/2020	1	3.2	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	526	PBM-9803	9/1/2020	1	0.261	0.0083	0.031	ug/l	0.005	0.05
Trichloroethene	526	PBM-9803	9/1/2020	1	0.43	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	589	PBN-1002A	9/14/2020	1	0.16	0.1	0.2	ug/l	40	200
Carbon tetrachloride	589	PBN-1002A	9/14/2020	1	5.7	0.1	0.2	ug/l	0.5	5
Trichloroethene	589	PBN-1002A	9/14/2020	1	0.18	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	590	PBN-1002B	9/14/2020	1	0.21	0.1	0.2	ug/l	40	200
Carbon tetrachloride	590	PBN-1002B	9/14/2020	1	3	0.1	0.2	ug/l	0.5	5
Chloroform	590	PBN-1002B	9/14/2020	1	0.39	0.1	0.2	ug/l	0.6	6
Trichloroethene	590	PBN-1002B	9/14/2020	1	1	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	591	PBN-1002C	9/14/2020	1	0.17	0.1	0.2	ug/l	40	200
Bromodichloromethane	591	PBN-1002C	9/14/2020	1	0.21	0.1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	591	PBN-1002C	9/14/2020	1	0.44	0.1	0.2	ug/l	0.5	5
Chloroform	591	PBN-1002C	9/14/2020	1	1.5	0.1	0.2	ug/l	0.6	6
Trichloroethene	591	PBN-1002C	9/14/2020	1	0.26	0.1	0.2	ug/l	0.5	5
Chloroform	592	PBN-1003C	8/24/2020	1	0.16	0.1	0.2	ug/l	0.6	6
Carbon tetrachloride	593	PBN-1001A	8/20/2020	1	1.7	0.1	0.2	ug/l	0.5	5
Trichloroethene	593	PBN-1001A	8/20/2020	1	0.29	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	594	PBN-1001B	8/20/2020	1	0.4	0.1	0.2	ug/l	40	200
Carbon tetrachloride	594	PBN-1001B	8/20/2020	1	8.4	0.1	0.2	ug/l	0.5	5
Chloroform	594	PBN-1001B	8/20/2020	1	0.83	0.1	0.2	ug/l	0.6	6
Trichloroethene	594	PBN-1001B	8/20/2020	1	2.2	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	595	PBN-1001C	8/20/2020	1	0.24	0.1	0.2	ug/l	40	200
Bromodichloromethane	595	PBN-1001C	8/20/2020	1	0.11	0.1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	595	PBN-1001C	8/20/2020	1	2.4	0.1	0.2	ug/l	0.5	5
Chloroform	595	PBN-1001C	8/20/2020	1	1.1	0.1	0.2	ug/l	0.6	6
Trichloroethene	595	PBN-1001C	8/20/2020	1	0.26	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	601	S1117	9/2/2020	1	0.29	0.1	0.2	ug/l	0.5	5
Trichloroethene	601	S1117	9/2/2020	1	0.18	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	605	PBM-8201	8/27/2020	1	0.13	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	607	PBM-8203	9/2/2020	1	0.34	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	609	PBM-8205	8/27/2020	1	0.11	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	609	PBM-8205	8/27/2020	1	0.037	0.0063	0.031	ug/l		
Carbon tetrachloride	609	PBM-8205	8/27/2020	1	0.88	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	609	PBM-8205	8/27/2020	1	0.037	0.0083	0.031	ug/l	0.005	0.05
Trichloroethene	609	PBM-8205	8/27/2020	1	0.35	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	610	PBN-8201A	9/1/2020	1	0.9	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	610	PBN-8201A	9/1/2020	1	1.2	0.08	0.3	mg/l	2	10
Trichloroethene	610	PBN-8201A	9/1/2020	1	1.7	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	612	PBN-8201C	9/2/2020	1	0.31	0.1	0.2	ug/l	0.5	5
Trichloroethene	612	PBN-8201C	9/2/2020	1	0.32	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	613	PBN-8202A	9/1/2020	1	9.1	0.064	0.32	ug/l		

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,4-Dinitrotoluene	613	PBN-8202A	9/1/2020	1	0.3	0.0085	0.043	ug/l	0.005	0.05
2,5-Dinitrotoluene	613	PBN-8202A	9/1/2020	1	0.078	0.0032	0.032	ug/l		
2,6-Dinitrotoluene	613	PBN-8202A	9/1/2020	1	0.14	0.0043	0.032	ug/l	0.005	0.05
3,4-Dinitrotoluene	613	PBN-8202A	9/1/2020	1	3.3	0.043	0.43	ug/l		
3,5-Dinitrotoluene	613	PBN-8202A	9/1/2020	1	1.2	0.0043	0.032	ug/l		
Carbon tetrachloride	613	PBN-8202A	9/1/2020	1	0.32	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	613	PBN-8202A	9/1/2020	1	3.2	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	613	PBN-8202A	9/1/2020	1	14.118	0.0085	0.032	ug/l	0.005	0.05
Trichloroethene	613	PBN-8202A	9/1/2020	1	0.65	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	614	PBN-8202B	9/1/2020	1	7.3	0.061	0.31	ug/l		
2,4-Dinitrotoluene	614	PBN-8202B	9/1/2020	1	0.22	0.0082	0.041	ug/l	0.005	0.05
2,5-Dinitrotoluene	614	PBN-8202B	9/1/2020	1	0.04	0.0031	0.031	ug/l		
2,6-Dinitrotoluene	614	PBN-8202B	9/1/2020	1	0.058	0.0041	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	614	PBN-8202B	9/1/2020	1	0.71	0.0041	0.041	ug/l		
3,5-Dinitrotoluene	614	PBN-8202B	9/1/2020	1	0.88	0.0041	0.031	ug/l		
Carbon tetrachloride	614	PBN-8202B	9/1/2020	1	0.77	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	614	PBN-8202B	9/1/2020	1	3.6	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	614	PBN-8202B	9/1/2020	1	9.208	0.0082	0.031	ug/l	0.005	0.05
Trichloroethene	614	PBN-8202B	9/1/2020	1	0.88	0.1	0.2	ug/l	0.5	5
1,2-Dichloroethane	615	PBN-8202C	9/1/2020	1	0.12	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	615	PBN-8202C	9/1/2020	1	0.17	0.0062	0.031	ug/l		
2,4-Dinitrotoluene	615	PBN-8202C	9/1/2020	1	0.29	0.0082	0.041	ug/l	0.005	0.05
2,6-Dinitrotoluene	615	PBN-8202C	9/1/2020	1	0.26	0.0041	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	615	PBN-8202C	9/1/2020	1	0.072	0.0041	0.041	ug/l		
3,5-Dinitrotoluene	615	PBN-8202C	9/1/2020	1	0.076	0.0041	0.031	ug/l		
Benzene	615	PBN-8202C	9/1/2020	1	3.3	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	615	PBN-8202C	9/1/2020	1	0.28	0.08	0.3	mg/l	2	10
Tetrachloroethene	615	PBN-8202C	9/1/2020	1	0.11	0.1	0.2	ug/l	0.5	5
Total Dinitrotoluenes	615	PBN-8202C	9/1/2020	1	0.868	0.0082	0.031	ug/l	0.005	0.05
Trichloroethene	615	PBN-8202C	9/1/2020	1	0.77	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	616	PBN-8203A	8/26/2020	1	0.78	0.1	0.2	ug/l	0.5	5
Trichloroethene	616	PBN-8203A	8/26/2020	1	0.1	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	617	PBN-8203B	8/26/2020	1	0.82	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	618	PBN-8203C	8/26/2020	1	0.68	0.1	0.2	ug/l	0.5	5
1,2-Dichloroethane	620	PBN-8204B	9/24/2020	1	0.15	0.1	0.2	ug/l	0.5	5
Bromomethane	620	PBN-8204B	9/24/2020	1	0.33	0.2	0.4	ug/l	1	10
Chloromethane	620	PBN-8204B	9/24/2020	1	0.47	0.1	0.2	ug/l	3	30
Toluene	620	PBN-8204B	9/24/2020	1	0.19	0.1	0.2	ug/l	160	800
Trichloroethene	620	PBN-8204B	9/24/2020	1	0.16	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	621	PBN-8204C	9/24/2020	1	0.12	0.1	0.2	ug/l	40	200
Carbon tetrachloride	621	PBN-8204C	9/24/2020	1	0.65	0.1	0.2	ug/l	0.5	5
Chloroform	621	PBN-8204C	9/24/2020	1	0.18	0.1	0.2	ug/l	0.6	6
Trichloroethene	621	PBN-8204C	9/24/2020	1	0.22	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	622	PBN-8205A	9/2/2020	1	0.18	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	622	PBN-8205A	9/2/2020	1	0.1	0.0063	0.032	ug/l		
2,4-Dinitrotoluene	622	PBN-8205A	9/2/2020	1	0.046	0.0084	0.042	ug/l	0.005	0.05
3,4-Dinitrotoluene	622	PBN-8205A	9/2/2020	1	0.078	0.0042	0.042	ug/l		
3,5-Dinitrotoluene	622	PBN-8205A	9/2/2020	1	0.054	0.0042	0.032	ug/l		
Carbon tetrachloride	622	PBN-8205A	9/2/2020	1	1.5	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	622	PBN-8205A	9/2/2020	1	2.4	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	622	PBN-8205A	9/2/2020	1	0.278	0.0084	0.032	ug/l	0.005	0.05
Trichloroethene	622	PBN-8205A	9/2/2020	1	0.43	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	623	PBN-8205B	9/2/2020	1	0.18	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	623	PBN-8205B	9/2/2020	1	0.13	0.0063	0.031	ug/l		
2,4-Dinitrotoluene	623	PBN-8205B	9/2/2020	1	0.051	0.0083	0.042	ug/l	0.005	0.05
2,6-Dinitrotoluene	623	PBN-8205B	9/2/2020	1	0.044	0.0042	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	623	PBN-8205B	9/2/2020	1	0.092	0.0042	0.042	ug/l		

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
3,5-Dinitrotoluene	623	PBN-8205B	9/2/2020	1	0.071	0.0042	0.031	ug/l		
Carbon tetrachloride	623	PBN-8205B	9/2/2020	1	1.4	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	623	PBN-8205B	9/2/2020	1	2.5	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	623	PBN-8205B	9/2/2020	1	0.388	0.0083	0.031	ug/l	0.005	0.05
Trichloroethene	623	PBN-8205B	9/2/2020	1	0.48	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	624	PBN-8205C	9/2/2020	1	0.2	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	624	PBN-8205C	9/2/2020	1	0.2	0.0062	0.031	ug/l		
2,4-Dinitrotoluene	624	PBN-8205C	9/2/2020	1	0.041	0.0082	0.041	ug/l	0.005	0.05
2,6-Dinitrotoluene	624	PBN-8205C	9/2/2020	1	0.044	0.0041	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	624	PBN-8205C	9/2/2020	1	0.14	0.0041	0.041	ug/l		
3,5-Dinitrotoluene	624	PBN-8205C	9/2/2020	1	0.084	0.0041	0.031	ug/l		
Carbon tetrachloride	624	PBN-8205C	9/2/2020	1	1.4	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	624	PBN-8205C	9/2/2020	1	2.5	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	624	PBN-8205C	9/2/2020	1	0.509	0.0082	0.031	ug/l	0.005	0.05
Trichloroethene	624	PBN-8205C	9/2/2020	1	0.46	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	625	PBM-8501	9/24/2020	1	0.12	0.1	0.2	ug/l	40	200
Carbon tetrachloride	625	PBM-8501	9/24/2020	1	1.2	0.1	0.2	ug/l	0.5	5
Trichloroethene	625	PBM-8501	9/24/2020	1	0.3	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	626	PBM-8502	8/25/2020	1	0.15	0.1	0.2	ug/l	40	200
Carbon tetrachloride	626	PBM-8502	8/25/2020	1	0.98	0.1	0.2	ug/l	0.5	5
Chloroform	626	PBM-8502	8/25/2020	1	0.18	0.1	0.2	ug/l	0.6	6
Trichloroethene	626	PBM-8502	8/25/2020	1	0.18	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	627	PBM-8503	8/26/2020	1	0.46	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	627	PBM-8503	8/26/2020	1	0.085	0.0062	0.031	ug/l		
2,6-Dinitrotoluene	627	PBM-8503	8/26/2020	1	0.054	0.0041	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	627	PBM-8503	8/26/2020	1	0.066	0.0041	0.041	ug/l		
3,5-Dinitrotoluene	627	PBM-8503	8/26/2020	1	0.042	0.0041	0.031	ug/l		
Carbon tetrachloride	627	PBM-8503	8/26/2020	1	5.7	0.1	0.2	ug/l	0.5	5
Chloroform	627	PBM-8503	8/26/2020	1	0.17	0.1	0.2	ug/l	0.6	6
Toluene	627	PBM-8503	8/26/2020	1	0.62	0.1	0.2	ug/l	160	800
Total Dinitrotoluenes	627	PBM-8503	8/26/2020	1	0.247	0.0082	0.031	ug/l	0.005	0.05
Trichloroethene	627	PBM-8503	8/26/2020	1	1	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	628	PBM-8504	9/24/2020	1	0.19	0.1	0.2	ug/l	40	200
Carbon tetrachloride	628	PBM-8504	9/24/2020	1	2	0.1	0.2	ug/l	0.5	5
Chloroform	628	PBM-8504	9/24/2020	1	0.21	0.1	0.2	ug/l	0.6	6
Trichloroethene	628	PBM-8504	9/24/2020	1	0.87	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	631	PBN-8501A	8/25/2020	1	0.43	0.1	0.2	ug/l	40	200
Carbon tetrachloride	631	PBN-8501A	8/25/2020	1	4.2	0.1	0.2	ug/l	0.5	5
Chloroform	631	PBN-8501A	8/25/2020	1	0.25	0.1	0.2	ug/l	0.6	6
Trichloroethene	631	PBN-8501A	8/25/2020	1	0.81	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	632	PBN-8502A	8/26/2020	1	0.6	0.1	0.2	ug/l	40	200
Carbon tetrachloride	632	PBN-8502A	8/26/2020	1	11	0.1	0.2	ug/l	0.5	5
Chloroform	632	PBN-8502A	8/26/2020	1	0.19	0.1	0.2	ug/l	0.6	6
Trichloroethene	632	PBN-8502A	8/26/2020	1	1.1	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	633	PBN-8503A	8/26/2020	1	0.11	0.1	0.2	ug/l	40	200
Carbon tetrachloride	633	PBN-8503A	8/26/2020	1	1.7	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	635	PBM-8905	8/26/2020	1	0.18	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	636	PBM-8906	9/14/2020	1	0.77	0.1	0.2	ug/l	40	200
Carbon tetrachloride	636	PBM-8906	9/14/2020	1	13	0.1	0.2	ug/l	0.5	5
Chloroform	636	PBM-8906	9/14/2020	1	0.38	0.1	0.2	ug/l	0.6	6
Trichloroethene	636	PBM-8906	9/14/2020	1	1.3	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	637	PBM-8907	8/24/2020	1	0.87	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	638	PBM-8908	9/14/2020	1	0.9	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	639	PBM-8909	8/27/2020	1	0.17	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	641	PBN-8901B	8/25/2020	1	0.54	0.1	0.2	ug/l	0.5	5
Trichloroethene	641	PBN-8901B	8/25/2020	1	0.15	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	642	PBN-8901C	8/25/2020	1	0.15	0.1	0.2	ug/l	40	200

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,3-Dinitrotoluene	642	PBN-8901C	8/25/2020	1	0.053	0.0063	0.031	ug/l		
Carbon tetrachloride	642	PBN-8901C	8/25/2020	1	0.59	0.1	0.2	ug/l	0.5	5
Chloroform	642	PBN-8901C	8/25/2020	1	0.18	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	642	PBN-8901C	8/25/2020	1	0.053	0.0083	0.031	ug/l	0.005	0.05
Trichloroethene	642	PBN-8901C	8/25/2020	1	0.26	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	643	PBN-8901D	8/25/2020	1	0.1	0.1	0.2	ug/l	40	200
Chloroform	643	PBN-8901D	8/25/2020	1	0.47	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	645	PBN-8902C	8/26/2020	1	0.14	0.1	0.2	ug/l	40	200
Carbon tetrachloride	645	PBN-8902C	8/26/2020	1	2.1	0.1	0.2	ug/l	0.5	5
Chloroform	645	PBN-8902C	8/26/2020	1	0.14	0.1	0.2	ug/l	0.6	6
Trichloroethene	645	PBN-8902C	8/26/2020	1	0.68	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	646	PBN-8903B	8/26/2020	1	0.65	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	646	PBN-8903B	8/26/2020	2	0.68	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	648	PBN-8904B	8/25/2020	1	0.15	0.1	0.2	ug/l	40	200
1,1,1-Trichloroethane	648	PBN-8904B	8/25/2020	2	0.16	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	648	PBN-8904B	8/25/2020	2	0.036	0.0065	0.033	ug/l		
2,3-Dinitrotoluene	648	PBN-8904B	8/25/2020	1	0.038	0.0065	0.033	ug/l		
Carbon tetrachloride	648	PBN-8904B	8/25/2020	1	0.82	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	648	PBN-8904B	8/25/2020	2	0.91	0.1	0.2	ug/l	0.5	5
Chloroform	648	PBN-8904B	8/25/2020	2	0.22	0.1	0.2	ug/l	0.6	6
Chloroform	648	PBN-8904B	8/25/2020	1	0.24	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	648	PBN-8904B	8/25/2020	1	0.038	0.0087	0.033	ug/l	0.005	0.05
Total Dinitrotoluenes	648	PBN-8904B	8/25/2020	2	0.036	0.0087	0.033	ug/l	0.005	0.05
Trichloroethene	648	PBN-8904B	8/25/2020	2	0.34	0.1	0.2	ug/l	0.5	5
Trichloroethene	648	PBN-8904B	8/25/2020	1	0.36	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	649	PBN-8904C	8/25/2020	1	0.045	0.0067	0.034	ug/l		
3,5-Dinitrotoluene	649	PBN-8904C	8/25/2020	1	0.037	0.0045	0.034	ug/l		
Carbon tetrachloride	649	PBN-8904C	8/25/2020	1	0.8	0.1	0.2	ug/l	0.5	5
Chloroform	649	PBN-8904C	8/25/2020	1	0.21	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	649	PBN-8904C	8/25/2020	1	0.082	0.009	0.034	ug/l	0.005	0.05
Trichloroethene	649	PBN-8904C	8/25/2020	1	0.3	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	650	PBN-8910A	9/2/2020	1	15	0.065	0.33	ug/l		
2,4-Dinitrotoluene	650	PBN-8910A	9/2/2020	1	0.15	0.0087	0.043	ug/l	0.005	0.05
2,5-Dinitrotoluene	650	PBN-8910A	9/2/2020	1	0.054	0.0033	0.033	ug/l		
2,6-Dinitrotoluene	650	PBN-8910A	9/2/2020	1	0.098	0.0043	0.033	ug/l	0.005	0.05
3,4-Dinitrotoluene	650	PBN-8910A	9/2/2020	1	0.16	0.0043	0.043	ug/l		
3,5-Dinitrotoluene	650	PBN-8910A	9/2/2020	1	1.2	0.0043	0.033	ug/l		
Carbon tetrachloride	650	PBN-8910A	9/2/2020	1	0.27	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	650	PBN-8910A	9/2/2020	1	3.7	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	650	PBN-8910A	9/2/2020	1	16.662	0.0087	0.033	ug/l	0.005	0.05
Trichloroethene	650	PBN-8910A	9/2/2020	1	0.47	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	651	PBN-8910B	9/2/2020	1	0.11	0.0065	0.032	ug/l		
2,4-Dinitrotoluene	651	PBN-8910B	9/2/2020	1	0.059	0.0086	0.043	ug/l	0.005	0.05
2,6-Dinitrotoluene	651	PBN-8910B	9/2/2020	1	0.058	0.0043	0.032	ug/l	0.005	0.05
3,4-Dinitrotoluene	651	PBN-8910B	9/2/2020	1	0.076	0.0043	0.043	ug/l		
3,5-Dinitrotoluene	651	PBN-8910B	9/2/2020	1	0.035	0.0043	0.032	ug/l		
Nitrate+Nitrite Nitrogen	651	PBN-8910B	9/2/2020	1	3.1	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	651	PBN-8910B	9/2/2020	1	0.338	0.0086	0.032	ug/l	0.005	0.05
1,1,1-Trichloroethane	652	PBN-8910C	9/2/2020	1	0.13	0.1	0.2	ug/l	40	200
Nitrate+Nitrite Nitrogen	652	PBN-8910C	9/2/2020	1	4	0.08	0.3	mg/l	2	10
1,1-Dichloroethane	653	PBN-8910D	8/27/2020	1	0.86	0.1	0.2	ug/l	85	850
1,2,4-Trimethylbenzene	655	PBN-8912B	9/15/2020	1	0.15	0.1	0.2	ug/l	96	480
Benzene	655	PBN-8912B	9/15/2020	1	0.16	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	655	PBN-8912B	9/15/2020	1	0.41	0.1	0.2	ug/l	0.5	5
Ethylbenzene	655	PBN-8912B	9/15/2020	1	0.13	0.1	0.2	ug/l	140	700
m & p-Xylene	655	PBN-8912B	9/15/2020	1	0.41	0.2	0.4	ug/l	400	2000
o-Xylene	655	PBN-8912B	9/15/2020	1	0.21	0.1	0.2	ug/l	400	2000

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
Tetrachloroethene	655	PBN-8912B	9/15/2020	1	0.1	0.1	0.2	ug/l	0.5	5
Toluene	655	PBN-8912B	9/15/2020	1	3.5	0.1	0.2	ug/l	160	800
Trichloroethene	655	PBN-8912B	9/15/2020	1	0.4	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	656	LOM-8901	8/26/2020	1	0.89	0.1	0.2	ug/l	0.5	5
Trichloroethene	656	LOM-8901	8/26/2020	1	0.26	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	657	LON-8902A	8/26/2020	1	1	0.1	0.2	ug/l	0.5	5
Trichloroethene	657	LON-8902A	8/26/2020	1	0.76	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	660	LON-8903B	8/26/2020	1	0.69	0.1	0.2	ug/l	0.5	5
Chloroform	660	LON-8903B	8/26/2020	1	0.16	0.1	0.2	ug/l	0.6	6
Trichloroethene	660	LON-8903B	8/26/2020	1	0.22	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	661	LOM-9101	8/27/2020	1	0.24	0.1	0.2	ug/l	0.5	5
1,1-Dichloroethane	664	PBN-9106D	9/15/2020	1	0.1	0.1	0.2	ug/l	85	850
1,2-Dichloroethane	664	PBN-9106D	9/15/2020	1	0.42	0.1	0.2	ug/l	0.5	5
Ethyl ether	664	PBN-9106D	9/15/2020	1	1	0.1	0.2	ug/l	100	1000
Chloroform	665	PBN-9112C	9/15/2020	1	0.26	0.1	0.2	ug/l	0.6	6
Trichloroethene	665	PBN-9112C	9/15/2020	1	0.12	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	667	PBN-9306C	9/14/2020	1	0.14	0.1	0.2	ug/l	40	200
Bromodichloromethane	667	PBN-9306C	9/14/2020	1	0.13	0.1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	667	PBN-9306C	9/14/2020	1	0.29	0.1	0.2	ug/l	0.5	5
Chloroform	667	PBN-9306C	9/14/2020	1	0.97	0.1	0.2	ug/l	0.6	6
Trichloroethene	667	PBN-9306C	9/14/2020	1	0.12	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	668	PBN-9301B	9/14/2020	1	0.25	0.1	0.2	ug/l	40	200
Carbon tetrachloride	668	PBN-9301B	9/14/2020	1	3	0.1	0.2	ug/l	0.5	5
Chloroform	668	PBN-9301B	9/14/2020	1	0.69	0.1	0.2	ug/l	0.6	6
Trichloroethene	668	PBN-9301B	9/14/2020	1	0.22	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	669	PBN-9301C	9/14/2020	1	0.67	0.1	0.2	ug/l	40	200
Bromodichloromethane	669	PBN-9301C	9/14/2020	1	0.18	0.1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	669	PBN-9301C	9/14/2020	1	1.1	0.1	0.2	ug/l	0.5	5
Chloroform	669	PBN-9301C	9/14/2020	1	1.5	0.1	0.2	ug/l	0.6	6
Trichloroethene	669	PBN-9301C	9/14/2020	1	0.32	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	670	PBN-9302B	9/15/2020	1	0.48	0.1	0.2	ug/l	40	200
Carbon tetrachloride	670	PBN-9302B	9/15/2020	1	3.3	0.1	0.2	ug/l	0.5	5
Chloroform	670	PBN-9302B	9/15/2020	1	0.54	0.1	0.2	ug/l	0.6	6
Trichloroethene	670	PBN-9302B	9/15/2020	1	0.15	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	671	PBN-9302C	9/15/2020	1	0.53	0.1	0.2	ug/l	40	200
Carbon tetrachloride	671	PBN-9302C	9/15/2020	1	2.1	0.1	0.2	ug/l	0.5	5
Chloroform	671	PBN-9302C	9/15/2020	1	0.45	0.1	0.2	ug/l	0.6	6
Trichloroethene	671	PBN-9302C	9/15/2020	1	0.16	0.1	0.2	ug/l	0.5	5
1,1-Dichloroethane	672	PBN-9302D	9/15/2020	1	0.8	0.1	0.2	ug/l	85	850
1,1-Dichloroethene	672	PBN-9302D	9/15/2020	1	0.16	0.1	0.2	ug/l	0.7	7
Ethyl ether	672	PBN-9302D	9/15/2020	1	3.7	0.1	0.2	ug/l	100	1000
Ethylbenzene	672	PBN-9302D	9/15/2020	1	0.1	0.1	0.2	ug/l	140	700
m & p-Xylene	672	PBN-9302D	9/15/2020	1	0.27	0.2	0.4	ug/l	400	2000
Toluene	672	PBN-9302D	9/15/2020	1	0.93	0.1	0.2	ug/l	160	800
1,1,1-Trichloroethane	673	PBN-9303B	8/20/2020	2	0.49	0.1	0.2	ug/l	40	200
1,1,1-Trichloroethane	673	PBN-9303B	8/20/2020	1	0.49	0.1	0.2	ug/l	40	200
Carbon tetrachloride	673	PBN-9303B	8/20/2020	1	3.2	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	673	PBN-9303B	8/20/2020	2	3.2	0.1	0.2	ug/l	0.5	5
Chloroform	673	PBN-9303B	8/20/2020	2	0.4	0.1	0.2	ug/l	0.6	6
Chloroform	673	PBN-9303B	8/20/2020	1	0.39	0.1	0.2	ug/l	0.6	6
Trichloroethene	673	PBN-9303B	8/20/2020	1	0.13	0.1	0.2	ug/l	0.5	5
Trichloroethene	673	PBN-9303B	8/20/2020	2	0.14	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	674	PBN-9303C	8/20/2020	1	1.9	0.1	0.2	ug/l	40	200
1,1-Dichloroethene	674	PBN-9303C	8/20/2020	1	0.3	0.1	0.2	ug/l	0.7	7
Carbon tetrachloride	674	PBN-9303C	8/20/2020	1	3.7	0.1	0.2	ug/l	0.5	5
Chloroform	674	PBN-9303C	8/20/2020	1	1.1	0.1	0.2	ug/l	0.6	6
Trichloroethene	674	PBN-9303C	8/20/2020	1	0.14	0.1	0.2	ug/l	0.5	5

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
1,1-Dichloroethane	675	PBN-9303D	8/20/2020	1	0.88	0.1	0.2	ug/l	85	850
1,1-Dichloroethene	675	PBN-9303D	8/20/2020	1	0.2	0.1	0.2	ug/l	0.7	7
Ethyl ether	675	PBN-9303D	8/20/2020	1	9.7	0.1	0.2	ug/l	100	1000
Carbon tetrachloride	676	PBN-9404AR	9/24/2020	1	0.64	0.1	0.2	ug/l	0.5	5
Trichloroethene	676	PBN-9404AR	9/24/2020	1	0.17	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	677	PBN-9401B	8/20/2020	1	0.12	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	678	PBN-9401C	8/20/2020	1	0.13	0.1	0.2	ug/l	0.5	5
Chloroform	678	PBN-9401C	8/20/2020	1	0.11	0.1	0.2	ug/l	0.6	6
1,1-Dichloroethane	679	PBN-9401D	8/20/2020	1	0.1	0.1	0.2	ug/l	85	850
1,1,1-Trichloroethane	680	PBN-9402B	8/19/2020	1	0.14	0.1	0.2	ug/l	40	200
Carbon tetrachloride	680	PBN-9402B	8/19/2020	1	0.14	0.1	0.2	ug/l	0.5	5
Chloroform	680	PBN-9402B	8/19/2020	1	0.18	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	681	PBN-9402C	8/19/2020	1	0.16	0.1	0.2	ug/l	40	200
Carbon tetrachloride	681	PBN-9402C	8/19/2020	1	0.15	0.1	0.2	ug/l	0.5	5
Chloroform	681	PBN-9402C	8/19/2020	1	0.18	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	685	PBN-9304B	8/19/2020	1	0.13	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	685	PBN-9304B	8/19/2020	1	0.048	0.0059	0.03	ug/l		
3,4-Dinitrotoluene	685	PBN-9304B	8/19/2020	1	0.035	0.004	0.04	ug/l		
3,5-Dinitrotoluene	685	PBN-9304B	8/19/2020	1	0.031	0.004	0.03	ug/l		
Carbon tetrachloride	685	PBN-9304B	8/19/2020	1	1.4	0.1	0.2	ug/l	0.5	5
Chloroform	685	PBN-9304B	8/19/2020	1	0.21	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	685	PBN-9304B	8/19/2020	1	0.114	0.0079	0.03	ug/l	0.005	0.05
Trichloroethene	685	PBN-9304B	8/19/2020	1	0.44	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	686	PBN-9304C	8/19/2020	2	0.11	0.1	0.2	ug/l	40	200
1,1,1-Trichloroethane	686	PBN-9304C	8/19/2020	1	0.12	0.1	0.2	ug/l	40	200
Carbon tetrachloride	686	PBN-9304C	8/19/2020	1	1.7	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	686	PBN-9304C	8/19/2020	2	1.6	0.1	0.2	ug/l	0.5	5
Chloroform	686	PBN-9304C	8/19/2020	1	0.53	0.1	0.2	ug/l	0.6	6
Chloroform	686	PBN-9304C	8/19/2020	2	0.52	0.1	0.2	ug/l	0.6	6
Trichloroethene	686	PBN-9304C	8/19/2020	1	1.2	0.1	0.2	ug/l	0.5	5
Trichloroethene	686	PBN-9304C	8/19/2020	2	1.1	0.1	0.2	ug/l	0.5	5
1,2-Dichloroethane	687	PBN-9304D	8/19/2020	1	0.18	0.1	0.2	ug/l	0.5	5
Ethyl ether	687	PBN-9304D	8/19/2020	1	170	10	20	ug/l	100	1000
1,1,1-Trichloroethane	689	PBN-9902B	8/20/2020	1	0.14	0.1	0.2	ug/l	40	200
Carbon tetrachloride	689	PBN-9902B	8/20/2020	1	2	0.1	0.2	ug/l	0.5	5
Chloroform	689	PBN-9902B	8/20/2020	1	0.23	0.1	0.2	ug/l	0.6	6
Trichloroethene	689	PBN-9902B	8/20/2020	1	0.55	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	692	PBN-9903A	8/19/2020	1	1	0.1	0.2	ug/l	0.5	5
Chloroform	692	PBN-9903A	8/19/2020	1	0.12	0.1	0.2	ug/l	0.6	6
Trichloroethene	692	PBN-9903A	8/19/2020	1	0.28	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	693	PBN-9903B	8/19/2020	1	0.2	0.1	0.2	ug/l	40	200
Carbon tetrachloride	693	PBN-9903B	8/19/2020	1	3.1	0.1	0.2	ug/l	0.5	5
Chloroform	693	PBN-9903B	8/19/2020	1	0.39	0.1	0.2	ug/l	0.6	6
Trichloroethene	693	PBN-9903B	8/19/2020	1	1.1	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	694	PBN-9903C	8/19/2020	1	0.16	0.1	0.2	ug/l	40	200
Carbon tetrachloride	694	PBN-9903C	8/19/2020	1	8.9	0.1	0.2	ug/l	0.5	5
Chloroform	694	PBN-9903C	8/19/2020	1	0.49	0.1	0.2	ug/l	0.6	6
Trichloroethene	694	PBN-9903C	8/19/2020	1	1.5	0.1	0.2	ug/l	0.5	5
Ethyl ether	695	PBN-9903D	8/19/2020	1	1000	10	20	ug/l	100	1000
Carbon tetrachloride	697	PBN-9901B	8/20/2020	1	1.1	0.1	0.2	ug/l	0.5	5
Chloroform	697	PBN-9901B	8/20/2020	1	0.33	0.1	0.2	ug/l	0.6	6
Trichloroethene	697	PBN-9901B	8/20/2020	1	0.22	0.1	0.2	ug/l	0.5	5
Carbon disulfide	698	PBN-9901C	8/20/2020	1	0.35	0.2	0.4	ug/l	200	1000
Carbon disulfide	699	PBN-9901D	8/20/2020	1	0.29	0.2	0.4	ug/l	200	1000
2,3-Dinitrotoluene	764	PBM-1201	9/1/2020	1	5.5	0.031	0.15	ug/l		
2,4-Dinitrotoluene	764	PBM-1201	9/1/2020	1	0.27	0.0082	0.041	ug/l	0.005	0.05
2,5-Dinitrotoluene	764	PBM-1201	9/1/2020	1	0.14	0.0031	0.031	ug/l		

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,6-Dinitrotoluene	764	PBM-1201	9/1/2020	1	0.097	0.0041	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	764	PBM-1201	9/1/2020	1	1.1	0.0041	0.041	ug/l		
3,5-Dinitrotoluene	764	PBM-1201	9/1/2020	1	0.6	0.0041	0.031	ug/l		
Carbon tetrachloride	764	PBM-1201	9/1/2020	1	0.22	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	764	PBM-1201	9/1/2020	1	3.4	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	764	PBM-1201	9/1/2020	1	7.707	0.0082	0.031	ug/l	0.005	0.05
Trichloroethene	764	PBM-1201	9/1/2020	1	0.37	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	765	PBM-1202	9/1/2020	1	2.3	0.012	0.062	ug/l		
2,4-Dinitrotoluene	765	PBM-1202	9/1/2020	1	0.2	0.0082	0.041	ug/l	0.005	0.05
2,5-Dinitrotoluene	765	PBM-1202	9/1/2020	1	0.11	0.0031	0.031	ug/l		
2,6-Dinitrotoluene	765	PBM-1202	9/1/2020	1	0.086	0.0041	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	765	PBM-1202	9/1/2020	1	0.88	0.0041	0.041	ug/l		
3,5-Dinitrotoluene	765	PBM-1202	9/1/2020	1	0.32	0.0041	0.031	ug/l		
Carbon tetrachloride	765	PBM-1202	9/1/2020	1	0.31	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	765	PBM-1202	9/1/2020	1	3.2	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	765	PBM-1202	9/1/2020	1	3.896	0.0082	0.031	ug/l	0.005	0.05
Trichloroethene	765	PBM-1202	9/1/2020	1	0.52	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	766	PBM-1203	9/1/2020	1	0.31	0.0063	0.031	ug/l		
2,4-Dinitrotoluene	766	PBM-1203	9/1/2020	1	0.055	0.0083	0.042	ug/l	0.005	0.05
2,6-Dinitrotoluene	766	PBM-1203	9/1/2020	1	0.044	0.0042	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	766	PBM-1203	9/1/2020	1	0.074	0.0042	0.042	ug/l		
3,5-Dinitrotoluene	766	PBM-1203	9/1/2020	1	0.069	0.0042	0.031	ug/l		
Carbon tetrachloride	766	PBM-1203	9/1/2020	1	0.23	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	766	PBM-1203	9/1/2020	1	2.9	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	766	PBM-1203	9/1/2020	1	0.552	0.0083	0.031	ug/l	0.005	0.05
Trichloroethene	766	PBM-1203	9/1/2020	1	0.23	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	767	PBN-1301A	8/27/2020	1	0.54	0.1	0.2	ug/l	0.5	5
Trichloroethene	767	PBN-1301A	8/27/2020	1	0.66	0.1	0.2	ug/l	0.5	5
Chloroform	769	PBN-1301C	8/27/2020	1	0.12	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	770	PBN-1302A	8/18/2020	1	0.44	0.1	0.2	ug/l	40	200
Carbon tetrachloride	770	PBN-1302A	8/18/2020	1	2.7	0.1	0.2	ug/l	0.5	5
Chloroform	770	PBN-1302A	8/18/2020	1	0.32	0.1	0.2	ug/l	0.6	6
Trichloroethene	770	PBN-1302A	8/18/2020	1	0.11	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	771	PBN-1302B	8/18/2020	2	0.29	0.1	0.2	ug/l	40	200
1,1,1-Trichloroethane	771	PBN-1302B	8/18/2020	1	0.27	0.1	0.2	ug/l	40	200
Carbon tetrachloride	771	PBN-1302B	8/18/2020	1	3.6	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	771	PBN-1302B	8/18/2020	2	3.8	0.1	0.2	ug/l	0.5	5
Chloroform	771	PBN-1302B	8/18/2020	1	0.41	0.1	0.2	ug/l	0.6	6
Chloroform	771	PBN-1302B	8/18/2020	2	0.42	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	772	PBN-1302C	8/18/2020	1	1.2	0.1	0.2	ug/l	40	200
1,1-Dichloroethene	772	PBN-1302C	8/18/2020	1	0.19	0.1	0.2	ug/l	0.7	7
Carbon tetrachloride	772	PBN-1302C	8/18/2020	1	2.8	0.1	0.2	ug/l	0.5	5
Chloroform	772	PBN-1302C	8/18/2020	1	0.91	0.1	0.2	ug/l	0.6	6
Trichloroethene	772	PBN-1302C	8/18/2020	1	0.24	0.1	0.2	ug/l	0.5	5
Trichloroethene	773	PBN-1302D	8/18/2020	1	0.16	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	774	PBN-1303A	8/18/2020	1	0.46	0.1	0.2	ug/l	40	200
Carbon tetrachloride	774	PBN-1303A	8/18/2020	1	0.86	0.1	0.2	ug/l	0.5	5
Chloroform	774	PBN-1303A	8/18/2020	1	0.27	0.1	0.2	ug/l	0.6	6
Trichloroethene	774	PBN-1303A	8/18/2020	1	0.2	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	775	PBN-1303B	8/18/2020	1	0.52	0.1	0.2	ug/l	40	200
Carbon tetrachloride	775	PBN-1303B	8/18/2020	1	1.3	0.1	0.2	ug/l	0.5	5
Chloroform	775	PBN-1303B	8/18/2020	1	0.28	0.1	0.2	ug/l	0.6	6
Trichloroethene	775	PBN-1303B	8/18/2020	1	0.18	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	776	PBN-1303C	8/18/2020	1	0.85	0.1	0.2	ug/l	40	200
Carbon tetrachloride	776	PBN-1303C	8/18/2020	1	1.9	0.1	0.2	ug/l	0.5	5
Chloroform	776	PBN-1303C	8/18/2020	1	0.59	0.1	0.2	ug/l	0.6	6
Trichloroethene	776	PBN-1303C	8/18/2020	1	0.23	0.1	0.2	ug/l	0.5	5

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
1,1-Dichloroethane	777	PBN-1303D	8/18/2020	1	0.19	0.1	0.2	ug/l	85	850
1,1,1-Trichloroethane	779	PBN-1304B	8/18/2020	1	0.25	0.1	0.2	ug/l	40	200
Carbon tetrachloride	779	PBN-1304B	8/18/2020	1	0.27	0.1	0.2	ug/l	0.5	5
Chloroform	779	PBN-1304B	8/18/2020	1	0.19	0.1	0.2	ug/l	0.6	6
1,1,1-Trichloroethane	780	PBN-1304C	8/18/2020	1	0.3	0.1	0.2	ug/l	40	200
Carbon tetrachloride	780	PBN-1304C	8/18/2020	1	0.3	0.1	0.2	ug/l	0.5	5
Chloroform	780	PBN-1304C	8/18/2020	1	0.2	0.1	0.2	ug/l	0.6	6
1,1-Dichloroethane	781	PBN-1304D	8/18/2020	1	0.26	0.1	0.2	ug/l	85	850
Carbon disulfide	781	PBN-1304D	8/18/2020	1	0.37	0.2	0.4	ug/l	200	1000
Carbon tetrachloride	781	PBN-1304D	8/18/2020	1	0.12	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	782	PBN-1401A	9/24/2020	1	0.17	0.0059	0.029	ug/l		
2,4-Dinitrotoluene	782	PBN-1401A	9/24/2020	1	0.043	0.0078	0.039	ug/l	0.005	0.05
2,5-Dinitrotoluene	782	PBN-1401A	9/24/2020	1	0.048	0.0029	0.029	ug/l		
2,6-Dinitrotoluene	782	PBN-1401A	9/24/2020	1	0.076	0.0039	0.029	ug/l	0.005	0.05
3,4-Dinitrotoluene	782	PBN-1401A	9/24/2020	1	0.1	0.0039	0.039	ug/l		
3,5-Dinitrotoluene	782	PBN-1401A	9/24/2020	1	0.056	0.0039	0.029	ug/l		
Carbon tetrachloride	782	PBN-1401A	9/24/2020	1	0.12	0.1	0.2	ug/l	0.5	5
Nitrate+Nitrite Nitrogen	782	PBN-1401A	9/24/2020	1	3.1	0.08	0.3	mg/l	2	10
Tetrahydrofuran	782	PBN-1401A	9/24/2020	1	1.4	1	2	ug/l	10	50
Total Dinitrotoluenes	782	PBN-1401A	9/24/2020	1	0.493	0.0078	0.029	ug/l	0.005	0.05
Trichloroethene	782	PBN-1401A	9/24/2020	1	0.2	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	783	PBN-1401B	9/24/2020	1	0.1	0.0061	0.031	ug/l		
2,4-Dinitrotoluene	783	PBN-1401B	9/24/2020	1	0.049	0.0082	0.041	ug/l	0.005	0.05
2,5-Dinitrotoluene	783	PBN-1401B	9/24/2020	1	0.035	0.0031	0.031	ug/l		
2,6-Dinitrotoluene	783	PBN-1401B	9/24/2020	1	0.078	0.0041	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	783	PBN-1401B	9/24/2020	1	0.071	0.0041	0.041	ug/l		
3,5-Dinitrotoluene	783	PBN-1401B	9/24/2020	1	0.037	0.0041	0.031	ug/l		
Nitrate+Nitrite Nitrogen	783	PBN-1401B	9/24/2020	1	3.1	0.08	0.3	mg/l	2	10
Total Dinitrotoluenes	783	PBN-1401B	9/24/2020	1	0.37	0.0082	0.031	ug/l	0.005	0.05
Trichloroethene	783	PBN-1401B	9/24/2020	1	0.14	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	784	PBN-1401C	9/24/2020	1	0.13	0.1	0.2	ug/l	40	200
1,1,1-Trichloroethane	785	PBN-1402A	9/24/2020	1	0.4	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	785	PBN-1402A	9/24/2020	1	0.053	0.0061	0.031	ug/l		
3,4-Dinitrotoluene	785	PBN-1402A	9/24/2020	1	0.047	0.0041	0.041	ug/l		
3,5-Dinitrotoluene	785	PBN-1402A	9/24/2020	1	0.03	0.0041	0.031	ug/l		
Carbon tetrachloride	785	PBN-1402A	9/24/2020	1	3.7	0.1	0.2	ug/l	0.5	5
Chloroform	785	PBN-1402A	9/24/2020	1	0.26	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	785	PBN-1402A	9/24/2020	1	0.13	0.0082	0.031	ug/l	0.005	0.05
Trichloroethene	785	PBN-1402A	9/24/2020	1	0.62	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	786	PBN-1402B	9/24/2020	1	0.2	0.1	0.2	ug/l	40	200
1,1,1-Trichloroethane	786	PBN-1402B	9/24/2020	2	0.23	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	786	PBN-1402B	9/24/2020	2	0.28	0.0062	0.031	ug/l		
2,3-Dinitrotoluene	786	PBN-1402B	9/24/2020	1	0.29	0.0062	0.031	ug/l		
2,4-Dinitrotoluene	786	PBN-1402B	9/24/2020	2	0.048	0.0082	0.041	ug/l	0.005	0.05
2,4-Dinitrotoluene	786	PBN-1402B	9/24/2020	1	0.045	0.0082	0.041	ug/l	0.005	0.05
2,5-Dinitrotoluene	786	PBN-1402B	9/24/2020	2	0.034	0.0031	0.031	ug/l		
2,6-Dinitrotoluene	786	PBN-1402B	9/24/2020	1	0.07	0.0041	0.031	ug/l	0.005	0.05
2,6-Dinitrotoluene	786	PBN-1402B	9/24/2020	2	0.069	0.0041	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	786	PBN-1402B	9/24/2020	1	0.19	0.0041	0.041	ug/l		
3,4-Dinitrotoluene	786	PBN-1402B	9/24/2020	2	0.19	0.0041	0.041	ug/l		
3,5-Dinitrotoluene	786	PBN-1402B	9/24/2020	1	0.097	0.0041	0.031	ug/l		
3,5-Dinitrotoluene	786	PBN-1402B	9/24/2020	2	0.092	0.0041	0.031	ug/l		
Carbon tetrachloride	786	PBN-1402B	9/24/2020	1	1.9	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	786	PBN-1402B	9/24/2020	2	2	0.1	0.2	ug/l	0.5	5
Chloroform	786	PBN-1402B	9/24/2020	1	0.13	0.1	0.2	ug/l	0.6	6
Chloroform	786	PBN-1402B	9/24/2020	2	0.12	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	786	PBN-1402B	9/24/2020	1	0.692	0.0082	0.031	ug/l	0.005	0.05

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
Total Dinitrotoluenes	786	PBN-1402B	9/24/2020	2	0.713	0.0082	0.031	ug/l	0.005	0.05
Trichloroethene	786	PBN-1402B	9/24/2020	1	0.55	0.1	0.2	ug/l	0.5	5
Trichloroethene	786	PBN-1402B	9/24/2020	2	0.58	0.1	0.2	ug/l	0.5	5
2,3-Dinitrotoluene	787	PBN-1402C	9/24/2020	1	0.13	0.0063	0.031	ug/l		
2,4-Dinitrotoluene	787	PBN-1402C	9/24/2020	1	0.042	0.0083	0.042	ug/l	0.005	0.05
2,6-Dinitrotoluene	787	PBN-1402C	9/24/2020	1	0.03	0.0042	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	787	PBN-1402C	9/24/2020	1	0.088	0.0042	0.042	ug/l		
3,5-Dinitrotoluene	787	PBN-1402C	9/24/2020	1	0.052	0.0042	0.031	ug/l		
Carbon tetrachloride	787	PBN-1402C	9/24/2020	1	0.16	0.1	0.2	ug/l	0.5	5
Chloroform	787	PBN-1402C	9/24/2020	1	0.11	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	787	PBN-1402C	9/24/2020	1	0.342	0.0083	0.031	ug/l	0.005	0.05
Trichloroethene	787	PBN-1402C	9/24/2020	1	0.13	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	788	PBN-1403A	9/15/2020	1	0.63	0.1	0.2	ug/l	40	200
Carbon tetrachloride	788	PBN-1403A	9/15/2020	1	11	0.1	0.2	ug/l	0.5	5
Chloroform	788	PBN-1403A	9/15/2020	1	0.23	0.1	0.2	ug/l	0.6	6
Trichloroethene	788	PBN-1403A	9/15/2020	1	1.2	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	789	PBN-1403B	9/15/2020	1	0.31	0.1	0.2	ug/l	40	200
Carbon tetrachloride	789	PBN-1403B	9/15/2020	1	4.4	0.1	0.2	ug/l	0.5	5
Chloroform	789	PBN-1403B	9/15/2020	1	0.3	0.1	0.2	ug/l	0.6	6
Trichloroethene	789	PBN-1403B	9/15/2020	1	1.6	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	790	PBN-1403C	9/15/2020	1	0.22	0.1	0.2	ug/l	40	200
Carbon tetrachloride	790	PBN-1403C	9/15/2020	1	2.6	0.1	0.2	ug/l	0.5	5
Chloroform	790	PBN-1403C	9/15/2020	1	0.21	0.1	0.2	ug/l	0.6	6
Trichloroethene	790	PBN-1403C	9/15/2020	1	0.8	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	791	PBN-1404B	9/14/2020	1	0.17	0.1	0.2	ug/l	40	200
Carbon tetrachloride	791	PBN-1404B	9/14/2020	1	2.5	0.1	0.2	ug/l	0.5	5
Chloroform	791	PBN-1404B	9/14/2020	1	0.77	0.1	0.2	ug/l	0.6	6
Trichloroethene	791	PBN-1404B	9/14/2020	1	0.87	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	792	PBN-1404C	9/14/2020	1	0.21	0.1	0.2	ug/l	40	200
Bromodichloromethane	792	PBN-1404C	9/14/2020	1	0.19	0.1	0.2	ug/l	0.06	0.6
Carbon tetrachloride	792	PBN-1404C	9/14/2020	1	0.6	0.1	0.2	ug/l	0.5	5
Chloroform	792	PBN-1404C	9/14/2020	1	1.4	0.1	0.2	ug/l	0.6	6
Trichloroethene	792	PBN-1404C	9/14/2020	1	0.21	0.1	0.2	ug/l	0.5	5
1,1-Dichloroethane	793	PBN-1404D	9/14/2020	1	0.19	0.1	0.2	ug/l	85	850
Ethyl ether	793	PBN-1404D	9/14/2020	1	570	20	40	ug/l	100	1000
Trichloroethene	793	PBN-1404D	9/14/2020	1	0.1	0.1	0.2	ug/l	0.5	5
Carbon disulfide	794	PBN-1405F	8/19/2020	1	0.52	0.2	0.4	ug/l	200	1000
1,1,1-Trichloroethane	795	PBN-8902BR	8/26/2020	1	0.19	0.1	0.2	ug/l	40	200
Carbon tetrachloride	795	PBN-8902BR	8/26/2020	1	2.6	0.1	0.2	ug/l	0.5	5
Chloroform	795	PBN-8902BR	8/26/2020	1	0.28	0.1	0.2	ug/l	0.6	6
Trichloroethene	795	PBN-8902BR	8/26/2020	1	0.78	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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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	9/17 - 9/21/20

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

September 2020

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	11/4/20	
Signature	Date	

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Case Narrative
Groundwater Monitoring
License Number 3037
Deterrent Burning Grounds
September 2020
Badger Army Ammunition Plant

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

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

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

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

September 2020 Report Date: 11/4/2020

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,6-Dinitrotoluene	3037	301	DBM-8201	9/17/2020	1	0.064	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	301	DBM-8201	9/17/2020	1	1.634	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	302	DBM-8202	9/17/2020	1	0.13	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	472	DBN-1001B	9/17/2020	1	0.32	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	472	DBN-1001B	9/17/2020	2	0.32	ug/l	0.005	0.05
Total Dinitrotoluenes	3037	476	DBN-1002C	9/21/2020	1	0.419	ug/l	0.005	0.05

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

September 2020 GROUNDWATER MONITORING ALL HITS REPORT

License No: 3037 Report Date: 11/4/2020

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,3-Dinitrotoluene	301	DBM-8201	9/17/2020	1	1.1	0.0063	0.031	ug/l		
2,6-Dinitrotoluene	301	DBM-8201	9/17/2020	1	0.064	0.0042	0.031	ug/l	0.005	0.05
3,4-Dinitrotoluene	301	DBM-8201	9/17/2020	1	0.15	0.0042	0.042	ug/l		
3,5-Dinitrotoluene	301	DBM-8201	9/17/2020	1	0.32	0.0042	0.031	ug/l		
Total Dinitrotoluenes	301	DBM-8201	9/17/2020	1	1.634	0.0083	0.031	ug/l	0.005	0.05
2,3-Dinitrotoluene	302	DBM-8202	9/17/2020	1	0.055	0.0058	0.029	ug/l		
3,4-Dinitrotoluene	302	DBM-8202	9/17/2020	1	0.033	0.0039	0.039	ug/l		
3,5-Dinitrotoluene	302	DBM-8202	9/17/2020	1	0.042	0.0039	0.029	ug/l		
Total Dinitrotoluenes	302	DBM-8202	9/17/2020	1	0.13	0.0078	0.029	ug/l	0.005	0.05
2,3-Dinitrotoluene	472	DBN-1001B	9/17/2020	1	0.1	0.0058	0.029	ug/l		
2,3-Dinitrotoluene	472	DBN-1001B	9/17/2020	2	0.1	0.0058	0.029	ug/l		
3,4-Dinitrotoluene	472	DBN-1001B	9/17/2020	2	0.22	0.0039	0.039	ug/l		
3,4-Dinitrotoluene	472	DBN-1001B	9/17/2020	1	0.22	0.0039	0.039	ug/l		
Total Dinitrotoluenes	472	DBN-1001B	9/17/2020	1	0.32	0.0078	0.029	ug/l	0.005	0.05
Total Dinitrotoluenes	472	DBN-1001B	9/17/2020	2	0.32	0.0078	0.029	ug/l	0.005	0.05
2,3-Dinitrotoluene	476	DBN-1002C	9/21/2020	1	0.13	0.006	0.03	ug/l		
3,4-Dinitrotoluene	476	DBN-1002C	9/21/2020	1	0.25	0.004	0.04	ug/l		
3,5-Dinitrotoluene	476	DBN-1002C	9/21/2020	1	0.039	0.004	0.03	ug/l		
Total Dinitrotoluenes	476	DBN-1002C	9/21/2020	1	0.419	0.008	0.03	ug/l	0.005	0.05

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:

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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	9/16/20

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

September 2020

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.

Signature: Joel Janssen Date: 11/4/20

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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 3038
Southeast Boundary
September 2020
Badger Army Ammunition Plant

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

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.

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.**
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- Attach a notification of any gas values that attain or exceed explosive gas levels.
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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 - Off-Site Plume Wells	03485 & 03493	157005530	9/3 - 9/23/20

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

September 2020

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 11/4/20

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 3485 & 3493
Off-Site Plume Wells
September 2020
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. Twenty-four (24) wells were sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) and volatile organic compounds (VOCs) in the PBG Plume.

Carbon tetrachloride exceeded the Enforcement Standard (ES) in PBN-9101C (561) and PBM-9001D (981). Carbon tetrachloride exceeded the Preventive Action Limit (PAL) in SWN-9103C (572), SWN-9104C (575), and SWN-9104D (576).

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

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.

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

September 2020 Report Date: 11/4/2020

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
Carbon tetrachloride	3485	981	PBM-9001D	9/3/2020	1	15	ug/l	0.5	5
Chloroform	3485	981	PBM-9001D	9/3/2020	1	1.6	ug/l	0.6	6
Trichloroethene	3485	981	PBM-9001D	9/3/2020	1	4.8	ug/l	0.5	5

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

September 2020 GROUNDWATER MONITORING ALL HITS REPORT

License No: 3485 Report Date: 11/4/2020

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
Carbon tetrachloride	981	PBM-9001D	9/3/2020	1	15	0.1	0.2	ug/l	0.5	5
Chloroform	981	PBM-9001D	9/3/2020	1	1.6	0.1	0.2	ug/l	0.6	6
Trichloroethene	981	PBM-9001D	9/3/2020	1	4.8	0.1	0.2	ug/l	0.5	5
Ethyl ether	982	PBM-9002D	9/16/2020	1	0.36	0.1	0.2	ug/l	100	1000

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

September 2020 Report Date: 11/4/2020

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
Carbon tetrachloride	3493	561	PBN-9101C	9/3/2020	1	11	ug/l	0.5	5
Chloroform	3493	561	PBN-9101C	9/3/2020	1	1.2	ug/l	0.6	6
Trichloroethene	3493	561	PBN-9101C	9/3/2020	1	4	ug/l	0.5	5
Carbon tetrachloride	3493	572	SWN-9103C	9/3/2020	1	1.4	ug/l	0.5	5
Carbon tetrachloride	3493	575	SWN-9104C	9/3/2020	1	3.6	ug/l	0.5	5
Carbon tetrachloride	3493	576	SWN-9104D	9/3/2020	1	2.3	ug/l	0.5	5

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

September 2020 GROUNDWATER MONITORING ALL HITS REPORT

License No: 3493 Report Date: 11/4/2020

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
Carbon tetrachloride	237	SWN-0501B	9/16/2020	2	0.12	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	237	SWN-0501B	9/16/2020	1	0.12	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	238	SWN-0501C	9/16/2020	1	0.37	0.1	0.2	ug/l	0.5	5
Chloroform	238	SWN-0501C	9/16/2020	1	0.23	0.1	0.2	ug/l	0.6	6
Ethyl ether	239	SWN-0501D	9/16/2020	1	37	0.5	1	ug/l	100	1000
Ethyl ether	240	SWN-0501E	9/16/2020	1	9.7	0.1	0.2	ug/l	100	1000
1,1,1-Trichloroethane	561	PBN-9101C	9/3/2020	1	0.11	0.1	0.2	ug/l	40	200
Carbon tetrachloride	561	PBN-9101C	9/3/2020	1	11	0.1	0.2	ug/l	0.5	5
Chloroform	561	PBN-9101C	9/3/2020	1	1.2	0.1	0.2	ug/l	0.6	6
Trichloroethene	561	PBN-9101C	9/3/2020	1	4	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	571	SWN-9103B	9/3/2020	1	0.35	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	571	SWN-9103B	9/3/2020	2	0.37	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	572	SWN-9103C	9/3/2020	1	0.17	0.1	0.2	ug/l	40	200
Carbon tetrachloride	572	SWN-9103C	9/3/2020	1	1.4	0.1	0.2	ug/l	0.5	5
Trichloroethene	572	SWN-9103C	9/3/2020	1	0.15	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	573	SWN-9103D	9/3/2020	1	0.27	0.1	0.2	ug/l	0.5	5
Ethyl ether	574	SWN-9103E	9/3/2020	1	0.27	0.1	0.2	ug/l	100	1000
1,1,1-Trichloroethane	575	SWN-9104C	9/3/2020	1	0.15	0.1	0.2	ug/l	40	200
Carbon tetrachloride	575	SWN-9104C	9/3/2020	1	3.6	0.1	0.2	ug/l	0.5	5
Chloroform	575	SWN-9104C	9/3/2020	1	0.56	0.1	0.2	ug/l	0.6	6
Carbon tetrachloride	576	SWN-9104D	9/3/2020	1	2.3	0.1	0.2	ug/l	0.5	5
Chloroform	576	SWN-9104D	9/3/2020	1	0.25	0.1	0.2	ug/l	0.6	6
Carbon tetrachloride	577	SWN-9105B	9/3/2020	1	0.21	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	578	SWN-9105C	9/3/2020	1	0.19	0.1	0.2	ug/l	0.5	5
Chloroform	578	SWN-9105C	9/3/2020	1	0.3	0.1	0.2	ug/l	0.6	6
Carbon tetrachloride	579	SWN-9105D	9/3/2020	1	0.39	0.1	0.2	ug/l	0.5	5
Chloroform	579	SWN-9105D	9/3/2020	1	0.12	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	9/15/20

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

September 2020

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 11/4/20

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

- [ ] **Found uploading problems on** _____ **Initials**
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EDD format(s): [ ] **Diskette** [ ] **CD (initial submittal and follow-up)** [ ] **E-mail (follow-up only)** [ ] **Other**

Case Narrative
Groundwater Monitoring
License Number 3487
Nitroglycerine Pond/Rocket Paste Area
September 2020
Badger Army Ammunition Plant

Groundwater is currently being monitored by the facility because of past production activities. Seven (7) wells were sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) in the Nitrocellulose Production Area Plume.

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

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

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

September 2020 Report Date: 11/4/2020

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
2,6-Dinitrotoluene	3487	442	RIM-0705	9/15/2020	1	0.034	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	442	RIM-0705	9/15/2020	1	0.034	ug/l	0.005	0.05
2,4-Dinitrotoluene	3487	478	RIM-1002	9/15/2020	1	0.042	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	478	RIM-1002	9/15/2020	1	0.042	ug/l	0.005	0.05
2,6-Dinitrotoluene	3487	480	RIN-1001A	9/15/2020	1	0.035	ug/l	0.005	0.05
Total Dinitrotoluenes	3487	480	RIN-1001A	9/15/2020	1	0.035	ug/l	0.005	0.05

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

September 2020 GROUNDWATER MONITORING ALL HITS REPORT

License No: 3487 Report Date: 11/4/2020

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
2,6-Dinitrotoluene	442	RIM-0705	9/15/2020	1	0.034	0.0042	0.031	ug/l	0.005	0.05
Total Dinitrotoluenes	442	RIM-0705	9/15/2020	1	0.034	0.0083	0.031	ug/l	0.005	0.05
2,4-Dinitrotoluene	478	RIM-1002	9/15/2020	1	0.042	0.0082	0.041	ug/l	0.005	0.05
Total Dinitrotoluenes	478	RIM-1002	9/15/2020	1	0.042	0.0082	0.031	ug/l	0.005	0.05
2,6-Dinitrotoluene	480	RIN-1001A	9/15/2020	1	0.035	0.0041	0.031	ug/l	0.005	0.05
Total Dinitrotoluenes	480	RIN-1001A	9/15/2020	1	0.035	0.0082	0.031	ug/l	0.005	0.05

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
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  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	8/18 - 8/25/20 & 9/14/20

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

September 2020

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 11/4/20

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Case Narrative
Groundwater Monitoring
License Number 3499
Settling Ponds
September 2020
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 wells associated with this license. Eighteen (18) wells were sampled to assist with determining the degree and lateral extent of dinitrotoluene (DNT) and volatile organic compounds (VOCs) in the PBG Plume.

Carbon tetrachloride exceeded the Enforcement Standard (ES) in SPN-8904C (721). Carbon tetrachloride exceeded the Preventive Action Limit (PAL) in S1103 (702), S1149 (711), SPN-8903B (718), and SPN-8904B (720).

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

Total DNT exceeded the ES in SPN-8904B (720). Total DNT exceeded the PAL in SPN-8904C (721).

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

Trichloroethene exceeded the PAL in SPN-8902C (717), 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.

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

GROUNDWATER MONITORING EXCEEDANCE REPORT

September 2020 Report Date: 11/4/2020

Parameter Name	Lic No.	Well No.	Well Name	Date	Dup	Result	Units	PAL	ES
Carbon tetrachloride	3499	702	S1103	8/19/2020	1	3.5	ug/l	0.5	5
Carbon tetrachloride	3499	711	S1149	9/14/2020	1	2.5	ug/l	0.5	5
Carbon tetrachloride	3499	711	S1149	9/14/2020	2	2.6	ug/l	0.5	5
Trichloroethene	3499	717	SPN-8902C	8/24/2020	1	0.71	ug/l	0.5	5
Carbon tetrachloride	3499	718	SPN-8903B	8/24/2020	1	0.54	ug/l	0.5	5
Carbon tetrachloride	3499	720	SPN-8904B	8/18/2020	1	2	ug/l	0.5	5
Total Dinitrotoluenes	3499	720	SPN-8904B	8/18/2020	1	0.097	ug/l	0.005	0.05
Trichloroethene	3499	720	SPN-8904B	8/18/2020	1	0.83	ug/l	0.5	5
Carbon tetrachloride	3499	721	SPN-8904C	8/18/2020	1	3.5	ug/l	0.5	5
Carbon tetrachloride	3499	721	SPN-8904C	9/14/2020	1	6.3	ug/l	0.5	5
Chloroform	3499	721	SPN-8904C	9/14/2020	1	0.71	ug/l	0.6	6
Total Dinitrotoluenes	3499	721	SPN-8904C	8/18/2020	1	0.031	ug/l	0.005	0.05
Trichloroethene	3499	721	SPN-8904C	8/18/2020	1	1.1	ug/l	0.5	5
Trichloroethene	3499	721	SPN-8904C	9/14/2020	1	1.8	ug/l	0.5	5
Ethyl ether	3499	726	SPN-9104D	8/18/2020	1	1800	ug/l	100	1000

SpecPro Professional Services, LLC

Badger Army Ammunition Plant

September 2020 GROUNDWATER MONITORING ALL HITS REPORT

License No: 3499 Report Date: 11/4/2020

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
Carbon tetrachloride	701	S1102	8/19/2020	1	0.47	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	702	S1103	8/19/2020	1	0.18	0.1	0.2	ug/l	40	200
Carbon tetrachloride	702	S1103	8/19/2020	1	3.5	0.1	0.2	ug/l	0.5	5
Chloroform	702	S1103	8/19/2020	1	0.51	0.1	0.2	ug/l	0.6	6
Trichloroethene	702	S1103	8/19/2020	1	0.27	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	711	S1149	9/14/2020	2	0.17	0.1	0.2	ug/l	40	200
1,1,1-Trichloroethane	711	S1149	9/14/2020	1	0.18	0.1	0.2	ug/l	40	200
Carbon tetrachloride	711	S1149	9/14/2020	1	2.5	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	711	S1149	9/14/2020	2	2.6	0.1	0.2	ug/l	0.5	5
Chloroform	711	S1149	9/14/2020	1	0.34	0.1	0.2	ug/l	0.6	6
Chloroform	711	S1149	9/14/2020	2	0.36	0.1	0.2	ug/l	0.6	6
Trichloroethene	711	S1149	9/14/2020	2	0.18	0.1	0.2	ug/l	0.5	5
Trichloroethene	711	S1149	9/14/2020	1	0.21	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	716	SPN-8902B	8/24/2020	1	0.45	0.1	0.2	ug/l	40	200
Trichloroethene	716	SPN-8902B	8/24/2020	1	0.3	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	717	SPN-8902C	8/24/2020	1	1.1	0.1	0.2	ug/l	40	200
1,1-Dichloroethene	717	SPN-8902C	8/24/2020	1	0.19	0.1	0.2	ug/l	0.7	7
Trichloroethene	717	SPN-8902C	8/24/2020	1	0.71	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	718	SPN-8903B	8/24/2020	1	0.12	0.1	0.2	ug/l	40	200
Carbon tetrachloride	718	SPN-8903B	8/24/2020	1	0.54	0.1	0.2	ug/l	0.5	5
Chloroform	718	SPN-8903B	8/24/2020	1	0.37	0.1	0.2	ug/l	0.6	6
Trichloroethene	718	SPN-8903B	8/24/2020	1	0.13	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	719	SPN-8903C	8/24/2020	1	0.53	0.1	0.2	ug/l	40	200
Carbon tetrachloride	719	SPN-8903C	8/24/2020	1	0.38	0.1	0.2	ug/l	0.5	5
Chloroform	719	SPN-8903C	8/24/2020	1	0.13	0.1	0.2	ug/l	0.6	6
Trichloroethene	719	SPN-8903C	8/24/2020	1	0.49	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	720	SPN-8904B	8/18/2020	1	0.16	0.1	0.2	ug/l	40	200
2,3-Dinitrotoluene	720	SPN-8904B	8/18/2020	1	0.056	0.0061	0.031	ug/l		
3,4-Dinitrotoluene	720	SPN-8904B	8/18/2020	1	0.041	0.0041	0.041	ug/l		
Carbon tetrachloride	720	SPN-8904B	8/18/2020	1	2	0.1	0.2	ug/l	0.5	5
Chloroform	720	SPN-8904B	8/18/2020	1	0.28	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	720	SPN-8904B	8/18/2020	1	0.097	0.0082	0.031	ug/l	0.005	0.05
Trichloroethene	720	SPN-8904B	8/18/2020	1	0.83	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	721	SPN-8904C	8/18/2020	1	0.19	0.1	0.2	ug/l	40	200
1,1,1-Trichloroethane	721	SPN-8904C	9/14/2020	1	0.3	0.1	0.2	ug/l	40	200
1,2-Dichloroethane	721	SPN-8904C	8/18/2020	1	0.22	0.1	0.2	ug/l	0.5	5
3,4-Dinitrotoluene	721	SPN-8904C	8/18/2020	1	0.031	0.004	0.04	ug/l		
Carbon tetrachloride	721	SPN-8904C	8/18/2020	1	3.5	0.1	0.2	ug/l	0.5	5
Carbon tetrachloride	721	SPN-8904C	9/14/2020	1	6.3	0.1	0.2	ug/l	0.5	5
Chloroform	721	SPN-8904C	8/18/2020	1	0.52	0.1	0.2	ug/l	0.6	6
Chloroform	721	SPN-8904C	9/14/2020	1	0.71	0.1	0.2	ug/l	0.6	6
Total Dinitrotoluenes	721	SPN-8904C	8/18/2020	1	0.031	0.0081	0.03	ug/l	0.005	0.05
Trichloroethene	721	SPN-8904C	8/18/2020	1	1.1	0.1	0.2	ug/l	0.5	5
Trichloroethene	721	SPN-8904C	9/14/2020	1	1.8	0.1	0.2	ug/l	0.5	5
1,1,1-Trichloroethane	724	SPN-9102D	8/24/2020	1	1.7	0.1	0.2	ug/l	40	200
1,1-Dichloroethene	724	SPN-9102D	8/24/2020	1	0.37	0.1	0.2	ug/l	0.7	7
Trichloroethene	724	SPN-9102D	8/24/2020	1	0.43	0.1	0.2	ug/l	0.5	5
Ethyl ether	726	SPN-9104D	8/18/2020	1	1800	20	40	ug/l	100	1000

Parameter Name	Well	Well Name	Date	Dup	Result	LOD	LOQ	Units	PAL	ES
Carbon tetrachloride	727	S1152AR	8/19/2020	1	0.41	0.1	0.2	ug/l	0.5	5

September 2020
Badger Army Ammunition Plant
Sampled Wells List

License Area	Well ID	Reporting Name	Date	Plume
2813	210	ELN-8203A	9/17/20	Deterrent Burning Ground
2813	211	ELN-8203B	9/17/20	Deterrent Burning Ground
2813	212	ELN-8203C	9/21/20	Deterrent Burning Ground
2813	216	ELM-8901	9/21/20	Deterrent Burning Ground
2813	220	ELM-8907	9/21/20	Deterrent Burning Ground
2813	221	ELM-8908	9/21/20	Deterrent Burning Ground
2813	222	ELM-8909	9/17/20	Deterrent Burning Ground
2813	224	ELN-8902B	9/21/20	Deterrent Burning Ground
2813	227	ELN-9107A	9/21/20	Deterrent Burning Ground
2813	228	ELN-9107B	9/21/20	Deterrent Burning Ground
2813	231	ELN-9402AR	9/28/20	Deterrent Burning Ground
2813	234	ELM-9501	9/16/20	Deterrent Burning Ground
2813	236	S1134R	9/17/20	Deterrent Burning Ground
3037	301	DBM-8201	9/17/20	Deterrent Burning Ground
3037	302	DBM-8202	9/17/20	Deterrent Burning Ground
3037	306	DBM-8903	9/21/20	Deterrent Burning Ground
3037	314	DBN-9501A	9/21/20	Deterrent Burning Ground
3037	315	DBN-9501B	9/21/20	Deterrent Burning Ground
3037	316	DBN-9501C	9/21/20	Deterrent Burning Ground
3037	317	DBN-9501E	9/21/20	Deterrent Burning Ground
2813	455	ELN-0801B	9/16/20	Deterrent Burning Ground
2813	456	ELN-0801C	9/16/20	Deterrent Burning Ground
2813	457	ELN-0801E	9/16/20	Deterrent Burning Ground
2813	458	ELN-0802A	9/22/20	Deterrent Burning Ground
2813	459	ELN-0802C	9/22/20	Deterrent Burning Ground
2813	460	ELN-1001B	9/16/20	Deterrent Burning Ground
2813	461	ELN-1001C	9/17/20	Deterrent Burning Ground
2813	462	ELN-1001E	9/16/20	Deterrent Burning Ground
2813	463	ELN-1002A	9/22/20	Deterrent Burning Ground
2813	464	ELN-1002B	9/22/20	Deterrent Burning Ground
2813	465	ELN-1002C	9/22/20	Deterrent Burning Ground
2813	466	ELN-1002E	9/22/20	Deterrent Burning Ground
2813	467	ELN-1003A	9/22/20	Deterrent Burning Ground
2813	468	ELN-1003B	9/22/20	Deterrent Burning Ground
2813	469	ELN-1003C	9/22/20	Deterrent Burning Ground
2813	470	ELN-1003E	9/22/20	Deterrent Burning Ground
3037	472	DBN-1001B	9/17/20	Deterrent Burning Ground
3037	473	DBN-1001C	9/17/20	Deterrent Burning Ground
3037	474	DBN-1001E	9/17/20	Deterrent Burning Ground
3037	476	DBN-1002C	9/21/20	Deterrent Burning Ground
3037	477	DBN-1002E	9/21/20	Deterrent Burning Ground
2813	533	ELN-1502A	9/21/20	Deterrent Burning Ground
2813	534	ELN-1502C	9/21/20	Deterrent Burning Ground
2813	535	ELN-1503A	9/28/20	Deterrent Burning Ground
2813	536	ELN-1503C	9/22/20	Deterrent Burning Ground
2813	537	ELN-1504B	9/22/20	Deterrent Burning Ground
3038	755	S1121	9/16/20	Deterrent Burning Ground
3487	440	RIM-0703	9/15/20	Nitrocellulose Production Area
3487	442	RIM-0705	9/15/20	Nitrocellulose Production Area
3487	478	RIM-1002	9/15/20	Nitrocellulose Production Area

September 2020
Badger Army Ammunition Plant
Sampled Wells List

License Area	Well ID	Reporting Name	Date	Plume
3487	479	RIN-1007C	9/15/20	Nitrocellulose Production Area
3487	480	RIN-1001A	9/15/20	Nitrocellulose Production Area
3487	481	RIN-1001C	9/15/20	Nitrocellulose Production Area
3487	504	S1125	9/15/20	Nitrocellulose Production Area
3493	237	SWN-0501B	9/16/20	Propellant Burning Ground
3493	238	SWN-0501C	9/16/20	Propellant Burning Ground
3493	239	SWN-0501D	9/16/20	Propellant Burning Ground
3493	240	SWN-0501E	9/16/20	Propellant Burning Ground
3493	241	SWN-0502B	9/16/20	Propellant Burning Ground
3493	242	SWN-0502C	9/16/20	Propellant Burning Ground
3493	243	SWN-0502D	9/16/20	Propellant Burning Ground
3493	244	SWN-0502E	9/16/20	Propellant Burning Ground
2814	360	PBM-9801	9/1/20	Propellant Burning Ground
2814	361	PBM-9901	9/1/20	Propellant Burning Ground
2814	362	PBM-9902	9/1/20	Propellant Burning Ground
2814	363	PBM-9903	9/1/20	Propellant Burning Ground
2814	367	PBM-0001	9/1/20	Propellant Burning Ground
2814	368	PBM-0002	9/1/20	Propellant Burning Ground
2814	369	PBM-0003	9/1/20	Propellant Burning Ground
2814	370	PBM-0004	9/2/20	Propellant Burning Ground
2814	371	PBM-0005	9/1/20	Propellant Burning Ground
2814	372	PBM-0006	9/1/20	Propellant Burning Ground
2814	373	PBM-0007	9/2/20	Propellant Burning Ground
2814	374	PBM-0008	9/2/20	Propellant Burning Ground
2814	526	PBM-9803	9/1/20	Propellant Burning Ground
3493	561	PBN-9101C	9/3/20	Propellant Burning Ground
3493	562	PBN-9102B	9/16/20	Propellant Burning Ground
3493	563	PBN-9102C	9/16/20	Propellant Burning Ground
3493	569	SWN-9102C	9/3/20	Propellant Burning Ground
3493	570	SWN-9102D	9/3/20	Propellant Burning Ground
3493	571	SWN-9103B	9/3/20	Propellant Burning Ground
3493	572	SWN-9103C	9/3/20	Propellant Burning Ground
3493	573	SWN-9103D	9/3/20	Propellant Burning Ground
3493	573	SWN-9103D	9/23/20	Propellant Burning Ground
3493	574	SWN-9103E	9/3/20	Propellant Burning Ground
3493	575	SWN-9104C	9/3/20	Propellant Burning Ground
3493	576	SWN-9104D	9/3/20	Propellant Burning Ground
3493	577	SWN-9105B	9/3/20	Propellant Burning Ground
3493	577	SWN-9105B	9/23/20	Propellant Burning Ground
3493	578	SWN-9105C	9/3/20	Propellant Burning Ground
3493	578	SWN-9105C	9/23/20	Propellant Burning Ground
3493	579	SWN-9105D	9/3/20	Propellant Burning Ground
3493	579	SWN-9105D	9/23/20	Propellant Burning Ground
2814	589	PBN-1002A	9/14/20	Propellant Burning Ground
2814	590	PBN-1002B	9/14/20	Propellant Burning Ground
2814	591	PBN-1002C	9/14/20	Propellant Burning Ground
2814	592	PBN-1003C	8/24/20	Propellant Burning Ground
2814	593	PBN-1001A	8/20/20	Propellant Burning Ground
2814	594	PBN-1001B	8/20/20	Propellant Burning Ground
2814	595	PBN-1001C	8/20/20	Propellant Burning Ground

September 2020
Badger Army Ammunition Plant
Sampled Wells List

License Area	Well ID	Reporting Name	Date	Plume
2814	601	S1117	9/2/20	Propellant Burning Ground
2814	605	PBM-8201	8/27/20	Propellant Burning Ground
2814	607	PBM-8203	9/2/20	Propellant Burning Ground
2814	608	PBM-8204	9/2/20	Propellant Burning Ground
2814	609	PBM-8205	8/27/20	Propellant Burning Ground
2814	610	PBN-8201A	9/1/20	Propellant Burning Ground
2814	611	PBN-8201B	9/24/20	Propellant Burning Ground
2814	612	PBN-8201C	9/2/20	Propellant Burning Ground
2814	613	PBN-8202A	9/1/20	Propellant Burning Ground
2814	614	PBN-8202B	9/1/20	Propellant Burning Ground
2814	615	PBN-8202C	9/1/20	Propellant Burning Ground
2814	616	PBN-8203A	8/26/20	Propellant Burning Ground
2814	617	PBN-8203B	8/26/20	Propellant Burning Ground
2814	618	PBN-8203C	8/26/20	Propellant Burning Ground
2814	620	PBN-8204B	9/24/20	Propellant Burning Ground
2814	621	PBN-8204C	9/24/20	Propellant Burning Ground
2814	622	PBN-8205A	9/2/20	Propellant Burning Ground
2814	623	PBN-8205B	9/2/20	Propellant Burning Ground
2814	624	PBN-8205C	9/2/20	Propellant Burning Ground
2814	625	PBM-8501	9/24/20	Propellant Burning Ground
2814	626	PBM-8502	8/25/20	Propellant Burning Ground
2814	627	PBM-8503	8/26/20	Propellant Burning Ground
2814	628	PBM-8504	9/24/20	Propellant Burning Ground
2814	629	PBM-8505	8/25/20	Propellant Burning Ground
2814	630	PBM-8506	9/15/20	Propellant Burning Ground
2814	631	PBN-8501A	8/25/20	Propellant Burning Ground
2814	632	PBN-8502A	8/26/20	Propellant Burning Ground
2814	633	PBN-8503A	8/26/20	Propellant Burning Ground
2814	634	PBN-8504A	8/25/20	Propellant Burning Ground
2814	635	PBM-8905	8/26/20	Propellant Burning Ground
2814	636	PBM-8906	9/14/20	Propellant Burning Ground
2814	637	PBM-8907	8/24/20	Propellant Burning Ground
2814	638	PBM-8908	9/14/20	Propellant Burning Ground
2814	639	PBM-8909	8/27/20	Propellant Burning Ground
2814	640	PBM-8911	8/27/20	Propellant Burning Ground
2814	641	PBN-8901B	8/25/20	Propellant Burning Ground
2814	642	PBN-8901C	8/25/20	Propellant Burning Ground
2814	643	PBN-8901D	8/25/20	Propellant Burning Ground
2814	645	PBN-8902C	8/26/20	Propellant Burning Ground
2814	646	PBN-8903B	8/26/20	Propellant Burning Ground
2814	647	PBN-8903C	8/26/20	Propellant Burning Ground
2814	648	PBN-8904B	8/25/20	Propellant Burning Ground
2814	649	PBN-8904C	8/25/20	Propellant Burning Ground
2814	650	PBN-8910A	9/2/20	Propellant Burning Ground
2814	651	PBN-8910B	9/2/20	Propellant Burning Ground
2814	652	PBN-8910C	9/2/20	Propellant Burning Ground
2814	653	PBN-8910D	8/27/20	Propellant Burning Ground
2814	654	PBN-8912A	9/15/20	Propellant Burning Ground
2814	655	PBN-8912B	9/15/20	Propellant Burning Ground
2814	656	LOM-8901	8/26/20	Propellant Burning Ground

September 2020
Badger Army Ammunition Plant
Sampled Wells List

License Area	Well ID	Reporting Name	Date	Plume
2814	657	LON-8902A	8/26/20	Propellant Burning Ground
2814	659	LON-8903A	8/26/20	Propellant Burning Ground
2814	660	LON-8903B	8/26/20	Propellant Burning Ground
2814	661	LOM-9101	8/27/20	Propellant Burning Ground
2814	662	LOM-9102	8/27/20	Propellant Burning Ground
2814	663	PBN-9106C	9/15/20	Propellant Burning Ground
2814	664	PBN-9106D	9/15/20	Propellant Burning Ground
2814	665	PBN-9112C	9/15/20	Propellant Burning Ground
2814	666	PBN-9112D	9/15/20	Propellant Burning Ground
2814	667	PBN-9306C	9/14/20	Propellant Burning Ground
2814	668	PBN-9301B	9/14/20	Propellant Burning Ground
2814	669	PBN-9301C	9/14/20	Propellant Burning Ground
2814	670	PBN-9302B	9/15/20	Propellant Burning Ground
2814	671	PBN-9302C	9/15/20	Propellant Burning Ground
2814	672	PBN-9302D	9/15/20	Propellant Burning Ground
2814	673	PBN-9303B	8/20/20	Propellant Burning Ground
2814	674	PBN-9303C	8/20/20	Propellant Burning Ground
2814	675	PBN-9303D	8/20/20	Propellant Burning Ground
2814	676	PBN-9404AR	9/24/20	Propellant Burning Ground
2814	677	PBN-9401B	8/20/20	Propellant Burning Ground
2814	678	PBN-9401C	8/20/20	Propellant Burning Ground
2814	679	PBN-9401D	8/20/20	Propellant Burning Ground
2814	680	PBN-9402B	8/19/20	Propellant Burning Ground
2814	681	PBN-9402C	8/19/20	Propellant Burning Ground
2814	682	PBN-9402D	8/19/20	Propellant Burning Ground
2814	683	LON-9502BR	8/26/20	Propellant Burning Ground
2814	684	PBN-9304A	8/19/20	Propellant Burning Ground
2814	685	PBN-9304B	8/19/20	Propellant Burning Ground
2814	686	PBN-9304C	8/19/20	Propellant Burning Ground
2814	687	PBN-9304D	8/19/20	Propellant Burning Ground
2814	688	PBN-9902A	8/20/20	Propellant Burning Ground
2814	689	PBN-9902B	8/20/20	Propellant Burning Ground
2814	690	PBN-9902C	8/20/20	Propellant Burning Ground
2814	691	PBN-9902D	8/20/20	Propellant Burning Ground
2814	692	PBN-9903A	8/19/20	Propellant Burning Ground
2814	693	PBN-9903B	8/19/20	Propellant Burning Ground
2814	694	PBN-9903C	8/19/20	Propellant Burning Ground
2814	695	PBN-9903D	8/19/20	Propellant Burning Ground
2814	696	PBN-9901A	8/20/20	Propellant Burning Ground
2814	697	PBN-9901B	8/20/20	Propellant Burning Ground
2814	698	PBN-9901C	8/20/20	Propellant Burning Ground
2814	699	PBN-9901D	8/20/20	Propellant Burning Ground
3499	701	S1102	8/19/20	Propellant Burning Ground
3499	702	S1103	8/19/20	Propellant Burning Ground
3499	702	S1103	8/25/20	Propellant Burning Ground
3499	705	S1106	8/19/20	Propellant Burning Ground
3499	709	S1147	8/24/20	Propellant Burning Ground
3499	710	S1148	8/18/20	Propellant Burning Ground
3499	711	S1149	9/14/20	Propellant Burning Ground
3499	713	S1152B	8/19/20	Propellant Burning Ground

September 2020
Badger Army Ammunition Plant
Sampled Wells List

License Area	Well ID	Reporting Name	Date	Plume
3499	715	SPN-8902A	8/24/20	Propellant Burning Ground
3499	716	SPN-8902B	8/24/20	Propellant Burning Ground
3499	717	SPN-8902C	8/24/20	Propellant Burning Ground
3499	718	SPN-8903B	8/24/20	Propellant Burning Ground
3499	719	SPN-8903C	8/24/20	Propellant Burning Ground
3499	720	SPN-8904B	8/18/20	Propellant Burning Ground
3499	721	SPN-8904C	8/18/20	Propellant Burning Ground
3499	721	SPN-8904C	9/14/20	Propellant Burning Ground
3499	724	SPN-9102D	8/24/20	Propellant Burning Ground
3499	725	SPN-9103D	8/24/20	Propellant Burning Ground
3499	726	SPN-9104D	8/18/20	Propellant Burning Ground
3499	727	S1152AR	8/19/20	Propellant Burning Ground
2814	764	PBM-1201	9/1/20	Propellant Burning Ground
2814	765	PBM-1202	9/1/20	Propellant Burning Ground
2814	766	PBM-1203	9/1/20	Propellant Burning Ground
2814	767	PBN-1301A	8/27/20	Propellant Burning Ground
2814	768	PBN-1301B	8/27/20	Propellant Burning Ground
2814	769	PBN-1301C	8/27/20	Propellant Burning Ground
2814	770	PBN-1302A	8/18/20	Propellant Burning Ground
2814	771	PBN-1302B	8/18/20	Propellant Burning Ground
2814	772	PBN-1302C	8/18/20	Propellant Burning Ground
2814	773	PBN-1302D	8/18/20	Propellant Burning Ground
2814	774	PBN-1303A	8/18/20	Propellant Burning Ground
2814	775	PBN-1303B	8/18/20	Propellant Burning Ground
2814	776	PBN-1303C	8/18/20	Propellant Burning Ground
2814	777	PBN-1303D	8/18/20	Propellant Burning Ground
2814	778	PBN-1304A	8/18/20	Propellant Burning Ground
2814	779	PBN-1304B	8/18/20	Propellant Burning Ground
2814	780	PBN-1304C	8/18/20	Propellant Burning Ground
2814	781	PBN-1304D	8/18/20	Propellant Burning Ground
2814	782	PBN-1401A	9/24/20	Propellant Burning Ground
2814	783	PBN-1401B	9/24/20	Propellant Burning Ground
2814	784	PBN-1401C	9/24/20	Propellant Burning Ground
2814	785	PBN-1402A	9/24/20	Propellant Burning Ground
2814	786	PBN-1402B	9/24/20	Propellant Burning Ground
2814	787	PBN-1402C	9/24/20	Propellant Burning Ground
2814	788	PBN-1403A	9/15/20	Propellant Burning Ground
2814	789	PBN-1403B	9/15/20	Propellant Burning Ground
2814	790	PBN-1403C	9/15/20	Propellant Burning Ground
2814	791	PBN-1404B	9/14/20	Propellant Burning Ground
2814	792	PBN-1404C	9/14/20	Propellant Burning Ground
2814	793	PBN-1404D	9/14/20	Propellant Burning Ground
2814	794	PBN-1405F	8/19/20	Propellant Burning Ground
2814	795	PBN-8902BR	8/26/20	Propellant Burning Ground
3485	981	PBM-9001D	9/3/20	Propellant Burning Ground
3485	982	PBM-9002D	9/16/20	Propellant Burning Ground

September 2020 Sampled Wells
Badger Army Ammunition Plant

Legend

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

Map Scale: 1:10,000

0 1,500 3,000 4,500 6,000 Feet

0 0.25 0.5 0.75 1 Miles

0 300 600 900 1,200 Meters

SPS SPECPRO PROFESSIONAL SERVICES

Nitrocellulose Production Area Plume

Deterrent Burning Ground Plume

Propellant Burning Ground Plume

Central Plume

(Scheduled for sampling during November 2020 & June 2021)

Deterrent Burning Ground

Landfill #5

Landfill #1

Propellant Burning Ground (1949 Pit Area/Waste Pits)

Racetrack Area

1 inch = 203 feet

Wisconsin River

Weigand's Bay

Gruber's Grove Bay

Dam

12

78