

## GEOTEK ENGINEERING & TESTING SERVICES, INC

909 East 50th Street North Sioux Falls, South Dakota 57104 605-335-5512 • FAX 605-335-0773 1-800-354-5512 www.geotekeng.com

March 15, 2010

Contaminated Sites Section Iowa Department of Natural Resources Wallace State Office Building 502 East 9<sup>th</sup> Street Des Moines, IA 50319

Attn: Jim Kacer

Subj: Groundwater Sampling Results

Kerber Milling Company

Estherville, Iowa Geotek #09-C70

Dear Mr. Kacer:

This correspondence is provided on behalf of Kerber Milling Company, Emmetsburg, Iowa. Enclosed are the results of groundwater sampling completed at the project site as required in February 22, 2010 correspondence from the Department. A brief discussion of the groundwater analytical results is provided below.

GeoTek mobilized to the project site on March 3, 2010 and installed a temporary monitoring well (TMW1) at the approximate location of previous soil boring SB3. The locations of TMW1 and SB3 are indicated on Figure 1. The well construction diagram is provided in Appendix A. There was no water in the well immediately after installation or approximately 1 hour after installation.

GeoTek returned to the site on March 8, 2010. The water level in the well was measured at 12.35 feet below the top of riser. The well was purged as much as possible, while still allowing for sufficient water to be present for the collection of samples for laboratory analysis. It appeared that the well would bail dry relatively quickly. Groundwater samples were collected and submitted to TestAmerica Laboratory for analysis of BTEX and TEH.

The laboratory report is provided in Appendix B. A review of the groundwater analytical data indicates that petroleum constituents are present. The BTEX and TEH concentrations do not exceed the standards for protected groundwater source (PGWS) receptors. Based on the IDNR's Tier 2 Risk Based Corrective Action (RBCA) criteria, the only groundwater target levels exceeded at the site are those for water supply wells.

As noted in GeoTek's February 2, 2010 correspondence, a search for water supply wells was completed using the IDNR's well search data base. Public water supply wells were not identified within a 1000 foot radius of the site. It appeared that a non-drinking water well completed at a depth of greater than 200 feet was located approximately 1000 feet northwest of the site.

Based on the available information and data, it is our opinion that the identified petroleum constituents at the site do not represent a hazardous condition. We do not recommend additional assessment at the site. It is our recommendation that the temporary monitoring well be properly abandoned/plugged.

If there are questions concerning this correspondence or the project, please contact our office at 605-335-5512 or 1-800-354-5512.

Sincerely,

GeoTek Engineering & Testing Services, Inc.

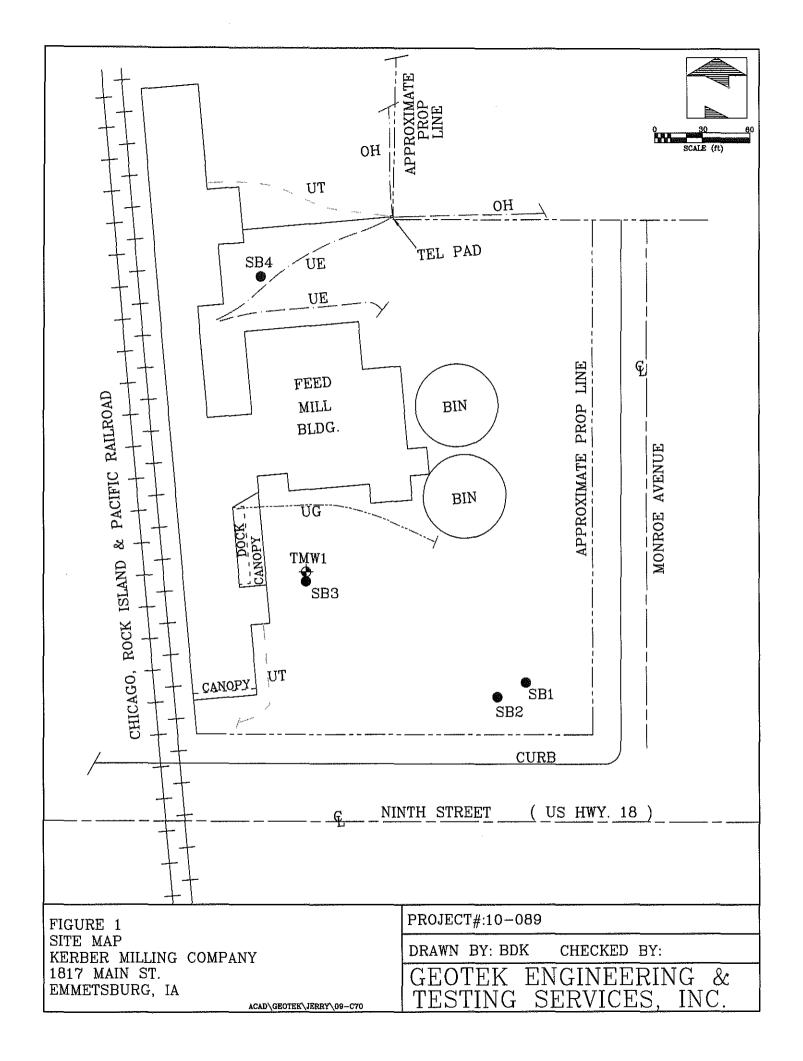
Keith DeLange

Sr. Project Manager

KSI DIJ

Certified Iowa Groundwater Professional #1368

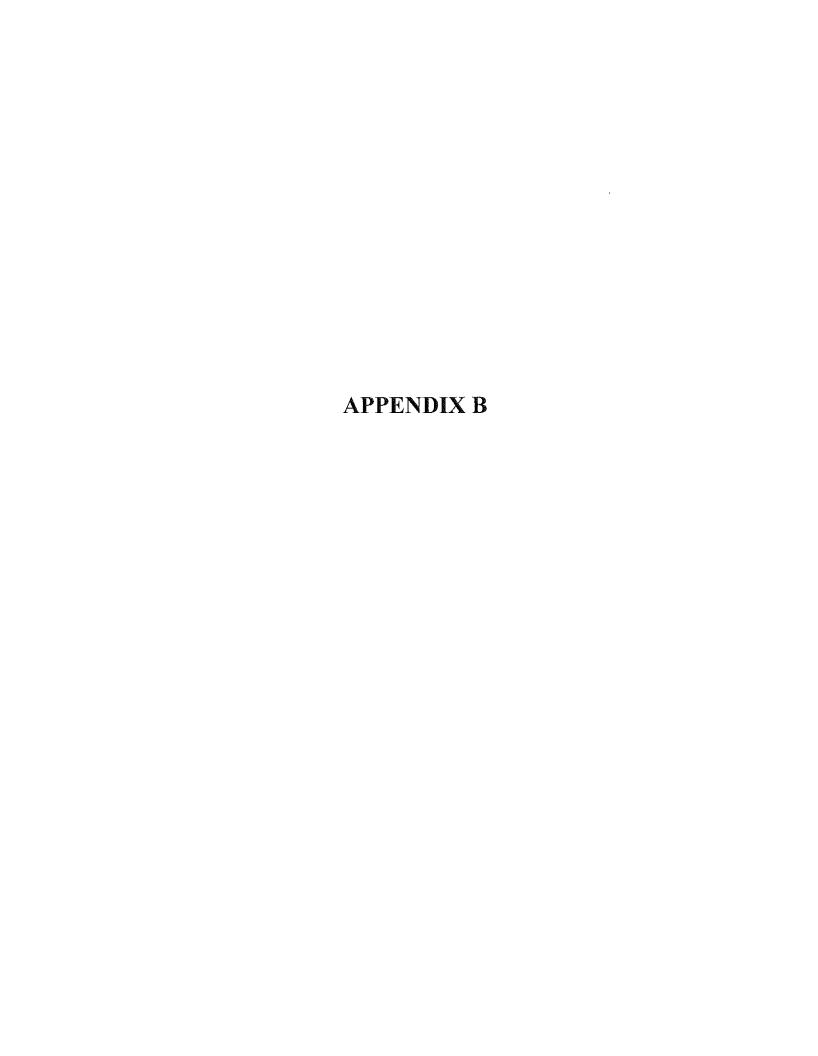
cc: Kerber Milling Company, 1901 Main Street, P.O. Box 96, Emmetsburg, IA 50536 Michael Gabor, 111 N. Dodge Street, P.O. Box 617, Algona, IA 50511





GEOTEK Number: 10-089

SOIL BORING LO	G AND N	ONITORIN	IG WE	ELL CO	ONSTRU	CTI	ON DIAGRAM								
Boring / Well Number:	Facility Nam	e:		Facility Street Address:											
TMW-1 1 of 1	Kerber Milli	ng Company		1901 Main Street Emmetsburg, IA											
Boring Depth (ft) X Diameter	(in): <b>15.0</b>	к 7.25		Drilling	Method:	3.25" ID Hollow Stem Aug									
Well Contractor Name: Roy	Hanson			Logged	d by:	Roy Hanson									
Registration Number: 665	5		<sub></sub>												
Ground Surface			Top of	Casing											
Elevation (ASL):			Elevat	ion (ASL	):										
Date: 3/3/10	Date:	3/3/10	UST N	lumber:		LU:	ST Number:								
Start Time: 10:40 am	End Time:	12:00 pm													
Depth (feet) Well Construction	n Details	Blow Count	Sar No.	mple Type*	PID / FID Reading		ck Formations, Soil, Color and Classifications, Observations (moisture, odor, etc.)								
			100	, <b>, , , ,</b>		_	(moisture, odor, etc.) First column for USCS  CLAY: a little gravel,								
							black and brown, frozen to moist, a 7" layer of gravel at the surface								
2" PVC Casing					:		 								
─ Hydrated Bentor	nite						[ [ ]								
5—————————————————————————————————————						CL	LEAN CLAY WITH SAND a little gravel, brown, moist, (CL)								
10 ——2" PVC #10 Slot	Screen														
<b>y</b>						CL	LEAN CLAY WITH SAND: a little gravel, dark brown, moist, (CL)								
15							Bottom of borehole at 15 feet.								
* SS (split spoon) HS (hollov	v stem auger	) FA (flight aug	jer) NS	⊹ R (no sa⊦	mple recove	red)	** ND (non-detect)								
Observations	Date:	3-8-10	***												
Water Depths	Level:	12.35'													
Static Water Level Symbol	Time:	10:35													





March 15, 2010

Client:

GEOTEK ENGINEERING & TESTING SERVICES

909 E. 50th Street

Sioux Falls, SD 57104

Attn:

Keith Delange

Work Order:

CTC0481

Project Name:

Kerber Milling - Emmetsburg, IA

Project Number:

10-089

Date Received:

03/10/10

The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-(800)750-2401

SAMPLE IDENTIFICATION

LAB NUMBER

COLLECTION DATE AND TIME

TMW-I

CTC0481-01

03/08/10 10:35

Samples were received into laboratory at a temperature of 3.40 °C.

NELAC states that samples which require thermal preservation shall be considered acceptable if the arrival temperature is within 2 degrees C of the required temperature or the method specified range. For samples with a temperature requirement of 4 degrees C, an arrival temperature from 0 degrees C to 6 degrees C meets specifications. Samples that are delivered to the laboratory on the same day that they are collected may not meet these criteria. In these cases, the samples are considered acceptable if there is evidence that the chilling process has begun, such as arrival on ice.

Please refer to the Temperature and Sample Receipt form that is included with this report for additional information regarding the condition of samples at the time of receipt by the laboratory.

The reported results were obtained in compliance with the 2003 NELAC standards unless otherwise noted. Iowa Certification Number: 007

Reproduction of this analytical report is permitted only in its entirety. This report shall not be reproduced except in full without the written approval of the laboratory.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the specific sample analyzed.

Approved By: Angela Muchling

Iowa UST Lab Certification No. 007



GEOTEK ENGINEERING & TESTING SERVICES

909 E. 50th Street

Keith Delange

Sioux Falls, SD 57104

Work Order:

CTC0481

Received:

03/10/10

Reported:

03/15/10 13:26

Project: Project Number: Kerber Milling - Emmetsburg, IA

### ANALYTICAL REPORT

	Sample	Data		Quan. Limit	Dilution	Date		Seq/	
Analyte	Result Qualifiers		Units		Factor	Analyzed	Analyst	Batch	Method
Sample ID: CTC0481-01 (TMW-1	- Ground Water)				Sampled:	03/08/10 10:35	Rec	vd: 03/10	/10 13:35
Sampled By: Jeff	Thursheim			Phone	605	5-335-5512			
UST Volatile Compounds by GC									
Benzenc	67.4		ug/L	10.0	5	03/11/10 23:58	klb	10C0428	OA-1 - 8021B
Toluene	63.8		ug/L	10.0	5	03/11/10 23:58	klb	10C0428	OA-1 - 8021B
Ethylbenzene	115		ug/L	10.0	5	03/11/10 23:58	klb	10C0428	OA-1 - 8021B
Xylenes, total	566		ug/L	15.0	5	03/15/10 12:31	klb	10C0508	OA-1 - 8021B
Surr: 4-Bromofluorobenzene (55-130%)	108 %								
Surr: 4-Bromofluorobenzene (55-130%)	101 %								
VOC Preservation Check									
pН	<2.00		units	2.00	1	03/11/10 09:46	klb	10C0387	SW
UST ANALYSIS PARAMETERS									
Total Extractable Hydrocarbons	9030		ug/L	300	I	03/11/10 11:45	rdm	[CALC]	OA-2 - 8015B
Diesel	2300	Q	ug/L	300	1.01	03/11/10 11:45	rdm	10C0346	OA-2
Gasoline	6150		ug/L	300	1,01	03/11/10 11:45	rdm	10C0346	OA-2
Motor Oil	579	Q	ug/L	300	1.01	03/11/10 11:45	rdm	10C0346	OA-2
Surr: Octacosane (35-135%)	126 %								



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Project: Kerber Milling - Emmetsburg, IA
Project Number: 10-089

#### SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
UST ANALYSIS PARAMETERS							
OA-2	10C0346	CTC0481-01	990,00	1.00	03/10/10 14:32	JDB	SW 3510C GC
OA-2 - 8015B	[CALC]	CTC0481-01	1.00	1,00	03/10/10 14:32		[CALC]



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Project:

Kerber Milling - Emmetsburg, IA

Project Number: 10-089

### LABORATORY BLANK QC DATA

	Seq/	Source	Spike					Dup	%	Dup	% REC		RPD	
Analyte	Batch	Result	Level	Units	MDL	MRL	Result	Result	REC	%REC	Limits	RPD	Limit	Q
UST Volatile Compounds by GC														
Benzene	10C0428			ug/L	N/A	2.00	<2.00							
Toluene	10C0428			ug/L	N/A	2.00	<2.00							
Ethylbenzene	10C0428			ug/L	N/A	2.00	<2.00							
Xylenes, total	10C0428			ug/L	N/A	3.00	<3,00							
Surrogate: 4-Bromofluorobenzene	10C0428			ug/L					108		55-130			
Benzene	10C0508			ug/L	N/A	2.00	<2.00							
Toluene	10C0508			ug/L	N/A	2.00	<2.00							
Ethylbenzene	10C0508			ug/L	N/A	2.00	<2.00							
Xylenes, total	10C0508			ug/L	N/A	3.00	<3.00							
Surrogate: 4-Bromofluorobenzene	10C0508			ug/L					100		55-130			
UST ANALYSIS PARAMETERS														
Diesel	10C0346			ug/L	N/A	300	<300							
Gasoline	10C0346			ug/L	N/A	300	<300							
Motor Oil	10C0346			ug/L	N/A	300	<300							
Surrogate: Octacosane	10C0346			ug/L					101		35-135			



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03/15/10 13:26

Kerber Milling - Emmetsburg, IA Project: 10-089 Project Number:

### LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC	RPD	RPD Limit	Q
UST Volatile Compounds by GC	2000	TC5BIT		Onto	MDL		TTO SHITE	ITESUIT	ILLO	701100	***************************************	- KI D	2311111	
Benzene	10C0428		48.0	ug/L	N/A	N/A	46.1		96		45-105			
Toluene	10C0428		48.0	ug/L	N/A	N/A	49.6		103		65-105			
Ethylbenzene	10C0428		48.0	ug/L	N/A	N/A	52.7		110		65-110			
Xylenes, total	10C0428		144	ug/L	N/A	N/A	159		111		65-110			L5
Surrogate: 4-Bromofluorobenzene	I0C0428			ug/L					110		55-130			
Benzene	10C0508		48.0	ug/L	N/A	N/A	38.9		81		45-105			
Toluene	10C0508		48.0	ug/L	N/A	N/A	43.6		91		65-105			
Ethylbenzene	10C0508		48.0	ug/L	N/A	N/A	46,3		97		65-110			
Xylenes, total	10C0508		144	ug/L	N/A	N/A	141		98		65-110			
Surrogate: 4-Bromofluorobenzene	1000508			ug/L					101		55-130			
UST ANALYSIS PARAMETERS	1000046		2000	<i>П</i>	NT/A	200	2040	2150	102	107	40-135	5	30	
Diesel Surrogate: Octacosane	10C0346 10C0346		2000	ug/L ug/L	N/A	300	2040	2150	110	1112	40-133 45-140	J	υC	



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03/15/10 13:26

909 E. 50th Street Sioux Falls, SD 57104

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Project:

Kerber Milling - Emmetsburg, IA

Project Number:

10-089

# MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC	RPD	RPD Limit	Q
UST Volatile Compounds by GC					- Adaption							····		
QC Source Sample: CTC0397-04														
Benzene	10C0428	0.637	48.0	ng/L	N/A	N/A	47.2	46,8	97	96	45-110	1	10	
Toluene	10C0428	1.87	48.0	ug/L	N/A	N/A	52.1	51.4	105	103	50-115	1	10	
Ethylbenzene	10C0428	2,65	48.0	ug/L	N/A	N/A	55.8	55,2	111	109	55-120	1	10	
Xylenes, total	10C0428	8.71	144	ug/L	N/A	N/A	169	168	112	110	55-120	1	10	
Surrogate: 4-Bromofluorobenzene	10C0428			ug/L					109	110	55-130			
QC Source Sample: CTC0397-04RE1														
Benzene	10C0508	0,673	48.0	ug/L	N/A	N/A	41.1	40.9	84	84	45-110	0	10	
Toluene	10C0508	0.761	48.0	ug/L	N/A	N/A	47.7	47.5	98	97	50-115	0	10	
Ethylbenzene	10C0508	0.855	48.0	ug/L	N/A	N/A	51.0	51.0	105	105	55-120	0	10	
Xylenes, total	10C0508	3.28	144	ug/L	N/A	N/A	155	156	106	106	55-120	0	10	
Surrogate: 4-Bromofluorobenzene	10C0508			ug/L					101	102	55-130			



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Sioux Falls, SD 57104

Keith Delange

Q

Project:

Kerber Milling - Emmetsburg, IA

Project Number:

10-089

#### CERTIFICATION SUMMARY

#### TestAmerica Cedar Falls

Method	Matrix	Nelac	Iowa				
OA-1 - 8021B	Water - NonPotable	X	X	 	 ,	 	
OA-2 - 8015B	Water - NonPotable						
OA-2	Water - NonPotable	X	X				
SW	Water - NonPotable						

Any abnormalities or departures from sample acceptance policy shall be documented on the 'Sample Receipt and Termperature Log Form' and 'Sample Non-conformance Form' (if applicable) included with this report.

For information concerning certifications of this facility or another TestAmerica facility, please visit our website at www.TestAmericaInc.com

Samples collected by TestAmerica Field Services personnel are noted on the Chain of Custody (COC) and are sampled in accordance with TA-CF SOP CF-FSS-01.

#### DATA QUALIFIERS AND DEFINITIONS

L5 Laboratory Control Sample was outside of acceptance limits. The MS or MSD was used to validate the batch.

Poor chromatographic match to standard,

ADDITIONAL COMMENTS



Cedar Falls Division 704 Enterprise Drive Cedar Falls, IA 50613 Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401

Fax: 319 - 277 - 2425

Company:															You	л Р(	) #: _															
Send Report To:		ke	7 th		$)_{\ell}$ $l$	4 20	<u> </u>											Inv	oice	To:	(	Se	of	e l	(	En	511	ree	N	24		
Address:		909 E	ast 5															TA	Quo	te #:												
City/State/Zip Code:		Sioux	Falls	, SD	571	04												Project Name: Kerber Milling Co														
Telephone Number:		605-3	35-55	12				F	ax:		60	5-3	35-	077	3			Project Number: 10 -0 59														
Sampled by: (Print Name)	)	Jeff thurshein																Pro	ject	Mgr.	Email:		Kde lange @geo							g.cc	 om	
(Signature)		111		the	/	_		•										Pro	i. Mg	г. Tel	ephon	e: —				5-55					*******	
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NOTE: All turn around times are calculated in NOTICE: Pre-Arrangements must be madwith RUSH turn around time con NOTE: There may be a charge assessed for Relinquished by	ie AT LEA mmitmer TestAme Da	me of re ST 48 H st; addi rica disp	ceipt a lours i tional osing	t Tes n AD chan of sai	VANI ges n	CE to lay b rema	receie as inder	eive	resu		H <sub>2</sub> SO <sub>4</sub> Glass(Yellow & White Label)	None (Black & White Label)		X Groundwater	9:	agp <sub>n</sub> <sub>S</sub>		Other Specify:	ne		quishe	d by						RUSH TAT (Must call ahead)	ete	E-mail results	Tax Results	Send QC with report
W/ Vhm	3-7	9-10 300																						$oldsymbol{\perp}$								
Shipped Via: Received for TestAmericatov	⊿ /Da	tæ	Tin	ne	Comm		re Ur	on F	Recei	pi			Ţ	abon	atory	Cor	nme	nts		Shipp	ed Via	<u>:</u>									—	$\dashv$
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704 ENTERPRISE DRIVE • CEDAR FALLS, IA 50613 800-750-2401 • 319-277-2425 FAX

# **Sample Receipt and Temperature Log Form** Project: City: D-10 Receiver's Initials: CH Time (Delivered): 13:35 Temperature Record: Thermometer: Courier: ☐ UPS TA Courier IR - 61997671 'B' Cooler JD# (If Applicable) FedEx **TA Field Services** IR - 90876942 'C' FedEx Ground Client IR - 61854108 US Postal Service Other 22126775 Spee-Dee Temp Blank Temperature out of compliance **Exceptions Noted** Sample(s) not received in a cooler. Custody seals present? Yes Samples(s) received same day of sampling. Custody seals intact? Evidence of a chilling process Non-Conformance report started Temperature not taken:

\*Refer to SOP CF-SS-01 for Temperature Criteria

H:\QA Folder\QA Forms & Log Book pgs\Cooler Receipt rev15.doc