

September 27, 2018

City of Stoughton
C/O Attorney Matthew Dregne
Stafford Rosenbaum LLP
222 E Washington Ave, Suite 900
P O Box 1784
Madison, WI 53713

RE: Phase II Environmental Site Assessment (ESA)
216 E. Main Street
Stoughton, Wisconsin 53589

Dear Mr. Dregne:

Per your request, Resource Engineering Associates, Inc. (REA) completed a Phase II ESA for the property located at 216 E Main Street in Stoughton, Wisconsin. The Work Plan for the Phase II ESA was based on REA's September 6, 2018, Phase I Environmental Site Assessment's recommended Phase II scope of work.

Field Work

On September 10, 2018, REA made eight soil borings at the subject property used a Geoprobe provided by Soil Essentials of Rockford, Illinois. The purpose of the borings was to collect soil and/or groundwater samples to investigate the recognized environmental condition (*Rec*) identified in REA's Phase I ESA which was the past use of the parcel at 216 E Main St as a gasoline filling station from the mid-1920's until the mid-1970's (**See Appendix A**). The site vicinity map for the property is shown on **Figure 1** and the soil boring locations are shown on **Figure 2**. The work performed was as follows:

- 1) A Geoprobe was used to make 3 soil borings (B-1, B-2 and B-3) in the area where fuel pump islands had been located in the past. Boring B-1 was made to depth of 27 feet below grade (bg), and borings B-2 and B-3 were made to a depth of 15 feet bg. Soil samples were collected continuously and screened with a photo ionization detector (PID). All PID readings were 0 with the exception of the sample from 10-12.5 feet bg (0.4 ppm) in boring B-2 and the samples from 23-25 feet bg (265 ppm) and 25-27 feet bg (1,250 ppm) in B-1. Soil types were logged on boring logs. One soil sample from each boring (B-1@25-27', B-2 @10-12.5' and B-3@10-15') were submitted to TestAmerica in College Park, Illinois for laboratory analysis of petroleum volatile organic compounds plus naphthalene (PVOC+Naph), gasoline range organics (GRO), and diesel range organics (DRO). An attempt was made to collect a groundwater sample from boring B-1, but due to tight soil conditions was unsuccessful. Laboratory analytical results for soils is shown on **Table 2**.

- 2) A Geoprobe was used to make 3 soil borings (B-4, B-5 and B-6) in the area where the underground storage tanks had been located in the past. Borings B-4 and B-6 were both made to a depth of 15 feet bg. Soil samples were collected continuously and screened with a photo ionization detector (PID) and the soil types were logged. All PID readings were 0 with the exception of the sample from boring B-4 from 0 to 2 feet bg (0.7 ppm). One soil sample from each boring (B-4@10-15' and B-6@5-7.5') was submitted to TestAmerica for laboratory analysis of PVOC+Naph, GRO and DRO. Boring B-5 was made to a depth of 32 feet bg. Soil samples were collected continuously from the surface to 15 feet bg, screened with a photoionization detector (PID) and soil types were logged. Two soil samples, B-5 @5-7.5' and B-5 @ 10-15', were submitted for laboratory analysis of PVOC+Naph, GRO and DRO. A groundwater sample was collected from B-5 and submitted for laboratory analysis of PVOC+Naph, GRO and DRO. Laboratory analytical results for soils are shown on **Table 2** and results for groundwater are shown on **Table 1**.
- 3) A Geoprobe was used to make two borings (B-7 and B-8) in the former garage area. The borings were made to 15 feet below grade. Soil samples were collected continuously and screened with a photo ionization detector (PID). Soil types were recorded on boring logs. All PID readings were 0. The soil samples collected from B-7 @ 7.5-10' and B-8 @10-15' were submitted for laboratory analysis for PVOC+Naph, GRO and DRO. Laboratory analytical Results are shown on **Table 2**.

Soil boring logs and borehole abandonment forms are shown in Appendix B and laboratory analytical reports are shown in Appendix C.

Laboratory Analysis

Laboratory analysis of soil samples from the eight borings showed no detects above Residential Direct Contact Screening Levels with one exception: DRO was detect at 110 mg/kg in B-5 @5-7.5', slightly above the Residential Direct Contact Screening Level of 100 mg/kg. DRO was detected in the other seven samples ranging from 0.31 mg/kg in sample B-8@10-15' to 22 mg/kg in boring B-1@25-27'. GRO was detected in B-1@25-27' (40,000 ug/kg) and B-5 @5-7.5' (2,800 ug/kg), but these levels are well below the Direct Contact Screening Level of 100,000 ug/kg. The soil sample from B-1@25-27' contained 1,2,4-trimethylbenzene (1,600 ug/kg), 1,3,5-trimethylbenzene (890 ug/kg), ethylbenzene (31 ug/kg), naphthalene (430 ug/kg), toluene (130 ug/kg), and total xylenes (210 ug/kg). All of these levels are below the Residential Direct Contact Screening Levels. The levels in the B-1@25-27' sample for 1,2,4-trimethylbenzene (1,600 ug/kg), 1,3,5-trimethylbenzene (890 ug/kg), ethylbenzene (31 ug/kg), naphthalene (430 ug/kg), toluene (760 ug/kg), and total xylenes (210 ug/kg) did exceed the Soil to Groundwater Protection Screening Levels. The groundwater sample collected from boring B-5 showed a slight detect for DRO (0.31 mg/l), but there is no groundwater standard for DRO. There were no other detects in the B-5 groundwater sample. **Analytical results for groundwater are shown on Table 1 and for soils on Table 2.**

Conclusion

Based on the observations made during field work on September 10, 2018, and the laboratory analysis of the samples collected at that time, there was one slight exceedance of the Residential Direct Contact Screening Levels for DRO (110 mg/kg in sample B-5 @ 5-7.5') in the soils on the property at 216 E Main Street in Stoughton, Wisconsin. The levels in the boring B-1@25-27' sample for 1,2,4-trimethylbenzene (1,600 ug/kg), 1,3,5-trimethylbenzene (890 ug/kg), ethylbenzene (31 ug/kg), naphthalene (430 ug/kg), toluene (760 ug/kg), and total xylenes (210 ug/kg) did exceed the Soil to Groundwater Protection Screening Levels, but did not exceed the Residential Direct Contact Screening Levels. There were no NR 140 Enforcement Standard (ES) exceedances for groundwater on the site. It appears that past gasoline station activities have caused some contamination on the site, but the level and extent of the impacts is minor. It is REA's understanding that this parcel will continue to be used as a parking lot, which is acting as a cap over the site. Therefore, it is REA's professional opinion that no further investigation is warranted at the property. A copy of this report should be provided to the Wisconsin Department of Natural Resources (WDNR).

If you have any questions, or need any additional information, feel free to call me at 608-831-5522, Ext. 15 or on my cell phone at 608-220-3804.

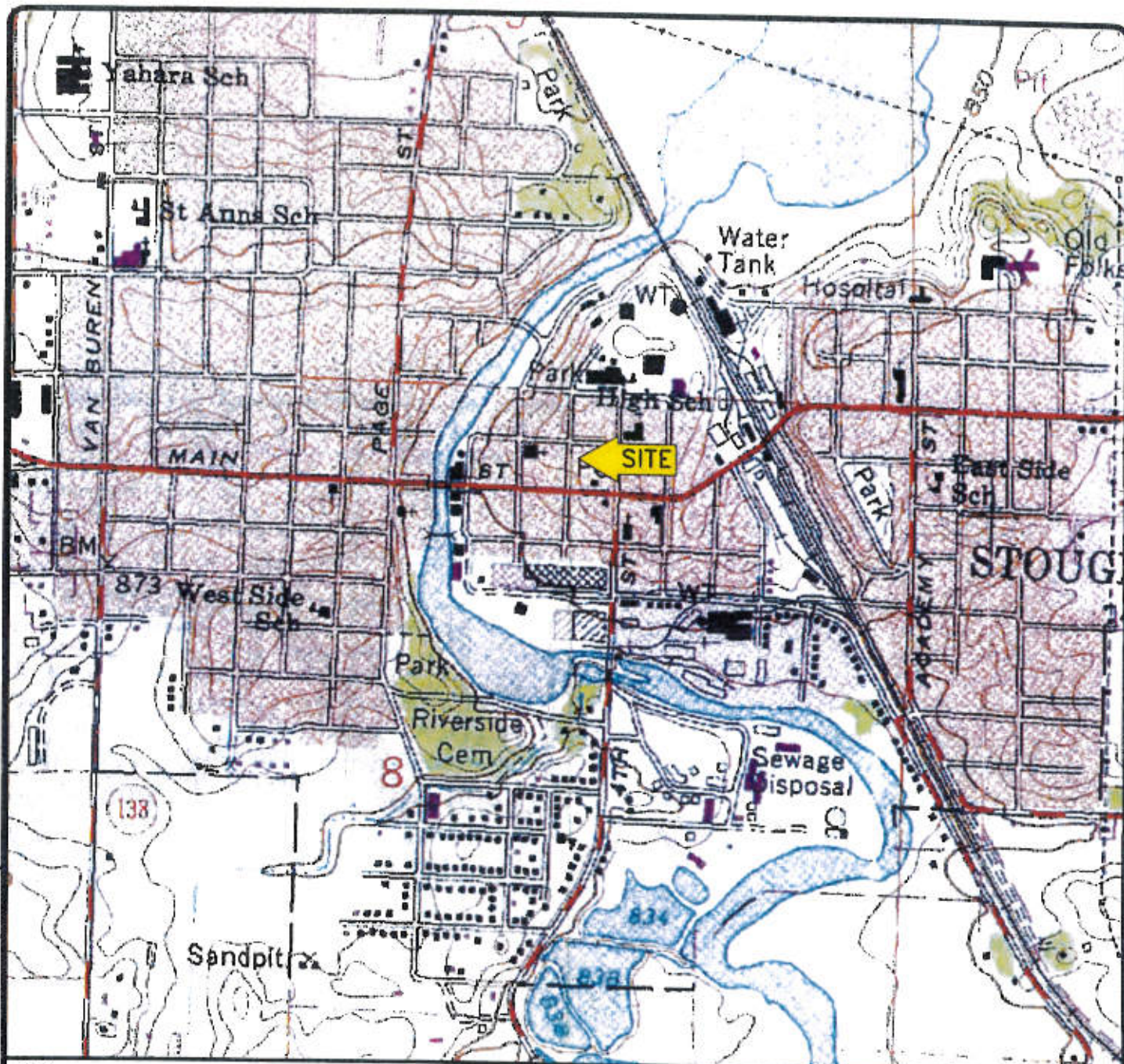
Sincerely,



William W. Buckingham, P.E.
Senior Engineer

- Enc. Figure 1: Site Vicinity Map
Figure 2: Soil Boring Locator Map
Table 1: Laboratory Analytical Results – Groundwater
Table 2: Laboratory Analytical Results – Soil
Appendix A: Sanborn Maps
Appendix B: Boring Logs and Borehole Abandonment Forms
Appendix C: Laboratory Analytical Results

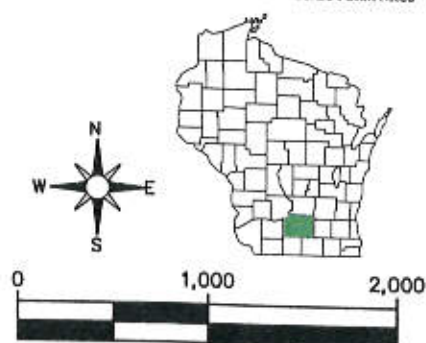
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KEY

T5N R11E, NW $\frac{1}{4}$ OF NE $\frac{1}{4}$ OF SECTION 8

DIGITAL RASTER GRAPHIC COUNTY MOSAIC FROM NRCS



REA **RESOURCE**
ENGINEERING
ASSOCIATES, INC.
3510 Parmenter Street, Suite 100
Middleton, WI 53562-2507
Phone: 608-831-5522 Fax: 608-831-6564
Web: www.reaeng.com

MCFARLAND STATE BANK PROPERTY
207 S Forrest St & 216 E Main St
Stoughton, WI 53589

SITE VICINITY MAP

DATE: Aug 2018
DRAWN: RAN
CHECKED: WWB
PROJECT: 180045.1
1845figures.dwg
FIGURE 1



LEGEND

- B-1 GEOPROBE BORING LOCATIONS
(ADVANCED 9/10/18 BY SOL
ESSENTIALS)

REVISIONS	
DATE	DATE
DATE	DATE
DATE	DATE

Resource Engineering Associates, Inc.
1510 Lawrence Street, Suite 100
Middleton, Wisconsin 53552-2507
Phone: 608-831-5522
Fax: 608-831-6554
Web: www.reaeng.com

REA
RESOURCE
ENGINEERING
ASSOCIATES, INC.

SOIL BORING LOCATOR MAP
PHASE II INVESTIGATION
MCFARLAND STATE BANK PROPERTY
207 S FOREST ST & 216 E MAIN ST
STOUGHTON, WI 53589

DATE: SEP 2018
DRAWN: RAN
CHECKED: WVB
APPROVED: WVB
DRAWING NAME:
1845 2figures.dwg
PROJECT NUMBER:
180495.2

FIGURE 2



Table 1
216 E Main St – Phase II
Laboratory Analytical Results - Geoprobe® Soil Borings - Groundwater
DRO/GRO/PVOC+Naph
9/10/18

Laboratory Parameters (units)	NR 140 ES	B-5
DRO (mg/l)	--	0.31
GRO (ug/l)	--	<50
Benzene (ug/l)	5.0	<0.36
Toluene (ug/l)	800	<0.33
Ethylbenzene (ug/l)	700	<0.37
MTBE (ug/l)	60	<0.24
Xylenes, Total (ug/l)	2,000	<0.58
TMB, Total (ug/l)	480	<0.60

Abbreviations: ug/l = micrograms per liter mg/l = milligrams per liter
MTBE = methyl-tertiary-butyl-ether TMB = trimethylbenzene
-- = not applicable ES = Enforcement Standard

Notes: J = Result is less than the laboratory reportable level (RL) but greater than the method detection level (MDL) and the concentration is an approximate value
Bold indicates parameter concentration above NR 140 ES

Table 2
216 E Main St – Phase II
Laboratory Analytical Results - Soil
DRO/GRO/PVOC+Naphthalene
9/10/18

Laboratory Parameters (units)	Residential Direct Contact Screening Levels	Soil to Groundwater Screening Levels	B-1 @ 25-27"	B-2 @ 10-12.5"	B-3 @ 10-15"	B-4 @ 10-15"	B-5 @ 5-7.5"	B-5 @ 10-15"	B-6 @ 5-7.5"	B-7 @ 7.5-10"	B-8 @ 10-15"
PID (Meter Units)	--	--	1,250	0.4	0	0	1.8	0.3	0	0	0
DRO (mg/kg)	100	--	22	3.1 J	5.1	19	110	5.6	11	5.6	0.31
GRO (ug/kg)	100,000	--	40,000	<3,000	<2,600	<2,700	2,800 J	<2,400	<2,600	<2,700	<50
1,2,4-Trimethylbenzene (ug/kg)	72,000	21.2	1,600	<18	<16	<15	<16	<14	<16	<16	<0.30
1,3,5-Trimethylbenzene (ug/kg)	782,000	167	890	<18	<16	<15	<16	<14	<16	<16	<0.30
Benzene (ug/kg)	1,200	0.26	<22	<22	<190	<19	<19	<17	<19	<19	<0.36
Ethylbenzene (ug/kg)	5,800	1.68	31	<23	<20	<20	<20	<18	<20	<20	<0.37
Methyl tert-butyl ether (ug/kg)	47,000	3.2	<15	<15	<13	<12	<13	<11	<13	<13	<0.24
Naphthalene (ug/kg)	4,800	0.54	430	<150	<130	<120	<130	<110	<130	<130	<2.4
Toluene (ug/kg)	490,000	760	130	<21	<18	<17	<18	<16	<18	<18	<0.33
Xylenes, Total (ug/kg)	580,000	190	210	<37	<32	<31	<32	<29	<31	<32	<0.58

Abbreviations:

ug/kg = micrograms per kilogram mg/kg = milligrams per kilogram NA = not analyzed

Notes:

1) Bold indicates parameter concentration above Direct Contact Level

2) Underline indicates parameter concentration above the Soil to GW Levels

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

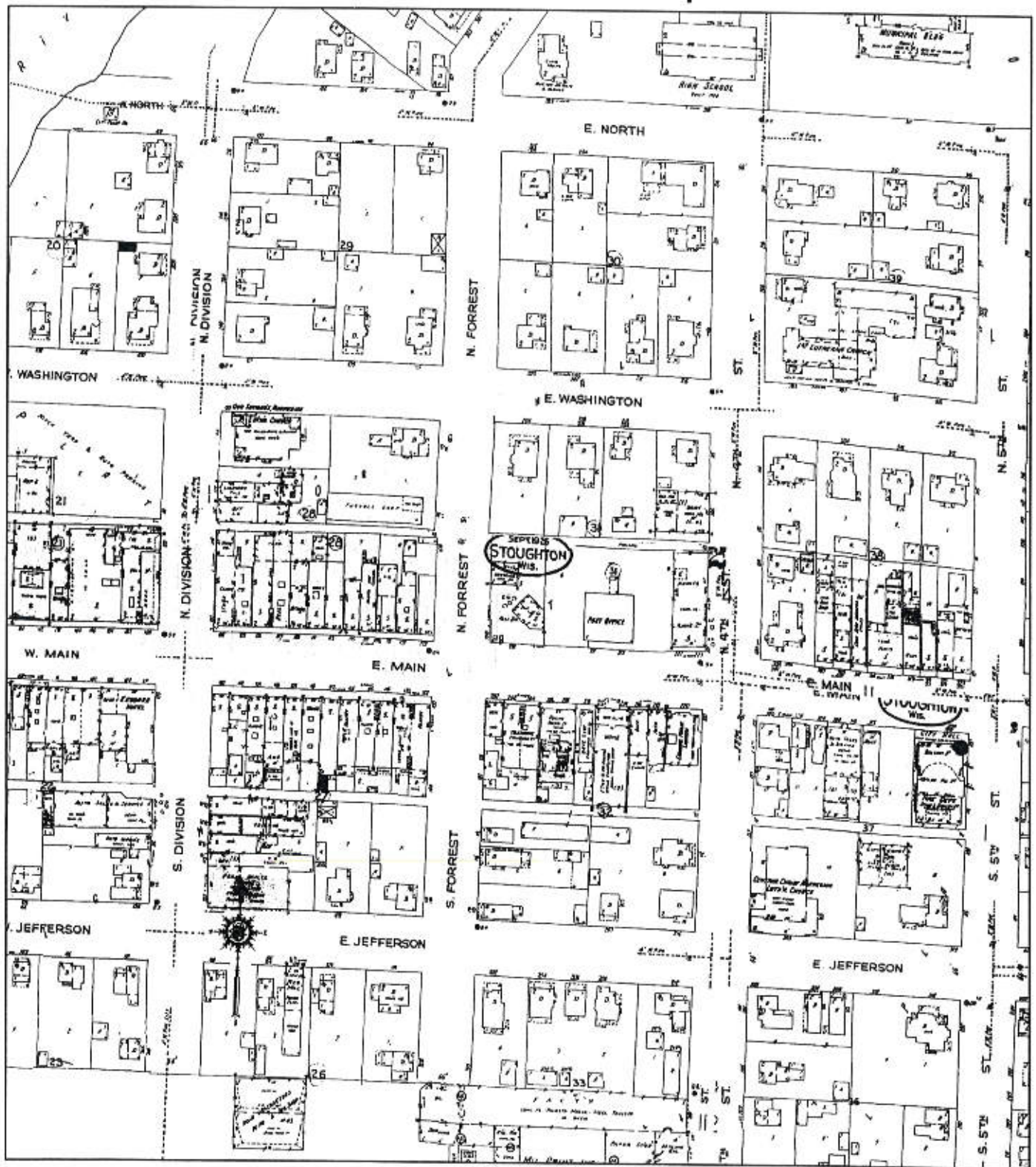


3510 Parmenter Street
Suite 100
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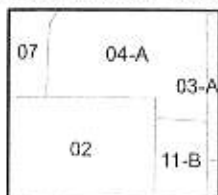
Appendix A: Sanborn Maps

Fire Insurance Map



1949

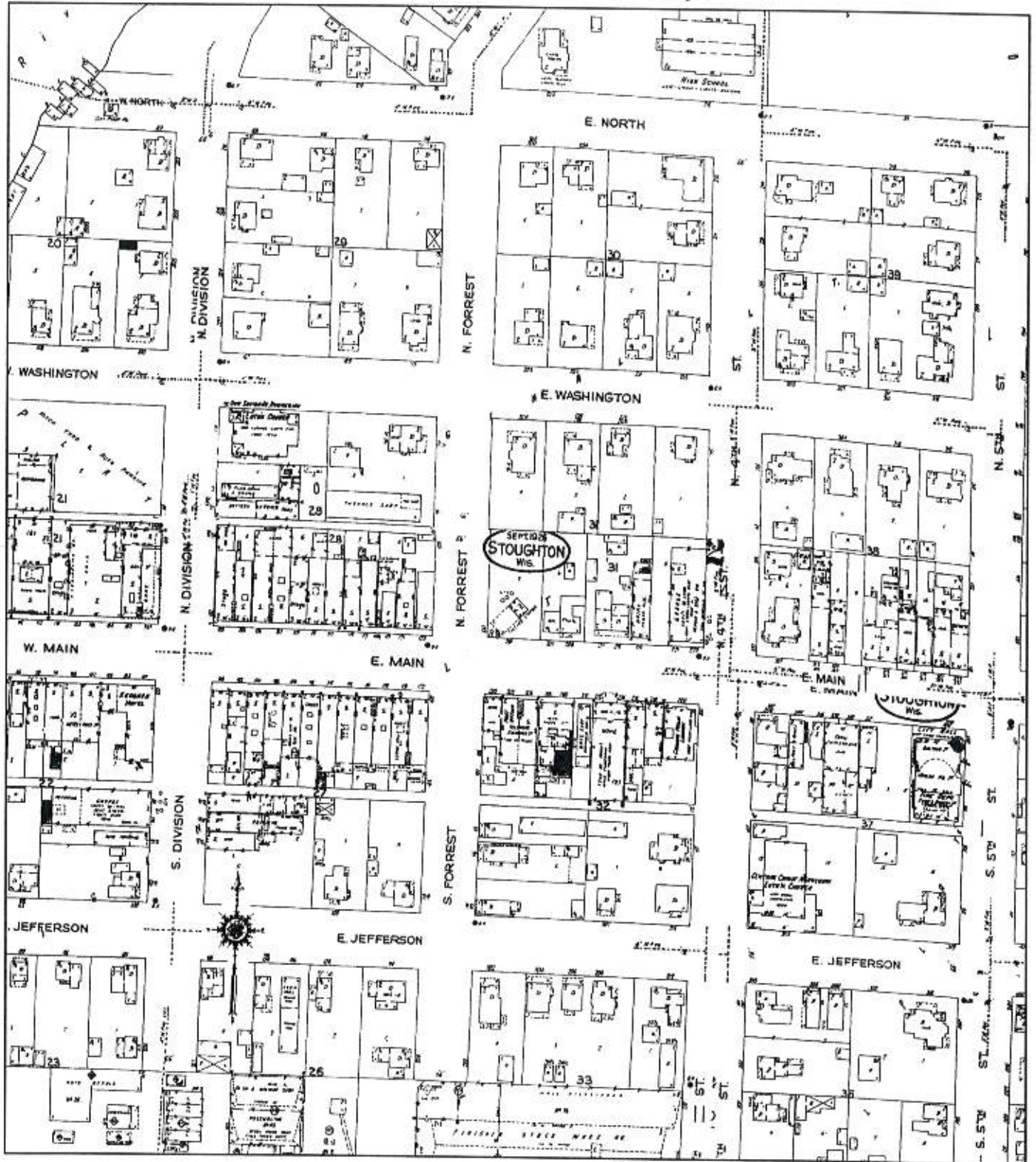
Address: 216 E Main St, Stoughton, WI, 53589



Map sheet(s):
Volume NA:11,2,4,7;

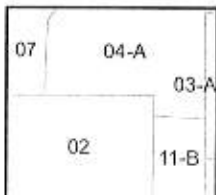
Order Number 20180827147

Fire Insurance Map



1926

Address: 216 E Main St, Stoughton, WI, 53589



Map sheet(s):
Volume NA:11,2,4,7;

Order Number 20180827147





3510 Parmenter Street
Suite 100
Middleton, WI 53562

Phone: 608-831-5522
Fax: 608-831-6564
Web: www.reaeng.com

Appendix B:
Boring Logs and Borehole Abandonment Forms

JOB NO. 180045.2		CLIENT Stoughton		LOCATION 216 E Main St B-1		
DRILLING METHOD: Geoprobe				SAMPLING METHOD: Geoprobe		
				Drilling		
Inches Driven		BLOWS/FT. SAMPLER	FID READING	DEPTH IN FEET	SOIL GRAPH	SHEET: 1 of 2 SURFACE CONDITIONS: Asphalt, sloping sw 4" Asphalt
Inches Recovered						
						Start Time 9:00 Date 9/10/18
						Finish Time 10:45 Date 9/10/18
			0	1		
				2		
36				3		Brown Silty sand Many cobbles/gravel
60			1.3	4		
				5		No odor
				6		Brown Silty sand
12				7		Same
60			0	8		
				9		
				10		No odor
			0	11		Many Rocks
30				12		
60				13		Becomes hardpan @ 13'
			0	14		
				15		No odor
			0.4	16		
				17		Brown Silty sand No odor
24			0	18		
48				19		
			0.1	20		Damp @ 15'

JOB NO. 180045-2		CLIENT Staughton		LOCATION 216 E Main B-2	
DRILLING METHOD: Geoprobe			SAMPLING METHOD: Geoprobe		
				Drilling	
				Start	Finish
				Time	Time
				11:15	11:30
				Date	Date
				9/10/18	9/10
Inches Driven	BLOWS/FT. SAMPLER	FID READING	DEPTH IN FEET	SOIL GRAPH	SHEET: 1 of 1
Inches Recovered					SURFACE CONDITIONS:
			1		Asphalt
		0	2		9" asphalt
			3		Tan
36			4		sand and gravel
60		0	5		No odor
			6		coarse sand at 4.5'
		0	7		tan coarse sand
36			8		some gravel
60			9		No odor
		0	10		
			11		tan coarse sand
36		0.4	12		some gravel
60			13		No odor
			14		
		0	15		EOB at 15'
			16		
			17		
			18		
			19		
			20		

JOB NO. 180045.2		CLIENT Stoughton		LOCATION 216 E Main B-3	
DRILLING METHOD: Geoprobe		SAMPLING METHOD: Geoprobe		Drilling	
Inches Driven	BLOWS/FT. SAMPLER	FID READING	DEPTH IN FEET	SOIL GRAPH	SHEET: of
Inches Recovered					SURFACE CONDITIONS:
					Asphalt
			1		3" asphalt
		0	2		
36			3		tan sand and gravel
60			4		6" silty sand (brown) layer at 12'
			5		No odor
		0	6		
			7		tan sand and gravel
30		0	8		silt layer
60			9		
			10		tan
		0	11		coarse sand
			12		at 9'
			13		No odor
			14		
			15		
18		0	16		tan coarse sand
60			17		minimal gravel
			18		
			19		No odor
			20		
					EOB @ 15'

JOB NO. 180045.2		CLIENT Stoughton		LOCATION 216 E Main		B-4	
DRILLING METHOD: Geoprobe				SAMPLING METHOD: Geoprobe		Drilling	
Inches Driven	BLOWS/FT. SAMPLER	FID READING	DEPTH IN FEET	SOIL GRAPH	SHEET: of	Start Time 12:15	Finish Time 12:40
Inches Recovered					SURFACE CONDITIONS: Asphalt 3" asphalt	Date 9/10	Date 9/10
			1				
		0.7	2				
30 60			3				
		0	4				
			5				
			6				
30 60		0	7				
			8				
		0	9				
			10				
			11				
18 60		0	12				
			13				
			14				
			15				
			16				
			17				
			18				
			19				
			20				

tan sand and gravel

No odor

tan coarse sand
little gravel

No odor

tan silty sand
hard pan at 11'

No odor

EOB @ 15'

JOB NO. 180045.2		CLIENT Stoughton		LOCATION 216 E Main B-5	
DRILLING METHOD: Geoprobe			SAMPLING METHOD: Geoprobe		
				Drilling	
				Start Time	Finish Time
				12:50	1:10
				Date	Date
				9/10	9/10
Inches Driven	BLOWS/FT. SAMPLER	FID READING	DEPTH IN FEET	SOIL GRAPH	SHEET: 1 of 1
Inches Recovered					SURFACE CONDITIONS:
					Asphalt
					3" asphalt
		0	1		
			2		
36			3		tan silty sand w/ gravel
60			4		
		0	5		3'-5' brown silty sand
			6		w/ gravel
			7		No odor
24		1.8	8		
60			9		tan coarse sand
			10		little gravel
		0.3	11		No odor
			12		
18		0	13		tan coarse sand
60			14		w/ gravel
			15		hard pan
			16		
			17		Blind drill to 32'
			18		water sample
			19		
			20		

JOB NO.		CLIENT		LOCATION	
180045.2		Stoughton		216 E Main B-6	
DRILLING METHOD:			SAMPLING METHOD:		
Geoprobe			Geoprobe		
Inches Driven	BLOWS/FT. SAMPLER	FID READING	DEPTH IN FEET	SOIL GRAPH	SHEET: 1 of 1
Inches Recovered					SURFACE CONDITIONS:
			1		Asphalt
			2		3" asphalt
36		0	3		tan sand and gravel
60			4		Dark brown clay layer (6")
		0	5		sand with silt brown to 2 1/4"
			6		Brown coarse sand w/ gravel
			7		No odor
24		0	8		tan silty sand w/ gravel
60			9		fill
		0	10		no odor
			11		some brick possible concrete
			12		at 7.5' EOB @ 7.5'
			13		Refusal
			14		
			15		
			16		
			17		
			18		
			19		
			20		

Drilling	
Start Time	Finish Time
2:30	2:50
Date	Date
9/10	9/10

JOB NO.		CLIENT		LOCATION	
180045.2		Stoughton		216 E Main St B-7	
DRILLING METHOD:			SAMPLING METHOD:		
Geoprobe			Geoprobe		
Inches Driven	BLOWS/FT. SAMPLER	FID READING	DEPTH IN FEET	SOIL GRAPH	SHEET: of
Inches Recovered					SURFACE CONDITIONS:
			1		Asphalt
			2		3" asphalt
30			3		tan sandy gravel
60			4		dark brown silty sand at 12"
			5		tan sandy gravel
			6		No odor
36			7		tan coarse sand some gravel
60			8		
			9		No odor
			10		
24			11		tan coarse sand some gravel
60			12		
			13		No odor
			14		
			15		
			16		EOB @ 15'
			17		
			18		
			19		
			20		

Drilling	
Start Time	Finish Time
2:55	3:10
Date 9/10	Date 9/10

JOB NO. 180045.2		CLIENT Stoughton		LOCATION 216 E Main B-8	
DRILLING METHOD: Geoprobe		SAMPLING METHOD: Geoprobe		Drilling	
Inches Driven	BLOWS/FT. SAMPLER	FID READING	DEPTH IN FEET	SOIL GRAPH	SHEET: 1 of 1 SURFACE CONDITIONS: Asphalt 3" asphalt tan sand w/ gravel Silt ribbon at 12" No odor tan coarse sand some gravel No odor tan coarse sand No odor EOB ~ 15'
Inches Recovered					Start Time 3:15 Date 9/10
					Finish Time 3:30 Date 9/10
			1		
			2		
24		0	3		
60			4		
			5		
		0	6		
			7		
30		0	8		
60			9		
			10		
		0	11		
24			12		
60		0	13		
			14		
			15		
			16		
			17		
			18		
			19		
			20		

JOB NO.		CLIENT		LOCATION	
180045.2		Stoughton		216 E Main St B-1	
DRILLING METHOD:				SAMPLING METHOD:	
Geoprobe				Geoprobe	
Inches Driven	BLOWS/FT. SAMPLER	FID READING	DEPTH IN FEET	SOIL GRAPH	SHEET: 2 of 2
Inches Recovered					SURFACE CONDITIONS:
40			21		Asphalt, sloping SW
48					Same
	0		22		Hardpan Lense @ 20'
			23		Becomes fine silty sand, No Rock
48					SATURATED @ 23'
48	265		24		Gasoline odor and Dark staining @ 24'
			25		
	1250		26		Becomes Brown/Reddish clay (wet) @ 26'
			27		
			8		EOB @ 27'
			9		
			10		
			11		
			12		
			13		
			14		
			15		
			16		
			17		
			18		
			19		
			20		

Drilling	
Start Time	Finish Time
9:00	10:45
Date	Date
9/10/18	9/10/18

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other				
(1) GENERAL INFORMATION				
WI Unique Well No. _____	DNR Well ID No. _____			
County <u>Dane</u>				
Facility Name <u>216 E Main St</u>				
Facility ID _____ License/Permit/Monitoring No. _____				
Common Well Name <u>B-1</u> Gov't Lot (If applicable) _____				
NW 1/4 of NE 1/4 of Sec. <u>8</u> ; T. <u>5</u> N; R. <u>11</u> E ☒ W ☐				
Grid Location _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.				
Local Grid Origin ☐ (estimated: ☐) or Well Location ☐				
Lat. _____ Long. _____ or _____				
St. Plane _____ ft. N. _____ ft. E. ☐ ☐ ☐ Zone				
Reason For Abandonment <u>End of Boring</u>	WI Unique Well No. of Replacement Well _____			
City, State, Zip Code <u>Stoughton, WI 53589</u>				
(2) FACILITY/OWNER INFORMATION				
Present Well Owner <u>City of Stoughton</u> Original Owner <u>same</u>				
Street Address or Route of Owner <u>381 E Main St</u>				
(3) WELL/DRILLHOLE/BOREHOLE INFORMATION				
Original Construction Date <u>9/10/18</u>				
☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole				
If a Well Construction Report is available, please attach. _____				
Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (Specify) <u>Geoprobe</u>				
Formation Type: ☒ Unconsolidated Formation ☐ Bedrock				
Total Well Depth (ft.) <u>27</u>	Casing Diameter (in.) <u>N/A</u>			
(From ground surface)	Casing Depth (ft.) <u>N/A</u>			
Lower Drillhole Diameter (in.) <u>1</u>				
Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown				
If Yes, To What Depth? _____ Feet				
Depth to Water (Feet) <u>30</u>				
(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL				
Pump & Piping Removed? ☐ Yes ☐ No ☒ Not Applicable Liner(s) Removed? ☐ Yes ☐ No ☒ Not Applicable Screen Removed? ☐ Yes ☐ No ☒ Not Applicable Casing Left in Place? ☐ Yes ☒ No				
Was Casing Cut Off Below Surface? ☐ Yes ☐ No ☒ NA				
Did Sealing Material Rise to Surface? ☒ Yes ☐ No				
Did Material Settle After 24 Hours? ☐ Yes ☒ No				
If Yes, Was Hole Retopped? ☐ Yes ☐ No				
Required Method of Placing Sealing Material				
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain) _____				
Sealing Materials				
☐ Neat Cement Grout ☐ Sand-Cement (Concrete) Grout ☐ Concrete ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Bentonite-Sand Slurry " " ☐ Bentonite Chips				
For monitoring wells and monitoring well boreholes only				
☒ Bentonite Chips ☐ Granular Bentonite ☐ Bentonite - Cement Grout ☐ Bentonite - Sand Slurry				
(5) Material Used To Fill Well/Drillhole				
From (Ft.)	To (Ft.)	No Yards, Sacks Sealant or Volume	(Circle One)	Mix Ratio or Mud Weight
Surface	27	1/2		
(6) Comments: _____				

(7) Name of Person or Firm Doing Sealing Work		Date of Abandonment
<u>Soil Essentials</u>		<u>9/10/18</u>
Signature of Person Doing Work	Date Signed	
<u>[Signature]</u>	<u>9/17/18</u>	
Street or Route	Telephone Number	
<u>201 N. 6th St</u>	<u>(815) 975-1203</u>	
City, State, Zip Code		
<u>Rockford, IL 61107</u>		

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Comments	

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other

(1) GENERAL INFORMATION		(2) FACILITY/OWNER INFORMATION	
WI Unique Well No.	DNR Well ID No.	County	Facility Name
		Dane	216 E Main St
Common Well Name <u>B-2</u> Gov't Lot (if applicable)		Facility ID	License/Permit/Monitoring No.
NW 1/4 of NE 1/4 of Sec. <u>8</u> : T. <u>5</u> N; R. <u>11</u> E		Street Address of Well	
Grid Location		216 E Main St	
ft. ☐ N. ☐ S., ft. ☐ E. ☐ W.		City, Village, or Town	
Local Grid Origin ☐ (estimated: ☐) or Well Location ☐		Stoughton	
Lat. " ' " Long. " ' " or		Present Well Owner	Original Owner
St. Plane ft. N. ft. E. ☐ ☐ ☐ Zone		City of Stoughton	Same
Reason For Abandonment <u>End of Boring</u>		Street Address or Route of Owner	
WI Unique Well No. of Replacement Well		381 E Main St	
		City, State, Zip Code	
		Stoughton, WI 53589	

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION		(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL				
Original Construction Date <u>9/10/18</u>		Pump & Piping Removed? ☐ Yes ☐ No ☒ Not Applicable				
☐ Monitoring Well		Liner(s) Removed? ☐ Yes ☐ No ☒ Not Applicable				
☐ Water Well		Screen Removed? ☐ Yes ☐ No ☒ Not Applicable				
☒ Borehole / Drillhole		Casing Left in Place? ☐ Yes ☒ No				
Construction Type:		Was Casing Cut Off Below Surface? ☐ Yes ☐ No ☒ NA				
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug		Did Sealing Material Rise to Surface? ☒ Yes ☐ No				
☒ Other (Specify) <u>Geoprobe</u>		Did Material Settle After 24 Hours? ☐ Yes ☒ No				
Formation Type:		If Yes, Was Hole Retopped? ☐ Yes ☐ No				
☒ Unconsolidated Formation ☐ Bedrock		Required Method of Placing Sealing Material				
Total Well Depth (ft.) <u>15</u> Casing Diameter (in.) <u>N/A</u>		☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped				
(From ground surface) Casing Depth (ft.) <u>N/A</u>		☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)				
Lower Drillhole Diameter (in.) <u>2</u>		Sealing Materials				
Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown		☐ Neat Cement Grout				
If Yes, To What Depth? _____ Feet		☐ Sand-Cement (Concrete) Grout				
Depth to Water (Feet) <u>30</u>		☐ Concrete				
		☐ Clay-Sand Slurry (11 lb./gal. wt.)				
		☐ Bentonite-Sand Slurry " "				
		☐ Bentonite Chips				
		For monitoring wells and monitoring well boreholes only				
		☒ Bentonite Chips				
		☐ Granular Bentonite				
		☐ Bentonite - Cement Grout				
		☐ Bentonite - Sand Slurry				
(5) Material Used To Fill Well/Drillhole		From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	(Circle One)	Mix Ratio or Mud Weight
Bentonite chips		Surface	15	1/3		

(6) Comments:

(7) Name of Person or Firm Doing Sealing Work		Date of Abandonment	
Soil Essentials		9/10/18	
Signature of Person Doing Work		Date Signed	
<u>[Signature]</u>		9/17/18	
Street or Route		Telephone Number	
201 N. 6th St		(815) 975-1203	
City, State, Zip Code			
Rockford, IL 61107			

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Comments	

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other

(1) GENERAL INFORMATION		(2) FACILITY/OWNER INFORMATION	
WI Unique Well No.	DNR Well ID No.	County	Facility Name
		Dane	216 E Main St
Common Well Name <u>B-3</u>		Gov't Lot (If applicable)	Facility ID
NW 1/4 of NE 1/4 of Sec. <u>8</u> ; T. <u>5</u> N; R. <u>11</u> E			License/Permit/Monitoring No.
Grid Location		Street Address of Well	
		216 E Main St	
ft. ☐ N. ☐ S., ft. ☐ E. ☐ W.		City, Village, or Town	
Local Grid Origin ☐ (estimated: ☐) or Well Location ☐		Stoughton	
Lat. _____	Long _____	Present Well Owner	Original Owner
		City of Stoughton	Same
St. Plane _____ ft. N. _____ ft. E. ☐ ☐ ☐ Zone		Street Address or Route of Owner	
Reason For Abandonment	WI Unique Well No. of Replacement Well	City, State, Zip Code	
End of Boring		Stoughton, WI 53589	

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION		(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL	
Original Construction Date <u>9/10/18</u>		Pump & Piping Removed? ☐ Yes ☐ No ☒ Not Applicable	
☐ Monitoring Well		Liner(s) Removed? ☐ Yes ☐ No ☒ Not Applicable	
☐ Water Well		Screen Removed? ☐ Yes ☐ No ☒ Not Applicable	
☒ Borehole / Drillhole	If a Well Construction Report is available, please attach.	Casing Left in Place? ☐ Yes ☒ No	
Construction Type:		Was Casing Cut Off Below Surface? ☐ Yes ☐ No ☒ NA	
☐ Drilled	☐ Driven (Sandpoint) ☐ Dog	Did Sealing Material Rise to Surface? ☒ Yes ☐ No	
☒ Other (Specify) <u>Geoprobe</u>		Did Material Settle After 24 Hours? ☐ Yes ☒ No	
Formation Type:		If Yes, Was Hole Retopped? ☐ Yes ☐ No	
☒ Unconsolidated Formation	☐ Bedrock	Required Method of Placing Sealing Material	
Total Well Depth (ft.) <u>15</u>	Casing Diameter (in.) <u>N/A</u>	☐ Conductor Pipe-Gravity	☐ Conductor Pipe-Pumped
(From ground surface)	Casing Depth (ft.) <u>N/A</u>	☒ Screened & Poured (Bentonite Chips)	☐ Other (Explain)
Lower Drillhole Diameter (in.) <u>2</u>		Sealing Materials	For monitoring wells and monitoring well boreholes only
Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown		☐ Neat Cement Grout	☒ Bentonite Chips
If Yes, To What Depth? _____ Feet		☐ Sand-Cement (Concrete) Grout	☐ Granular Bentonite
Depth to Water (Feet) <u>30</u>		☐ Concrete	☐ Bentonite - Cement Grout
		☐ Clay-Sand Slurry (11 lb./gal. wt.)	☐ Bentonite - Sand Slurry
		☐ Bentonite-Sand Slurry " "	
		☐ Bentonite Chips	

(5) Material Used To Fill Well/Drillhole	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealing or Volume	(Circle One)	Mix Ratio or Mud Weight
Bentonite chips	Surface	15	1/3		

(6) Comments:

(7) Name of Person or Firm Doing Sealing Work		Date of Abandonment	
Soil Essentials		9/10/18	
Signature of Person Doing Work		Date Signed	
<i>[Signature]</i>		9/17/18	
Street or Route		Telephone Number	
201 N. 6th St		(815) 975-1203	
City, State, Zip Code			
Rockford, IL 61107			

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other				
(1) GENERAL INFORMATION				
WI Unique Well No.	DNR Well ID No. County <u>Dane</u>			
Common Well Name <u>B-4</u> Gov't Lot (if applicable)				
Grid Location <u>NW 1/4 of NE 1/4 of Sec. 8</u> ; T. <u>5</u> N; R. <u>11</u> ☒ E ☐ W				
ft. ☐ N. ☐ S. ft. ☐ E. ☐ W.				
Local Grid Origin ☐ (estimated: ☐) or Well Location ☐				
Lat. " Long. " or " "				
St. Plane ft. N. ft. E. ☐ ☐ ☐ Zone				
Reason For Abandonment <u>End of Boring</u>	WI Unique Well No. of Replacement Well			
(2) FACILITY/OWNER INFORMATION				
Facility Name <u>216 E Main St</u>				
Facility ID	License/Permit/Monitoring No.			
Street Address of Well <u>216 E Main St</u>				
City, Village, or Town <u>Stoughton</u>				
Present Well Owner <u>City of Stoughton</u>	Original Owner <u>same</u>			
Street Address or Route of Owner <u>381 E Main St</u>				
City, State, Zip Code <u>Stoughton, WI 53589</u>				
(3) WELL/DRILLHOLE/BOREHOLE INFORMATION				
Original Construction Date <u>9/10/18</u>				
☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole				
If a Well Construction Report is available, please attach.				
Construction Type:				
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (Specify) <u>Geoprobe</u>				
Formation Type:				
☒ Unconsolidated Formation ☐ Bedrock				
Total Well Depth (ft.) <u>15</u>	Casing Diameter (in.) <u>N/A</u>			
(From ground surface)	Casing Depth (ft.) <u>N/A</u>			
Lower Drillhole Diameter (in.) <u>2</u>				
Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown				
If Yes, To What Depth? _____ Feet				
Depth to Water (Feet) <u>30</u>				
(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL				
Pump & Piping Removed? ☐ Yes ☐ No ☒ Not Applicable Liner(s) Removed? ☐ Yes ☐ No ☒ Not Applicable Screen Removed? ☐ Yes ☐ No ☒ Not Applicable Casing Left in Place? ☐ Yes ☒ No				
Was Casing Cut Off Below Surface? ☐ Yes ☐ No <u>NA</u>				
Did Sealing Material Rise to Surface? ☒ Yes ☐ No				
Did Material Settle After 24 Hours? ☐ Yes ☒ No				
If Yes, Was Hole Retopped? ☐ Yes ☐ No				
Required Method of Placing Sealing Material				
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)				
Sealing Materials				
☐ Neat Cement Grout ☐ Sand-Cement (Concrete) Grout ☐ Concrete ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Bentonite-Sand Slurry " " ☐ Bentonite Chips				
For monitoring wells and monitoring well boreholes only				
☒ Bentonite Chips ☐ Granular Bentonite ☐ Bentonite - Cement Grout ☐ Bentonite - Sand Slurry				
(5) Material Used To Fill Well/Drillhole				
From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	(Circle One)	Mix Ratio or Mud Weight
<u>Bentonite chips</u>		Surface	<u>15</u>	<u>1/3</u>

(6) Comments:

(7) Name of Person or Firm Doing Sealing Work <u>Soil Essentials</u>		Date of Abandonment <u>9/10/18</u>	
Signature of Person Doing Work <u>[Signature]</u>		Date Signed <u>9/17/18</u>	
Street or Route <u>201 N. 6th St</u>		Telephone Number <u>(815) 975-1203</u>	
City, State, Zip Code <u>Rockford, IL 61107</u>			

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Comments	

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other				
(1) GENERAL INFORMATION				
WI Unique Well No.	DNR Well ID No. County <u>Dane</u>			
Common Well Name <u>B-5</u> Gov't Lot (If applicable)				
Grid Location <u>NW 1/4 of NE 1/4 of Sec. 8 ; T. 5 N; R. 11 E</u>				
Local Grid Origin ☐ (estimated: ☐) or Well Location ☐				
Lat. _____ Long. _____ or _____				
St. Plane _____ ft. N. _____ ft. E. ☐ ☐ ☐ Zone				
Reason For Abandonment <u>End of Boring</u>	WI Unique Well No. of Replacement Well _____			
(2) FACILITY/OWNER INFORMATION				
Facility Name <u>216 E Main St</u>				
Facility ID	License/Permit/Monitoring No.			
Street Address of Well <u>216 E Main St</u>				
City, Village, or Town <u>Stoughton</u>				
Present Well Owner <u>City of Stoughton</u>	Original Owner <u>same</u>			
Street Address or Route of Owner <u>381 E Main St</u>				
City, State, Zip Code <u>Stoughton, WI 53589</u>				
(3) WELL/DRILLHOLE/BOREHOLE INFORMATION				
Original Construction Date <u>9/10/18</u>				
☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole				
If a Well Construction Report is available, please attach.				
Construction Type:				
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (Specify) <u>Geoprobe</u>				
Formation Type:				
☒ Unconsolidated Formation ☐ Bedrock				
Total Well Depth (ft.) <u>32</u>	Casing Diameter (in.) <u>N/A</u>			
(From ground surface)	Casing Depth (ft.) <u>N/A</u>			
Lower Drillhole Diameter (in.) <u>1</u>				
Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown				
If Yes, To What Depth? _____ Feet				
Depth to Water (feet) <u>30</u>				
(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL				
Pump & Piping Removed? ☐ Yes ☐ No ☒ Not Applicable Liner(s) Removed? ☐ Yes ☐ No ☒ Not Applicable Screen Removed? ☐ Yes ☐ No ☒ Not Applicable Casing Left in Place? ☐ Yes ☒ No				
Was Casing Cut Off Below Surface? ☐ Yes ☐ No <u>NA</u>				
Did Sealing Material Rise to Surface? ☒ Yes ☐ No				
Did Material Settle After 24 Hours? ☐ Yes ☒ No				
If Yes, Was Hole Retopped? ☐ Yes ☐ No				
Required Method of Placing Sealing Material				
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)				
Sealing Materials				
☐ Neat Cement Grout ☐ Sand-Cement (Concrete) Grout ☐ Concrete ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Bentonite-Sand Slurry " " ☐ Bentonite Chips				
For monitoring wells and monitoring well boreholes only				
☒ Bentonite Chips ☐ Granular Bentonite ☐ Bentonite - Cement Grout ☐ Bentonite - Sand Slurry				
(5) Material Used To Fill Well/Drillhole				
From (Ft.)	To (Ft.)	No. Yards, Sacks Sealing or Volume	(Circle One)	Mix Ratio or Mud Weight
	Surface	15	$\frac{1}{3}$	
		15	32	1 gal
(6) Comments:				

(7) Name of Person or Firm Doing Sealing Work		Date of Abandonment	
<u>SOIL ESSENTIALS</u>		<u>9/10/18</u>	
Signature of Person Doing Work <u>[Signature]</u>		Date Signed <u>9/17/18</u>	
Street or Route <u>201 N. 6th St</u>		Telephone Number <u>(815) 975-1203</u>	
City, State, Zip Code <u>Rockford, IL 61107</u>			

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other

(1) GENERAL INFORMATION		(2) FACILITY/OWNER INFORMATION	
WI Unique Well No.	DNR Well ID No.	County	
Dane		Facility Name	
216 E Main St		Facility ID	
License/Permit/Monitoring No.		Street Address of Well	
216 E Main St		City, Village, or Town	
Stoughton		Present Well Owner	
City of Stoughton		Original Owner	
Same		Street Address or Route of Owner	
381 E Main St		City, State, Zip Code	
Stoughton, WI 53589			
(3) WELL/DRILLHOLE/BOREHOLE INFORMATION		(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL	
Original Construction Date		9/10/18	
☐ Monitoring Well		Pump & Piping Removed? ☐ Yes ☐ No ☒ Not Applicable	
☐ Water Well		Liner(s) Removed? ☐ Yes ☐ No ☒ Not Applicable	
☒ Borehole / Drillhole		Screen Removed? ☐ Yes ☐ No ☒ Not Applicable	
If a Well Construction Report is available, please attach.		Casing Left in Place? ☐ Yes ☒ No	
Construction Type:		Was Casing Cut Off Below Surface? ☐ Yes ☐ No ☒ NA	
☐ Drilled		Did Sealing Material Rise to Surface? ☒ Yes ☐ No	
☐ Driven (Sandpoint)		Did Material Settle After 24 Hours? ☐ Yes ☒ No	
☒ Other (Specify) Geoprobe		If Yes, Was Hole Retopped? ☐ Yes ☐ No	
Formation Type:		Required Method of Placing Sealing Material	
☒ Unconsolidated Formation		☐ Conductor Pipe-Gravity	
☐ Bedrock		☐ Conductor Pipe-Pumped	
Total Well Depth (ft.) 15		☒ Screened & Poured (Bentonite Chips)	
Casing Diameter (in.) N/A		Sealing Materials	
(From ground surface)		For monitoring wells and monitoring well boreholes only	
Casing Depth (ft.) N/A		☐ Neat Cement Grout	
Lower Drillhole Diameter (in.) 2		☐ Sand-Cement (Concrete) Grout	
Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown		☐ Concrete	
If Yes, To What Depth? Feet		☐ Clay-Sand Slurry (11 lb./gal. wt.)	
Depth to Water (Feet) 30		☐ Bentonite-Sand Slurry " "	
		☐ Bentonite Chips	
(5) Material Used To Fill Well/Drillhole		No Yards, Sacks, Sealant or Volume (Circle One)	
Bentonite chips		Mix Ratio or Mud Weight	
From (Ft.)		To (Ft.)	
Surface		15	
		1/3	

(6) Comments:

(7) Name of Person or Firm Doing Sealing Work		Date of Abandonment
Soil Essentials		9/10/18
Signature of Person Doing Work	Date Signed	
<i>[Signature]</i>	9/17/18	
Street or Route	Telephone Number	
201 N. 6th St	(815) 975-1203	
City, State, Zip Code		
Rockford, IL 61107		

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other

(1) GENERAL INFORMATION WI Unique Well No. _____ DNR Well ID No. _____ County <u>Dane</u> Common Well Name <u>B-7</u> Gov't Lot (If applicable) _____ NW 1/4 of NE 1/4 of Sec. <u>8</u> ; T. <u>5</u> N; R. <u>11</u> E Grid Location _____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W. Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. _____ " Long _____ " or _____ St. Plane _____ ft. N. _____ ft. E. ☐ ☐ ☐ Zone _____ Reason For Abandonment <u>End of Boring</u> WI Unique Well No. _____ of Replacement Well _____		(2) FACILITY/OWNER INFORMATION Facility Name <u>216 E Main St</u> Facility ID _____ License/Permit/Monitoring No. _____ Street Address of Well <u>216 E Main St</u> City, Village, or Town <u>Stoughton</u> Present Well Owner <u>City of Stoughton</u> Original Owner <u>same</u> Street Address or Route of Owner <u>381 E Main St</u> City, State, Zip Code <u>Stoughton, WI 53589</u>																										
(3) WELL/DRILLHOLE/BOREHOLE INFORMATION Original Construction Date <u>9/10/18</u> ☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (Specify) <u>Geoprobe</u> Formation Type: ☒ Unconsolidated Formation ☐ Bedrock Total Well Depth (ft.) <u>15</u> Casing Diameter (in.) <u>N/A</u> (From ground surface) Casing Depth (ft.) <u>N/A</u> Lower Drillhole Diameter (in.) <u>2</u> Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown If Yes, To What Depth? _____ Feet Depth to Water (Feet) <u>30</u>		(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL Pump & Piping Removed? ☐ Yes ☐ No ☒ Not Applicable Liner(s) Removed? ☐ Yes ☐ No ☒ Not Applicable Screen Removed? ☐ Yes ☐ No ☒ Not Applicable Casing Left in Place? ☐ Yes ☒ No Was Casing Cut Off Below Surface? ☐ Yes ☐ No <u>NA</u> Did Sealing Material Rise to Surface? ☒ Yes ☐ No Did Material Settle After 24 Hours? ☐ Yes ☒ No If Yes, Was Hole Retopped? ☐ Yes ☐ No Required Method of Placing Sealing Material ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain) _____ <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> Sealing Materials ☐ Neat Cement Grout ☐ Sand-Cement (Concrete) Grout ☐ Concrete ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Bentonite-Sand Slurry " " ☐ Bentonite Chips </td> <td style="width: 50%; vertical-align: top;"> For monitoring wells and monitoring well boreholes only ☒ Bentonite Chips ☐ Granular Bentonite ☐ Bentonite - Cement Grout ☐ Bentonite - Sand Slurry </td> </tr> </table>		Sealing Materials ☐ Neat Cement Grout ☐ Sand-Cement (Concrete) Grout ☐ Concrete ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Bentonite-Sand Slurry " " ☐ Bentonite Chips	For monitoring wells and monitoring well boreholes only ☒ Bentonite Chips ☐ Granular Bentonite ☐ Bentonite - Cement Grout ☐ Bentonite - Sand Slurry																							
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(5) Material Used To Fill Well/Drillhole <u>Bentonite chips</u>		<table style="width: 100%;"> <tr> <th style="width: 15%;">From (Ft.)</th> <th style="width: 15%;">To (Ft.)</th> <th style="width: 20%;">No. Yards, Sacks Sealant or Volume</th> <th style="width: 10%;">(Circle One)</th> <th style="width: 40%;">Mix Ratio or Mud Weight</th> </tr> <tr> <td>Surface</td> <td>15</td> <td>1/3</td> <td></td> <td></td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>		From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	(Circle One)	Mix Ratio or Mud Weight	Surface	15	1/3																	
From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	(Circle One)	Mix Ratio or Mud Weight																								
Surface	15	1/3																										

(6) Comments:

(7) Name of Person or Firm Doing Sealing Work Soil Essentials		Date of Abandonment 9/10/18
Signature of Person Doing Work <i>[Signature]</i>		Date Signed 9/17/18
Street or Route 201 N. 6th St		Telephone Number (815) 975-1203
City, State, Zip Code Rockford, IL 61107		

FOR DNR OR COUNTY USE ONLY	
Date Received	Noted By
Comments	

Notice: Please complete Form 3300-5 and return it to the appropriate DNR office and bureau. Completion of this report is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. NOTE: See the instructions for more information.

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Waste Management ☒ Remediation/Redevelopment ☐ Other

(1) GENERAL INFORMATION		(2) FACILITY/OWNER INFORMATION	
WI Unique Well No.	DNR Well ID No.	County	Facility Name
		Dane	216 E Main St
Common Well Name <u>B-8</u>		Gov't Lot (if applicable)	Facility ID
NW 1/4 of NE 1/4 of Sec. <u>8</u> ; T. <u>5</u> N; R. <u>11</u> E			License/Permit/Monitoring No.
Grid Location		Street Address of Well	
_____ ft. ☐ N. ☐ S. _____ ft. ☐ E. ☐ W.		<u>216 E Main St</u>	
Local Grid Origin ☐ (estimated: ☐) or Well Location ☐		City, Village, or Town	
Lat. _____ Long. _____ or		<u>Stoughton</u>	
St. Plane _____ ft. N. _____ ft. E. ☐ ☐ ☐ Zone		Present Well Owner	Original Owner
Reason For Abandonment <u>End of Boring</u>		<u>City of Stoughton</u>	<u>same</u>
WI Unique Well No. of Replacement Well _____		Street Address or Route of Owner	
		<u>381 E Main St</u>	
		City, State, Zip Code	
		<u>Stoughton, WI 53589</u>	

(3) WELL/DRILLHOLE/BOREHOLE INFORMATION		(4) PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL	
Original Construction Date <u>9/10/18</u>		Pump & Piping Removed? ☐ Yes ☐ No ☒ Not Applicable	
☐ Monitoring Well		Liner(s) Removed? ☐ Yes ☐ No ☒ Not Applicable	
☐ Water Well		Screen Removed? ☐ Yes ☐ No ☒ Not Applicable	
☒ Borehole / Drillhole		Casing Left in Place? ☐ Yes ☒ No	
Construction Type:		Was Casing Cut Off Below Surface? ☐ Yes ☐ No ☒ NA	
☐ Drilled ☐ Driven (Sandpoint) ☐ Dog		Did Sealing Material Rise to Surface? ☒ Yes ☐ No	
☒ Other (Specify) <u>Geoprobe</u>		Did Material Settle After 24 Hours? ☐ Yes ☒ No	
Formation Type:		If Yes, Was Hole Retopped? ☐ Yes ☐ No	
☒ Unconsolidated Formation ☐ Bedrock		Required Method of Placing Sealing Material	
Total Well Depth (ft.) <u>15</u> Casing Diameter (in.) <u>N/A</u>		☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped	
(From ground surface) Casing Depth (ft.) <u>N/A</u>		☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain)	
Lower Drillhole Diameter (in.) <u>2</u>		Sealing Materials	
Was Well Annular Space Grouted? ☐ Yes ☒ No ☐ Unknown		☐ Neat Cement Grout	
If Yes, To What Depth? _____ Feet		☐ Sand-Cement (Concrete) Grout	
Depth to Water (Feet) <u>30</u>		☐ Concrete	
		☐ Clay-Sand Slurry (11 lb./gal. wt.)	
		☐ Bentonite-Sand Slurry " "	
		☐ Bentonite Chips	
		For monitoring wells and monitoring well boreholes only	
		☒ Bentonite Chips	
		☐ Granular Bentonite	
		☐ Bentonite - Cement Grout	
		☐ Bentonite - Sand Slurry	

(5) Material Used To Fill Well/Drillhole	From (Ft.)	To (Ft.)	No. Yards, Sacks Sealant or Volume	(Circle One)	Mix Ratio or Mud Weight
<u>Bentonite chips</u>	Surface	<u>15</u>	<u>1/3</u>		

(6) Comments:

(7) Name of Person or Firm Doing Sealing Work		Date of Abandonment	
<u>Soil Essentials</u>		<u>9/10/18</u>	
Signature of Person Doing Work <u>[Signature]</u>		Date Signed <u>9/17/18</u>	
Street or Route <u>201 N. 6th St</u>		Telephone Number <u>(815) 975-1203</u>	
City, State, Zip Code <u>Rockford, IL 61107</u>			

FOR DNR OR COUNTY USE ONLY	
Date Received	Noted By
Comments	



3510 Parmenter Street
Suite 100
Middleton, WI 53562

Phone: 608 831-5522
Fax: 608-831-6564
Web: www.reaeng.com

Appendix C: Laboratory Analytical Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-151228-1

Client Project/Site: 216 E Main St - 180045.2

For:

Resource Engineering

3510 Parmenter Street

Middleton, Wisconsin 53562

Attn: Mr. Bill Buckingham



Authorized for release by:

9/20/2018 5:39:56 PM

Sandie Fredrick, Project Manager II

(920)261-1660

sandie.fredrick@testamericainc.com

LINKS

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results through

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The
Expert

Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAP and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Job ID: 500-151228-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-151228-1

Comments

No additional comments.

Receipt

The samples were received on 9/11/2018 9:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.0° C.

Receipt Exceptions

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC). Added to COC and logged in.

GC VOA

Method(s) WI-GRO: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 490-542699.

Method(s) WI-GRO: The following sample(s) were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: B-5 (500-151228-10).

Method(s) WI-GRO: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 490-542487 and analytical batch 490-543457.

Method(s) WI-GRO: Surrogate recovery for the following sample was outside control limits: B-1 @ 2.5-2.7' (500-151228-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. RESULT IS CONFIRMED BY REPEAT ANALYSIS

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method(s) WI-DRO: Significant peaks, readily distinguished from background, were detected in the following samples within five minutes after the end of the analytical window defined by the last component eluting in the Diesel Range Organics (DRO) mix: B-4 @ 10'-15' (500-151228-4), B-5 @ 5-7.5' (500-151228-5), B-6 @ 5-7.5' (500-151228-7), B-7 @ 7.5-10' (500-151228-8) and B-5 (500-151228-10).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

Method(s) WI GRO: Methanol was added to provide a 1:1 ratio. B-1 @ 2.5-2.7' (500-151228-1), B-3 @ 10'-15' (500-151228-3), B-4 @ 10'-15' (500-151228-4), B-5 @ 5-7.5' (500-151228-5), B-6 @ 5-7.5' (500-151228-7) and B-7 @ 7.5-10' (500-151228-8)

Method(s) WI GRO: shake:9:00-9:02, sonic:9:04-9:29, B-1 @ 2.5-2.7' (500-151228-1), B-2 @ 10'-12.5' (500-151228-2), B-3 @ 10'-15' (500-151228-3), B-4 @ 10'-15' (500-151228-4), B-5 @ 5-7.5' (500-151228-5), B-5 @ 10-15' (500-151228-6), B-6 @ 5-7.5' (500-151228-7), B-7 @ 7.5-10' (500-151228-8), B-8 @ 10-15' (500-151228-9) and Trip Blank (500-151228-11)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Client Sample ID: B-1 @ 2.5-2.7'

Lab Sample ID: 500-151228-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1600		31	19	ug/Kg	1	☒	WDNR	Total/NA
1,3,5-Trimethylbenzene	890		31	19	ug/Kg	1	☒	WDNR	Total/NA
Ethylbenzene	31		31	24	ug/Kg	1	☒	WDNR	Total/NA
Naphthalene	430		310	150	ug/Kg	1	☒	WDNR	Total/NA
Toluene	130		31	21	ug/Kg	1	☒	WDNR	Total/NA
Xylenes, Total	210		93	37	ug/Kg	1	☒	WDNR	Total/NA
Wisconsin GRO	40000		6200	3100	ug/Kg	1	☒	WDNR	Total/NA
WI Diesel Range Organics (C10-C28)	22		5.1	2.0	mg/Kg	1	☒	WI-DRO	Total/NA

Client Sample ID: B-2 @ 10'-12.5'

Lab Sample ID: 500-151228-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
WI Diesel Range Organics (C10-C28)	3.1	J	4.8	1.9	mg/Kg	1	☒	WI-DRO	Total/NA

Client Sample ID: B-3 @ 10'-15'

Lab Sample ID: 500-151228-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
WI Diesel Range Organics (C10-C28)	5.1		4.1	1.6	mg/Kg	1	☒	WI-DRO	Total/NA

Client Sample ID: B-4 @ 10'-15'

Lab Sample ID: 500-151228-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
WI Diesel Range Organics (C10-C28)	19		3.9	1.6	mg/Kg	1	☒	WI-DRO	Total/NA

Client Sample ID: B-5 @ 5-7.5'

Lab Sample ID: 500-151228-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Wisconsin GRO	2800	J	5300	2700	ug/Kg	1	☒	WDNR	Total/NA
WI Diesel Range Organics (C10-C28)	110		8.9	3.5	mg/Kg	2	☒	WI-DRO	Total/NA

Client Sample ID: B-5 @ 10-15'

Lab Sample ID: 500-151228-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
WI Diesel Range Organics (C10-C28)	5.6		4.4	1.7	mg/Kg	1	☒	WI-DRO	Total/NA

Client Sample ID: B-6 @ 5-7.5'

Lab Sample ID: 500-151228-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
WI Diesel Range Organics (C10-C28)	11		4.6	1.8	mg/Kg	1	☒	WI-DRO	Total/NA

Client Sample ID: B-7 @ 7.5-10'

Lab Sample ID: 500-151228-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
WI Diesel Range Organics (C10-C28)	5.6		3.9	1.6	mg/Kg	1	☒	WI-DRO	Total/NA

Client Sample ID: B-8 @ 10-15'

Lab Sample ID: 500-151228-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
WI Diesel Range Organics (C10-C28)	5.5		4.6	1.8	mg/Kg	1	☒	WI-DRO	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Client Sample ID: B-5

Lab Sample ID: 500-151228-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
WI Diesel Range Organics (C10-C28)	0.31		0.10	0.033	mg/L	1		WI-DRO	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 500-151228-11

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Method Summary

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Method	Method Description	Protocol	Laboratory
WDNR	Wisconsin - Gasoline Range Organics (GC)	WI-GRO	TAL NSH
WI-DRO	Wisconsin - Diesel Range Organics (GC)	WI-DRO	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI
5030B	Purge and Trap	SW846	TAL NSH
WI DRO PREP	Wisconsin Extraction (Diesel Range Organics)	WI-DRO	TAL CHI
WI GRO	Closed System Purge and Trap	WI-GRO	TAL NSH

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

WI-DRO = "Modified DRO: Method For Determining Diesel Range Organics", Wisconsin DNR, Publ-SW-141, September, 1995.

WI-GRO = "Modified GRO: Method For Determining Gasoline Range Organics", Wisconsin DNR, Publ-SW-140, September, 1995.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Sample Summary

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-151228-1	B-1 @ 2.5-2.7'	Solid	09/10/18 11:05	09/11/18 09:25
500-151228-2	B-2 @ 10'-12.5'	Solid	09/10/18 11:55	09/11/18 09:25
500-151228-3	B-3 @ 10'-15'	Solid	09/10/18 12:20	09/11/18 09:25
500-151228-4	B-4 @ 10'-15'	Solid	09/10/18 12:55	09/11/18 09:25
500-151228-5	B-5 @ 5-7.5'	Solid	09/10/18 13:25	09/11/18 09:25
500-151228-6	B-5 @ 10'-15'	Solid	09/10/18 13:35	09/11/18 09:25
500-151228-7	B-6 @ 5-7.5'	Solid	09/10/18 14:55	09/11/18 09:25
500-151228-8	B-7 @ 7.5-10'	Solid	09/10/18 15:35	09/11/18 09:25
500-151228-9	B-8 @ 10'-15'	Solid	09/10/18 15:45	09/11/18 09:25
500-151228-10	B-5	Water	09/10/18 14:00	09/11/18 09:25
500-151228-11	Trip Blank	Solid	09/10/18 00:00	09/11/18 09:25

Client Sample Results

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Client Sample ID: B-1 @ 2.5-2.7'

Date Collected: 09/10/18 11:05

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-1

Matrix: Solid

Percent Solids: 82.4

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1600		31	19	ug/Kg	☐	09/13/18 10:54	09/18/18 12:45	1
1,3,5-Trimethylbenzene	890		31	19	ug/Kg	☐	09/13/18 10:54	09/18/18 12:45	1
Benzene	<22		31	22	ug/Kg	☐	09/13/18 10:54	09/18/18 12:45	1
Ethylbenzene	31		31	24	ug/Kg	☐	09/13/18 10:54	09/18/18 12:45	1
Methyl tert-butyl ether	<15		31	15	ug/Kg	☐	09/13/18 10:54	09/18/18 12:45	1
Naphthalene	430		310	150	ug/Kg	☐	09/13/18 10:54	09/18/18 12:45	1
Toluene	130		31	21	ug/Kg	☐	09/13/18 10:54	09/18/18 12:45	1
Xylenes, Total	210		93	37	ug/Kg	☐	09/13/18 10:54	09/18/18 12:45	1
Wisconsin GRO	40000		6200	3100	ug/Kg	☐	09/13/18 10:54	09/18/18 12:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	105		80 - 120	09/13/18 10:54	09/18/18 12:45	1
a,a,a-Trifluorotoluene	76	X	80 - 120	09/13/18 10:54	09/18/18 12:45	1

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	22		5.1	2.0	mg/Kg	☐	09/18/18 07:51	09/18/18 18:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Nonane	107		44 - 148	09/18/18 07:51	09/18/18 18:08	1

Client Sample ID: B-2 @ 10'-12.5'

Date Collected: 09/10/18 11:55

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-2

Matrix: Solid

Percent Solids: 94.6

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<18		30	18	ug/Kg	☐	09/13/18 10:55	09/18/18 13:15	1
1,3,5-Trimethylbenzene	<18		30	18	ug/Kg	☐	09/13/18 10:55	09/18/18 13:15	1
Benzene	<22		30	22	ug/Kg	☐	09/13/18 10:55	09/18/18 13:15	1
Ethylbenzene	<23		30	23	ug/Kg	☐	09/13/18 10:55	09/18/18 13:15	1
Methyl tert-butyl ether	<15		30	15	ug/Kg	☐	09/13/18 10:55	09/18/18 13:15	1
Naphthalene	<150		300	150	ug/Kg	☐	09/13/18 10:55	09/18/18 13:15	1
Toluene	<21		30	21	ug/Kg	☐	09/13/18 10:55	09/18/18 13:15	1
Xylenes, Total	<37		91	37	ug/Kg	☐	09/13/18 10:55	09/18/18 13:15	1
Wisconsin GRO	<3000		6100	3000	ug/Kg	☐	09/13/18 10:55	09/18/18 13:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	102		80 - 120	09/13/18 10:55	09/18/18 13:15	1
a,a,a-Trifluorotoluene	104		80 - 120	09/13/18 10:55	09/18/18 13:15	1

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	3.1	J	4.8	1.9	mg/Kg	☐	09/18/18 07:51	09/18/18 18:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Nonane	81		44 - 148	09/18/18 07:51	09/18/18 18:44	1

TestAmerica Chicago

Client Sample Results

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Client Sample ID: B-3 @ 10'-15'

Date Collected: 09/10/18 12:20

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-3

Matrix: Solid

Percent Solids: 96.1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<16		26	16	ug/Kg	⊖	09/13/18 10:55	09/18/18 13:46	1
1,3,5-Trimethylbenzene	<16		26	16	ug/Kg	⊖	09/13/18 10:55	09/18/18 13:46	1
Benzene	<19		26	19	ug/Kg	⊖	09/13/18 10:55	09/18/18 13:46	1
Ethylbenzene	<20		26	20	ug/Kg	⊖	09/13/18 10:55	09/18/18 13:46	1
Methyl tert-butyl ether	<13		26	13	ug/Kg	⊖	09/13/18 10:55	09/18/18 13:46	1
Naphthalene	<130		260	130	ug/Kg	⊖	09/13/18 10:55	09/18/18 13:46	1
Toluene	<18		26	18	ug/Kg	⊖	09/13/18 10:55	09/18/18 13:46	1
Xylenes, Total	<32		79	32	ug/Kg	⊖	09/13/18 10:55	09/18/18 13:46	1
Wisconsin GRO	<2600		5300	2600	ug/Kg	⊖	09/13/18 10:55	09/18/18 13:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	104		80 - 120	09/13/18 10:55	09/18/18 13:46	1
a,a,a-Trifluorotoluene	105		80 - 120	09/13/18 10:55	09/18/18 13:46	1

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	5.1		4.1	1.6	mg/Kg	⊖	09/18/18 07:51	09/18/18 19:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Nonane	79		44 - 148	09/18/18 07:51	09/18/18 19:19	1

Client Sample ID: B-4 @ 10'-15'

Date Collected: 09/10/18 12:55

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-4

Matrix: Solid

Percent Solids: 97.1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<15		26	15	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:17	1
1,3,5-Trimethylbenzene	<15		26	15	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:17	1
Benzene	<19		26	19	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:17	1
Ethylbenzene	<20		26	20	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:17	1
Methyl tert-butyl ether	<12		26	12	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:17	1
Naphthalene	<120		260	120	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:17	1
Toluene	<17		26	17	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:17	1
Xylenes, Total	<31		77	31	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:17	1
Wisconsin GRO	<2600		5100	2600	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	103		80 - 120	09/13/18 10:55	09/18/18 14:17	1
a,a,a-Trifluorotoluene	104		80 - 120	09/13/18 10:55	09/18/18 14:17	1

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	19		3.9	1.6	mg/Kg	⊖	09/18/18 07:51	09/18/18 19:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Nonane	77		44 - 148	09/18/18 07:51	09/18/18 19:55	1

TestAmerica Chicago

Client Sample Results

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Client Sample ID: B-5 @ 5-7.5'

Date Collected: 09/10/18 13:25

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-5

Matrix: Solid

Percent Solids: 92.6

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<16		27	16	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:48	1
1,3,5-Trimethylbenzene	<16		27	16	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:48	1
Benzene	<19		27	19	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:48	1
Ethylbenzene	<20		27	20	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:48	1
Methyl tert-butyl ether	<13		27	13	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:48	1
Naphthalene	<130		270	130	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:48	1
Toluene	<18		27	18	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:48	1
Xylenes, Total	<32		80	32	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:48	1
Wisconsin GRO	2800	J	5300	2700	ug/Kg	⊖	09/13/18 10:55	09/18/18 14:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	104		80 - 120	09/13/18 10:55	09/18/18 14:48	1
a,a,a-Trifluorotoluene	105		80 - 120	09/13/18 10:55	09/18/18 14:48	1

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	110		8.9	3.5	mg/Kg	⊖	09/18/18 07:51	09/19/18 14:07	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Nonane	90		44 - 148	09/18/18 07:51	09/19/18 14:07	2

Client Sample ID: B-5 @ 10-15'

Date Collected: 09/10/18 13:35

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-6

Matrix: Solid

Percent Solids: 95.8

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<14		24	14	ug/Kg	⊖	09/13/18 10:55	09/18/18 15:19	1
1,3,5-Trimethylbenzene	<14		24	14	ug/Kg	⊖	09/13/18 10:55	09/18/18 15:19	1
Benzene	<17		24	17	ug/Kg	⊖	09/13/18 10:55	09/18/18 15:19	1
Ethylbenzene	<18		24	18	ug/Kg	⊖	09/13/18 10:55	09/18/18 15:19	1
Methyl tert-butyl ether	<11		24	11	ug/Kg	⊖	09/13/18 10:55	09/18/18 15:19	1
Naphthalene	<110		240	110	ug/Kg	⊖	09/13/18 10:55	09/18/18 15:19	1
Toluene	<16		24	16	ug/Kg	⊖	09/13/18 10:55	09/18/18 15:19	1
Xylenes, Total	<29		71	29	ug/Kg	⊖	09/13/18 10:55	09/18/18 15:19	1
Wisconsin GRO	<2400		4800	2400	ug/Kg	⊖	09/13/18 10:55	09/18/18 15:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	102		80 - 120	09/13/18 10:55	09/18/18 15:19	1
a,a,a-Trifluorotoluene	105		80 - 120	09/13/18 10:55	09/18/18 15:19	1

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	5.6		4.4	1.7	mg/Kg	⊖	09/18/18 07:51	09/18/18 21:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Nonane	86		44 - 148	09/18/18 07:51	09/18/18 21:06	1

TestAmerica Chicago

Client Sample Results

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Client Sample ID: B-6 @ 5-7.5'

Date Collected: 09/10/18 14:55

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-7

Matrix: Solid

Percent Solids: 93.0

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<16		26	16	ug/Kg	☐	09/13/18 10:55	09/18/18 15:50	1
1,3,5-Trimethylbenzene	<16		26	16	ug/Kg	☐	09/13/18 10:55	09/18/18 15:50	1
Benzene	<19		26	19	ug/Kg	☐	09/13/18 10:55	09/18/18 15:50	1
Ethylbenzene	<20		26	20	ug/Kg	☐	09/13/18 10:55	09/18/18 15:50	1
Methyl tert-butyl ether	<13		26	13	ug/Kg	☐	09/13/18 10:55	09/18/18 15:50	1
Naphthalene	<130		260	130	ug/Kg	☐	09/13/18 10:55	09/18/18 15:50	1
Toluene	<18		26	18	ug/Kg	☐	09/13/18 10:55	09/18/18 15:50	1
Xylenes, Total	<31		79	31	ug/Kg	☐	09/13/18 10:55	09/18/18 15:50	1
Wisconsin GRO	<2600		5200	2600	ug/Kg	☐	09/13/18 10:55	09/18/18 15:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	103		80 - 120				09/13/18 10:55	09/18/18 15:50	1
a,a,a-Trifluorotoluene	104		80 - 120				09/13/18 10:55	09/18/18 15:50	1

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	11		4.6	1.8	mg/Kg	☐	09/18/18 07:51	09/18/18 22:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Nonane	88		44 - 148				09/18/18 07:51	09/18/18 22:17	1

Client Sample ID: B-7 @ 7.5-10'

Date Collected: 09/10/18 15:35

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-8

Matrix: Solid

Percent Solids: 96.5

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<16		27	16	ug/Kg	☐	09/13/18 10:55	09/18/18 16:21	1
1,3,5-Trimethylbenzene	<16		27	16	ug/Kg	☐	09/13/18 10:55	09/18/18 16:21	1
Benzene	<19		27	19	ug/Kg	☐	09/13/18 10:55	09/18/18 16:21	1
Ethylbenzene	<20		27	20	ug/Kg	☐	09/13/18 10:55	09/18/18 16:21	1
Methyl tert-butyl ether	<13		27	13	ug/Kg	☐	09/13/18 10:55	09/18/18 16:21	1
Naphthalene	<130		270	130	ug/Kg	☐	09/13/18 10:55	09/18/18 16:21	1
Toluene	<18		27	18	ug/Kg	☐	09/13/18 10:55	09/18/18 16:21	1
Xylenes, Total	<32		81	32	ug/Kg	☐	09/13/18 10:55	09/18/18 16:21	1
Wisconsin GRO	<2700		5400	2700	ug/Kg	☐	09/13/18 10:55	09/18/18 16:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	103		80 - 120				09/13/18 10:55	09/18/18 16:21	1
a,a,a-Trifluorotoluene	104		80 - 120				09/13/18 10:55	09/18/18 16:21	1

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	5.6		3.9	1.6	mg/Kg	☐	09/18/18 07:51	09/18/18 22:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Nonane	88		44 - 148				09/18/18 07:51	09/18/18 22:53	1

TestAmerica Chicago

Client Sample Results

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Client Sample ID: B-8 @ 10-15'

Date Collected: 09/10/18 15:45

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-9

Matrix: Solid

Percent Solids: 95.8

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<18		30	18	ug/Kg	☐	09/13/18 10:55	09/18/18 16:52	1
1,3,5-Trimethylbenzene	<18		30	18	ug/Kg	☐	09/13/18 10:55	09/18/18 16:52	1
Benzene	<22		30	22	ug/Kg	☐	09/13/18 10:55	09/18/18 16:52	1
Ethylbenzene	<23		30	23	ug/Kg	☐	09/13/18 10:55	09/18/18 16:52	1
Methyl tert-butyl ether	<14		30	14	ug/Kg	☐	09/13/18 10:55	09/18/18 16:52	1
Naphthalene	<140		300	140	ug/Kg	☐	09/13/18 10:55	09/18/18 16:52	1
Toluene	<21		30	21	ug/Kg	☐	09/13/18 10:55	09/18/18 16:52	1
Xylenes, Total	<36		91	36	ug/Kg	☐	09/13/18 10:55	09/18/18 16:52	1
Wisconsin GRO	<3000		6000	3000	ug/Kg	☐	09/13/18 10:55	09/18/18 16:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	105		80 - 120				09/13/18 10:55	09/18/18 16:52	1
a,a,a-Trifluorotoluene	108		80 - 120				09/13/18 10:55	09/18/18 16:52	1

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	5.5		4.6	1.8	mg/Kg	☐	09/18/18 07:51	09/18/18 23:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Nonane	88		44 - 148				09/18/18 07:51	09/18/18 23:28	1

Client Sample ID: B-5

Date Collected: 09/10/18 14:00

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-10

Matrix: Water

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			09/14/18 14:50	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			09/14/18 14:50	1
Benzene	<0.36		0.50	0.36	ug/L			09/14/18 14:50	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			09/14/18 14:50	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			09/14/18 14:50	1
Naphthalene	<2.4		5.0	2.4	ug/L			09/14/18 14:50	1
Toluene	<0.33		0.50	0.33	ug/L			09/14/18 14:50	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			09/14/18 14:50	1
Wisconsin GRO	<50		100	50	ug/L			09/14/18 14:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		80 - 120					09/14/18 14:50	1
a,a,a-Trifluorotoluene	104		80 - 120					09/14/18 14:50	1

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	0.31		0.10	0.033	mg/L		09/17/18 16:41	09/20/18 14:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Nonane	80		42 - 111				09/17/18 16:41	09/20/18 14:03	1

TestAmerica Chicago

Client Sample Results

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Client Sample ID: Trip Blank

Lab Sample ID: 500-151228-11

Date Collected: 09/10/18 00:00

Matrix: Solid

Date Received: 09/11/18 09:25

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<15		25	15	ug/Kg		09/13/18 10:55	09/18/18 12:14	1
1,3,5-Trimethylbenzene	<15		25	15	ug/Kg		09/13/18 10:55	09/18/18 12:14	1
Benzene	<18		25	18	ug/Kg		09/13/18 10:55	09/18/18 12:14	1
Ethylbenzene	<19		25	19	ug/Kg		09/13/18 10:55	09/18/18 12:14	1
Methyl tert-butyl ether	<12		25	12	ug/Kg		09/13/18 10:55	09/18/18 12:14	1
Naphthalene	<120		250	120	ug/Kg		09/13/18 10:55	09/18/18 12:14	1
Toluene	<17		25	17	ug/Kg		09/13/18 10:55	09/18/18 12:14	1
Xylenes, Total	<30		75	30	ug/Kg		09/13/18 10:55	09/18/18 12:14	1
Wisconsin GRO	<2500		5000	2500	ug/Kg		09/13/18 10:55	09/18/18 12:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	104		80 - 120				09/13/18 10:55	09/18/18 12:14	1
a,a,a-Trifluorotoluene	105		80 - 120				09/13/18 10:55	09/18/18 12:14	1

Definitions/Glossary

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

GC VOA

Prep Batch: 542487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151228-1	B-1 @ 2.5-2.7'	Total/NA	Solid	WI GRO	
500-151228-2	B-2 @ 10'-12.5'	Total/NA	Solid	WI GRO	
500-151228-3	B-3 @ 10'-15'	Total/NA	Solid	WI GRO	
500-151228-4	B-4 @ 10'-15'	Total/NA	Solid	WI GRO	
500-151228-5	B-5 @ 5-7.5'	Total/NA	Solid	WI GRO	
500-151228-6	B-5 @ 10-15'	Total/NA	Solid	WI GRO	
500-151228-7	B-6 @ 5-7.5'	Total/NA	Solid	WI GRO	
500-151228-8	B-7 @ 7.5-10'	Total/NA	Solid	WI GRO	
500-151228-9	B-8 @ 10-15'	Total/NA	Solid	WI GRO	
500-151228-11	Trip Blank	Total/NA	Solid	WI GRO	
MB 490-542487/1-A	Method Blank	Total/NA	Solid	WI GRO	
LCS 490-542487/2-A	Lab Control Sample	Total/NA	Solid	WI GRO	
LCSD 490-542487/3-A	Lab Control Sample Dup	Total/NA	Solid	WI GRO	

Analysis Batch: 542699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151228-10	B-5	Total/NA	Water	WDNR	
MB 490-542699/8	Method Blank	Total/NA	Water	WDNR	
LCS 490-542699/7	Lab Control Sample	Total/NA	Water	WDNR	
LCSD 490-542699/11	Lab Control Sample Dup	Total/NA	Water	WDNR	

Analysis Batch: 543457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151228-1	B-1 @ 2.5-2.7'	Total/NA	Solid	WDNR	542487
500-151228-2	B-2 @ 10'-12.5'	Total/NA	Solid	WDNR	542487
500-151228-3	B-3 @ 10'-15'	Total/NA	Solid	WDNR	542487
500-151228-4	B-4 @ 10'-15'	Total/NA	Solid	WDNR	542487
500-151228-5	B-5 @ 5-7.5'	Total/NA	Solid	WDNR	542487
500-151228-6	B-5 @ 10-15'	Total/NA	Solid	WDNR	542487
500-151228-7	B-6 @ 5-7.5'	Total/NA	Solid	WDNR	542487
500-151228-8	B-7 @ 7.5-10'	Total/NA	Solid	WDNR	542487
500-151228-9	B-8 @ 10-15'	Total/NA	Solid	WDNR	542487
500-151228-11	Trip Blank	Total/NA	Solid	WDNR	542487
MB 490-542487/1-A	Method Blank	Total/NA	Solid	WDNR	542487
LCS 490-542487/2-A	Lab Control Sample	Total/NA	Solid	WDNR	542487
LCSD 490-542487/3-A	Lab Control Sample Dup	Total/NA	Solid	WDNR	542487

GC Semi VOA

Prep Batch: 450336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151228-10	B-5	Total/NA	Water	3510C	
MB 500-450336/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-450336/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-450336/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 450396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151228-1	B-1 @ 2.5-2.7'	Total/NA	Solid	WI DRO PREP	
500-151228-2	B-2 @ 10'-12.5'	Total/NA	Solid	WI DRO PREP	

TestAmerica Chicago

QC Association Summary

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

GC Semi VOA (Continued)

Prep Batch: 450396 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151228-3	B-3 @ 10'-15'	Total/NA	Solid	WI DRO PREP	
500-151228-4	B-4 @ 10'-15'	Total/NA	Solid	WI DRO PREP	
500-151228-5	B-5 @ 5-7.5'	Total/NA	Solid	WI DRO PREP	
500-151228-6	B-5 @ 10'-15'	Total/NA	Solid	WI DRO PREP	
500-151228-7	B-6 @ 5-7.5'	Total/NA	Solid	WI DRO PREP	
500-151228-8	B-7 @ 7.5-10'	Total/NA	Solid	WI DRO PREP	
500-151228-9	B-8 @ 10'-15'	Total/NA	Solid	WI DRO PREP	
MB 500-450396/1-A	Method Blank	Total/NA	Solid	WI DRO PREP	
LCS 500-450396/2-A	Lab Control Sample	Total/NA	Solid	WI DRO PREP	
LCSD 500-450396/3-A	Lab Control Sample Dup	Total/NA	Solid	WI DRO PREP	

Analysis Batch: 450469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151228-1	B-1 @ 2.5-2.7'	Total/NA	Solid	WI-DRO	450396
500-151228-2	B-2 @ 10'-12.5'	Total/NA	Solid	WI-DRO	450396
500-151228-3	B-3 @ 10'-15'	Total/NA	Solid	WI-DRO	450396
500-151228-4	B-4 @ 10'-15'	Total/NA	Solid	WI-DRO	450396
500-151228-6	B-5 @ 10'-15'	Total/NA	Solid	WI-DRO	450396
500-151228-7	B-6 @ 5-7.5'	Total/NA	Solid	WI-DRO	450396
500-151228-8	B-7 @ 7.5-10'	Total/NA	Solid	WI-DRO	450396
500-151228-9	B-8 @ 10'-15'	Total/NA	Solid	WI-DRO	450396
MB 500-450396/1-A	Method Blank	Total/NA	Solid	WI-DRO	450396
LCS 500-450396/2-A	Lab Control Sample	Total/NA	Solid	WI-DRO	450396
LCSD 500-450396/3-A	Lab Control Sample Dup	Total/NA	Solid	WI-DRO	450396

Analysis Batch: 450657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151228-5	B-5 @ 5-7.5'	Total/NA	Solid	WI-DRO	450396

Analysis Batch: 450891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151228-10	B-5	Total/NA	Water	WI-DRO	450336
MB 500-450336/1-A	Method Blank	Total/NA	Water	WI-DRO	450336
LCS 500-450336/2-A	Lab Control Sample	Total/NA	Water	WI-DRO	450336
LCSD 500-450336/3-A	Lab Control Sample Dup	Total/NA	Water	WI-DRO	450336

General Chemistry

Analysis Batch: 449492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-151228-1	B-1 @ 2.5-2.7'	Total/NA	Solid	Moisture	
500-151228-2	B-2 @ 10'-12.5'	Total/NA	Solid	Moisture	
500-151228-3	B-3 @ 10'-15'	Total/NA	Solid	Moisture	
500-151228-4	B-4 @ 10'-15'	Total/NA	Solid	Moisture	
500-151228-5	B-5 @ 5-7.5'	Total/NA	Solid	Moisture	
500-151228-6	B-5 @ 10'-15'	Total/NA	Solid	Moisture	
500-151228-7	B-6 @ 5-7.5'	Total/NA	Solid	Moisture	
500-151228-8	B-7 @ 7.5-10'	Total/NA	Solid	Moisture	
500-151228-9	B-8 @ 10'-15'	Total/NA	Solid	Moisture	
500-151228-3 DU	B-3 @ 10'-15'	Total/NA	Solid	Moisture	

TestAmerica Chicago

Surrogate Summary

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TFT (80-120)	TFT (80-120)
500-151228-1	B-1 @ 2.5-2.7'	105	105
500-151228-2	B-2 @ 10'-12.5'	102	102
500-151228-3	B-3 @ 10'-15'	104	104
500-151228-4	B-4 @ 10'-15'	103	103
500-151228-5	B-5 @ 5-7.5'	104	104
500-151228-6	B-5 @ 10-15'	102	102
500-151228-7	B-6 @ 5-7.5'	103	103
500-151228-8	B-7 @ 7.5-10'	103	103
500-151228-9	B-8 @ 10-15'	105	105
500-151228-11	Trip Blank	104	104
LCS 490-542487/2-A	Lab Control Sample	113	113
LCSD 490-542487/3-A	Lab Control Sample Dup	111	111
MB 490-542487/1-A	Method Blank	100	100

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TFT (80-120)	TFT (80-120)
500-151228-10	B-5	97	97
LCS 490-542699/7	Lab Control Sample	98	98
LCSD 490-542699/11	Lab Control Sample Dup	97	97
MB 490-542699/8	Method Blank	97	97

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	C9 (44-148)	
500-151228-1	B-1 @ 2.5-2.7'	107	
500-151228-2	B-2 @ 10'-12.5'	81	
500-151228-3	B-3 @ 10'-15'	79	
500-151228-4	B-4 @ 10'-15'	77	
500-151228-5	B-5 @ 5-7.5'	90	
500-151228-6	B-5 @ 10-15'	86	
500-151228-7	B-6 @ 5-7.5'	88	
500-151228-8	B-7 @ 7.5-10'	88	
500-151228-9	B-8 @ 10-15'	88	
LCS 500-450396/2-A	Lab Control Sample	78	
LCSD 500-450396/3-A	Lab Control Sample Dup	80	
MB 500-450396/1-A	Method Blank	76	

TestAmerica Chicago

Surrogate Summary

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Surrogate Legend

C9 = n-Nonane

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	C9 (42-111)
500-151228-10	B-5	80
LCS 500-450336/2-A	Lab Control Sample	60
LCSD 500-450336/3-A	Lab Control Sample Dup	64
MB 500-450336/1-A	Method Blank	63

Surrogate Legend

C9 = n-Nonane

QC Sample Results

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Lab Sample ID: MB 490-542487/1-A

Matrix: Solid

Analysis Batch: 543457

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 542487

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<15		25	15	ug/Kg		09/13/18 10:52	09/18/18 11:43	1
1,3,5-Trimethylbenzene	<15		25	15	ug/Kg		09/13/18 10:52	09/18/18 11:43	1
Benzene	<18		25	18	ug/Kg		09/13/18 10:52	09/18/18 11:43	1
Ethylbenzene	<19		25	19	ug/Kg		09/13/18 10:52	09/18/18 11:43	1
Methyl tert-butyl ether	<12		25	12	ug/Kg		09/13/18 10:52	09/18/18 11:43	1
Naphthalene	<120		250	120	ug/Kg		09/13/18 10:52	09/18/18 11:43	1
Toluene	<17		25	17	ug/Kg		09/13/18 10:52	09/18/18 11:43	1
Xylenes, Total	<30		75	30	ug/Kg		09/13/18 10:52	09/18/18 11:43	1
Wisconsin GRO	<2500		5000	2500	ug/Kg		09/13/18 10:52	09/18/18 11:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	100		80 - 120	09/13/18 10:52	09/18/18 11:43	1
a,a,a-Trifluorotoluene	103		80 - 120	09/13/18 10:52	09/18/18 11:43	1

Lab Sample ID: LCS 490-542487/2-A

Matrix: Solid

Analysis Batch: 543457

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 542487

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2,4-Trimethylbenzene	2500	2340		ug/Kg		93	60 - 140
1,3,5-Trimethylbenzene	2500	2430		ug/Kg		97	74 - 133
Benzene	2500	2420		ug/Kg		97	76 - 120
Ethylbenzene	2500	2400		ug/Kg		96	77 - 120
Methyl tert-butyl ether	2500	2600		ug/Kg		104	73 - 120
Naphthalene	2500	2310		ug/Kg		92	74 - 127
Toluene	2500	2420		ug/Kg		97	79 - 120
Wisconsin GRO	25000	28300		ug/Kg		113	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	113		80 - 120
a,a,a-Trifluorotoluene	110		80 - 120

Lab Sample ID: LCSD 490-542487/3-A

Matrix: Solid

Analysis Batch: 543457

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 542487

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,2,4-Trimethylbenzene	2500	2300		ug/Kg		92	60 - 140	1	50
1,3,5-Trimethylbenzene	2500	2400		ug/Kg		96	74 - 133	1	42
Benzene	2500	2380		ug/Kg		95	76 - 120	2	27
Ethylbenzene	2500	2380		ug/Kg		95	77 - 120	1	49
Methyl tert-butyl ether	2500	2610		ug/Kg		104	73 - 120	0	31
Naphthalene	2500	2340		ug/Kg		93	74 - 127	1	50
Toluene	2500	2380		ug/Kg		95	79 - 120	2	37
Wisconsin GRO	25000	28400		ug/Kg		114	80 - 120	0	20

TestAmerica Chicago

QC Sample Results

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: LCSD 490-542487/3-A

Matrix: Solid

Analysis Batch: 543457

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 542487

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
a,a,a-Trifluorotoluene	111		80 - 120
a,a,a-Trifluorotoluene	110		80 - 120

Lab Sample ID: MB 490-542699/8

Matrix: Water

Analysis Batch: 542699

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			09/14/18 13:40	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			09/14/18 13:40	1
Benzene	<0.36		0.50	0.36	ug/L			09/14/18 13:40	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			09/14/18 13:40	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			09/14/18 13:40	1
Naphthalene	<2.4		5.0	2.4	ug/L			09/14/18 13:40	1
Toluene	<0.33		0.50	0.33	ug/L			09/14/18 13:40	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			09/14/18 13:40	1
Wisconsin GRO	<50		100	50	ug/L			09/14/18 13:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		80 - 120		09/14/18 13:40	1
a,a,a-Trifluorotoluene	104		80 - 120		09/14/18 13:40	1

Lab Sample ID: LCS 490-542699/7

Matrix: Water

Analysis Batch: 542699

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	20.3		ug/L		102	60 - 131
1,3,5-Trimethylbenzene	20.0	20.5		ug/L		103	70 - 130
Benzene	20.0	18.9		ug/L		94	69 - 129
Ethylbenzene	20.0	20.5		ug/L		102	70 - 130
Methyl tert-butyl ether	20.0	19.4		ug/L		97	57 - 138
Naphthalene	20.0	19.1		ug/L		96	69 - 133
Toluene	20.0	19.9		ug/L		100	66 - 127
Wisconsin GRO	200	216		ug/L		108	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	98		80 - 120
a,a,a-Trifluorotoluene	105		80 - 120

Lab Sample ID: LCSD 490-542699/11

Matrix: Water

Analysis Batch: 542699

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	20.0	19.9		ug/L		100	60 - 131	2	43
1,3,5-Trimethylbenzene	20.0	20.0		ug/L		100	70 - 130	2	20

TestAmerica Chicago

QC Sample Results

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: LCSD 490-542699/11

Matrix: Water

Analysis Batch: 542699

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	20.0	18.7		ug/L		94	69 - 129	1	33
Ethylbenzene	20.0	20.3		ug/L		101	70 - 130	1	35
Methyl tert-butyl ether	20.0	19.7		ug/L		99	57 - 138	2	40
Naphthalene	20.0	19.6		ug/L		98	69 - 133	3	48
Toluene	20.0	19.5		ug/L		97	66 - 127	2	34
Wisconsin GRO	200	206		ug/L		103	80 - 120	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
a,a,a-Trifluorotoluene	97		80 - 120
a,a,a-Trifluorotoluene	105		80 - 120

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

Lab Sample ID: MB 500-450336/1-A

Matrix: Water

Analysis Batch: 450891

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 450336

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	<0.033		0.10	0.033	mg/L		09/17/18 16:41	09/20/18 12:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Nonane	63		42 - 111	09/17/18 16:41	09/20/18 12:52	1

Lab Sample ID: LCS 500-450336/2-A

Matrix: Water

Analysis Batch: 450891

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 450336

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
WI Diesel Range Organics (C10-C28)	0.400	0.405		mg/L		101	75 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Nonane	60		42 - 111

Lab Sample ID: LCSD 500-450336/3-A

Matrix: Water

Analysis Batch: 450891

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 450336

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
WI Diesel Range Organics (C10-C28)	0.400	0.416		mg/L		104	75 - 125	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
n-Nonane	64		42 - 111

TestAmerica Chicago

QC Sample Results

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Method: WI-DRO - Wisconsin - Diesel Range Organics (GC) (Continued)

Lab Sample ID: MB 500-450396/1-A
Matrix: Solid
Analysis Batch: 450469

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 450396

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	<1.6		4.0	1.6	mg/Kg		09/18/18 07:51	09/18/18 15:46	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
n-Nonane	76		44 - 148				09/18/18 07:51	09/18/18 15:46	1

Lab Sample ID: LCS 500-450396/2-A
Matrix: Solid
Analysis Batch: 450469

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 450396
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	
WI Diesel Range Organics (C10-C28)	20.0	19.5		mg/Kg		97	70 - 120	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
n-Nonane	78		44 - 148					

Lab Sample ID: LCSD 500-450396/3-A
Matrix: Solid
Analysis Batch: 450469

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 450396
%Rec.

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
WI Diesel Range Organics (C10-C28)	20.0	21.2		mg/Kg		106	70 - 120	8	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
n-Nonane	80		44 - 148						

Lab Chronicle

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Client Sample ID: B-1 @ 2.5-2.7'

Date Collected: 09/10/18 11:05

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	449492	09/12/18 15:50	LWN	TAL CHI

Client Sample ID: B-1 @ 2.5-2.7'

Date Collected: 09/10/18 11:05

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-1

Matrix: Solid

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	WI GRO			542487	09/13/18 10:54	DHC	TAL NSH
Total/NA	Analysis	WDNR		1	543457	09/18/18 12:45	S1S	TAL NSH
Total/NA	Prep	WI DRO PREP			450396	09/18/18 07:51	BSO	TAL CHI
Total/NA	Analysis	WI-DRO		1	450469	09/18/18 18:08	RES	TAL CHI

Client Sample ID: B-2 @ 10'-12.5'

Date Collected: 09/10/18 11:55

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	449492	09/12/18 15:50	LWN	TAL CHI

Client Sample ID: B-2 @ 10'-12.5'

Date Collected: 09/10/18 11:55

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-2

Matrix: Solid

Percent Solids: 94.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	WI GRO			542487	09/13/18 10:55	DHC	TAL NSH
Total/NA	Analysis	WDNR		1	543457	09/18/18 13:15	S1S	TAL NSH
Total/NA	Prep	WI DRO PREP			450396	09/18/18 07:51	BSO	TAL CHI
Total/NA	Analysis	WI-DRO		1	450469	09/18/18 18:44	RES	TAL CHI

Client Sample ID: B-3 @ 10'-15'

Date Collected: 09/10/18 12:20

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	449492	09/12/18 15:50	LWN	TAL CHI

Client Sample ID: B-3 @ 10'-15'

Date Collected: 09/10/18 12:20

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-3

Matrix: Solid

Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	WI GRO			542487	09/13/18 10:55	DHC	TAL NSH

TestAmerica Chicago

Lab Chronicle

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Client Sample ID: B-3 @ 10'-15'

Date Collected: 09/10/18 12:20

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-3

Matrix: Solid

Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	543457	09/18/18 13:46	S1S	TAL NSH
Total/NA	Prep	WI DRO PREP			450396	09/18/18 07:51	BSO	TAL CHI
Total/NA	Analysis	WI-DRO		1	450469	09/18/18 19:19	RES	TAL CHI

Client Sample ID: B-4 @ 10'-15'

Date Collected: 09/10/18 12:55

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	449492	09/12/18 15:50	LWN	TAL CHI

Client Sample ID: B-4 @ 10'-15'

Date Collected: 09/10/18 12:55

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-4

Matrix: Solid

Percent Solids: 97.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	WI GRO			542487	09/13/18 10:55	DHC	TAL NSH
Total/NA	Analysis	WDNR		1	543457	09/18/18 14:17	S1S	TAL NSH
Total/NA	Prep	WI DRO PREP			450396	09/18/18 07:51	BSO	TAL CHI
Total/NA	Analysis	WI-DRO		1	450469	09/18/18 19:55	RES	TAL CHI

Client Sample ID: B-5 @ 5-7.5'

Date Collected: 09/10/18 13:25

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	449492	09/12/18 15:50	LWN	TAL CHI

Client Sample ID: B-5 @ 5-7.5'

Date Collected: 09/10/18 13:25

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-5

Matrix: Solid

Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	WI GRO			542487	09/13/18 10:55	DHC	TAL NSH
Total/NA	Analysis	WDNR		1	543457	09/18/18 14:48	S1S	TAL NSH
Total/NA	Prep	WI DRO PREP			450396	09/18/18 07:51	BSO	TAL CHI
Total/NA	Analysis	WI-DRO		2	450657	09/19/18 14:07	RES	TAL CHI

Lab Chronicle

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Client Sample ID: B-5 @ 10-15'

Date Collected: 09/10/18 13:35

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	449492	09/12/18 15:50	LWN	TAL CHI

Client Sample ID: B-5 @ 10-15'

Date Collected: 09/10/18 13:35

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-6

Matrix: Solid

Percent Solids: 95.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	WI GRO			542487	09/13/18 10:55	DHC	TAL NSH
Total/NA	Analysis	WDNR		1	543457	09/18/18 15:19	S1S	TAL NSH
Total/NA	Prep	WI DRO PREP			450396	09/18/18 07:51	BSO	TAL CHI
Total/NA	Analysis	WI-DRO		1	450469	09/18/18 21:06	RES	TAL CHI

Client Sample ID: B-6 @ 5-7.5'

Date Collected: 09/10/18 14:55

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	449492	09/12/18 15:50	LWN	TAL CHI

Client Sample ID: B-6 @ 5-7.5'

Date Collected: 09/10/18 14:55

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-7

Matrix: Solid

Percent Solids: 93.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	WI GRO			542487	09/13/18 10:55	DHC	TAL NSH
Total/NA	Analysis	WDNR		1	543457	09/18/18 15:50	S1S	TAL NSH
Total/NA	Prep	WI DRO PREP			450396	09/18/18 07:51	BSO	TAL CHI
Total/NA	Analysis	WI-DRO		1	450469	09/18/18 22:17	RES	TAL CHI

Client Sample ID: B-7 @ 7.5-10'

Date Collected: 09/10/18 15:35

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	449492	09/12/18 15:50	LWN	TAL CHI

Client Sample ID: B-7 @ 7.5-10'

Date Collected: 09/10/18 15:35

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-8

Matrix: Solid

Percent Solids: 96.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	WI GRO			542487	09/13/18 10:55	DHC	TAL NSH

TestAmerica Chicago

Lab Chronicle

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Client Sample ID: B-7 @ 7.5-10'

Date Collected: 09/10/18 15:35

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-8

Matrix: Solid

Percent Solids: 96.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	543457	09/18/18 16:21	S1S	TAL NSH
Total/NA	Prep	WI DRO PREP			450396	09/18/18 07:51	BSO	TAL CHI
Total/NA	Analysis	WI-DRO		1	450469	09/18/18 22:53	RES	TAL CHI

Client Sample ID: B-8 @ 10-15'

Date Collected: 09/10/18 15:45

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	449492	09/12/18 15:50	LWN	TAL CHI

Client Sample ID: B-8 @ 10-15'

Date Collected: 09/10/18 15:45

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-9

Matrix: Solid

Percent Solids: 95.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	WI GRO			542487	09/13/18 10:55	DHC	TAL NSH
Total/NA	Analysis	WDNR		1	543457	09/18/18 16:52	S1S	TAL NSH
Total/NA	Prep	WI DRO PREP			450396	09/18/18 07:51	BSO	TAL CHI
Total/NA	Analysis	WI-DRO		1	450469	09/18/18 23:28	RES	TAL CHI

Client Sample ID: B-5

Date Collected: 09/10/18 14:00

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	542699	09/14/18 14:50	S1S	TAL NSH
Total/NA	Prep	3510C			450336	09/17/18 16:41	DAK	TAL CHI
Total/NA	Analysis	WI-DRO		1	450891	09/20/18 14:03	RES	TAL CHI

Client Sample ID: Trip Blank

Date Collected: 09/10/18 00:00

Date Received: 09/11/18 09:25

Lab Sample ID: 500-151228-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	WI GRO			542487	09/13/18 10:55	DHC	TAL NSH
Total/NA	Analysis	WDNR		1	543457	09/18/18 12:14	S1S	TAL NSH

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TestAmerica Chicago

Accreditation/Certification Summary

Client: Resource Engineering
Project/Site: 216 E Main St - 180045.2

TestAmerica Job ID: 500-151228-1

Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-19

Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998020430	08-31-19



500-151228 CQC

(optional)

Report To: **Bill Buckingham**
Contact: **Resource Eng Assoc**
Company: **1700 Parkmerston St**
Address: **Lebanon, KY 40530**
Address: **508-220-3804**
Phone: **508-220-3804**
Fax: **508-220-3804**
E-Mail: **bill@creaeng.com**

(optional)

Bill To: **Same**
Contact: **Same**
Company: **Same**
Address: **Same**
Address: **Same**
Phone: **Same**
Fax: **Same**
PO#/Reference: **Same**

Chain of Custody Record

Lab Job #: **500-151228**

Chain of Custody Number:

Page **1** of **1**

Temperature °C of Cooler: **110**

Client	Project Name	Project Location/State	Lab Project #	Sampler	Sample ID	MS/MSD	Sampling		Matrix	Preservative	PO#/Reference	Fax	Comments
							Date	Time					
Resource Eng Assoc	180045.2	216 E Main St		Stoughton, WI			9/10/18	11:05	350		9/8		
Ryan N/Bill B. Sandie Fredrick													
1	B-10 @ 25-27'						9/10/18	11:05	350				
2	B-20 @ 10'-12.5'							11:55	350				
3	B-30 @ 10'-15'							12:20	350				
4	B-40 @ 10'-15'							12:55	350				
5	B-50 @ 5-7.5'							1:25	350				
6	B-50 @ 10-15'							1:35	350				
7	B-60 @ 5-7.5'							2:55	350				
8	B-70 @ 7.5-10'							3:35	350				
9	B-80 @ 10-15'							3:45	350				
10	B-5							2:00	3W				

- Preservative Key
1. HCl, Cool to 4°
 2. H2SO4, Cool to 4°
 3. HNO3, Cool to 4°
 4. NaOH, Cool to 4°
 5. NaOH/Zn, Cool to 4°
 6. NaH-SC4
 7. Cool to 4°
 8. None
 9. Other

Added by TA

Sample Disposal

Return to Client ☐ Disposed by Lab ☒

Archive for _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Request Time Required: **1 Day** 2 Days 5 Days 7 Days 10 Days 15 Days Other

Relinquished By: Bill Buckingham	Relinquished Date: 9/10/18	Relinquished Time: 4:30 PM	Relinquished Company: Resource Eng Assoc	Relinquished Address: 1700 Parkmerston St, Lebanon, KY 40530	Relinquished Phone: 508-220-3804	Relinquished Fax: 508-220-3804	Relinquished E-Mail: bill@creaeng.com
Received By: Bill Buckingham	Received Date: 9/11/18	Received Time: 0925	Received Company: Resource Eng Assoc	Received Address: 1700 Parkmerston St, Lebanon, KY 40530	Received Phone: 508-220-3804	Received Fax: 508-220-3804	Received E-Mail: bill@creaeng.com
Lab Courier: Fed X	Shipped: Fed X	Hand Delivered: Hand Delivered					

Matrix Key

- WW - Wastewater
- W - Water
- S - Soil
- SL - Sludge
- MS - Miscellaneous
- CL - Oil
- A - Air
- SE - Sediment
- SO - Soil
- L - Leachate
- WI - Wipe
- DW - Drinking Water
- O - Other

Client Comments:

Lab Comments:

9/10/17

THE LEADER IN ENVIRONMENTAL TESTING

SHIP DATE: 18APR18
ACTWTG: 10.00 LB NAW
CAD: 525155/CAFE3111

ORIGIN ID: RRLA (262) 202-5955

BILL BUCKINGHAM
RESOURCE ENGINEERING
3610 PARCENIER, SL

MIDDLETON, WI 53562
UNITED STATES US



TO
TESTAMERICA CHICAGO
2417 BOND STREET

500-151228 Waybill

UNIVERSITY PARK IL 60484-3101

REF:

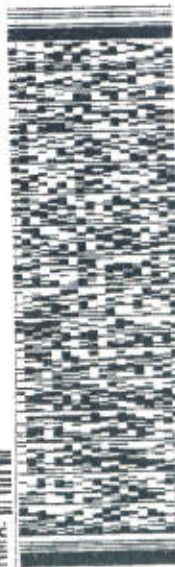
(700) 634-6200

REF:

RMA: III IIII III

FedEx

Express



60484
TUE - 11 SEP 10:30A
PRIORITY OVERNIGHT
60484
ORD
IL - US



79 JOTA

FedEx
TRK# 7125 4937 8210
0221

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10:30
8210
09:11
RT 519
ST 19

W639446 09/10 55211/F7BC/PCAS

48qt.

COOLER RECEIPT FORM

500-151228 Chain of Custody



Cooler Received/Opened On 9/12/2018 @ 1005

Time Samples Removed From Cooler 1740 Time Samples Placed In Storage 1749 (2 Hour Window)

1. Tracking # 7248 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17960357 pH Strip Lot Chlorine Strip Lot

2. Temperature of rep, sample or temp blank when opened 2.6 Degrees Celsius

3. If item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? If yes, how many and where: 1 Front YES NO NA

5. Were the seals intact, signed, and dated correctly? YES NO NA

6. Were custody papers inside cooler? YES NO NA

7. Were custody seals on containers: YES NO and intact

8. Packing mat? used? Bubblewrap Elastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: ice Ice-pack ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES NO NA

11. Were all container labels complete (R, date, signed, pres., etc)? YES NO NA

12. Did all container labels and tags agree with custody papers? YES NO NA

13a. Were VOA vials received? YES NO NA

b. Was there any observable headspace present in any VOA vial? YES NO NA

14. Was there a Trip Blank in this cooler? YES NO NA If multiple coolers, sequence #

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES NO NA

b. Did the bottle labels indicate that the correct preservatives were used? YES NO NA

16. Was residual chlorine present? YES NO NA

17. Were custody papers properly filled out (ink, signed, etc)? YES NO NA

18. Did you sign the custody papers in the appropriate place? YES NO NA

19. Were correct containers used for the analysis requested? YES NO NA

20. Was sufficient amount of sample sent in each container? YES NO NA

21. Were there Non-Conformance issues at login? YES NO Was a NCM generated? YES NO

22. Was there a label with the unique LIMS number to each container (initial)? YES NO

23. Was there a label with the unique LIMS number to each container (initial)? YES NO

24. Was there a label with the unique LIMS number to each container (initial)? YES NO

25. Was there a label with the unique LIMS number to each container (initial)? YES NO

26. Was there a label with the unique LIMS number to each container (initial)? YES NO

27. Was there a label with the unique LIMS number to each container (initial)? YES NO

28. Was there a label with the unique LIMS number to each container (initial)? YES NO

29. Was there a label with the unique LIMS number to each container (initial)? YES NO

30. Was there a label with the unique LIMS number to each container (initial)? YES NO

31. Was there a label with the unique LIMS number to each container (initial)? YES NO

32. Was there a label with the unique LIMS number to each container (initial)? YES NO

33. Was there a label with the unique LIMS number to each container (initial)? YES NO

34. Was there a label with the unique LIMS number to each container (initial)? YES NO

35. Was there a label with the unique LIMS number to each container (initial)? YES NO

36. Was there a label with the unique LIMS number to each container (initial)? YES NO

37. Was there a label with the unique LIMS number to each container (initial)? YES NO

38. Was there a label with the unique LIMS number to each container (initial)? YES NO

2417 Bond Street;
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record



TestAmerica

THE 1 STAGE IN ENVIRONMENTAL PROTECTIO

Client Information (Sub Contract Lab)		Site:	Lab No:	Order No:
Company: TerraAmerica Laboratories, Inc		Frederick, Sandie J	500-110089.1	Page 1 of 2
Client Contact: Shipping/Receiving		Email: sandie.frederick@terraamericanlab.com	State of Origin: Wisconsin	
Address: 2980 Foster Creighton Drive, Nashville, TN, 37204		Analysis Requested		
Phone: 615-728-0177 (tel) 615-728-3404 (fax)		Preservation Codes:		
Email: 615-728-0177 (tel) 615-728-3404 (fax)		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - NaOH G - Analyte H - Ascorbic Acid I - Iodine J - DI Water K - EDTA L - BDA M - Hexane N - MeOH O - Acetone P - Na2SO3 Q - Na2S2O3 R - Na2SO3 S - H2SO4 T - TSP Colloidal Silver U - Acetone V - MeOH W - BHT-4E Z - Other (specify)		
Project Name: 216 E Main St - 1800/45.2		Project #:		
Site: 50006583		Project #:		
Sample Identification - Client ID (Lab ID)		Sample Date		
B-1 @ 2-2.7' (500-151228-1)	9/10/18	11-05	Central	Solid
B-2 @ 10-12.5' (500-151228-2)	9/10/18	11-55	Central	Solid
B-3 @ 10-15' (500-151228-3)	9/10/18	12-20	Central	Solid
B-4 @ 10-15' (500-151228-4)	9/10/18	12-55	Central	Solid
B-5 @ 5-7.5' (500-151228-5)	9/10/18	13-25	Central	Solid
B-5 @ 10-15' (500-151228-6)	9/10/18	13-35	Central	Solid
B-6 @ 5-7.5' (500-151228-7)	9/10/18	14-55	Central	Solid
B-7 @ 7.5-10' (500-151228-8)	9/10/18	15-35	Central	Solid
B-8 @ 10-15' (500-151228-9)	9/10/18	15-45	Central	Solid
Note: Since laboratory accreditation is subject to change, TerraAmerica Laboratories, Inc. places the ownership of method, analysis & accreditation compliance upon our subcontract laboratories. The sample shipment is forwarded under chain of custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis, the samples must be shipped back to the TerraAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TerraAmerica Laboratories, Inc. attention immediately. If all requested specifications are current to date, return the signed Chain of Custody shipping to said jurisdiction to TerraAmerica Laboratories, Inc.		Total Number of containers		
Possible Hazard Identification		Special Instructions/Note:		
Unconfirmed		Loc: 500		
Deliverable Requested: I, II, III, IV, Other (Specify)		151228		
Primary Deliverable Rank: 2				
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
☐ Return To Client ☐ Disposal By Lab ☐ Archive For		Months		
Special Instructions/IOC Requirements:				
Empty Kit Requisitioned by:		Date/Time		
Date/Time		Company		
Requisitioned by:		Date/Time		
Date/Time		Company		
Custody Seals intact: ☐ Yes ☐ No		Custody Seal No:		
Custody Seals intact: ☐ Yes ☐ No		Custody Seal No:		

2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

THE LEADER IN ENVIRONMENTAL TESTING

Ver: 09/20/2016

COOLER RECEIPT FORM

500-151228 Chain of Custody



Cooler Received/Opened On 9/12/2018 @ 1005

Time Samples Removed From Cooler 1740 Time Samples Placed in Storage 1749 (2 Hour Window)
Tracking # 7348 (last 4 digits, FedEx)
Courier: FedEx

IR Gun ID 17960357 pH Strip Lot Chlorine Strip Lot
2. Temperature of rep. sample or temp blank when opened 21.6 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA
4. Were custody seals on outside of cooler? If yes, how many and where: 1 front
5. Were the seals intact, signed, and dated correctly? YES NO NA
6. Were custody papers inside cooler? YES NO NA

7. Were custody seals on containers: YES NO and intact
Were these signed and dated correctly? YES NO NA

8. Packing mat? used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None
9. Cooling process: ice ice-pack ice (direct contact) Dry Ice Other None
10. Did all containers arrive in good condition (unbroken)? YES NO NA
11. Were all container labels complete (#, date, signed, pres., etc)? YES NO NA
12. Did all container labels and tags agree with custody papers? YES NO NA
13a. Were VOA vials received? YES NO NA
b. Was there any observable headspace present in any VOA vial? YES NO NA

14. Was there a Trip Blank in this cooler? YES NO NA If multiple coolers, sequence #

I certify that I unloaded the cooler and answered questions 7-14 (initial) TR
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES NO NA
b. Did the bottle labels indicate that the correct preservatives were used? YES NO NA
16. Was residual chlorine present? YES NO NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) TR
17. Were custody papers properly filled out (ink, signed, etc)? YES NO NA
18. Did you sign the custody papers in the appropriate place? YES NO NA
19. Were correct containers used for the analysis requested? YES NO NA
20. Was sufficient amount of sample sent in each container? YES NO NA
I certify that I entered this project into LIMS and answered questions 17-20 (initial) TR

I certify that I attached a label with the unique LIMS number to each container (initial) TR
21. Were there Non-Conformance issues at login? YES NO Was a NCM generated? YES NO #

BIS = Broken in Shipment
Cooler Receipt Form.doc

End of Form

Revised 8/23/17

2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking (N/A)	CCC No:
Client Contact:		Project:	Frederick, Sample J		500-110009-1
Company:	TestAmerica Laboratories, Inc		E-Mail: samuel.frederick@testamconline.com	State of Origin: Wisconsin	Page 1 of 2
Shipping/Receiving:			Accreditations Required (See note): State Program - Wisconsin		Page 1 of 2
Address:	2360 Foster Creighton Drive, Nashville TN, 37204	Due Date Requested: 9/16/2018	Analysis Requested		Job #: 500-151228-1
City:		TAT Requested (days):			Preservation Codes:
State, Zip:					A - HCL B - NaOH C - 2% Acetic D - Nitric Acid E - NaHSO4 F - NaOH G - Another H - Acetic acid I - Ice J - Citric Acid K - EDTA L - BDA Other:
Phone:	615-726-0177 (Tel) 615-726-3404 (Fax)	PO #:			M - Hexane N - None O - Acetic P - Na2SO4 Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecanol U - Acetic V - MCAA W - pH 4.5 Z - other (specify)
Email:		Project #:			
		50006593			
Project Name:	216 E Main St - 180045.2	SSCWT:			
Site:					
Sample Identification - Client ID (Lab ID)					
B-1 @ 2.5-2.7' (500-151228-1)	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=Water, D=Dredge, B=Bottom, S=Soil)	Field Filtered Sample (Yes or No)
	9/10/18	11:05		Solid	X
B-2 @ 10-12.5' (500-151228-2)	9/10/18	11:55		Solid	X
B-3 @ 10-18' (500-151228-3)	9/10/18	12:20		Solid	X
B-4 @ 10-15' (500-151228-4)	9/10/18	12:55		Solid	X
B-5 @ 5-7.5' (500-151228-5)	9/10/18	13:25		Solid	X
B-6 @ 10-15' (500-151228-6)	9/10/18	13:35		Solid	X
B-7 @ 7.5-10' (500-151228-7)	9/10/18	13:35		Solid	X
B-8 @ 10-15' (500-151228-8)	9/10/18	15:45		Solid	X
B-9 @ 10-15' (500-151228-9)	9/10/18	15:45		Solid	X
Total Number of containers					
Special Instructions/Note:					
Loc: 500 151228					

2417 Bond Street
University Park, IL 60464
Phone (708) 634-5200 Fax (708) 634-5211

testAmerica

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: Resource Engineering

Job Number: 500-151228-1

Login Number: 151228

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received Trip Blank(s) not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	