

November 16, 2020



Wisconsin Department of Natural Resources
Attn: Gwen Saliaras
625 East County Road Y
Oshkosh, WI 54901



Subject:

Aniwa Arsenic Site
Marsh Road near Chicago and NW Right of Way
Town of Aniwa, Shawano County, WI 54414
WDNR BRRTS #02-59-000198

Dear Ms. Saliaras:

This letter and information will serve as an update report for the above referenced site and a proposed work plan to closure. The site location is shown on Figure 1.

Background

The site is located in a remote rural area, surrounded by woodland, agriculture, and scattered rural residential properties. A site overview is shown on Figure 2a. The site itself is primarily wooded and fallow grass. Arsenic contamination at the site was discovered in 1983 when soil sampling was conducted prior to a sale of the property to a private party. The site has been owned by the Town of Aniwa since the 1930s and was previously used to store pesticides which were distributed to local counties and municipalities to control grasshopper infestations.

The source of the contamination is leftover sodium arsenite pesticide, which was stored in a shed on site since the 1950s. Drums of leftover pesticide were buried on site in 1975. Drums of leftover arsenic pesticide were buried on site in 1975 in a "shallow pit" and were subsequently excavated, as well as the surrounding contaminated soil. The excavation is assumed to have been backfilled with pit run sand, and the area was capped with two (2) feet of clay in 1984. Following notification in 1980, the initial groundwater investigation report was submitted in 1983. Periodic groundwater sampling was conducted by Warren Hohn Soil Testing, and additional update reports were submitted in 2002, 2003, 2008, 2011, 2012, and 2013. Historical soil and groundwater data is summarized on Tables 1a-1d and 2a-2k. Soil boring and monitoring well locations are shown on Figure 2b.

Data collected by Warren Hohn Soil Testing was compiled, and a Closure Report was prepared by REI in 2014. Based on review of the Closure Report, the WDNR, in cooperation with the EPA retained TetraTech to conduct additional source removal in June 2015 which included excavation of 1,019 tons of contaminated soil in the area shown on Figure 3. Soil was excavated to an agreed upon 20 mg/kg site specific soil standard. Monitoring wells B13, B13a, B18, and B19 were



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overexcavated/abandoned during the source removal. Monitoring wells MW13 and MW19 were replaced with B13r and B19r. A summary report was submitted by TetraTech on November 24, 2015. The area of excavation is shown on Figure 3. Soil data collected by TetraTech is summarized on Tables 1e and 1f.

Additional Groundwater Sampling

TetraTech collected groundwater samples from the site prior to the excavation, on June 2, 2016, and following excavation, on September 12, 2015. After completion of the TetraTech scope, groundwater sampling was conducted by Warren Hohn Soil Testing on July 14, July 10, and July 29, 2016, April 8, April 22, May 30, June 24, August 28, October 17, and October 28, 2017, March 13, April 14, June 10, July 22, and August 31, 2018, June 10, and July 18, 2019, May 15, June 11, and July 6, 2020. Results were submitted electronically on November 29, 2016, January 12 and August 18, 2017, February 9, and October 1, 2018, April 19, and August 20, 2019, May 15, June 11, and July 6, 2020. Groundwater analytical data is summarized on Tables 2a-2k. The complete analytical reports are in Attachment A.

Additional Soil Sampling

Soil sampling during the TetraTech remedial phase of the project left the area of soil contamination exceeding the Background Threshold Value (BTV) of 8 mg/kg for arsenic undefined, specifically in the top four (4) feet of soil. Twelve (12) additional hand auger borings were installed by Warren Hohn Soil Testing on June 18, 2019. Samples were collected from 0-2 feet below land surface (bls). The results of sampling defined a portion of the area of contamination. A work plan detailing proposed additional soil and groundwater sampling was submitted by Warren Hohn Soil Testing on April 22, 2020. The WDNR project manager provided commentary and approved the scope.

Concurrent with groundwater sampling, an additional twelve (12) hand auger borings were installed around the perimeter of the soil plume on June 11, 2020. All twelve (12) samples were either non-detect or well below the BTV for arsenic. The results of 2019 and 2020 soil sampling are summarized on Table 1g. The area of contamination exceeding the BTV in the top four (4) feet is shown on Figure 3. The complete lab reports are in Attachment B.

Conclusions and Recommendations

The groundwater flow direction has remained consistent to the southeast as depicted on Figures 4a and 4b for sampling events in 2019 and 2020. Monitoring wells B12, and B13r consistently exceed the NR 140 Enforcement Standard (ES) for arsenic, while B21 at the leading edge of the plume, has fluctuated between the Preventive Action Limit (PAL) and ES since excavation of the source. Source wells B12 and B13r have shown a distinct correlation between groundwater elevation and contaminant concentration throughout the history of the site. Historical groundwater elevations are shown on Table 3. Contaminant concentrations have shown a decreasing trend despite recent groundwater elevations which have been some of the highest recorded. The relationship between groundwater elevation and contaminant concentration at B12, B13r, and B21 is shown on Figures 5a-5c.

Soil contamination remains at the site in excess of the BTV for arsenic in the top four (4) feet in areas of shallow excavation, and beyond the excavation footprint. These areas have been defined by additional soil borings conducted in 2019 and 2020. TetraTech confirmation samples SS05, SS-06, and SS-11 were collected at the water table and are not representative of vadose zone contamination. The excavated area was backfilled with clay, however, the perimeter of the excavation was excavated to depths of a foot or less. REI recommends additional clay capping of the perimeter of the excavation as defined by hand auger borings installed in 2020.

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A treatment system has been installed on the Timm well, immediately east of the site. Sampling of the well post treatment has been slightly above the PAL. Maintenance of the treatment system post closure will require an agreement with the Town of Aniwa. Groundwater contamination has demonstrated a decreasing trend and no additional groundwater sampling of the monitoring well network is recommended.

As detailed above, it appears that closure of the site is achievable through additional capping of the area of arsenic impacted soil. Residual soil and groundwater contamination will be placed on the GIS registry with a cap maintenance plan for the clay cover. If the Department concurs, the Town will solicit bids for capping of the area during the 2021 construction season. Capping will be documented and an updated Closure Report/Continuing Obligations package will be submitted upon completion.

Thank you for your assistance with this project. Please contact me at (715) 675-9784 or Adelforge@REIengineering.com with any questions or comments.

Sincerely,
REI Engineering, Inc.



Andrew R. Delforge, P.G.
Senior Hydrogeologist

Enclosure A/S

CC: Dan Lex, Town of Aniwa, N10485 Cherry Road, Aniwa, WI 54414
Warren Hohn (Electronic Only)

TABLE 1a
1983 SOIL ANALYTICAL RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI

<i>Date--></i>				9/12/83	9/12/83	9/12/83	9/12/83	9/13/83	9/13/83	9/13/83	9/13/83	9/13/83	9/13/83	9/13/83	
<i>Boring--></i>				<i>B10</i>				<i>B11</i>				<i>B12</i>			
<i>Sample Depth--(Feet)></i>				0	5	7.5	10	0	5	10	13	0	5	10	12.5
Metals (mg/kg)	BTV	NTEDC	GW												
Arsenic*	8	0.39	0.292	2.45	3.7	1.84	1.58	4.06	3.33	1.73	1.26	2.63	2.92	2.7	2.72
Lead	NA	400	13.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	3,130	91.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

<i>Date--></i>				9/14/83	9/14/83	9/14/83	9/14/83	9/14/83	9/13/83	9/13/83	9/13/83	9/12/83	9/12/83	9/12/83	9/12/83
<i>Boring--></i>				<i>B13</i>				<i>B14</i>				<i>B15</i>			
<i>Sample Depth--(Feet)></i>				0	5	8	10	12.5	0.0	5	10	0	5	10	12.5
Metals (mg/kg)	BTV	NTEDC	GW												
Arsenic*	8	0.39	0.292	39,800	4.14	731	52.5	18.8	25.30	3.34	160	7.03	2.40	69.6	50.8
Lead	NA	400	13.5	111	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	3,130	91.6	41.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

<i>Date--></i>				9/13/83	9/13/83	9/13/83	9/12/83	9/12/83	9/12/83	9/12/83
<i>Boring--></i>				<i>B16</i>			<i>B17</i>			
<i>Sample Depth--(Feet)></i>				0	5	10	0	5	10	12.5
Metals (mg/kg)	BTV	NTEDC	GW							
Arsenic*	8	0.39	0.292	8.90	8.88	2.04	2.52	3.21	2.65	1.92
Lead	NA	400	13.5	NA	NA	NA	NA	NA	NA	NA
Copper	NA	3,130	91.6	NA	NA	NA	NA	NA	NA	NA

Notes:

NTEDC - Not To Exceed Direct Contact Residual Contaminant Level (RCL)

GW - RCL Protective of Groundwater Quality

GW RCL Exceedances are outlined in bold (lead) **Lead**

BTV - Based on a recent study by the USGS, and agreement with the WDNR, DATCP, and DHS, 8 mg/kg is the established "background" level of arsenic in Wisconsin.

Detections above 8 mg/kg are considered "above background threshold value"

Detections above BTV are bold **Bold**

< - Concentration below listed laboratory detection limit

NS - No Standard

j - Estimated Value between detection limit and quantification limit

TABLE 1b
1990 SURFICIAL SOIL ANALYTICAL RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI

				Date-->	6/6/90	6/6/90	6/6/90	6/6/90	6/6/90	6/6/90	6/6/90	6/6/90	6/6/90	6/6/90	6/6/90		
				Boring-->	S-0	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9	S-10	S-11	S-12
				Sample Depth--(Feet)>	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	
Metals (mg/kg)	BTV	NTEDC	GW														
Arsenic*	8	0.39	0.292	278	318	71	588	362	367	62/69**	73/75**	1,328	589	111	65	41	
Lead	NA	400	13.5	70	74	23	143	84	87	16/19**	22/26**	115	122	23	15	12	

				Date-->	6/6/90	6/6/90	6/6/90	6/6/90	6/6/90	6/6/90	6/6/90	6/6/90	6/6/90	6/6/90		
				Boring-->	S-13	S-14	S-15	S-16	S-17	S-18	S-19	S-20	S-21	S-22	S-23	S-24
				Sample Depth--(Feet)>	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	0.5-1.5	
Metals (mg/kg)	BTV	NTEDC	GW													
Arsenic*	8	0.39	0.292	78	60	67	491	279	71	58	611	330	51	75	68	
Lead	NA	400	13.5	28	17	21	116	64	22	17	145	77	17	22	23	

Notes:

NTEDC - Not To Exceed Direct Contact Residual Contaminant Level (RCL)

GW - RCL Protective of Groundwater Quality

GW RCL Exceedances are outlined in bold (lead)

Lead

BTV - Based on a recent study by the USGS, and agreement with the WDNR, DATCP, and DHS, 8 mg/kg is the established "background" level of arsenic in Wisconsin.

Detections above 8 mg/kg are considered "above background threshold value"

Detections above BTV are bold

Bold

< - Concentration below listed laboratory detection limit

** Split Samples analyzed as composite and core

NS - No Standard

j - Estimated Value between detection limit and quantification limit

TABLE 1c
2007 SOIL ANALYTICAL RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI

Date-->				6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07
Boring-->				07-B1										
Sample Depth--(Feet)>				1	2	4	6	7-8	8-9	10-12	12-16	16-18	18-19	19.5-20
Metals (mg/kg)	BTV	NTEDC	GW											
Arsenic*	8	0.39	0.292	4.25	0	5.35	2.66	0.43	1.35	1.05	1.55	0.95	0.48	0
Lead	NA	400	13.5	4.8	2.73	2.49	3.78	1.64	2.8	1.43	2.16	2.1	1.68	0.86

Date-->				6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07
Boring-->				07-B2												
Sample Depth--(Feet)>				1-2	3-4	4-6	7	8	8-10	10-12	12-14	15	16	17-18	19-20	22
Metals (mg/kg)	BTV	NTEDC	GW													
Arsenic*	8	0.39	0.292	1.18	281	232	1.84	2.06	1.11	0.91	1.9	0	1.08	0.4	0	
Lead	NA	400	13.5	1.42	3.2	4.75	0.94	2.29	3.32	2.07	2.82	2.03	1.13	1.95	1.79	

Date-->				6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07
Boring-->				07-B3									
Sample Depth--(Feet)>				1-2	3-4	4-5	8	9	12	13-14	16	17-18	20
Metals (mg/kg)	BTV	NTEDC	GW										
Arsenic*	8	0.39	0.292	10.3	6.25	4.03	0.75	9.32	87.1	117	465	296	32
Lead	NA	400	13.5	6.8	3.25	5.72	2	2.06	1.35	1.05	1.67	0	1.53

Date-->				6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07
Boring-->				07-B4											
Sample Depth--(Feet)>				0-1	3-4	5-6	8	10	12	12-13	14	15-16	16-17	18-19	20
Metals (mg/kg)	BTV	NTEDC	GW												
Arsenic*	8	0.39	0.292	25.3	4.7	2.38	0	0.85	0	1.58	1.03	0	0	0	
Lead	NA	400	13.5	7.62	5.98	4.82	4.36	2.28	1.77	1.64	2.35	2.07	1.42	1.29	

Date-->				6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07
Boring-->				07-B5							
Sample Depth--(Feet)>				1	4	6-8	10-12	12-14	14-16	17-18	20
Metals (mg/kg)	BTV	NTEDC	GW								
Arsenic*	8	0.39	0.292	7.62	0.63	2.81	1.04	0	0	0	0.37
Lead	NA	400	13.5	8.42	1.62	7.67	1.3	1.93	0.99	1.73	1.77

Date-->				6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07
Boring-->				07-B6									
Sample Depth--(Feet)>				0-1.5	3-4	5	7-8	8-10	11-12	13-14	14-15	17-18	19.5-20
Metals (mg/kg)	BTV	NTEDC	GW										
Arsenic*	8	0.39	0.292	2.37	2.87	1.73	1.96	1.68	1.9	0.75	0	0	0
Lead	NA	400	13.5	4.88	4.82	3.58	3.3	4.98	3.84	1.88	1.33	1.01	1.19

Date-->				6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07
Boring-->				07-B7									
Sample Depth--(Feet)>				2	3-4	5	7	8-9	11	12-14	14-16	16-17	18-20
Metals (mg/kg)	BTV	NTEDC	GW										
Arsenic*	8	0.39	0.292	2.1	1.39	1.5	1.51	1.35	0	0	0.56	0	0
Lead	NA	400	13.5	4.66	3.22	3.65	2.91	2.54	1.44	2.24	1.99	1.62	0.76

Date-->				6/15/07	6/15/07	6/15/07	6/15/07
Boring-->				07-B8			
Sample Depth--(Feet)>				0-1	2-4	4-6	6-8
Metals (mg/kg)	BTV	NTEDC	GW				
Arsenic*	8	0.39	0.292	2.1	1.39	1.5	1.51
Lead	NA	400	13.5	4.66	3.22	3.65	2.91

Notes:

NTEDC - Not To Exceed Direct Contact Residual Contaminant Level (RCL)

GW - RCL Protective of Groundwater Quality

GW RCL Exceedances are outlined in bold (lead)

Lead

BTV - Based on a recent study by the USGS, and agreement with the WDNR, DATCP, and DHS, 8 mg/kg is the established "background" level of arsenic in Wisconsin.

Detections above 8 mg/kg are considered "above background threshold value"

Detections above BTV are bold

Bold

< - Concentration below listed laboratory detection limit

NS - No Standard

j - Estimated Value between detection limit and quantification limit

TABLE 1d
2012 SOIL ANALYTICAL RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI

Date-->				11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12
Boring-->				12-B1									
Sample Depth--(Feet)>				0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16	16-18	18-20
Metals (mg/kg)	BTV	NTEDC	GW										
Arsenic*	8	0.39	0.292	3.7	59.8	36.2	53.8	54.5	65.4	36.0	1.3	17.4	0.91
TCLP Arsenic (mg/L)				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Date-->				11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12
Boring-->				12-B2									
Sample Depth--(Feet)>				0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16	16-18	18-20
Metals (mg/kg)	BTV	NTEDC	GW										
Arsenic*	8	0.39	0.292	7.9	95.6	2.9	2.0	2.7	36.9	22.5	13.7	15.2	20.6
TCLP Arsenic (mg/L)				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Date-->				11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12
Boring-->				12-B3									
Sample Depth--(Feet)>				0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16	16-18	18-20
Metals (mg/kg)	BTV	NTEDC	GW										
Arsenic*	8	0.39	0.292	3.9	8,360	2.9	1.6	2.2	10.7	38.6	7.6	32.0	12.8
TCLP Arsenic (mg/L)				NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA

Date-->				11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12
Boring-->				12-B4									
Sample Depth--(Feet)>				0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16	16-18	18-20
Metals (mg/kg)	BTV	NTEDC	GW										
Arsenic*	8	0.39	0.292	3.1	2.4	2.6	1.8	2.4	5.1	26.2	26.7	10.4	37.5
TCLP Arsenic (mg/L)				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Date-->				11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12
Boring-->				12-B5									
Sample Depth--(Feet)>				0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16	16-18	18-20
Metals (mg/kg)	BTV	NTEDC	GW										
Arsenic*	8	0.39	0.292	2.9	2.0	1.4	1.6	2.4	22.0	22.3	24.3	2.2	0.8
TCLP Arsenic (mg/L)				NA	NA	NA	NA	NA	23.7	NA	NA	NA	NA

Date-->				11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12	11/29/12
Boring-->				12-B6									
Sample Depth--(Feet)>				0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16	16-18	18-20
Metals (mg/kg)	BTV	NTEDC	GW										
Arsenic*	8	0.39	0.292	1,410	47.7	110	7.2	256	1.5	74.3	1.7	68.1	1.6
TCLP Arsenic (mg/L)				NA	NA	NA	NA	NA	1.3	NA	NA	NA	NA

Date-->				6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07	6/15/07
Boring-->				12-B3a								
Sample Depth--(Feet)>				00-0.5	0.5-1	1-1.5	1.5-2	2-2.5	2.5-3	3-3.5	3.5-4.25	4.25-5
Metals (mg/kg)	BTV	NTEDC	GW									
Arsenic*	8	0.39	0.292	529	13.1	3.7	10.3	6.4	2.9	1.8	1.3	1.4
TCLP Arsenic (mg/L)				0.39	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

NTEDC - Not To Exceed Direct Contact Residual Contaminant Level (RCL)

GW - RCL Protective of Groundwater Quality

BTV - Based on a recent study by the USGS, and agreement with the WDNR, DATCP, and DHS, 8 mg/kg is the established "background" level of arsenic in Wisconsin.

Detections above 8 mg/kg are considered "above background threshold value"

Detections above BTV are bold

Bold

< - Concentration below listed laboratory detection limit

NS - No Standard

j - Estimated Value between detection limit and quantification limit

TABLE 1e
POST EXCAVATION CONFIRMATION SOIL SAMPLE RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI

<i>Date--></i>		6/3/15	6/5/15	6/5/15	6/5/15	6/5/15	6/10/15	6/10/15	6/10/15	6/15/15	6/17/15	6/16/15	6/17/15	6/16/15	9/21/15	6/18/15	6/18/15	6/18/15	6/2/15		
<i>Sample--></i>		SS-01-0615	SS-02-0615	SS-03-0615	SS-50-0615	SS-04-0615	SS-05-0615	SS-51-0615	SS-06-0615	SS-07-0615	SS-08-0615	SS-09-0615	SS-10-0615	SS-11-0615	SS-11-0615	SS-12-0615	SS-13-0615	SS-14-0615	SS-15-0615		
<i>Sample Depth--(Feet)--></i>		1	2	1	Duplicate	1	9	Duplicate	9	9	2	1	1	10	10	2	2	2	Background		
<i>Sampler--></i>		TetraTech	TetraTech	TetraTech	TetraTech	TetraTech	TetraTech	TetraTech	TetraTech	TetraTech	TetraTech	TetraTech	TetraTech	TetraTech	TetraTech	TetraTech	TetraTech	TetraTech	TetraTech		
<i>Saturated/Unsaturated--></i>		Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat		
Metals (mg/kg)	<u>BTV</u>	<u>NTEDC</u>	<u>GW</u>																		
Arsenic*	8	0.667	0.584	8.7	12	19	19	11	50	45	49	18	4.1	12	5.8	2,500	340j	13	7	4.8	3
TCLP Arsenic (mg/L)				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

NTEDC - Not To Exceed Direct Contact Residual Contaminant Level (RCL)

GW - RCL Protective of Groundwater Quality

BTV - Based on a recent study by the USGS, and agreement with the WDNR, DATCP, and DHS, 8 mg/kg is the established "background" level of arsenic in Wisconsin.

Detections above 8 mg/kg are considered "above background threshold value"

Detections above BTV are bold

Bold

< - Concentration below listed laboratory detection limit

NS - No Standard

j - Estimated Value between detection limit and quantification limit

TABLE 1f
WETLAND SEDIMENT SAMPLING RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI

	<i>Date--></i>	6/2/15	9/22/15	6/2/15	9/22/15	6/2/15		
	<i>Sample--></i>	SED-01-0615	SED-01-0915	SED-02-0615	SED-01-0915	SED-03-0615		
	<i>Sample Depth--(Feet)></i>	Surface	Surface	Surface	Surface	Surface		
	<i>Sampler--></i>	TetraTech	TetraTech	TetraTech	TetraTech	TetraTech		
	<i>Saturated/Unsaturated--></i>	Saturated	Saturated	Saturated	Saturated	Saturated		
Metals (mg/kg)	<u>BTV</u>	<u>NTEDC</u>	GW					
Arsenic*	8	0.667	0.584	<2.4	22j	<2.8	4.2j	<3.3
TCLP Arsenic (mg/L)				NA	NA	NA	NA	NA

Notes:

NTEDC - Not To Exceed Direct Contact Residual Contaminant Level (RCL)

GW - RCL Protective of Groundwater Quality

BTV - Based on a recent study by the USGS, and agreement with the WDNR, DATCP, and DHS, 8 mg/kg is the established "background" level of arsenic in Wisconsin. Detections above 8 mg/kg are considered "above background threshold value"

Detections above BTV are bold

Bold

< - Concentration below listed laboratory detection limit

NS - No Standard

j - Estimated Value between detection limit and quantification limit

TABLE 1g
POST EXCAVATION PERIMETER BORINGS SOIL SAMPLE RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI

<i>Date--></i>				6/18/19	6/18/19	6/18/19	6/18/19	6/18/19	6/18/19	6/18/19	6/18/19	6/18/19	6/18/19	6/18/19	
<i>Sample--></i>				B-1-19	B-2-19	B-3-19	B-4-19	B-5-19	B-6-19	B-7-19	B-8-19	B-9-19	B-10-19	B-11-19	B-12-19
<i>Sample Depth--(Feet)></i>				0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2
<i>Sampler--></i>				Hohn	Hohn	Hohn	Hohn	Hohn	Hohn	Hohn	Hohn	Hohn	Hohn	Hohn	Hohn
<i>Saturated/Unsaturated--></i>				Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat
Metals (mg/kg)	<u>BTV</u>	<u>NTEDC</u>	GW												
Arsenic*	8	0.667	0.584	12.2	<1.4	1.6j	38.1	1.21j	27.5	31.6	<1.2	30.6	2.3j	2.5j	1.9j
TCLP Arsenic (mg/L)				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

<i>Date--></i>				6/11/20	6/11/20	6/11/20	6/11/20	6/11/20	6/11/20	6/11/20	6/11/20	6/11/20	6/11/20	6/11/20	6/11/20
<i>Sample--></i>				2020-B-13	2020-B-14	2020-B-15	2020-B-16	2020-B-17	2020-B-18	2020-B-19	2020-B-20	2020-B-21	2020-B-22	2020-B-23	2020-B-24
<i>Sample Depth--(Feet)></i>				0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2	0-2
<i>Sampler--></i>				Hohn	Hohn	Hohn	Hohn	Hohn	Hohn	Hohn	Hohn	Hohn	Hohn	Hohn	Hohn
<i>Saturated/Unsaturated--></i>				Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat	Unsat
Metals (mg/kg)	<u>BTV</u>	<u>NTEDC</u>	GW												
Arsenic*	8	0.667	0.584	2.6j	4.9j	<1.7	3.8j	2.2j	<1.7	<1.7	2.3j	<1.7	4.4j	<1.7	<1.7
TCLP Arsenic (mg/L)				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

NTEDC - Not To Exceed Direct Contact Residual Contaminant Level (RCL)

GW - RCL Protective of Groundwater Quality

BTV - Based on a recent study by the USGS, and agreement with the WDNR, DATCP, and DHS, 8 mg/kg is the established "background" level of arsenic in Wisconsin.

Detections above 8 mg/kg are considered "above background threshold value"

Detections above BTV are bold

Bold

< - Concentration below listed laboratory detection limit

NS - No Standard

j - Estimated Value between detection limit and quantification limit

TABLE 2a - B10 GROUNDWATER ANALYTICAL RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI

		B10																						
Metals	ES	PAL	1/7/90	4/3/90	6/21/90	10/28/90	2/10/91	4/21/91	8/11/91	11/29/91	2/29/92	5/3/92	7/18/92	10/31/92	2/1/93	6/10/93	9/30/93	12/15/93	2/19/94	7/15/94	9/30/94	12/12/94	7/15/95	11/15/95
Dissolved Arsenic (ug/L)	10	1	<1.0	<1.0	<i>1.60</i>	<1.0	<1.0	<1.9	<i>2.70</i>	<1.4	<2.0	11.10	<1.0	<1.0	<i>6.20</i>	<1.0	<1.0	<1.0	<1.0	<1.0	<i>2.60</i>	<i>3.80</i>	<1.0	<1.0
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (ug/L)	1300	130	13.0	9.4	5.6	14.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	<i>5.0</i>	<i>5.3</i>	15.0	76.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	1.5	0.50	1.30	1.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics	ES	PAL																						
Chloride (mg/L)	250	125	NA	NA	0.80	1.10	NA	42.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ -N) (mg/L)	10	1	NA	NA	<0.1	0.30	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Measurements																								
Temperature (°C)			6.60	2.60	6.00	9.60	4.90	4.20	8.50	6.00	4.00	2.60	6.90	6.10	5.30	7.50	8.10	5.60	4.90	7.40	7.90	5.90	8.10	7.10
Conductivity (ms/cm)			244.00	83.00	133.00	169.00	148.00	161.00	158.00	129.00	131.00	114.00	131.00	134.00	139.00	144.00	144.00	169.00	174.00	148.00	132.00	164.00	161	141
pH			6.14	6.15	6.35	6.00	6.10	6.10	6.30	6.40	6.20	6.30	6.10	6.30	6.20	5.91	5.73	6.02	6.13	5.99	6.15	6.01	6.21	5.95
Metals	ES	PAL	8/17/96	7/4/97	8/17/98	8/6/99	8/15/00	7/22/01	7/14/02	8/2/03	9/4/04	6/30/05	6/18/06	6/9/07	7/21/08	8/15/09	6/10/10	8/7/11	10/20/12	11/2/13	6/2/15		9/21/15	6/11/20
Dissolved Arsenic (ug/L)	10	1	1.10	<i>1.70</i>	<1.0	<1.0	<1.0	10.20	<i>5.20</i>	<1.0	11.50	<1.0	<1.0	<i>3.07</i>	<1.0	<1.0	<1.0	<i>3.78</i>	<i>6.80</i>	<i>3.30</i>	<5	<5	<2.6	
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (ug/L)	1300	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	530	1,400	NA
Inorganics	ES	PAL																						
Chloride (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ -N) (mg/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Measurements																								
Temperature (°C)			8.20	8.40	8.10	7.90	8.30	5.90	7.40	7.50	8.10	8.30	6.90	6.10	6.90	5.70	5.80	5.80	6.30	5.90	9.29		14.31	12.90
Conductivity (ms/cm)			164	161	154	139	158	164	135	129	153	165	135	124	116	125	99	124	87	115	81		88	730
pH			6.08	6.21	6.34	6.18	6.22	6.21	6.16	6.24	5.94	6.25	6.18	6.44	6.29	6.19	6.10	6.20	6.10	6.10	5.79		5.68	5.18

PAL = Preventive Action Limit
ES = Enforcement Standards

BOLD	= Exceeds Enforcement Standard
<i>Italic</i>	= Exceeds Preventative Action Limit

NA - Not Analyzed
< - Concentration less than listed detection limit
ND - Concentration less than unlisted detection limit

6/11/9-6/19/15 - Source Removal

TABLE 2b - B11 GROUNDWATER ANALYTICAL RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI

		B11																					
Metals	ES	PAL	01/07/90	04/03/90	06/21/90	10/28/90	02/10/91	04/21/91	08/11/91	11/29/91	02/29/92	05/03/92	07/18/92	10/31/92	02/01/93	06/10/93	09/30/93	12/15/93	02/19/94	07/15/94	09/30/94	12/12/94	07/15/95
Dissolved Arsenic (ug/L)	10	1	<1.0	<1.0	<i>3.40</i>	<1.0	<1.0	<1.9	<1.9	<1.4	<2.0	21.20	<1.0	<1.0	10.40	14.30	<1.0	<i>5.70</i>	<1.0	<1.0	<i>1.90</i>	<i>4.30</i>	<1.0
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (ug/L)	1300	130	23.0	10.0	18.0	12.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	21.0	8.2	<i>13.0</i>	22.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	NA	2.10	5.40	1.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics	ES	PAL																					
Chloride (mg/L)	250	125	NA	NA	1.00	1.30	NA	1.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	NA	<0.1	<0.1	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Measurements																							
Temperature (°C)			5.50	5.70	6.40	8.60	6.20	4.70	7.90	6.70	4.40	3.20	5.60	6.40	6.40	7.40	8.00	6.80	5.90	7.20	7.70	6.80	7.90
Conductivity (ms/cm)			615	601	590	623	622	747	763	760	649	637	660	703	598	537	697	704	695	541	655	685	745
pH			6.95	6.77	7.19	6.90	6.80	6.30	6.90	6.90	6.80	6.90	7.00	6.80	6.90	6.84	6.88	6.79	6.85	6.81	6.85	6.81	7.01

Metals	ES	PAL	11/15/95	08/17/96	07/04/97	08/17/98	08/06/99	08/15/00	07/22/01	07/14/02	08/02/03	09/04/04	06/30/05	06/18/06	06/09/07	07/21/08	06/10/10	08/07/11	11/02/13	6/2/15	6/1/19-6/19/15 - Source Removal	9/21/15	6/11/20	
Dissolved Arsenic (ug/L)	10	1	<1.0	<i>3.30</i>	<1.0	<1.0	<1.0	<1.0	<i>2.00</i>	<i>2.50</i>	<1.0	<i>3.50</i>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	ND	<5		<5	<2.6	
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.00	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	
Copper (ug/L)	1300	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	
Dissolved Lead (ug/L)	15	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	
Sodium (mg/L)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		3,300	2,800	NA
Inorganics	ES	PAL																						
Chloride (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA
Field Measurements																								
Temperature (°C)			6.80	7.90	7.80	7.70	7.70	7.80	6.40	7.70	7.60	7.90	8.00	7.30	7.40	5.70	5.90	5.90	6.80	7.73		11.45	11.70	
Conductivity (ms/cm)			605	592	745	753	651	752	769	644	649	682	743	651	730	644	575	655	674	508		516	610	
pH			6.92	6.77	6.94	7.02	6.82	6.98	7.11	6.75	6.78	6.69	6.93	6.85	6.81	6.80	6.70	6.70	6.80	6.68		6.89	6.97	

PAL = Preventive Action Limit = Exceeds Enforcement Standard
ES = Enforcement Standards = Exceeds Preventative Action Limit

BOLD
Italic

NA - Not Analyzed
< - Concentration less than listed detection limit

TABLE 2e - B13a GROUNDWATER ANALYTICAL RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI

		B13a																						
	ES	PAL	01/07/90	04/03/90	06/21/90	10/28/90	02/10/91	04/21/91	08/11/91	11/29/91	02/29/92	05/03/92	07/18/92	10/31/92	02/01/93	06/10/93	09/30/93	12/15/93	02/19/94	07/15/94	09/30/94	12/12/94	07/15/95	11/15/95
Metals																								
Dissolved Arsenic (ug/L)	10	1	<i>4.00</i>	<1.0	<1.0	<1.0	<1.0	<1.9	6.30	<1.4	2.20	15.70	<1.0	<1.0	3.30	3.40	<1.0	<1.0	<1.0	<1.0	<1.0	1.40	1.70	4.30
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (ug/L)	1300	130	16.0	4.1	10.0	12.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	7.0	5.8	2.2	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	3.60	2.20	0.10	5.30	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics	ES	PAL																						
Chloride (mg/L)	250	125	NA	NA	1.60	1.30	NA	2.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	NA	0.10	0.30	NA	0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Measurements																								
Temperature (°C)			7.80	6.30	6.30	9.50	6.70	5.10	7.40	6.80	4.50	3.90	5.70	6.40	6.70	7.10	7.70	6.20	6.00	6.90	7.90	7.20	8.60	6.90
Conductivity (ms/cm)			489	479	456	476	422	466	383	337	320	322	338	379	454	523	444	469	475	499	347	444	439	447
pH			6.12	6.49	6.65	6.44	6.40	6.20	6.50	6.50	6.40	6.50	6.40	6.50	6.50	6.45	6.41	6.37	6.45	6.26	6.27	6.33	6.29	6.51

	ES	PAL	12/18/95	08/17/96	07/04/97	08/17/98	08/06/99	08/15/00	07/22/01	07/14/02	08/02/03	09/04/04	03/26/05	06/05/05	06/30/05	10/29/05	06/18/06	10/29/06	06/09/07	07/21/08	04/18/09	05/25/09	06/14/09	08/09/09
Metals																								
Dissolved Arsenic (ug/L)	10	1	<i>1.30</i>	<i>1.90</i>	<1.0	<i>1.00</i>	<i>3.50</i>	<i>1.00</i>	<i>6.70</i>	52.60	<1.0	<1.0	2.90	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.33	3.88	0.68	0.64
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (ug/L)	1300	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics	ES																							
Chloride (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Measurements																								
Temperature (°C)			NA	7.60	7.50	7.60	7.80	8.70	5.80	7.80	7.70	7.70	6.70	8.50	7.60	6.40	6.80	9.20	6.40	5.80	6.30	6.40	6.40	5.90
Conductivity (ms/cm)			NA	418	395	385	352	437	443	398	399	459	425	436	401	377	491	477	429	340	333	344	345	346
pH			NA	6.29	6.47	6.42	6.29	6.41	6.28	6.27	6.33	6.42	6.35	6.29	6.44	6.50	6.19	6.41	6.41	6.33	6.20	6.30	6.30	6.30

	ES	PAL	08/15/09	03/21/10	04/18/10	06/10/10	06/20/10	07/24/10	09/04/10	11/20/10	05/07/11	06/26/11	08/07/11	09/24/11	10/15/11	03/24/12	07/07/12	08/11/12	10/20/12	06/02/13	11/02/13	6/2/15
Metals																						
Dissolved Arsenic (ug/L)	10	1	<i>1.86</i>	<i>4.95</i>	<i>1.48</i>	<i>4.74</i>	<i>5.47</i>	<i>4.95</i>	<1.0	5.80	132.00	14.60	10.90	8.60	7.39	13.60	7.90	7.00	7.70	7.20	3.10	<5
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (ug/L)	1300	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,400
Inorganics	ES	PAL																				
Chloride (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Measurements																						
Temperature (°C)			5.50	6.70	6.50	6.20	6.30	6.40	6.10	5.50	6.20	6.40	6.40	6.40	6.20	6.70	6.50	6.36	6.40	7.10	6.30	6.95
Conductivity (ms/cm)			644	414	404	411	422	431	429	432	409	399	419	375	389	449	429	409	473	524	519	268
pH			6.20	6.30	6.30	6.30	6.40	6.30	6.30	6.30	6.30	6.20	6.20	6.20	6.20	6.20	6.20	6.20	6.40	6.42	6.35	6.59

6/1/19-6/19/15 - Source Removal - B13a Abandoned

PAL = Preventive Action Limit

ES = Enforcement Standards

BOLD	= Exceeds Enforcement Standard
<i>Italic</i>	= Exceeds Preventative Action Limit

NA - Not Analyzed

< - Concentration less than listed detection limit

**TABLE 2f - B18 GROUNDWATER ANALYTICAL RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI**

		B18																				
Metals	ES	PAL	04/03/90	06/21/90	10/28/90	02/10/91	04/21/91	08/11/91	11/29/91	02/29/92	05/03/92	07/18/92	10/31/92	02/01/93	06/10/93	09/30/93	12/15/93	02/19/94	07/15/94	09/30/94	12/12/94	07/15/95
Dissolved Arsenic (ug/L)	10	1	<1.0	<1.0	<1.0	<1.0	<1.9	5.20	<1.4	6.00	5.30	<1.0	5.20	11.60	<1.0	<1.0	7.90	4.00	<1.0	<1.0	2.20	<1.0
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (ug/L)	1300	130	4.0	15.0	6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	6.1	<2.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	0.60	1.20	4.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics	ES	PAL																				
Chloride (mg/L)	250	125	NA	1.10	1.30	NA	0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	0.10	<0.1	NA	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Measurements																						
Temperature (°C)			5.70	6.00	8.90	6.20	4.50	8.50	6.90	3.90	3.10	5.50	6.50	6.10	7.70	8.20	6.60	6.20	7.40	8.40	7.00	8.60
Conductivity (ms/cm)			496	518	553	549	485	679	496	544	553	545	567	555	583	575	604	596	575	549	675	692
pH			6.67	7.20	7.00	6.70	6.60	6.90	6.80	6.70	6.70	6.70	6.80	6.80	6.88	6.92	7.04	7.09	6.94	7.04	6.94	6.94

Metals	ES	PAL	11/15/95	08/17/96	07/04/97	08/17/98	08/06/99	08/15/00	07/22/01	07/14/02	08/02/03	09/04/04	06/30/05	06/09/07	07/21/08	08/15/09	06/10/10	08/07/11	10/20/12	11/02/13	6/2/15	6/1/19-6/19/15 - Source Removal - B18 Abandoned
Dissolved Arsenic (ug/L)	10	1	3.10	2.00	<1.0	5.80	<1.0	<1.0	6.50	<1.0	<1.0	<1.0	<1.0	<1.0	1.53	0.96	<1.0	10.30	ND	2.60	<5	
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	28.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Copper (ug/L)	1300	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dissolved Lead (ug/L)	15	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Sodium (mg/L)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,700	
Inorganics	ES	PAL																				
Chloride (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Field Measurements																						
Temperature (°C)			7.00	8.10	8.50	8.40	8.20	8.50	6.00	8.30	8.00	8.30	8.50	6.20	5.50	5.70	6.30	6.30	6.10	6.60	10.4	
Conductivity (ms/cm)			556	551	684	697	547	694	525	557	575	576	687	565	552	555	555	545	625	612	463	
pH			6.99	7.01	6.92	6.91	7.00	6.91	7.15	7.01	7.01	6.94	6.91	7.02	6.70	6.70	6.90	6.70	6.70	6.70	7.04	

PAL = Preventive Action Limit

ES = Enforcement Standards

BOLD	= Exceeds Enforcement Standard
<i>Italic</i>	= Exceeds Preventative Action Limit

NA - Not Analyzed

< - Concentration less than listed detection limit

**TABLE 2g - B19 GROUNDWATER ANALYTICAL RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI**

		B19																				
Metals	ES	PAL	04/03/90	06/21/90	10/28/90	02/10/91	04/21/91	08/11/91	11/29/91	02/29/92	05/03/92	07/18/92	10/31/92	02/01/93	06/10/93	09/30/93	12/15/93	02/19/94	07/15/94	09/30/94	12/12/94	07/15/95
Dissolved Arsenic (ug/L)	10	1	4.00	<1.0	<1.0	<1.0	<1.9	<1.9	<1.4	4.30	2.30	<1.0	<1.0	5.20	4.30	<1.0	4.50	<1.0	<1.0	<1.0	5.10	<1.0
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (ug/L)	1300	130	3.5	19.0	9.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	7.1	<2.0	37.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	2.40	21.40	21.60	NA	26.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics	ES	PAL																				
Chloride (mg/L)	250	125	NA	1.50	1.90	NA	13.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	3.00	2.90	NA	3.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Measurements																						
Temperature (°C)			5.80	6.20	9.10	6.10	4.40	8.40	6.70	3.80	2.90	5.70	6.30	5.90	7.60	8.10	6.20	5.90	7.50	8.30	6.60	8.50
Conductivity (ms/cm)			645	562	642	694	440	615	634	625	306	549	555	703	487	543	574	576	462	557	569	607
pH			6.69	7.01	6.90	6.70	6.50	6.80	6.90	6.70	6.80	6.90	6.90	6.90	6.79	6.84	6.77	6.85	6.83	6.84	6.75	6.82

Metals	ES	PAL	11/15/95	08/17/96	07/04/97	08/17/98	08/06/99	08/15/00	07/22/01	07/14/02	08/02/03	09/04/04	06/30/05	06/18/06	06/09/07	07/21/08	08/15/09	06/10/10	08/07/11	10/20/12	11/02/13	6/2/15
Dissolved Arsenic (ug/L)	10	1	<1.0	2.30	<1.0	5.00	<1.0	<1.0	11.40	6.60	<1.0	2.00	<1.0	<1.0	0.83	<1.0	2.79	<1.0	4.36	ND	3.20	<5
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (ug/L)	1300	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,600
Inorganics	ES	PAL																				
Chloride (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.1
Field Measurements																						
Temperature (°C)			7.20	8.40	8.40	8.50	8.40	8.60	6.30	8.40	8.10	8.20	8.40	7.50	6.30	5.60	5.60	6.40	6.20	5.90	6.20	10.24
Conductivity (ms/cm)			723	610	621	625	552	613	539	565	568	546	625	466	574	558	567	625	611	650	637	173
pH			6.87	6.73	6.77	6.69	6.82	6.85	7.04	6.91	6.79	7.01	6.75	6.85	6.90	6.90	6.90	6.80	6.80	6.80	6.90	6.37

Metals	ES	PAL	6/1/19-6/19/15 - Source Removal - B19 Replaced with B19R	9/21/15	6/11/20
Dissolved Arsenic (ug/L)	10	1		<5	<2.6
Total Arsenic (unfiltered) (ug/L)	10	1		NA	NA
Copper (ug/L)	1300	130		NA	NA
Dissolved Lead (ug/L)	15	1.5		NA	NA
Sodium (mg/L)	NS	NS		3,500	NA
Inorganics	ES	PAL			
Chloride (mg/L)	250	125	NA	NA	
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	NA	
Field Measurements					
Temperature (°C)			12.32	12.30	
Conductivity (ms/cm)			629	780	
pH			6.86	7.04	

PAL = Preventive Action Limit

ES = Enforcement Standards

BOLD	= Exceeds Enforcement Standard
<i>Italic</i>	= Exceeds Preventative Action Limit

NA - Not Analyzed

< - Concentration less than listed detection limit

**TABLE 2h - B20 GROUNDWATER ANALYTICAL RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI**

		B20																				
Metals	ES	PAL	04/03/90	06/21/90	10/28/90	02/10/91	04/21/91	08/11/91	11/29/91	02/29/92	05/03/92	07/18/92	10/31/92	02/01/93	06/10/93	09/30/93	12/15/93	02/19/94	07/15/94	09/30/94	12/12/94	07/15/95
Dissolved Arsenic (ug/L)	10	1	<1.0	<1.0	<1.0	<1.0	<i>2.60</i>	<i>4.80</i>	<1.4	<2.0	10.70	<1.0	<1.0	<i>5.50</i>	<1.0	<1.0	<i>6.80</i>	<1.0	<i>8.50</i>	<1.0	<1.0	<1.0
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (ug/L)	1300	130	3.9	7.9	6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	2.9	<2.0	<i>3.0</i>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	1.60	2.30	7.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics	ES	PAL																				
Chloride (mg/L)	250	125	NA	1.10	1.30	NA	11.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	0.10	0.20	NA	0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Measurements																						
Temperature (°C)			5.10	6.60	9.40	6.50	4.50	8.60	6.90	3.90	3.00	5.80	6.40	6.30	7.80	8.20	6.40	6.00	7.70	8.10	6.70	8.60
Conductivity (ms/cm)			624	540	580	589	706	578	474	551	588	529	509	577	625	521	529	535	601	517	522	549
pH			6.55	7.09	6.90	6.90	6.60	6.80	6.70	7.00	7.00	6.80	7.00	6.80	6.97	7.04	7.11	7.04	7.01	6.73	7.11	6.91

Metals	ES	PAL	11/15/95	08/17/96	07/04/97	08/17/98	08/06/99	08/15/00	07/22/01	07/14/02	08/02/03	09/04/04	06/30/05	06/18/06	06/09/07	07/21/08	08/15/09	06/10/10	08/07/11	10/20/12	11/02/13	6/2/15
Dissolved Arsenic (ug/L)	10	1	<i>2.50</i>	<1.0	<1.0	<1.0	<1.0	<1.0	<i>2.90</i>	<i>2.50</i>	<1.0	<i>8.40</i>	<1.0	<1.0	<1.0	<i>6.00</i>	<i>4.81</i>	<1.0	<i>3.84</i>	ND	<i>1.90</i>	<5
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (ug/L)	1300	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,600
Inorganics	ES	PAL																				
Chloride (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Measurements																						
Temperature (°C)			7.40	8.70	8.70	8.40	8.00	8.50	6.60	7.90	7.10	8.10	8.40	7.70	6.60	5.70	5.80	6.50	6.40	5.80	6.40	8.29
Conductivity (ms/cm)			565	558	582	575	507	557	531	514	527	555	580	604	541	534	526	575	568	622	621	417
pH			7.02	6.67	6.82	6.81	6.71	6.71	7.11	6.68	7.79	7.09	6.79	6.99	7.11	6.80	6.80	6.90	6.90	6.90	6.80	6.90

Metals	ES	PAL	6/1/19-6/19/15 - Source Removal	9/21/15	6/11/20
Dissolved Arsenic (ug/L)	10	1		<5	<2.6
Total Arsenic (unfiltered) (ug/L)	10	1		NA	NA
Copper (ug/L)	1300	130		NA	NA
Dissolved Lead (ug/L)	15	1.5		NA	NA
Sodium (mg/L)	NS	NS		2,600	NA
Inorganics	ES	PAL			
Chloride (mg/L)	250	125		NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1		NA	NA
Field Measurements					
Temperature (°C)				11.72	11.90
Conductivity (ms/cm)				428	590
pH				6.89	6.99

PAL = Preventive Action Limit

ES = Enforcement Standards

BOLD	= Exceeds Enforcement Standard
<i>Italic</i>	= Exceeds Preventative Action Limit

NA - Not Analyzed

< - Concentration less than listed detection limit

**TABLE 2i - B21 GROUNDWATER ANALYTICAL RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI**

		B21																				
Metals	ES	PAL	07/15/04	08/17/04	09/04/04	12/30/04	03/26/05	06/05/05	06/30/05	08/13/05	10/29/05	02/28/06	04/02/06	05/07/06	06/18/06	07/22/06	08/20/06	10/29/06	06/09/07	07/21/08	11/22/08	04/18/09
Dissolved Arsenic (ug/L)	10	1	444	279	325	160	27	71	37.8	73.7	305	129	37	38	24	70	42	85	49.3	21.0	44.2	25.2
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (ug/L)	1300	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics	ES	PAL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Measurements																						
Temperature (°C)			7.90	7.80	7.90	6.80	6.30	8.30	7.90	7.80	6.50	6.40	6.40	7.90	7.80	7.70	7.70	8.40	6.45	5.60	5.80	6.40
Conductivity (ms/cm)			597	589	594	562	603	599	594	604	595	589	601	592	599	604	607	600	589	607	595	599
pH			6.87	6.89	7.05	6.99	6.88	6.61	7.02	7.05	6.50	6.69	6.77	6.82	6.97	6.71	6.82	6.50	6.85	6.70	6.70	6.70

Metals	ES	PAL	05/25/09	06/14/09	08/15/09	03/21/10	04/18/10	06/10/10	06/20/10	07/24/10	09/04/10	10/02/10	11/20/10	05/07/11	06/26/11	08/07/11	09/24/11	10/15/11	11/20/11	01/08/12	03/24/12	05/04/12
Dissolved Arsenic (ug/L)	10	1	26.3	29.7	58.4	25.4	48.8	45.9	51.4	13.9	54.7	19.0	37.2	16.6	31.5	32.2	35.0	29.5	39.3	24.9	10.5	<i>5.7</i>
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	701.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper (ug/L)	1300	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics	ES	PAL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Measurements																						
Temperature (°C)			6.50	6.50	5.70	6.60	6.50	6.30	6.20	6.30	5.90	5.60	5.10	6.30	6.40	6.30	6.20	6.00	5.60	5.60	6.50	6.30
Conductivity (ms/cm)			602	603	594	597	603	601	591	611	599	609	598	554	575	603	606	598	604	589	544	602
pH			6.80	6.80	6.70	7.01	6.95	6.80	6.70	6.80	6.70	6.80	6.80	6.70	6.80	6.70	6.80	6.70	6.80	6.90	6.95	6.80

Metals	ES	PAL	05/04/12	07/07/12	08/11/12	10/20/12	06/02/13	06/22/13	09/07/13	11/02/13	6/2/15	6/1/19-6/19/15 - Source Removal																			
Dissolved Arsenic (ug/L)	10	1	5.7	15.0	23.0	44.0	14.0	17.0	30.0	28.0	5.2											9/21/15	10/29/16	4/8/17	4/22/17	5/30/17	6/24/17	8/28/17	10/17/17	10/28/17	3/13/18
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA											13	<i>1.4</i>	22	8.5	3.9	4.0	5.3	7.7	7.6	7.1
Copper (ug/L)	1300	130	NA	NA	NA	NA	NA	NA	NA	NA	NA											NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA											NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA	11,000											NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics	ES	PAL	NA	NA	NA	NA	NA	NA	NA	NA	NA											NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA	NA											NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA	NA											NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Measurements																															
Temperature (°C)			6.30	6.40	5.90	6.10	8.20	8.20	8.10	6.50	10.81											14.26									
Conductivity (ms/cm)			602	613	584	607	599	594	604	601	366											389									
pH			6.80	6.70	6.70	6.90	7.00	7.10	7.00	6.90	7.10											6.65									

Metals	ES	PAL	4/14/18	6/10/18	7/22/18	8/31/18	6/10/19	7/18/19	5/15/20	6/11/20
Dissolved Arsenic (ug/L)	10	1	7.8	11.0	11.9	13.0	41.4	5.0	2.8	5.2j
Total Arsenic (unfiltered) (ug/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA
Copper (ug/L)	1300	130	NA	NA	NA	NA	NA	NA	NA	NA
Dissolved Lead (ug/L)	15	1.5	NA	NA	NA	NA	NA	NA	NA	NA
Sodium (mg/L)	NS	NS	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics	ES	PAL								
Chloride (mg/L)	250	125	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate Nitrogen (NO ₃ - N) (mg/L)	10	1	NA	NA	NA	NA	NA	NA	NA	NA
Field Measurements										
Temperature (°C)								13.40	11.60	
Conductivity (ms/cm)								650	510	
pH								6.87	6.89	

PAL = Preventive Action Limit
ES = Enforcement Standards
BOLD = Exceeds Enforcement Standard
Italic = Exceeds Preventative Action Limit
NA - Not Analyzed
< - Concentration less than listed detection limit

**TABLE 2j - POTABLE WELL ANALYTICAL RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI**

		Potable Wells																						
		Burkhart/Timm																						
Metals	ES	PAL	10/28/90	11/29/91	02/29/92	05/03/92	07/18/92	10/31/92	02/01/93	06/10/93	12/29/93	02/19/94	07/15/94	12/12/94	07/15/95	11/15/95	08/17/96	08/17/98	08/06/99	08/16/00	12/26/00	07/22/01	07/14/02	11/01/05
Dissolved Arsenic (ug/L)	10	1	<1.0	<i>7.30</i>	<i>4.20</i>	<i>1.30</i>	<1.0	<i>1.00</i>	<i>4.90</i>	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<i>1.80</i>	<1.0	<1.0	<1.0	<i>2.00</i>	<i>1.50</i>	<1.0
		Burkhart/Timm																				Potable-SW**		
Metals	ES	PAL	08/02/03	09/11/04	08/20/06	06/10/07	11/22/08	11/30/09	06/10/10	10/15/11	12/01/12	11/02/13	03/04/15	03/04/15	06/11/15	06/17/15	07/14/16	07/14/16	04/29/17	05/30/17	06/10/18	06/10/19	05/15/20	06/17/15
Dissolved Arsenic (ug/L)	10	1	<1.0	4.00	<i>4.00</i>	<i>3.51</i>	<i>4.39</i>	0.74	<1.0	<i>4.19</i>	<i>9.20</i>	<i>7.40</i>	11.2j	<i>9.1j</i>	Treatment*	0.43j	<i>1.4</i>	<i>1.5</i>	<i>3.5</i>	<i>1.5</i>	<i>6.1</i>	<i>3.4</i>	<i>3.4</i>	<i>1.50</i>
		Fandrey	Norton	Resch	Seidler/Kessen								Wakefield											
Metals	ES	PAL	09/11/04	09/11/04	02/05/05	10/28/90	11/29/91	11/01/93	02/19/94	12/12/94	07/15/95	11/15/95	08/17/96	07/18/92	06/17/15	09/11/04	08/20/06	06/10/07	11/22/08	11/30/09	06/10/10	10/15/11	12/01/12	11/02/13
Dissolved Arsenic (ug/L)	10	1	<0.6	<0.6	<1.2	<1.0	<1.4	<1.0	<1.0	<i>2.40</i>	<1.0	<1.0	<i>1.20</i>	<1.0	<i>3</i>	<i>4.80</i>	<i>3.50</i>	<1.0	<i>4.42</i>	0.69	<1.0	<i>2.02</i>	<i>4.60</i>	<i>4.70</i>

j - Estimated value between method detection limit and reporting limit

PAL = Preventive Action Limit

ES = Enforcement Standards

BOLD = Exceeds Enforcement Standard

Italic = Exceeds Preventative Action Limit

NA - Not Analyzed

< - Concentration less than listed detection limit

*Treatment System installed on Timm well 6/11/15

**Sample labeled "Potable -SW-0615 by TetraTech is assumed to be Low property at W19235 Marsh Road

**TABLE 2K - WETLAND SURFACE WATER ANALYTICAL RESULTS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI**

			SW-01-0615	SW-01-0915	SW-02-0615	SW-02-0915	SW-03-0615
Metals	ES	PAL	06/02/15	09/22/15	06/02/15	09/22/15	06/02/15
Dissolved Arsenic (ug/L)	10	1	<5	<5	<5	<5	<5

J - Estimated value between method detection limit and reporting limit

PAL = Preventive Action Limit

ES = Enforcement Standards

BOLD	= Exceeds Enforcement Standard
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<i>Italic</i>	= Exceeds Preventative Action Limit
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NA - Not Analyzed

< - Concentration less than listed detection limit

**TABLE 3
WATER LEVEL ELEVATIONS
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI**

	B10	B11	B12	B13	B13R	B13a	B18	B19	B19R	B20	B21
Ground Surface Elevation	93.8	97.10	94.20	96.30	NM	96.40	96.80	96.60	NM	95.50	96.30
Top of Casing Elevation	96.53	99.66	97.54	99.98	99.28	98.08	99.18	98.31	99.44	97.56	93.48
Re-survey 6/2/15	96.64	99.77	97.64	99.01	-	98.23	99.61	98.12	-	97.70	93.67
Top of Screen Elevation	89.80	87.60	84.20	86.80	90.28	74.40	89.29	89.84	92.44	84.36	89.48
Bottom of Screen Elevation	77.80	77.60	74.20	76.80	80.28	64.70	79.29	79.84	82.44	79.36	79.48

Depth to Water (feet)

01/07/90	9.86	18.35	16.89	20.70	NI	17.10	Dry	Dry	NI	Dry	NI
04/03/90	7.81	16.99	15.53	16.59	NI	15.84	16.49	15.57	NI	15.39	NI
06/21/90	7.07	14.92	13.51	14.48	NI	13.77	14.45	13.55	NI	13.36	NI
10/28/90	7.14	15.09	13.71	14.71	NI	13.98	14.63	13.76	NI	13.53	NI
02/10/91	8.03	16.08	14.60	15.67	NI	14.92	15.74	14.71	NI	14.52	NI
04/21/91	6.63	11.80	10.44	11.37	NI	10.66	11.47	10.49	NI	10.17	NI
08/11/91	7.77	13.80	12.54	13.59	NI	12.76	13.45	12.52	NI	12.36	NI
11/29/91	7.59	13.61	12.35	13.41	NI	12.63	13.31	12.34	NI	12.17	NI
02/29/92	8.33	14.00	12.85	13.66	NI	12.95	13.70	12.69	NI	12.50	NI
05/03/92	6.81	10.84	9.67	10.52	NI	9.84	10.64	9.68	NI	9.35	NI
07/18/92	8.02	13.51	12.30	13.21	NI	12.49	13.19	12.26	NI	12.10	NI
10/31/92	7.53	13.80	12.50	13.57	NI	12.75	13.58	12.52	NI	12.34	NI
02/01/93	7.46	12.92	11.77	12.70	NI	12.05	12.67	11.85	NI	11.58	NI
06/10/93	6.33	10.43	9.19	9.99	NI	9.34	10.19	9.23	NI	8.90	NI
09/30/93	7.51	13.36	11.79	12.68	NI	12.10	12.85	11.74	NI	11.42	NI
12/15/93	7.79	13.78	12.35	13.26	NI	12.57	13.34	12.31	NI	12.01	NI
02/19/94	7.53	13.54	12.25	13.15	NI	12.45	13.09	12.15	NI	11.85	NI
07/15/94	7.64	14.17	12.92	13.90	NI	13.21	13.89	12.83	NI	12.64	NI
09/30/94	7.45	13.75	12.55	13.45	NI	12.80	13.44	12.39	NI	12.17	NI
12/12/94	7.15	14.15	12.92	13.84	NI	13.10	13.75	12.76	NI	12.55	NI
07/15/95	7.87	13.82	12.55	13.45	NI	12.76	13.41	12.50	NI	12.34	NI
09/14/95	NM	NM	13.11	14.05	NI	NM	NM		NI	NM	NI
11/15/95	7.46	12.61	11.40	12.37	NI	11.75	12.37	11.55	NI	11.21	NI
12/18/95	NM	NM	11.80	12.85	NI	12.14	NM		NI	NM	NI
08/17/96	7.34	15.89	14.50	15.55	NI	14.81	15.44	14.51	NI	14.39	NI
07/04/97	7.59	14.29	13.01	14.09	NI	13.24	13.87	13.04	NI	12.81	NI
08/17/98	7.72	13.75	12.30	13.41	NI	12.82	13.37	12.25	NI	12.15	NI
08/06/99	7.54	13.69	12.45	13.56	NI	12.74	13.33	12.28	NI	12.05	NI
08/15/00	7.92	13.94	12.85	13.72	NI	12.92	13.50	12.57	NI	12.44	NI
07/22/01	6.55	11.65	10.16	11.14	NI	10.48	11.42	10.37	NI	9.96	NI
07/14/02	7.72	12.89	11.36	12.25	NI	11.56	12.50	11.41	NI	11.12	NI
08/02/03	7.72	13.99	12.95	13.83	NI	13.28	12.79	13.49	NI	12.56	NI
07/15/04	NM	NM	11.04	11.89	NI	NM	NM	NM	NI	NM	7.58
08/17/04	NM	NM	12.51	13.48	NI	NM	NM	NM	NI	NM	8.92
09/04/04	7.99	13.95	12.86	13.84	NI	13.08	13.52	12.92	NI	12.72	9.26
12/30/04	NM	NM	13.32	14.25	NI	NM	NM	NM	NI	NM	9.64
03/26/05	NM	NM	14.10	15.36	NI	14.42	NM	NM	NI	NM	10.74
06/05/05	NM	14.28	12.00	12.94	NI	12.28	NM	13.01	NI	12.83	8.24
06/30/05	7.62	NM	13.10	14.05	NI	13.31	13.85	NM	NI	NM	9.46
08/13/05	NM	NM	NM	n	NI	NM	NM	NM	NI	NM	11.03
10/29/05	NM	NM	15.15	16.09	NI	15.51	NM	NM	NI	NM	11.34
02/28/06	NM	NM	NM	NM	NI	NM	NM	NM	NI	NM	10.96
04/02/06	NM	NM	NM	NM	NI	NM	NM	NM	NI	NM	9.00
05/07/06	NM	NM	NM	NM	NI	NM	NM	NM	NI	NM	8.65
06/18/06	8.35	13.68	12.70	13.74	NI	13.10	NM	13.01	NI	12.60	9.21
07/22/06	NM	NM	NM	15.50	NI	NM	NM	NM	NI	NM	10.61
08/20/06	NM	NM	NM	15.55	NI	NM	NM	NM	NI	NM	10.41
10/29/06	NM	NM	14.65	15.74	NI	15.10	NM	NM	NI	NM	11.01
06/09/07	6.90	14.94	13.49	14.64	NI	14.09	14.95	13.75	NI	13.32	9.85
07/21/08	7.13	12.70	11.20	12.13	NI	11.50	12.15	11.01	NI	10.85	7.48
11/22/08	NM	NM	14.65	15.42	NI	NM	NM	NM	NI	NM	10.83
04/18/09	NM	NM	14.75	15.50	NI	14.99	NM	NM	NI	NM	10.88
05/25/09	NM	NM	13.40	14.08	NI	13.65	NM	NM	NI	NM	9.60
06/14/09	NM	NM	13.34	14.15	NI	13.66	NM	NM	NI	NM	9.56
08/09/09	NM	NM	NM	16.36	NI	15.83	NM	NM	NI	NM	NM
08/15/09	7.79	NM	15.48	16.38	NI	15.75	16.85	15.94	NI	15.83	11.85
03/21/10	NM	NM	13.99	15.08	NI	14.35	NM	NM	NI	NM	10.04
04/18/10	NM	NM	13.81	14.88	NI	14.24	NM	NM	NI	NM	10.18
06/10/10	8.03	16.08	14.49	15.60	NI	15.08	15.74	14.71	NI	14.52	10.80
06/20/10	NM	NM	14.00	15.10	NI	14.57	NM	NM	NI	NM	10.24
07/24/10	NM	NM	13.27	14.48	NI	13.70	NM	NM	NI	NM	9.87
09/04/10	NM	NM	13.90	14.95	NI	14.43	NM	NM	NI	NM	10.15
10/02/10	NM	NM	12.60	13.70	NI	NM	NM	NM	NI	NM	9.57
11/20/10	NM	NM	12.82	13.79	NI	13.12	NM	NM	NI	NM	9.08
05/07/11	NM	NM	9.39	10.24	NI	9.72	NM	NM	NI	NM	6.01
05/28/11	NM	NM	10.00	10.80	NI	NM	NM	NM	NI	NM	NM
06/26/11	NM	NM	10.98	10.24	NI	11.25	NM	NM	NI	NM	8.73
08/07/11	8.14	13.69	12.21	12.96	NI	12.44	13.11	12.14	NI	11.91	9.96
09/24/11	NM	NM	13.31	14.24	NI	13.56	NM	NM	NI	NM	9.88
10/15/11	NM	NM	12.91	13.88	NI	12.99	NM	NM	NI	NM	9.20
11/20/11	NM	NM	13.08	14.07	NI	NM	NM	NM	NI	NM	9.40
01/08/12	NM	NM	13.24	14.16	NI	NM	NM	NM	NI	NM	9.71
03/24/12	NM	NM	11.88	12.72	NI	12.16	NM	NM	NI	NM	8.08
05/04/12	NM	NM	11.32	12.25	NI	NM	NM	NM	NI	NM	7.56
07/07/12	NM	NM	12.71	13.60	NI	12.89	NM	NM	NI	NM	9.00
08/11/12	NM	NM	13.85	14.75	NI	14.09	NM	NM	NI	NM	10.08
10/20/12	10.60	NM	15.50	16.58	NI	15.80	16.49	15.60	NI	15.37	11.80

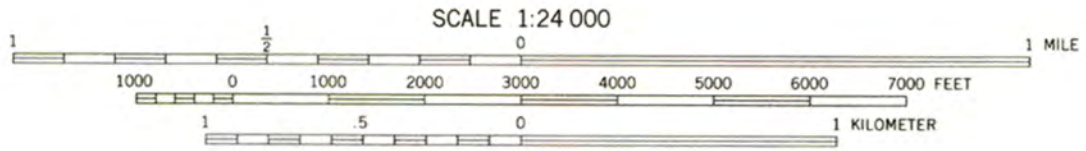
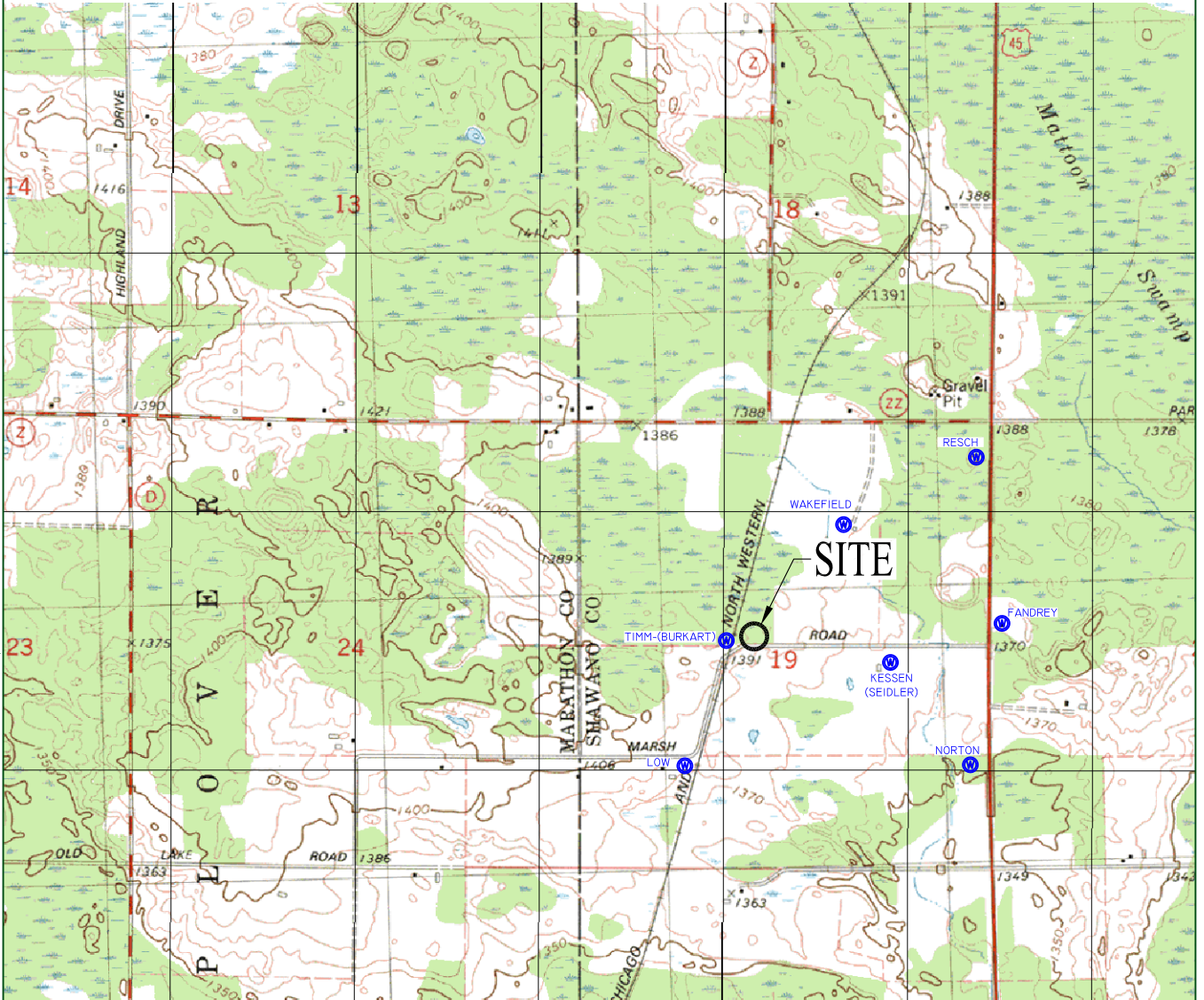
06/02/13	NM	NM	10.31	11.20	NI	10.80	NM	NM	NI	NM	7.00
06/22/13	NM	NM	NM	11.40	NI	NM	NM	NM	NI	NM	7.16
09/07/13	NM	NM	13.50	14.40	NI	NM	NM	NM	NI	NM	9.72
11/02/13	7.08	14.94	13.65	14.69	NI	14.40	14.95	13.75	NI	13.32	10.04
11/16/13	NM	NM	13.82	14.73	NI	14.43	NM	NM	NI	NM	10.64
06/06/15	6.79	11.71	10.41	11.22	NI	10.56	11.80	10.54	NI	10.05	6.99
09/22/15	7.24	14.42	13.05	Abandoned	14.32	Abandoned	Abandoned	Abandoned	14.55	12.87	9.41
07/14/16	NM	NM	10.80	Abandoned	12.01	Abandoned	Abandoned	Abandoned	NM	NM	7.32
10/10/16	NM	NM	12.08	Abandoned	13.35	Abandoned	Abandoned	Abandoned	NM	NM	NM
10/29/16	NM	NM	12.61	Abandoned	13.98	Abandoned	Abandoned	Abandoned	NM	NM	9.00
04/08/17	NM	NM	NM	Abandoned	11.18	Abandoned	Abandoned	Abandoned	NM	NM	6.54
04/22/17	NM	NM	8.64	Abandoned	9.80	Abandoned	Abandoned	Abandoned	NM	NM	5.45
04/29/17	NM	NM	8.88	Abandoned	10.06	Abandoned	Abandoned	Abandoned	NM	NM	5.56
05/30/17	NM	NM	9.40	Abandoned	10.44	Abandoned	Abandoned	Abandoned	NM	NM	6.08
06/24/17	NM	NM	NM	Abandoned	11.16	Abandoned	Abandoned	Abandoned	NM	NM	6.80
08/28/17	NM	NM	11.64	Abandoned	13.01	Abandoned	Abandoned	Abandoned	NM	NM	8.16
10/17/17	NM	NM	12.40	Abandoned	13.60	Abandoned	Abandoned	Abandoned	NM	NM	8.80
10/28/17	NM	NM	12.56	Abandoned	13.78	Abandoned	Abandoned	Abandoned	NM	NM	8.99
03/13/18	NM	NM	12.16	Abandoned	14.32	Abandoned	Abandoned	Abandoned	NM	NM	9.50
04/14/18	NM	NM	10.16	Abandoned	11.40	Abandoned	Abandoned	Abandoned	NM	NM	6.56
06/10/18	NM	NM	NM	Abandoned	12.24	Abandoned	Abandoned	Abandoned	NM	NM	7.64
07/22/18	NM	NM	11.10	Abandoned	12.30	Abandoned	Abandoned	Abandoned	NM	NM	7.60
08/31/18	NM	NM	12.54	Abandoned	13.29	Abandoned	Abandoned	Abandoned	NM	NM	9.16
06/10/19	7.26	11.66	11.05	Abandoned	12.25	Abandoned	Abandoned	Abandoned	12.51	10.25	7.50
07/18/19	NM	NM	11.30	Abandoned	12.51	Abandoned	Abandoned	Abandoned	NM	NM	7.74
05/15/20	NM	NM	10.24	Abandoned	11.24	Abandoned	Abandoned	Abandoned	NM	NM	6.50
06/11/20	6.40	10.56	9.32	Abandoned	10.48	Abandoned	Abandoned	Abandoned	10.57	9.16	6.00

Groundwater Elevation (feet)	B10	B11	B12	B13	B13R	B13a	B18	B19	B19R	B20	B21
01/07/90	86.67	81.31	80.65	79.28	NI	80.98	Dry	Dry	NI	Dry	NI
04/03/90	88.72	82.67	82.01	83.39	NI	82.24	82.69	82.74	NI	82.17	NI
06/21/90	89.46	84.74	84.03	85.50	NI	84.31	84.73	84.76	NI	84.20	NI
10/28/90	89.39	84.57	83.83	85.27	NI	84.10	84.55	84.55	NI	84.03	NI
02/10/91	88.50	83.58	82.94	84.31	NI	83.16	83.44	83.60	NI	83.04	NI
04/21/91	89.90	87.86	87.10	88.61	NI	87.42	87.71	87.82	NI	87.39	NI
08/11/91	88.76	85.86	85.00	86.39	NI	85.32	85.73	85.79	NI	85.20	NI
11/29/91	88.94	86.05	85.19	86.57	NI	85.45	85.87	85.97	NI	85.39	NI
02/29/92	88.20	85.66	84.69	86.32	NI	85.13	85.48	85.62	NI	85.06	NI
05/03/92	89.72	88.82	87.87	89.46	NI	88.24	88.54	88.63	NI	88.21	NI
07/18/92	88.51	86.15	85.24	86.77	NI	85.59	85.99	86.05	NI	85.46	NI
10/31/92	89.00	85.86	85.04	86.41	NI	85.33	85.60	85.79	NI	85.22	NI
02/01/93	89.07	86.74	85.77	87.28	NI	86.03	86.51	86.46	NI	85.98	NI
06/10/93	90.20	89.23	88.35	89.99	NI	88.74	88.99	89.08	NI	88.66	NI
09/30/93	89.02	86.30	85.75	87.30	NI	85.98	86.33	86.57	NI	86.14	NI
12/15/93	88.74	85.88	85.19	86.72	NI	85.51	85.84	86.00	NI	85.55	NI
02/19/94	89.00	86.12	85.29	86.83	NI	85.63	86.09	86.16	NI	85.71	NI
07/15/94	88.89	85.49	84.62	86.08	NI	84.87	85.29	85.48	NI	84.92	NI
09/30/94	89.08	85.91	84.99	86.53	NI	85.28	85.74	85.92	NI	85.39	NI
12/12/94	89.38	85.51	84.62	86.14	NI	84.98	85.43	85.55	NI	85.01	NI
07/15/95	88.66	85.84	84.99	86.53	NI	85.32	85.77	85.81	NI	85.22	NI
09/14/95	NM	NM	84.43	85.93	NI	NM	NM	98.31	NI	NM	NI
11/15/95	89.07	87.05	86.14	87.61	NI	86.33	86.81	86.76	NI	86.35	NI
12/18/95	NM	NM	85.74	87.13	NI	85.94	NM	98.31	NI	NM	NI
08/17/96	89.19	83.77	83.04	84.43	NI	83.27	83.74	83.80	NI	83.17	NI
07/04/97	88.94	85.37	84.53	85.89	NI	84.84	85.31	85.27	NI	84.75	NI
08/17/98	88.81	85.91	85.24	86.57	NI	85.26	85.81	86.06	NI	85.41	NI
08/06/99	88.99	85.97	85.09	86.42	NI	85.34	85.85	86.03	NI	85.51	NI
08/15/00	88.61	85.72	84.69	86.26	NI	85.16	85.68	85.74	NI	85.12	NI
07/22/01	89.98	88.01	87.38	88.84	NI	87.60	87.76	87.94	NI	87.60	NI
07/14/02	88.81	86.77	86.18	87.73	NI	86.52	86.68	86.90	NI	86.44	NI
08/02/03	88.81	85.67	84.59	86.15	NI	84.80	86.39	84.82	NI	85.00	NI
07/15/04	NM	NM	86.50	88.09	NI	NM	NM	NM	NI	NM	85.90
08/17/04	NM	NM	85.03	86.50	NI	NM	NM	NM	NI	NM	84.56
09/04/04	88.54	85.71	84.68	86.14	NI	85.00	85.66	85.39	NI	84.84	84.22
12/30/04	NM	NM	84.22	85.73	NI	NM	NM	NM	NI	NM	83.84
03/26/05	NM	NM	83.44	84.62	NI	83.66	NM	NM	NI	NM	82.74
06/05/05	NM	85.38	85.54	87.04	NI	85.80	NM	85.30	NI	84.73	85.24
06/30/05	88.91	NM	84.44	85.93	NI	84.77	85.33	NM	NI	NM	84.02
08/13/05	NM	NM	NM	NM	NI	NM	NM	NM	NI	NM	82.45
10/29/05	NM	NM	82.39	83.89	NI	82.57	NM	NM	NI	NM	82.14
02/28/06	NM	NM	NM	NM	NI	NM	NM	NM	NI	NM	82.52
04/02/06	NM	NM	NM	NM	NI	NM	NM	NM	NI	NM	84.48
05/07/06	NM	NM	NM	NM	NI	NM	NM	NM	NI	NM	84.83
06/18/06	88.18	85.98	84.84	86.24	NI	84.98	NM	85.30	NI	84.96	84.27
07/22/06	NM	NM	NM	84.48	NI	NM	NM	NM	NI	NM	82.87
08/20/06	NM	NM	NM	84.43	NI	NM	NM	NM	NI	NM	83.07
10/29/06	NM	NM	82.89	84.24	NI	82.98	NM	NM	NI	NM	82.47
06/09/07	89.63	84.72	84.05	85.34	NI	83.99	84.23	84.56	NI	84.24	83.63
07/21/08	89.40	86.96	86.34	87.85	NI	86.58	87.03	87.30	NI	86.71	86.00
11/22/08	NM	NM	82.89	84.56	NI	NM	NM	NM	NI	NM	82.65
04/18/09	NM	NM	82.79	84.48	NI	83.09	NM	NM	NI	NM	82.60
05/25/09	NM	NM	84.14	85.90	NI	84.43	NM	NM	NI	NM	83.88
06/14/09	NM	NM	84.20	85.83	NI	84.42	NM	NM	NI	NM	83.92
08/09/09	NM	NM	NM	83.62	NI	82.25	NM	NM	NI	NM	NM
08/15/09	88.74	NM	82.06	83.60	NI	82.33	82.33	82.37	NI	81.73	81.63
03/21/10	NM	NM	83.55	84.90	NI	83.73	NM	NM	NI	NM	83.44
04/18/10	NM	NM	83.73	85.10	NI	83.84	NM	NM	NI	NM	83.30
06/10/10	88.50	83.58	83.05	84.38	NI	83.00	83.44	83.60	NI	83.04	82.68
06/20/10	NM	NM	83.54	84.88	NI	83.51	NM	NM	NI	NM	83.24
07/24/10	NM	NM	84.27	85.50	NI	84.38	NM	NM	NI	NM	83.61
09/04/10	NM	NM	83.64	85.03	NI	83.65	NM	NM	NI	NM	83.33

Groundwater Elevation (feet)	B10	B11	B12	B13	B13R	B13a	B18	B19	B19R	B20	B21
10/02/10	NM	NM	84.94	86.28	NI	NM	NM	NM	NI	NM	83.91
11/20/10	NM	NM	84.72	86.19	NI	84.96	NM	NM	NI	NM	84.40
05/07/11	NM	NM	88.15	89.74	NI	88.36	NM	NM	NI	NM	87.47
05/28/11	NM	NM	87.54	89.18	NI	NM	NM	NM	NI	NM	NM
06/26/11	NM	NM	86.56	89.74	NI	86.83	NM	NM	NI	NM	84.75
08/07/11	88.39	85.97	85.33	87.02	NI	85.64	86.07	86.17	NI	85.65	83.52
09/24/11	NM	NM	84.23	85.74	NI	84.52	NM	NM	NI	NM	83.60
10/15/11	NM	NM	84.63	86.10	NI	85.09	NM	NM	NI	NM	84.28
11/20/11	NM	NM	84.46	85.91	NI	NM	NM	NM	NI	NM	84.08
01/08/12	NM	NM	84.30	85.82	NI	NM	NM	NM	NI	NM	83.77
03/24/12	NM	NM	85.66	87.26	NI	85.92	NM	NM	NI	NM	85.40
05/04/12	NM	NM	86.22	87.73	NI	NM	NM	NM	NI	NM	85.92
07/07/12	NM	NM	84.83	86.38	NI	85.19	NM	NM	NI	NM	84.48
08/11/12	NM	NM	83.69	85.23	NI	83.99	NM	NM	NI	NM	83.40
10/20/12	85.93	NM	82.04	83.40	NI	82.28	82.69	82.71	NI	82.19	81.68
06/02/13	NM	NM	87.23	88.78	NI	87.28	NM	NM	NI	NM	86.48
06/22/13	NM	NM	NM	88.58	NI	NM	NM	NM	NI	NM	86.32
09/07/13	NM	NM	84.04	85.58	NI	NM	NM	NM	NI	NM	83.76
11/02/13	89.45	84.72	83.89	85.29	NI	83.68	84.23	84.56	NI	84.24	83.44
11/16/13	NM	NM	83.72	85.25	NI	83.65	NM	NM	NI	NM	82.84
06/06/15	89.85	88.06	87.23	87.79	NI	87.67	87.81	87.58	NI	87.65	86.68
09/22/15	89.40	85.35	84.59	Abandoned	84.96	Abandoned	NM	Abandoned	84.89	84.83	84.26
07/14/16	NM	NM	86.84	Abandoned	87.27	Abandoned	NM	Abandoned	NM	NM	86.35
10/10/16	NM	NM	85.56	Abandoned	85.93	Abandoned	NM	Abandoned	NM	NM	NM
10/29/16	NM	NM	85.03	Abandoned	85.30	Abandoned	NM	Abandoned	NM	NM	84.67
04/08/17	NM	NM	NM	Abandoned	88.10	Abandoned	NM	Abandoned	NM	NM	87.13
04/22/17	NM	NM	89.00	Abandoned	89.48	Abandoned	NM	Abandoned	NM	NM	88.22
04/29/17	NM	NM	88.76	Abandoned	89.22	Abandoned	NM	Abandoned	NM	NM	88.11
05/30/17	NM	NM	88.24	Abandoned	88.84	Abandoned	NM	Abandoned	NM	NM	87.59
06/24/17	NM	NM	NM	Abandoned	88.12	Abandoned	NM	Abandoned	NM	NM	86.87
08/28/17	NM	NM	86.00	Abandoned	86.27	Abandoned	NM	Abandoned	NM	NM	85.51
10/17/17	NM	NM	85.24	Abandoned	85.68	Abandoned	NM	Abandoned	NM	NM	84.87
10/28/17	NM	NM	85.08	Abandoned	85.50	Abandoned	NM	Abandoned	NM	NM	84.68
03/13/18	NM	NM	85.48	Abandoned	84.96	Abandoned	NM	Abandoned	NM	NM	84.17
04/14/18	NM	NM	87.48	Abandoned	87.88	Abandoned	NM	Abandoned	NM	NM	87.11
06/10/18	NM	NM	NM	Abandoned	87.04	Abandoned	NM	Abandoned	NM	NM	86.03
07/22/18	NM	NM	86.54	Abandoned	86.98	Abandoned	NM	Abandoned	NM	NM	86.07
08/31/18	NM	NM	85.10	Abandoned	85.99	Abandoned	NM	Abandoned	NM	NM	84.51
06/10/19	89.38	88.11	86.59	Abandoned	87.03	Abandoned	NM	Abandoned	86.93	87.45	86.17
07/18/19	NM	NM	86.34	Abandoned	86.77	Abandoned	NM	Abandoned	NM	NM	85.93
05/15/20	NM	NM	87.40	Abandoned	88.04	Abandoned	NM	Abandoned	NM	NM	87.17
06/11/20	90.24	89.21	88.32	Abandoned	88.80	Abandoned	NM	Abandoned	88.87	88.54	87.67

NI - Not Installed
 NM - Not Measured

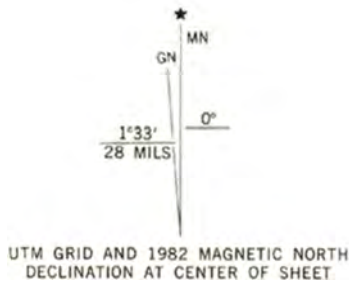
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CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



Ⓢ PRIVATE WELL



BIRNAMWOOD, WIS.
NW/4 WITTENBERG 15' QUADRANGLE
N4452.5-W8907.5/7.5

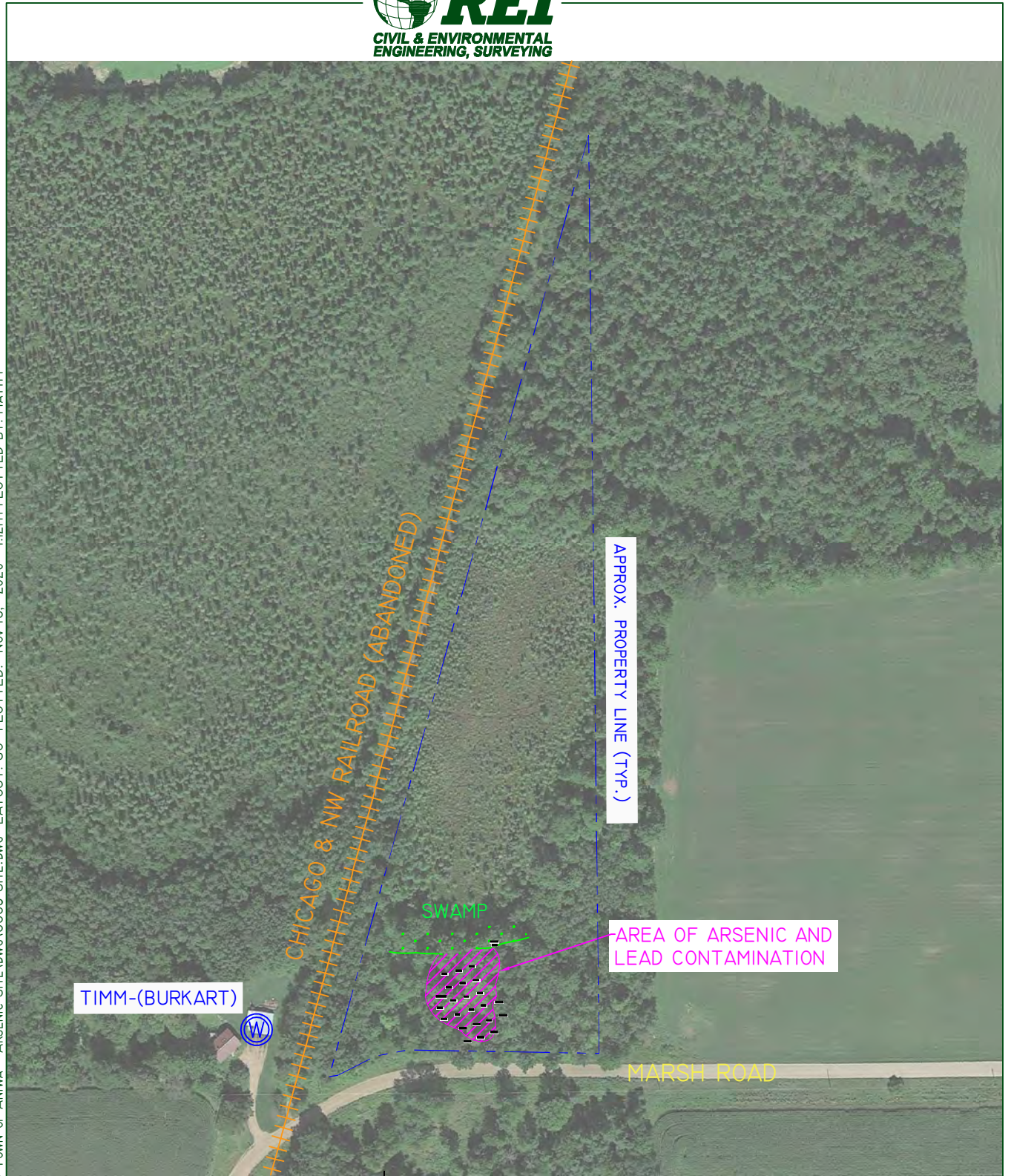
1982
REI Engineering, INC.

TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI

FIGURE 1 : LOCATION MAP


PROJECT NO.	6663	DRAWN BY:	CJK	DATE:	11/12/2020
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DRAWING FILE: P:\6600-6699\6663-TOWN OF ANIWA - ARSENIC SITE\DWG\6663-SITE.DWG LAYOUT: SO PLOTTED: Nov 16, 2020 - 1:12PM PLOTTED BY: MATTM



LEGEND

0 200
SCALE: 1" = 200'

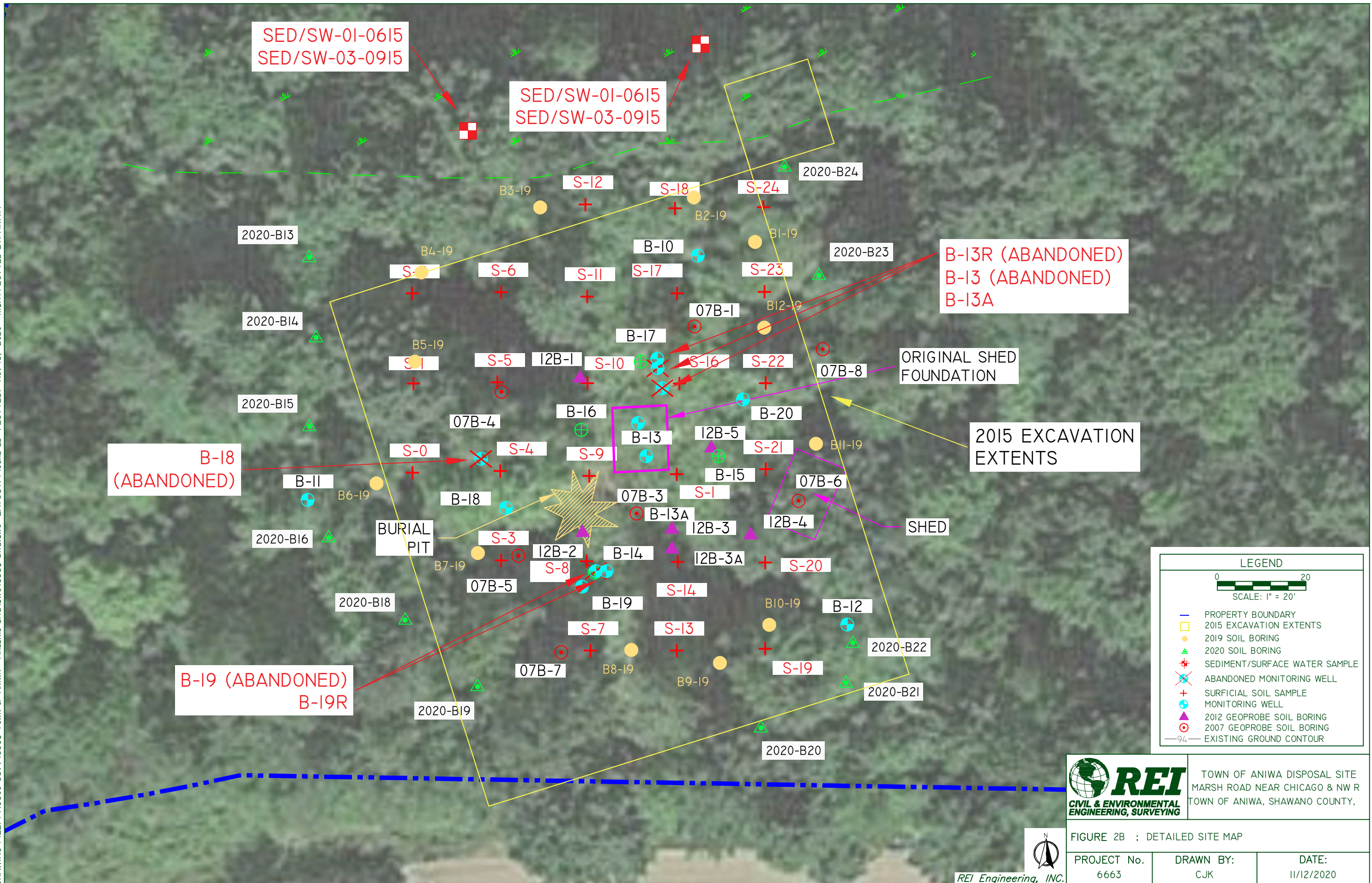
 PRIVATE WELL

REI Engineering, INC.

TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW RAILROAD
TOWN OF ANIWA, SHAWANO COUNTY, WI

FIGURE 2A : SITE MAP OVERVIEW		
PROJECT NO.	DRAWN BY:	DATE:
6663	CJK	11/13/2020

DRAWING FILE: P:\6600-6699\6663-TOWN OF ANIWA - ARSENIC SITE\DWG\6663-SITE.DWG LAYOUT: FIGURE 2b PLOTTED: Nov 16, 2020 - 1:13PM PLOTTED BY: MATTM



B-18 (ABANDONED)

B-19 (ABANDONED)
B-19R

SED/SW-01-0615
SED/SW-03-0915

SED/SW-01-0615
SED/SW-03-0915

B-13R (ABANDONED)
B-13 (ABANDONED)
B-13A

ORIGINAL SHED FOUNDATION

2015 EXCAVATION EXTENTS

SHED

LEGEND

0 20
SCALE: 1" = 20'

- PROPERTY BOUNDARY
- 2015 EXCAVATION EXTENTS
- 2019 SOIL BORING
- ▲ 2020 SOIL BORING
- ⊕ SEDIMENT/SURFACE WATER SAMPLE
- ⊗ ABANDONED MONITORING WELL
- ⊕ SURFICIAL SOIL SAMPLE
- ⊕ MONITORING WELL
- ▲ 2012 GEOPROBE SOIL BORING
- ⊕ 2007 GEOPROBE SOIL BORING
- 94— EXISTING GROUND CONTOUR



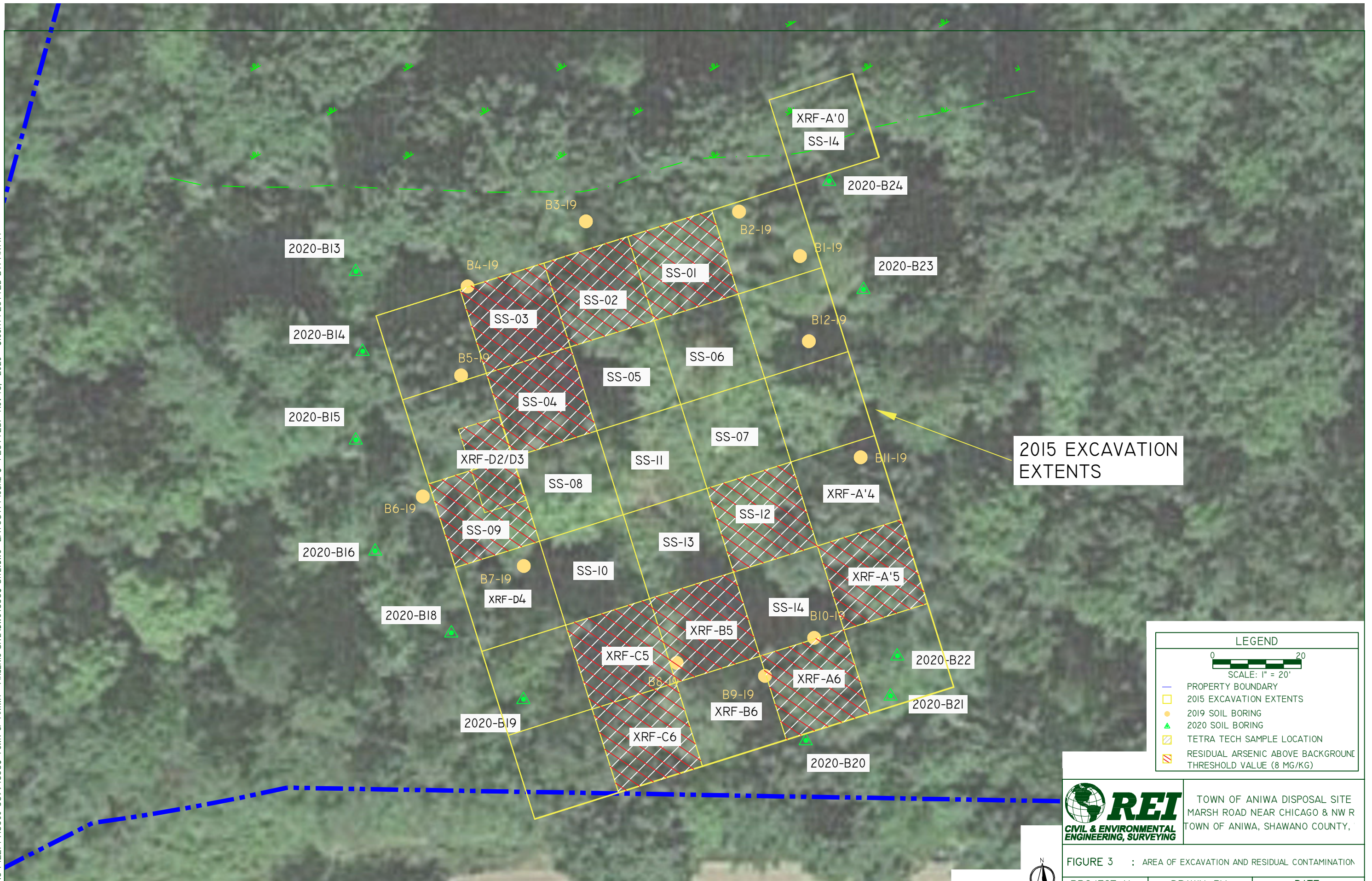
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW R
TOWN OF ANIWA, SHAWANO COUNTY,

FIGURE 2B : DETAILED SITE MAP

PROJECT No. 6663	DRAWN BY: CJK	DATE: 11/12/2020
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REI Engineering, INC.

DRAWING FILE: P:\6600-6699\6663-TOWN OF ANIWA - ARSENIC SITE\DWG\6663-SITE.DWG LAYOUT: FIGURE 3 PLOTTED: Nov 16, 2020 - 3:00PM PLOTTED BY: MATTM



2015 EXCAVATION EXTENTS

LEGEND

0 20
SCALE: 1" = 20'

- PROPERTY BOUNDARY
- 2015 EXCAVATION EXTENTS
- 2019 SOIL BORING
- ▲ 2020 SOIL BORING
- ▨ TETRA TECH SAMPLE LOCATION
- ▩ RESIDUAL ARSENIC ABOVE BACKGROUND THRESHOLD VALUE (8 MG/KG)



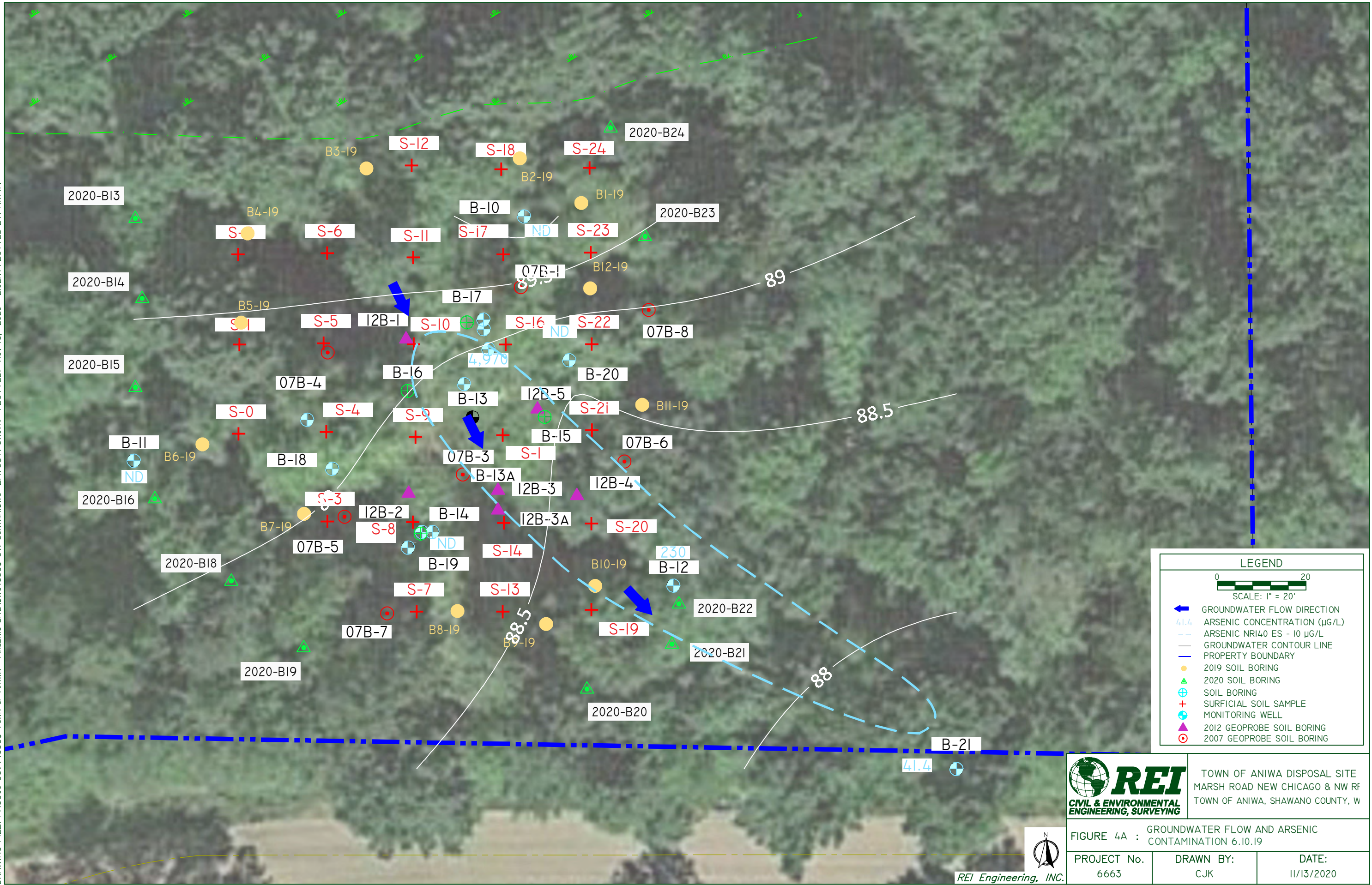
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEAR CHICAGO & NW R
TOWN OF ANIWA, SHAWANO COUNTY, WI

FIGURE 3 : AREA OF EXCAVATION AND RESIDUAL CONTAMINATION

PROJECT No. 6663	DRAWN BY: CJK	DATE: 11/13/2020
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REI Engineering, INC.

DRAWING FILE: P:\6600-6699\6663-TOWN OF ANIWA - ARSENIC SITE\DWG\6663-GW-CONTAM.DWG LAYOUT: 6.10.19 PLOTTED: Nov 16, 2020 - 2:02PM PLOTTED BY: MATTM



LEGEND

0 20
SCALE: 1" = 20'

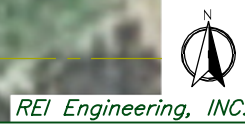
- GROUNDWATER FLOW DIRECTION
- 41.4 ARSENIC CONCENTRATION (µG/L)
- 49.7 ARSENIC NRI40 ES - 10 µG/L
- GROUNDWATER CONTOUR LINE
- PROPERTY BOUNDARY
- 2019 SOIL BORING
- 2020 SOIL BORING
- SOIL BORING
- SURFICIAL SOIL SAMPLE
- MONITORING WELL
- 2012 GEOPROBE SOIL BORING
- 2007 GEOPROBE SOIL BORING



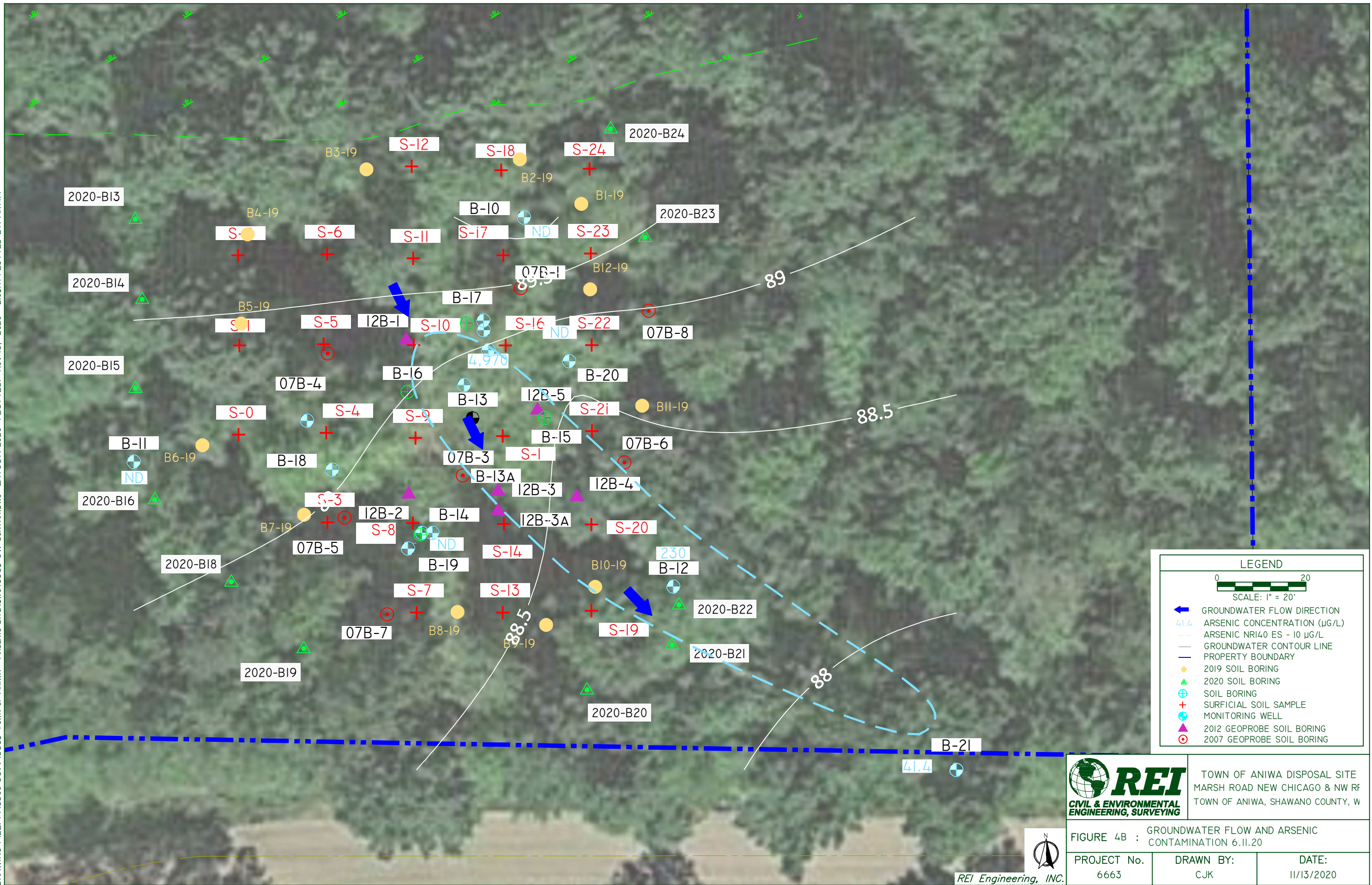
TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEW CHICAGO & NW RF
TOWN OF ANIWA, SHAWANO COUNTY, W

FIGURE 4A : GROUNDWATER FLOW AND ARSENIC CONTAMINATION 6.10.19

PROJECT No. 6663	DRAWN BY: CJK	DATE: 11/13/2020
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DRAWING FILE: P:\6600-6699\6663-TOWN OF ANIWA - ARSENIC SITE\DWG\6663-GW-CONTAM.DWG LAYOUT: 2020 PLOTTED: Nov 16, 2020 - 2:03PM PLOTTED BY: MATTM



LEGEND

0 20
SCALE: 1" = 20'

- ← GROUNDWATER FLOW DIRECTION
- 41.4 ARSENIC CONCENTRATION (µG/L)
- ARSENIC NRI40 ES - 10 µG/L
- GROUNDWATER CONTOUR LINE
- - - PROPERTY BOUNDARY
- 2019 SOIL BORING
- ▲ 2020 SOIL BORING
- ⊕ SOIL BORING
- ⊕ SURFICIAL SOIL SAMPLE
- ⊕ MONITORING WELL
- ▲ 2012 GEOPROBE SOIL BORING
- ⊕ 2007 GEOPROBE SOIL BORING



TOWN OF ANIWA DISPOSAL SITE
MARSH ROAD NEW CHICAGO & NW RF
TOWN OF ANIWA, SHAWANO COUNTY, W

FIGURE 4B : GROUNDWATER FLOW AND ARSENIC CONTAMINATION 6.II.20

PROJECT No. 6663	DRAWN BY: CJK	DATE: 11/13/2020
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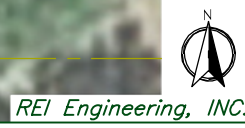


Figure 5a - Arsenic Concentration vs. Groundwater Elevation and Time at B12

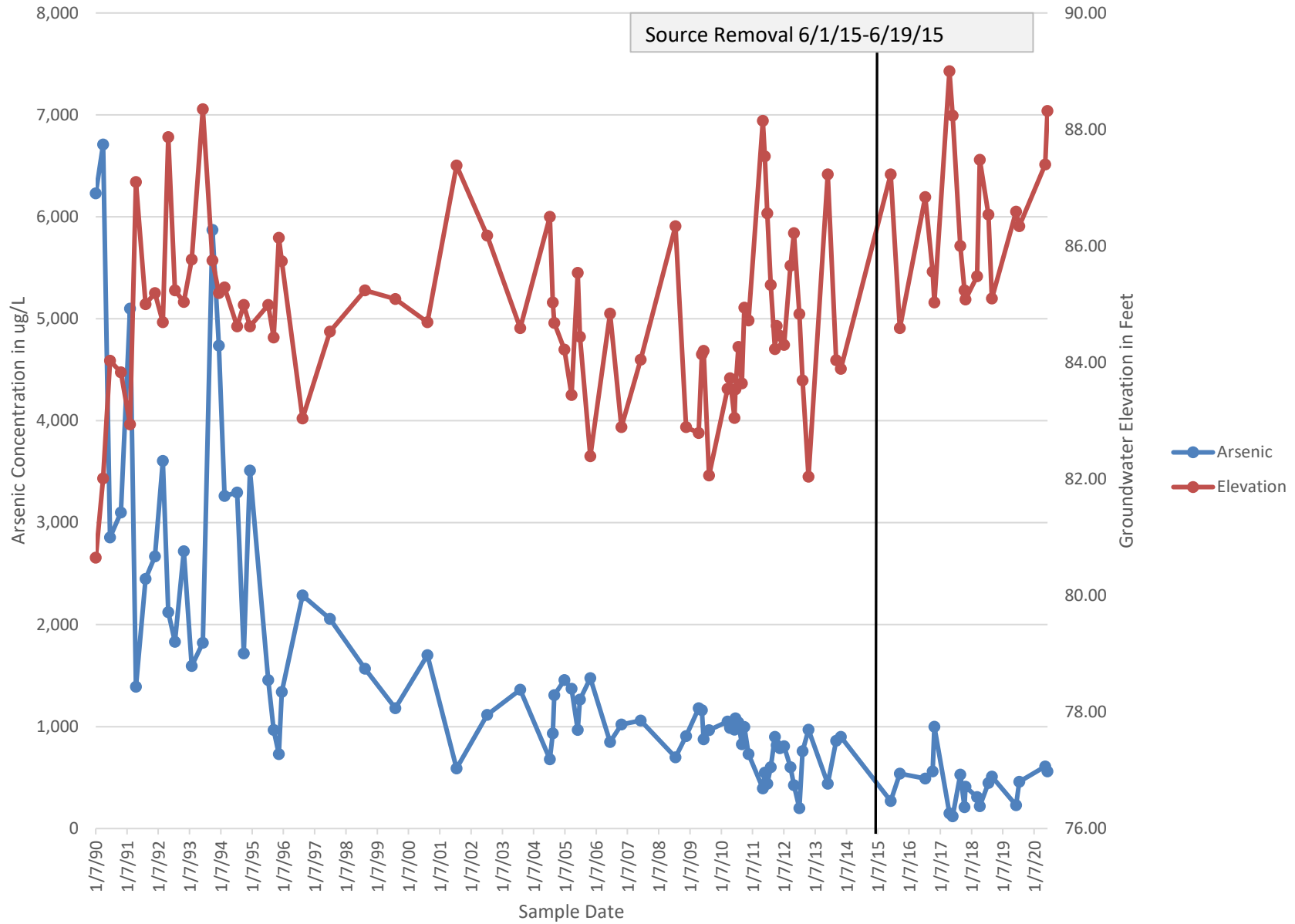


Figure 5b - Arsenic Concentration vs. Groundwater Elevation and Time at B13

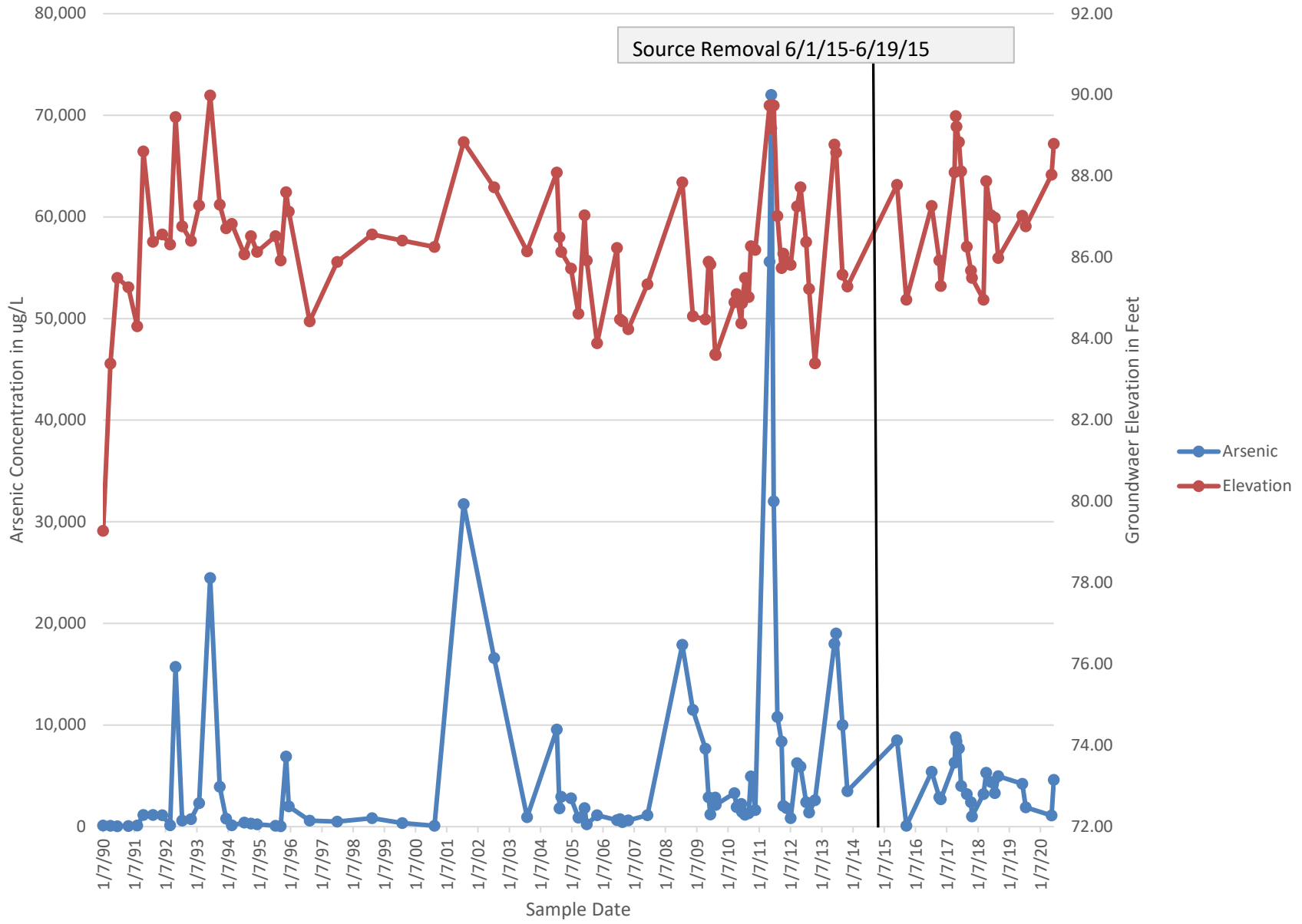
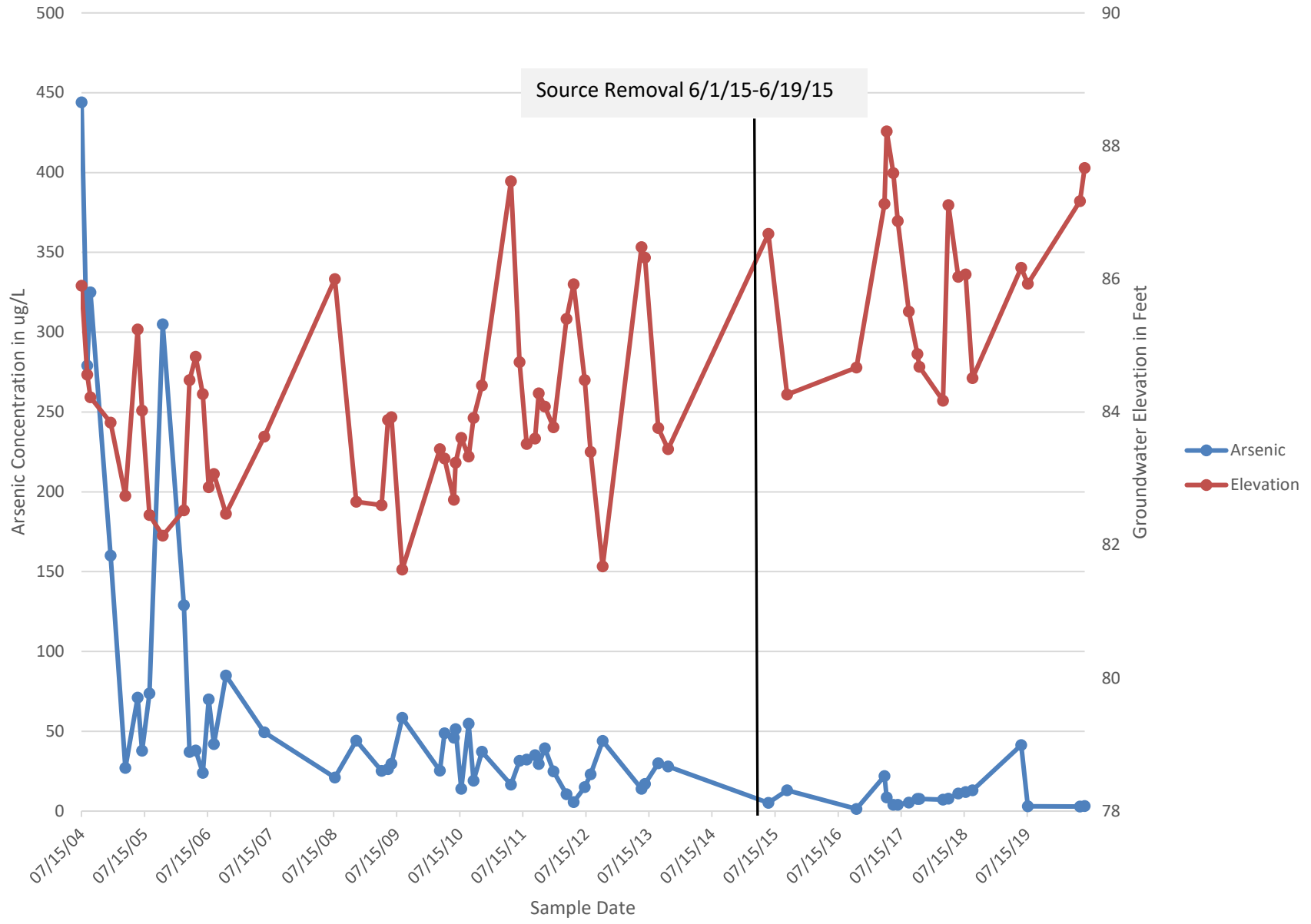


Figure 5c - Arsenic Concentration vs. Groundwater Elevation and Time at B21



APPENDIX A

GROUNDWATER ANALYTICAL REPORTS



NORTHERN LAKE SERVICE, INC.
 Analytical Laboratory and Environmental Services
 400 North Lake Avenue - Crandon, WI 54520
 Ph: (715)-478-2777 Fax: (715)-478-3060

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460
 WDATCP Laboratory Certification No. 105-330
 EPA Laboratory ID No. WI00034

Printed: 07/09/20 Page 1 of 3

Client: Township of Aniwa
 Attn: Warren Hohn
 1201 Lake St
 Merrill, WI 54452

NLS Project: 347298

NLS Customer: 104168

Fax: 715 536 1277 Phone: 715 551 9080

Project: Aniwa Arsenic DWP

B-12 NLS ID: 1196111

COC: 243344:1 Matrix: GW
 Collected: 05/15/20 11:09 Received: 06/30/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	670	ug/L	1	2.6	8.6	07/05/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					07/04/20	EPA 200.8, Rev 5.4	721026460

B-13r NLS ID: 1196112

COC: 243344:2 Matrix: GW
 Collected: 05/15/20 11:45 Received: 06/30/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	1900	ug/L	1	2.6	8.6	07/05/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					07/04/20	EPA 200.8, Rev 5.4	721026460

B-13r dupl NLS ID: 1196113

COC: 243344:3 Matrix: GW
 Collected: 05/15/20 11:50 Received: 06/30/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	1900	ug/L	1	2.6	8.6	07/05/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					07/04/20	EPA 200.8, Rev 5.4	721026460

B-21 NLS ID: 1196114

COC: 243344:4 Matrix: GW
 Collected: 05/15/20 11:00 Received: 06/30/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	[2.8]	ug/L	1	2.6	8.6	07/05/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					07/04/20	EPA 200.8, Rev 5.4	721026460

Timm Well NLS ID: 1196115

COC: 243344:5 Matrix: GW
 Collected: 05/15/20 10:45 Received: 06/30/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	[3.4]	ug/L	1	2.6	8.6	07/05/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					07/04/20	EPA 200.8, Rev 5.4	721026460

B-10 NLS ID: 1196116

COC: 243344:6 Matrix: GW
 Collected: 06/11/20 14:15 Received: 06/30/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	ND	ug/L	1	2.6	8.6	07/05/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					07/04/20	EPA 200.8, Rev 5.4	721026460

B-11 NLS ID: 1196117

COC: 243344:7 Matrix: GW
 Collected: 06/11/20 14:30 Received: 06/30/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	ND	ug/L	1	2.6	8.6	07/05/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					07/04/20	EPA 200.8, Rev 5.4	721026460

NORTHERN LAKE SERVICE, INC.
 Analytical Laboratory and Environmental Services
 400 North Lake Avenue - Crandon, WI 54520
 Ph: (715)-478-2777 Fax: (715)-478-3060

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460
 WDATCP Laboratory Certification No. 105-330
 EPA Laboratory ID No. WI00034

Printed: 07/09/20 Page 2 of 3

Client: Township of Aniwa
 Attn: Warren Hohn
 1201 Lake St
 Merrill, WI 54452

NLS Project: 347298

NLS Customer: 104168

Fax: 715 536 1277 Phone: 715 551 9080

Project: Aniwa Arsenic DWP

B-12 NLS ID: 1196118

COC: 243344:8 Matrix: GW
 Collected: 06/11/20 15:45 Received: 06/30/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	560	ug/L	1	2.6	8.6	07/05/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					07/04/20	EPA 200.8, Rev 5.4	721026460

B-13R NLS ID: 1196119

COC: 243344:9 Matrix: GW
 Collected: 06/11/20 17:05 Received: 06/30/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	1100	ug/L	1	2.6	8.6	07/05/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					07/04/20	EPA 200.8, Rev 5.4	721026460

B-13 dupl NLS ID: 1196120

COC: 243344:10 Matrix: GW
 Collected: 06/11/20 17:20 Received: 06/30/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	1200	ug/L	1	2.6	8.6	07/05/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					07/04/20	EPA 200.8, Rev 5.4	721026460

B-19 NLS ID: 1196121

COC: 243345:1 Matrix: GW
 Collected: 06/11/20 15:05 Received: 06/30/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	ND	ug/L	1	2.6	8.6	07/05/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					07/04/20	EPA 200.8, Rev 5.4	721026460

B-20 NLS ID: 1196122

COC: 243345:2 Matrix: GW
 Collected: 06/11/20 15:20 Received: 06/30/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	ND	ug/L	1	2.6	8.6	07/05/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					07/04/20	EPA 200.8, Rev 5.4	721026460

B-21 NLS ID: 1196123

COC: 243345:3 Matrix: GW
 Collected: 06/11/20 16:00 Received: 06/30/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	[5.2]	ug/L	1	2.6	8.6	07/05/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					07/04/20	EPA 200.8, Rev 5.4	721026460

Blank NLS ID: 1196124

COC: 243345:4 Matrix: GW
 Collected: 06/11/20 18:00 Received: 06/30/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	ND	ug/L	1	2.6	8.6	07/05/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					07/04/20	EPA 200.8, Rev 5.4	721026460

NORTHERN LAKE SERVICE, INC.
Analytical Laboratory and Environmental Services
400 North Lake Avenue - Crandon, WI 54520
Ph: (715)-478-2777 Fax: (715)-478-3060

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460
WDATCP Laboratory Certification No. 105-330
EPA Laboratory ID No. WI00034

Printed: 07/09/20 Page 3 of 3

NLS Project: 347298

NLS Customer: 104168

Fax: 715 536 1277 Phone: 715 551 9080

Client: Township of Aniwa
Attn: Warren Hohn
1201 Lake St
Merrill, WI 54452

Project: Aniwa Arsenic DWP

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution and/or solids content.

ND = Not Detected (< LOD) LOD = Limit of Detection LOQ = Limit of Quantitation NA = Not Applicable

DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000 1000 ug/L = 1 mg/L

MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.

Reviewed by:



Authorized by:
R. T. Krueger
President

NORTHERN LAKE SERVICE, INC.
 Analytical Laboratory and Environmental Services
 400 North Lake Avenue - Crandon, WI 54520
 Ph: (715)-478-2777 Fax: (715)-478-3060

ANALYTICAL REPORT

WDNR Laboratory ID No. 721026460
 WDATCP Laboratory Certification No. 105-330
 EPA Laboratory ID No. WI00034

Printed: 08/12/20 Page 1 of 1

Client: Township of Aniwa
 Attn: Warren Hohn
 1201 Lake St
 Merrill, WI 54452

NLS Project: 349121

NLS Customer: 104168

Fax: 715 536 1277 **Phone:** 715 551 9080

Project: Arsenic Dump

B-13R NLS ID: 1201796

COC: 242634:1 Matrix: GW

Collected: 07/06/20 10:10 Received: 07/24/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	4900	ug/L	1	2.6	8.6	08/11/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					08/08/20	EPA 200.8, Rev 5.4	721026460

B-13R Dup 1 NLS ID: 1201797

COC: 242634:2 Matrix: GW

Collected: 07/06/20 10:30 Received: 07/24/20

Parameter	Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
Arsenic, dis. as As by ICP-MS	4600	ug/L	1	2.6	8.6	08/11/20	EPA 200.8, Rev 5.4	721026460
Metals digestion - dissolved ICP-MS	yes					08/08/20	EPA 200.8, Rev 5.4	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution and/or solids content.

ND = Not Detected (< LOD) LOD = Limit of Detection LOQ = Limit of Quantitation NA = Not Applicable

DWB = Dry Weight Basis %DWB = (mg/kg DWB) / 10000 1000 ug/L = 1 mg/L

MCL = Maximum Contaminant Levels for Drinking Water Samples. Shaded results indicate >MCL.

Reviewed by:



Authorized by:
 R. T. Krueger
 President

SAMPLE COLLECTION AND CHAIN OF CUSTODY RECORD

NORTHERN LAKE SERVICE, INC.

Analytical Laboratory and Environmental Services

400 North Lake Avenue • Crandon, WI 54520-1298

Tel: (715) 478-2777 • Fax: (715) 478-3060

CLIENT Town of Aniwa (C/O Tammy Resch)	
ADDRESS PO Box 52 / N10485 Cherry Rd.	
CITY Bitnamwood, WI	STATE WI
ZIP 54414	PHONE 715-449-
PROJECT DESCRIPTION / NO. Arsenic Dump	QUOTATION NO. 2351
DNR PID #	DNR LICENSE #
CONTACT Warren Hohn	PHONE 715-551-9080
PURCHASE ORDER NO.	FAX

Wisconsin DNR cert ID
721026460 (Cran) / 268533760 (Wauk)
Wisconsin DATCP ID
105-000330 (Cran) / 105-000479 (Wauk)

MATRIX:
SW = surface water
WW = waste water
GW = groundwater
DW = drinking water
TIS = tissue
AIR = air
SOIL = soil
SED = sediment
PROD = product
SL = sludge
OTHER

USE BOXES BELOW: Indicate Y or N if GW Sample is field filtered.

Indicate G or C if WW Sample is Grab or Composite.

ANALYZE PER ORDER OF ANALYSIS

Diss Arsenic
Diss. Arsenic



NO. 242634

ITEM NO.	NLS LAB. NO.	SAMPLE ID	COLLECTION		MATRIX (See above)	ANALYZE PER ORDER OF ANALYSIS	COLLECTION REMARKS (i.e. DNR Well ID #)
			DATE	TIME			
1	1201794	B-13R	7-6-20	10:10AM	GW	Grab	
2	7911	B-13 Dupl	7-6-20	10:30AM	GW	Grab	
3							
4							
5							
6							
7							
8							
9							
10							

COLLECTED BY (signature) Warren A. Hohn	CUSTODY SEAL NO. (IF ANY)	DATE/TIME 7/23/20 12:00
RELINQUISHED BY (signature) Warren A. Hohn	RECEIVED BY (signature)	DATE/TIME 7/23/20 2:00 PM
DISPATCHED BY (signature)	METHOD OF TRANSPORT	DATE/TIME

REPORT TO
**Warren Hohn
W-H Soil Testing
1201 Lake St
Memill, WI 54452**

RECEIVED AT NLS BY (signature) Ally Rose	DATE/TIME 7/24/20 9	CONDITION OK	TEMP.
COOLER #	REMARKS & OTHER INFORMATION Preserved w/ HNO3		
PRESERVATIVE: NP = no preservative S = sulfuric acid	N = nitric acid Z = zinc acetate M = methanol	OH = sodium hydroxide HA = hydrochloric & ascorbic acid H = hydrochloric acid	WDNR FACILITY NUMBER E-MAIL ADDRESS warrenhohn491@gmail.com

INVOICE TO
**Town of Aniwa
PO Box 52
Bitnamwood, WI
54414**

1. TO MEET REGULATORY REQUIREMENTS, THIS FORM **MUST** BE COMPLETED IN DETAIL AND INCLUDED IN THE COOLER CONTAINING THE SAMPLES DESCRIBED.
2. PLEASE USE ONE LINE PER SAMPLE, **NOT** PER BOTTLE.
3. RETURN THIS FORM WITH SAMPLES - CLIENT MAY KEEP YELLOW COPY.
4. PARTIES COLLECTING SAMPLE, LISTED AS **REPORT TO** AND LISTED AS **INVOICE TO** AGREE TO STANDARD TERMS & CONDITIONS ON REVERSE.

IMPORTANT:

July 30, 2019

Warren Hohn
Township of Aniwa
1205 Lake Street
Merrill, WI 54452

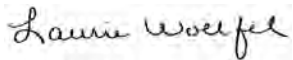
RE: Project: ANIWA ARSENIC DUMP
Pace Project No.: 40191380

Dear Warren Hohn:

Enclosed are the analytical results for sample(s) received by the laboratory on July 17, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel
laurie.woelfel@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: ANIWA ARSENIC DUMP

Pace Project No.: 40191380

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268

Illinois Certification #: 200074

Indiana Certification #: C-49-06

Kansas/NELAP Certification #: E-10177

Kentucky UST Certification #: 80226

Kentucky WW Certification #: 98019

Michigan Department of Environmental Quality, Laboratory
#9050

Ohio VAP Certification #: CL0065

Oklahoma Certification #: 2018-101

Texas Certification #: T104704355

West Virginia Certification #: 330

Wisconsin Certification #: 999788130

USDA Soil Permit #: P330-16-00257

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: ANIWA ARSENIC DUMP

Pace Project No.: 40191380

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40191380001	B-10-19	Water	06/10/19 08:30	07/17/19 09:18
40191380002	B-11-19	Water	06/10/19 09:20	07/17/19 09:18
40191380003	B-12-19	Water	06/10/19 09:50	07/17/19 09:18
40191380004	B-13R-19	Water	06/10/19 10:14	07/17/19 09:18
40191380005	B-19R-19	Water	06/10/19 09:00	07/17/19 09:18
40191380006	B-13R-DUP1-19	Water	06/10/19 10:20	07/17/19 09:18
40191380007	B-20-19	Water	06/10/19 08:40	07/17/19 09:18
40191380008	B-21-19	Water	06/10/19 09:35	07/17/19 09:18
40191380009	B-12-19 (2)	Water	07/08/19 09:30	07/17/19 09:18
40191380010	B-13R-19 (2)	Water	07/08/19 10:00	07/17/19 09:18
40191380011	B-21-19 (2)	Water	07/08/19 09:00	07/17/19 09:18
40191380012	BLANK	Water	06/10/19 11:00	07/17/19 09:18
40191380013	TIMM WELL	Water	06/10/19 11:45	07/17/19 09:18

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ANIWA ARSENIC DUMP
Pace Project No.: 40191380

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40191380001	B-10-19	EPA 6020	DS1	2	PASI-G
40191380002	B-11-19	EPA 6020	DS1	2	PASI-G
40191380003	B-12-19	EPA 6020	DS1	2	PASI-G
40191380004	B-13R-19	EPA 6020	DS1	2	PASI-G
40191380005	B-19R-19	EPA 6020	DS1	2	PASI-G
40191380006	B-13R-DUP1-19	EPA 6020	DS1	2	PASI-G
40191380007	B-20-19	EPA 6020	DS1	2	PASI-G
40191380008	B-21-19	EPA 6020	DS1	2	PASI-G
40191380009	B-12-19 (2)	EPA 6020	DS1	1	PASI-G
40191380010	B-13R-19 (2)	EPA 6020	DS1	1	PASI-G
40191380011	B-21-19 (2)	EPA 6020	DS1	1	PASI-G
40191380012	BLANK	EPA 6020	DS1	2	PASI-G
40191380013	TIMM WELL	EPA 200.8	CAW	2	PASI-I

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ANIWA ARSENIC DUMP

Pace Project No.: 40191380

Sample: B-10-19 **Lab ID: 40191380001** Collected: 06/10/19 08:30 Received: 07/17/19 09:18 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS, Dissolved		Analytical Method: EPA 6020 Preparation Method: EPA 3010							
Arsenic, Dissolved	1.1	ug/L	1.0	0.28	1	07/22/19 08:37	07/27/19 07:29	7440-38-2	
Lead, Dissolved	<0.24	ug/L	1.0	0.24	1	07/22/19 08:37	07/27/19 07:29	7439-92-1	

Sample: B-11-19 **Lab ID: 40191380002** Collected: 06/10/19 09:20 Received: 07/17/19 09:18 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS, Dissolved		Analytical Method: EPA 6020 Preparation Method: EPA 3010							
Arsenic, Dissolved	0.28J	ug/L	1.0	0.28	1	07/22/19 08:37	07/27/19 07:50	7440-38-2	
Lead, Dissolved	1.4	ug/L	1.0	0.24	1	07/22/19 08:37	07/27/19 07:50	7439-92-1	

Sample: B-12-19 **Lab ID: 40191380003** Collected: 06/10/19 09:50 Received: 07/17/19 09:18 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS, Dissolved		Analytical Method: EPA 6020 Preparation Method: EPA 3010							
Arsenic, Dissolved	230	ug/L	1.0	0.28	1	07/22/19 08:37	07/27/19 07:57	7440-38-2	
Lead, Dissolved	1.2	ug/L	1.0	0.24	1	07/22/19 08:37	07/27/19 07:57	7439-92-1	

Sample: B-13R-19 **Lab ID: 40191380004** Collected: 06/10/19 10:14 Received: 07/17/19 09:18 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS, Dissolved		Analytical Method: EPA 6020 Preparation Method: EPA 3010							
Arsenic, Dissolved	4970	ug/L	1.0	0.28	1	07/22/19 08:37	07/27/19 08:03	7440-38-2	
Lead, Dissolved	0.27J	ug/L	1.0	0.24	1	07/22/19 08:37	07/27/19 08:03	7439-92-1	

Sample: B-19R-19 **Lab ID: 40191380005** Collected: 06/10/19 09:00 Received: 07/17/19 09:18 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS, Dissolved		Analytical Method: EPA 6020 Preparation Method: EPA 3010							
Arsenic, Dissolved	2.0	ug/L	1.0	0.28	1	07/22/19 08:37	07/27/19 08:10	7440-38-2	
Lead, Dissolved	0.31J	ug/L	1.0	0.24	1	07/22/19 08:37	07/27/19 08:10	7439-92-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ANIWA ARSENIC DUMP
Pace Project No.: 40191380

Sample: B-13R-DUP1-19									
Lab ID: 40191380006									
Collected: 06/10/19 10:20 Received: 07/17/19 09:18 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS, Dissolved									
Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Arsenic, Dissolved	4850	ug/L	1.0	0.28	1	07/22/19 08:37	07/27/19 08:17	7440-38-2	
Lead, Dissolved	<0.24	ug/L	1.0	0.24	1	07/22/19 08:37	07/27/19 08:17	7439-92-1	

Sample: B-20-19									
Lab ID: 40191380007									
Collected: 06/10/19 08:40 Received: 07/17/19 09:18 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS, Dissolved									
Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Arsenic, Dissolved	1.3	ug/L	1.0	0.28	1	07/22/19 08:37	07/27/19 08:24	7440-38-2	
Lead, Dissolved	<0.24	ug/L	1.0	0.24	1	07/22/19 08:37	07/27/19 08:24	7439-92-1	

Sample: B-21-19									
Lab ID: 40191380008									
Collected: 06/10/19 09:35 Received: 07/17/19 09:18 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS, Dissolved									
Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Arsenic, Dissolved	41.4	ug/L	1.0	0.28	1	07/22/19 08:37	07/27/19 08:31	7440-38-2	
Lead, Dissolved	11.7	ug/L	1.0	0.24	1	07/22/19 08:37	07/27/19 08:31	7439-92-1	

Sample: B-12-19 (2)									
Lab ID: 40191380009									
Collected: 07/08/19 09:30 Received: 07/17/19 09:18 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS, Dissolved									
Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Arsenic, Dissolved	460	ug/L	1.0	0.28	1	07/22/19 08:37	07/27/19 08:37	7440-38-2	

Sample: B-13R-19 (2)									
Lab ID: 40191380010									
Collected: 07/08/19 10:00 Received: 07/17/19 09:18 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS, Dissolved									
Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Arsenic, Dissolved	4230	ug/L	1.0	0.28	1	07/22/19 08:37	07/27/19 08:44	7440-38-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ANIWA ARSENIC DUMP
Pace Project No.: 40191380

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Sample: B-21-19 (2) Lab ID: 40191380011 Collected: 07/08/19 09:00 Received: 07/17/19 09:18 Matrix: Water									
Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Arsenic, Dissolved	5.0	ug/L	1.0	0.28	1	07/22/19 08:37	07/27/19 08:51	7440-38-2	
Sample: BLANK Lab ID: 40191380012 Collected: 06/10/19 11:00 Received: 07/17/19 09:18 Matrix: Water									
Analytical Method: EPA 6020 Preparation Method: EPA 3010									
Arsenic, Dissolved	<0.28	ug/L	1.0	0.28	1	07/22/19 08:37	07/27/19 09:11	7440-38-2	
Lead, Dissolved	<0.24	ug/L	1.0	0.24	1	07/22/19 08:37	07/27/19 09:11	7439-92-1	
Sample: TIMM WELL Lab ID: 40191380013 Collected: 06/10/19 11:45 Received: 07/17/19 09:18 Matrix: Water									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8									
Arsenic	3.4	ug/L	0.52	0.16	1	07/24/19 09:07	07/25/19 00:38	7440-38-2	N2
Lead	1.3	ug/L	0.36	0.11	1	07/24/19 09:07	07/25/19 00:38	7439-92-1	N2

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ANIWA ARSENIC DUMP
Pace Project No.: 40191380

QC Batch: 512255 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET
Associated Lab Samples: 40191380013

METHOD BLANK: 2363464 Matrix: Water
Associated Lab Samples: 40191380013

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	<0.16	0.52	07/24/19 22:46	N2
Lead	ug/L	<0.11	0.36	07/24/19 22:46	N2

LABORATORY CONTROL SAMPLE: 2363465

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	40	39.7	99	85-115	N2
Lead	ug/L	40	39.4	99	85-115	N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2363466 2363467

Parameter	Units	40191449001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	1.2	40	40	42.4	42.6	103	104	70-130	1	20	N2
Lead	ug/L	0.16J	40	40	40.7	41.0	101	102	70-130	1	20	N2

MATRIX SPIKE SAMPLE: 2364369

Parameter	Units	40191529005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	1.1	40	42.8	104	70-130	N2
Lead	ug/L	0.21J	40	40.8	102	70-130	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: ANIWA ARSENIC DUMP
Pace Project No.: 40191380

QC Batch: 328195 Analysis Method: EPA 6020
QC Batch Method: EPA 3010 Analysis Description: 6020 MET Dissolved
Associated Lab Samples: 40191380001, 40191380002, 40191380003, 40191380004, 40191380005, 40191380006, 40191380007, 40191380008, 40191380009, 40191380010, 40191380011, 40191380012

METHOD BLANK: 1905829 Matrix: Water
Associated Lab Samples: 40191380001, 40191380002, 40191380003, 40191380004, 40191380005, 40191380006, 40191380007, 40191380008, 40191380009, 40191380010, 40191380011, 40191380012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	<0.28	1.0	07/27/19 06:28	
Lead, Dissolved	ug/L	<0.24	1.0	07/27/19 06:28	

LABORATORY CONTROL SAMPLE: 1905830

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	500	487	97	80-120	
Lead, Dissolved	ug/L	500	479	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1905831 1905832

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40191402001 Result	Spike Conc.	Spike Conc.	MS Result								
Arsenic, Dissolved	ug/L	<0.28	500	500	483	493	97	99	75-125	2	20		
Lead, Dissolved	ug/L	<0.24	500	500	477	486	95	97	75-125	2	20		

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QUALIFIERS

Project: ANIWA ARSENIC DUMP
Pace Project No.: 40191380

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above LOD.
J - Estimated concentration at or above the LOD and below the LOQ.
LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.
LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay
PASI-I Pace Analytical Services - Indianapolis

SAMPLE QUALIFIERS

Sample: 40191380013
[1] 200.8 DW reported as Dissolved As/Pb 200.8. MED 7/23/19

ANALYTE QUALIFIERS

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ANIWA ARSENIC DUMP
Pace Project No.: 40191380


Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40191380013	TIMM WELL	EPA 200.8	512255	EPA 200.8	512789
40191380001	B-10-19	EPA 3010	328195	EPA 6020	328309
40191380002	B-11-19	EPA 3010	328195	EPA 6020	328309
40191380003	B-12-19	EPA 3010	328195	EPA 6020	328309
40191380004	B-13R-19	EPA 3010	328195	EPA 6020	328309
40191380005	B-19R-19	EPA 3010	328195	EPA 6020	328309
40191380006	B-13R-DUP1-19	EPA 3010	328195	EPA 6020	328309
40191380007	B-20-19	EPA 3010	328195	EPA 6020	328309
40191380008	B-21-19	EPA 3010	328195	EPA 6020	328309
40191380009	B-12-19 (2)	EPA 3010	328195	EPA 6020	328309
40191380010	B-13R-19 (2)	EPA 3010	328195	EPA 6020	328309
40191380011	B-21-19 (2)	EPA 3010	328195	EPA 6020	328309
40191380012	BLANK	EPA 3010	328195	EPA 6020	328309

REPORT OF LABORATORY ANALYSIS

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 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: Town of Aniwa Project #:
WO# : 40191380

40191380

Courier: CS Logistics Fed Ex Speedee UPS Walto
 Client Pace Other: _____

Tracking #: 110362861688

Custody Seal on Cooler/Box Present: yes no **Seals intact:** yes no
Custody Seal on Samples Present: yes no **Seals intact:** yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used: SR-24 **Type of Ice:** Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 5 / ICorr: 5

Temp Blank Present: yes no **Biological Tissue is Frozen:** yes no

Person examining contents:
 Date: 7/2/19
 Initials: CS

Temp should be above freezing to 6°C.
 Biota Samples may be received at ≤ 0°C.

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>page left</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. <u>no time</u>
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4. <u>CS/1/1/19</u>
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. <u>CS/1/1/19</u>
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8. <u>all bottles half full</u>
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		<u>CS/1/1/19</u>
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests <u>CS/1/1/19</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>009 to 011 no "(2)" matched by time</u>
-Includes date/time/ID/Analysis Matrix: <u>W</u>		<u>CS/1/1/19</u>
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: _____ If checked, see attached form for additional comments

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Uw Date: 7/2/19

APPENDIX B

SOIL ANALYTICAL REPORTS



SAMPLE SUMMARY

Project: ARSENIC DUMP
Pace Project No.: 40212233

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40212233001	B-13 10:00 AM	Solid	06/11/20 10:00	08/04/20 09:50
40212233002	B-14 10:15 AM	Solid	06/11/20 10:15	08/04/20 09:50
40212233003	B-15 10:35 AM	Solid	06/11/20 10:35	08/04/20 09:50
40212233004	B-16 11:00 AM	Solid	06/11/20 11:00	08/04/20 09:50
40212233005	B-18 11:20 AM	Solid	06/11/20 11:20	08/04/20 09:50
40212233006	B-19 11:36 AM	Solid	06/11/20 11:36	08/04/20 09:50
40212233007	B-20 12:05 PM	Solid	06/11/20 12:05	08/04/20 09:50
40212233008	B-21 1:00 PM	Solid	06/11/20 13:00	08/04/20 09:50
40212233009	B-22 1:30 PM	Solid	06/11/20 13:30	08/04/20 09:50
40212233010	B-23 2:05 PM	Solid	06/11/20 14:05	08/04/20 09:50
40212233011	B-24 2:15 PM	Solid	06/11/20 14:15	08/04/20 09:50

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ARSENIC DUMP
Pace Project No.: 40212233

Sample: B-13 10:00 AM **Lab ID: 40212233001** Collected: 06/11/20 10:00 Received: 08/04/20 09:50 Matrix: Solid
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	2.6J	mg/kg	5.8	1.7	1	08/11/20 06:34	08/11/20 17:43	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	19.5	%	0.10	0.10	1		08/14/20 16:17		

Sample: B-14 10:15 AM **Lab ID: 40212233002** Collected: 06/11/20 10:15 Received: 08/04/20 09:50 Matrix: Solid
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	4.9J	mg/kg	5.9	1.8	1	08/11/20 06:34	08/11/20 17:45	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	20.1	%	0.10	0.10	1		08/14/20 16:17		

Sample: B-15 10:35 AM **Lab ID: 40212233003** Collected: 06/11/20 10:35 Received: 08/04/20 09:50 Matrix: Solid
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	<1.7	mg/kg	5.6	1.7	1	08/11/20 06:34	08/11/20 17:48	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	18.8	%	0.10	0.10	1		08/14/20 16:17		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ARSENIC DUMP
Pace Project No.: 40212233

Sample: B-16 11:00 AM **Lab ID: 40212233004** Collected: 06/11/20 11:00 Received: 08/04/20 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	3.8J	mg/kg	5.6	1.7	1	08/11/20 06:34	08/11/20 17:50	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	16.4	%	0.10	0.10	1		08/14/20 16:17		

Sample: B-18 11:20 AM **Lab ID: 40212233005** Collected: 06/11/20 11:20 Received: 08/04/20 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	2.2J	mg/kg	5.8	1.7	1	08/11/20 06:34	08/11/20 17:53	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	17.4	%	0.10	0.10	1		08/14/20 16:17		

Sample: B-19 11:36 AM **Lab ID: 40212233006** Collected: 06/11/20 11:36 Received: 08/04/20 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	<1.7	mg/kg	5.8	1.7	1	08/11/20 06:34	08/11/20 17:55	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	16.8	%	0.10	0.10	1		08/14/20 16:17		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ARSENIC DUMP
Pace Project No.: 40212233

Sample: B-20 12:05 PM **Lab ID: 40212233007** Collected: 06/11/20 12:05 Received: 08/04/20 09:50 Matrix: Solid
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	2.3J	mg/kg	6.4	1.9	1	08/11/20 06:34	08/11/20 17:57	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	28.8	%	0.10	0.10	1		08/14/20 16:17		

Sample: B-21 1:00 PM **Lab ID: 40212233008** Collected: 06/11/20 13:00 Received: 08/04/20 09:50 Matrix: Solid
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	<1.7	mg/kg	5.7	1.7	1	08/11/20 06:34	08/11/20 18:00	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	17.7	%	0.10	0.10	1		08/14/20 16:17		

Sample: B-22 1:30 PM **Lab ID: 40212233009** Collected: 06/11/20 13:30 Received: 08/04/20 09:50 Matrix: Solid
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	4.4J	mg/kg	5.7	1.7	1	08/11/20 06:34	08/11/20 18:02	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	20.2	%	0.10	0.10	1		08/14/20 16:17		

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ANALYTICAL RESULTS

Project: ARSENIC DUMP
Pace Project No.: 40212233

Sample: B-23 2:05 PM **Lab ID: 40212233010** Collected: 06/11/20 14:05 Received: 08/04/20 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	<1.7	mg/kg	5.8	1.7	1	08/11/20 06:34	08/11/20 18:05	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	20.8	%	0.10	0.10	1		08/14/20 16:17		

Sample: B-24 2:15 PM **Lab ID: 40212233011** Collected: 06/11/20 14:15 Received: 08/04/20 09:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Arsenic	<1.7	mg/kg	5.5	1.7	1	08/11/20 06:34	08/11/20 18:12	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	19.0	%	0.10	0.10	1		08/14/20 16:17		

REPORT OF LABORATORY ANALYSIS

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July 30, 2019

Warren Hohn
Township of Aniwa
1205 Lake Street
Merrill, WI 54452

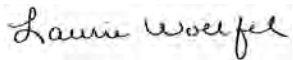
RE: Project: ANIWA ARSENIC DUMP
Pace Project No.: 40191381

Dear Warren Hohn:

Enclosed are the analytical results for sample(s) received by the laboratory on July 17, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Laurie Woelfel
laurie.woelfel@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: ANIWA ARSENIC DUMP

Pace Project No.: 40191381

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: ANIWA ARSENIC DUMP

Pace Project No.: 40191381

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40191381001	B-1-19	Solid	06/18/19 09:30	07/17/19 09:15
40191381002	B-2-19	Solid	06/18/19 09:05	07/17/19 09:15
40191381003	B-3-19	Solid	06/18/19 08:45	07/17/19 09:15
40191381004	B-4-19	Solid	06/18/19 09:50	07/17/19 09:15
40191381005	B-5-19	Solid	06/18/19 10:10	07/17/19 09:15
40191381006	B-6-19	Solid	06/18/19 10:05	07/17/19 09:15
40191381007	B-7-19	Solid	06/18/19 10:40	07/17/19 09:15
40191381008	B-8-19	Solid	06/18/19 11:05	07/17/19 09:15
40191381009	B-9-19	Solid	06/18/19 11:20	07/17/19 09:15
40191381010	B-10-19	Solid	06/18/19 12:04	07/17/19 09:15
40191381011	B-11-19	Solid	06/18/19 12:20	07/17/19 09:15
40191381012	B-12-19	Solid	06/18/19 12:45	07/17/19 09:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ANIWA ARSENIC DUMP

Pace Project No.: 40191381

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40191381001	B-1-19	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	JEV	1	PASI-G
40191381002	B-2-19	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	JEV	1	PASI-G
40191381003	B-3-19	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	JEV	1	PASI-G
40191381004	B-4-19	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	JEV	1	PASI-G
40191381005	B-5-19	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	JEV	1	PASI-G
40191381006	B-6-19	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	JEV	1	PASI-G
40191381007	B-7-19	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	JEV	1	PASI-G
40191381008	B-8-19	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	JEV	1	PASI-G
40191381009	B-9-19	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	JEV	1	PASI-G
40191381010	B-10-19	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	JEV	1	PASI-G
40191381011	B-11-19	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	JEV	1	PASI-G
40191381012	B-12-19	EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	JEV	1	PASI-G

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ANIWA ARSENIC DUMP
Pace Project No.: 40191381

Sample: B-1-19 **Lab ID: 40191381001** Collected: 06/18/19 09:30 Received: 07/17/19 09:15 Matrix: Solid
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	12.2	mg/kg	6.3	1.3	1	07/22/19 09:12	07/25/19 17:33	7440-38-2	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	21.4	%	0.10	0.10	1		07/17/19 18:03		

Sample: B-2-19 **Lab ID: 40191381002** Collected: 06/18/19 09:05 Received: 07/17/19 09:15 Matrix: Solid
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	<1.4	mg/kg	6.7	1.4	1	07/22/19 09:12	07/25/19 17:40	7440-38-2	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	29.9	%	0.10	0.10	1		07/17/19 18:03		

Sample: B-3-19 **Lab ID: 40191381003** Collected: 06/18/19 08:45 Received: 07/17/19 09:15 Matrix: Solid
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	1.6J	mg/kg	6.5	1.4	1	07/22/19 09:12	07/25/19 17:43	7440-38-2	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	26.5	%	0.10	0.10	1		07/17/19 18:04		

Sample: B-4-19 **Lab ID: 40191381004** Collected: 06/18/19 09:50 Received: 07/17/19 09:15 Matrix: Solid
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	38.1	mg/kg	6.3	1.3	1	07/22/19 09:12	07/25/19 17:45	7440-38-2	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	21.0	%	0.10	0.10	1		07/17/19 18:04		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ANIWA ARSENIC DUMP
Pace Project No.: 40191381

Sample: B-5-19 **Lab ID: 40191381005** Collected: 06/18/19 10:10 Received: 07/17/19 09:15 Matrix: Solid
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	1.2J	mg/kg	5.9	1.2	1	07/22/19 09:12	07/25/19 17:48	7440-38-2	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	20.7	%	0.10	0.10	1		07/17/19 18:04		

Sample: B-6-19 **Lab ID: 40191381006** Collected: 06/18/19 10:05 Received: 07/17/19 09:15 Matrix: Solid
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	27.5	mg/kg	6.2	1.3	1	07/22/19 09:12	07/25/19 17:50	7440-38-2	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	22.8	%	0.10	0.10	1		07/17/19 18:04		

Sample: B-7-19 **Lab ID: 40191381007** Collected: 06/18/19 10:40 Received: 07/17/19 09:15 Matrix: Solid
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	31.6	mg/kg	6.5	1.4	1	07/22/19 09:12	07/25/19 17:52	7440-38-2	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	25.0	%	0.10	0.10	1		07/17/19 18:04		

Sample: B-8-19 **Lab ID: 40191381008** Collected: 06/18/19 11:05 Received: 07/17/19 09:15 Matrix: Solid
Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	<1.2	mg/kg	5.9	1.2	1	07/22/19 09:12	07/25/19 17:55	7440-38-2	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	22.2	%	0.10	0.10	1		07/17/19 18:04		

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ANALYTICAL RESULTS

Project: ANIWA ARSENIC DUMP
Pace Project No.: 40191381

Sample: B-9-19 **Lab ID: 40191381009** Collected: 06/18/19 11:20 Received: 07/17/19 09:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	30.6	mg/kg	6.9	1.4	1	07/22/19 09:12	07/25/19 18:02	7440-38-2	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	27.5	%	0.10	0.10	1		07/17/19 18:04		

Sample: B-10-19 **Lab ID: 40191381010** Collected: 06/18/19 12:04 Received: 07/17/19 09:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	2.3J	mg/kg	5.7	1.2	1	07/22/19 09:12	07/25/19 18:05	7440-38-2	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	17.6	%	0.10	0.10	1		07/17/19 18:05		

Sample: B-11-19 **Lab ID: 40191381011** Collected: 06/18/19 12:20 Received: 07/17/19 09:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	2.5J	mg/kg	6.4	1.3	1	07/22/19 09:12	07/25/19 18:07	7440-38-2	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	26.1	%	0.10	0.10	1		07/17/19 18:05		

Sample: B-12-19 **Lab ID: 40191381012** Collected: 06/18/19 12:45 Received: 07/17/19 09:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Arsenic	1.9J	mg/kg	6.3	1.3	1	07/22/19 09:12	07/25/19 18:10	7440-38-2	
Percent Moisture Analytical Method: ASTM D2974-87									
Percent Moisture	25.5	%	0.10	0.10	1		07/17/19 18:05		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ANIWA ARSENIC DUMP
Pace Project No.: 40191381

QC Batch: 327937 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 40191381001, 40191381002, 40191381003, 40191381004, 40191381005, 40191381006, 40191381007, 40191381008, 40191381009, 40191381010, 40191381011, 40191381012

METHOD BLANK: 1903938 Matrix: Solid
Associated Lab Samples: 40191381001, 40191381002, 40191381003, 40191381004, 40191381005, 40191381006, 40191381007, 40191381008, 40191381009, 40191381010, 40191381011, 40191381012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<1.0	5.0	07/25/19 17:23	

LABORATORY CONTROL SAMPLE: 1903939

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	47.8	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1903940 1903941

Parameter	Units	40191381001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	12.2	63.5	63.2	70.5	66.6	92	86	75-125	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ANIWA ARSENIC DUMP

Pace Project No.: 40191381

QC Batch:	327867	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	40191381001, 40191381002, 40191381003, 40191381004, 40191381005, 40191381006, 40191381007, 40191381008, 40191381009, 40191381010, 40191381011, 40191381012		

SAMPLE DUPLICATE: 1903772

Parameter	Units	40191381005 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	20.7	21.1	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: ANIWA ARSENIC DUMP

Pace Project No.: 40191381

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ANIWA ARSENIC DUMP
Pace Project No.: 40191381

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40191381001	B-1-19	EPA 3050	327937	EPA 6010	328517
40191381002	B-2-19	EPA 3050	327937	EPA 6010	328517
40191381003	B-3-19	EPA 3050	327937	EPA 6010	328517
40191381004	B-4-19	EPA 3050	327937	EPA 6010	328517
40191381005	B-5-19	EPA 3050	327937	EPA 6010	328517
40191381006	B-6-19	EPA 3050	327937	EPA 6010	328517
40191381007	B-7-19	EPA 3050	327937	EPA 6010	328517
40191381008	B-8-19	EPA 3050	327937	EPA 6010	328517
40191381009	B-9-19	EPA 3050	327937	EPA 6010	328517
40191381010	B-10-19	EPA 3050	327937	EPA 6010	328517
40191381011	B-11-19	EPA 3050	327937	EPA 6010	328517
40191381012	B-12-19	EPA 3050	327937	EPA 6010	328517
40191381001	B-1-19	ASTM D2974-87	327867		
40191381002	B-2-19	ASTM D2974-87	327867		
40191381003	B-3-19	ASTM D2974-87	327867		
40191381004	B-4-19	ASTM D2974-87	327867		
40191381005	B-5-19	ASTM D2974-87	327867		
40191381006	B-6-19	ASTM D2974-87	327867		
40191381007	B-7-19	ASTM D2974-87	327867		
40191381008	B-8-19	ASTM D2974-87	327867		
40191381009	B-9-19	ASTM D2974-87	327867		
40191381010	B-10-19	ASTM D2974-87	327867		
40191381011	B-11-19	ASTM D2974-87	327867		
40191381012	B-12-19	ASTM D2974-87	327867		

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 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: Town of Aniwa
Courier: CS Logistics Fed Ex Speedee UPS Walco
 Client Pace Other: _____

Project #: _____

WO#: 40191381



40191381

Tracking #: 110362861688
Custody Seal on Cooler/Box Present: yes no **Seals intact:** yes no
Custody Seal on Samples Present: yes no **Seals intact:** yes no
Packing Material: Bubble Wrap Bubble Bags None Other
Thermometer Used: SR-24 **Type of Ice:** Wet Blue Dry None Samples on ice, cooling process has begun
Cooler Temperature: Uncorr: 5 / Corr: 5

Temp Blank Present: yes no **Biological Tissue is Frozen:** yes no
 Temp should be above freezing to 6°C.
 Biota Samples may be received at ≤ 0°C.

Person examining contents:
 Date: 7/17/15
 Initials: CS

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>page 4</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. <u>CS/IN/19</u>
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>S</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ If checked, see attached form for additional comments
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

Project Manager Review: [Signature] **Date:** 7/17/15