



AMERICAN
ENGINEERING
TESTING, INC.

NAR 10-30-2012

RIHN OIL CO

09-09-557066 WCR022

*NAR site
BK 10/2*

October 29, 2012

Gina Keenan
WDNR
P.O. Box 4001
Eau Claire, WI 54702-4001

Re: Additional soil sampling for tank system site assessment at the Rihn Oil Site,
W. River and Pine Streets, Chippewa Falls, Chippewa County, Wisconsin.
WDNR BRTS No. 03-09-557066. AET Project No. 03-04523.

Dear Ms. Keenan:

Enclosed are results of additional soil sampling for the tank system site assessment at the Rihn Oil site.

Low concentrations of gasoline range organics (GROs) and diesel range organics (DROs) were detected in all three soil samples collected at concentrations exceeding laboratory detection limits. Concentrations in one sample (D-3A) exceeds the Wisconsin Department of Natural Resources (WDNR) generic soil residual contaminant level (RCLs) of 100 parts per million (ppm) for DROs.

Low concentrations of petroleum volatile organic compounds (PVOCs) were detected in one (D-1A) of the three soil samples collected at concentrations exceeding laboratory detection limits. Concentrations do not exceed the WDNRs generic soil RCLs as outline in NR 720 of the Wisconsin Administrative Code.

Based on visual observation and the laboratory results of soil samples collected there is no indication that a release of petroleum to the environment has occurred from this system.

If you have any questions, I can be reach at 715-861-5045.

Sincerely,

Michael K. Neal, Professional Hydrologist
Geomorphologist



cc: Curt Hager, The Muffler Shop, 17 Taylor Street, Chippewa Falls, WI 54729
Bradley K. Rihn, 104 Well Street, Chippewa Falls, WI 54729

TABLE 1
ANALYTICAL RESULTS - ADDITIONAL SOIL SAMPLES
RIHN OIL SITE, CHIPPEWA FALLS, WISCONSIN

	NR720 Generic RCLs	NR 746 Table 1 Values	NR 746 Table 2 Values	Samples						
				D-1	D-1A	D-3	D-3A	P-1	P-1A	MEOH Blank
Date				11-May-11	8-Oct-12	11-May-11	8-Oct-12	11-May-11	8-Oct-12	8-Oct-12
Location				Dispenser	Dispenser	Dispenser	Dispenser	Piping	Piping	---
Depth (feet)				3	4	3	4	3	4	---
PID (Instrument Units)				6.2	< 1	23.5	< 1	1525	< 1	---
GRO (ppm)	100			50.9	6.1	---	---	52.8	2.3	< 2.5
DRO (ppm)	100			---	---	175	270	---	---	---
PVOCs (ppb)										
Benzene	25	8,500	1,100	---	< 15	---	< 13	---	< 17	< 18
Ethylbenzene	2,900	4,600		---	< 16	---	< 14	---	< 17	< 19
MTBE				---	< 9.8	---	< 8.8	---	< 11	< 12
Naphthalene	400	2,700		---	< 98	---	< 88	---	< 110	< 120
Toluene	1,500	38,000		---	< 14	---	< 12	---	< 16	< 17
1,2,4-TMB		83,000		---	35	---	< 11	---	< 14	< 15
1,3,5-TMB		11,000		---	50	---	< 11	---	< 14	< 15
Total Xylenes	4,100	42,000		---	33	---	< 11	---	< 14	< 15

GRO = gasoline range organics

MTBE = methyl-tert-butylether

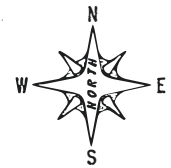
PVOC = petroleum volatile organic compounds

TMB = trimethylbenzene

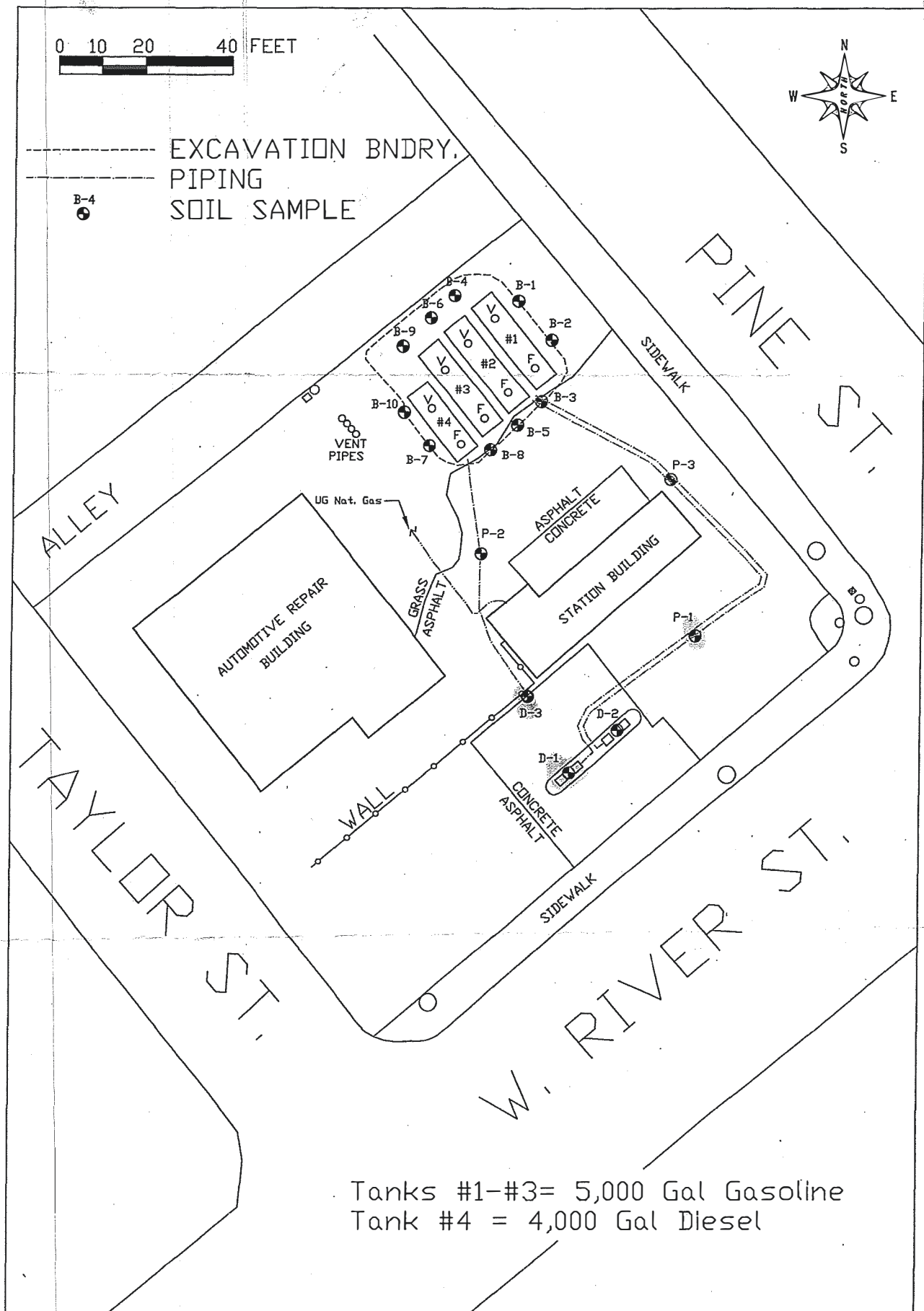
Bold areas indicate soil contaminant concentrations exceed WDNR's RCLs.

Bold italics areas indicate soil contaminant concentrations exceed NR 746 Table Values.

0 10 20 40 FEET



EXCAVATION BNDRY.
PIPING
SOIL SAMPLE



Tanks #1-#3= 5,000 Gal Gasoline
Tank #4 = 4,000 Gal Diesel

2 of 2 SHEET NO.	RIHN OIL COMPANY CHIPPEWA FALLS, WISCONSIN ICECOR PROJECT #102011009	<table border="1"> <thead> <tr> <th>DATE</th> <th>REVISIONS</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>8/11/2011</td> <td>ORIGINAL</td> <td>SUBMISSION</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	DATE	REVISIONS	DESCRIPTION	8/11/2011	ORIGINAL	SUBMISSION													I hereby certify that this plan, specification or report was prepared by me or under my supervision and that I am a duly licensed PROFESSIONAL ENGINEER under the laws of the State of WISCONSIN.	ICECOR P.O. BOX 1105 SUPERIOR, WISCONSIN 54880 (715) 395-0965
	DATE	REVISIONS	DESCRIPTION																			
	8/11/2011	ORIGINAL	SUBMISSION																			
SITE MAP	Printed name: _____ Date: _____ Lic. No. _____																					

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

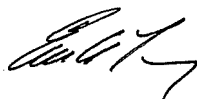
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-51048-1
Client Project/Site: Rihn Oil - 03-04523

For:
American Engineering Testing Inc.
1837 Cty Hwy OO
Chippewa Falls, Wisconsin 54729

Attn: Mr. Michael Neal



Authorized for release by:
10/24/2012 2:30:42 PM

Eric Lang
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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: American Engineering Testing Inc.
Project/Site: Rihn Oil - 03-04523

TestAmerica Job ID: 500-51048-1

Job ID: 500-51048-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-51048-1

Comments

No additional comments.

Receipt

The samples were received on 10/9/2012 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

GC VOA

No analytical or quality issues were noted.

GC Semi VOA

Method(s) WI-DRO: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 29989.

Method(s) WI-DRO: The following sample(s) was received with insufficient time remaining to perform the analysis within holding time: D-3A (500-51048-2).

Method(s) WI-DRO: The method blank for batch 29989 contained C10-C28 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

Organic Prep

Method(s) Moisture: The sample duplicate precision for the following sample associated with batch 26781 was outside control limits: (500-51048-1 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

No other analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

Detection Summary

Client: American Engineering Testing Inc.
Project/Site: Rihn Oil - 03-04523

TestAmerica Job ID: 500-51048-1

Client Sample ID: D-1A

Lab Sample ID: 500-51048-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
C6-C10 WI	6100		4100	2100	ug/Kg	1	*		WDNR	Total/NA
1,2,4-Trimethylbenzene	35		21	12	ug/Kg	1	*		WDNR	Total/NA
1,3,5-Trimethylbenzene	50		21	12	ug/Kg	1	*		WDNR	Total/NA
Xylenes, Total	33		21	12	ug/Kg	1	*		WDNR	Total/NA

Client Sample ID: D-3A

Lab Sample ID: 500-51048-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
C10-C28	270	H B	32	9.0	mg/Kg	5	*		WI-DRO	Total/NA

Client Sample ID: P-1A

Lab Sample ID: 500-51048-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
C6-C10 WI	2300	J	4600	2300	ug/Kg	1	*		WDNR	Total/NA

Client Sample ID: MEOH BLANK

Lab Sample ID: 500-51048-4

No Detections

Method Summary

Client: American Engineering Testing Inc.

TestAmerica Job ID: 500-51048-1

Project/Site: Rihn Oil - 03-04523

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 NSH
Moisture	Percent Moisture	EPA	TAL NSH

Protocol References:

EPA = US Environmental Protection Agency

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

Sample Summary

Client: American Engineering Testing Inc.
Project/Site: Rihn Oil - 03-04523

TestAmerica Job ID: 500-51048-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-51048-1	D-1A	Solid	10/08/12 12:00	10/09/12 08:00
500-51048-2	D-3A	Solid	10/08/12 12:15	10/09/12 08:00
500-51048-3	P-1A	Solid	10/08/12 12:30	10/09/12 08:00
500-51048-4	MEOH BLANK	Solid	10/08/12 00:00	10/09/12 08:00

Client Sample Results

Client: American Engineering Testing Inc.

TestAmerica Job ID: 500-51048-1

Project/Site: Rihn Oil - 03-04523

Client Sample ID: D-1A

Lab Sample ID: 500-51048-1

Date Collected: 10/08/12 12:00

Matrix: Solid

Date Received: 10/09/12 08:00

Percent Solids: 94.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<15		21	15	ug/Kg	*	10/09/12 16:38	10/12/12 19:01	1
C6-C10 WI	6100		4100	2100	ug/Kg	*	10/09/12 16:38	10/12/12 19:01	1
Ethylbenzene	<16		21	16	ug/Kg	*	10/09/12 16:38	10/12/12 19:01	1
Methyl te t-butyl ether	<9.8		21	9.8	ug/Kg	*	10/09/12 16:38	10/12/12 19:01	1
Naphthalene	<98		2100	98	ug/Kg	*	10/09/12 16:38	10/12/12 19:01	1
Toluene	<14		21	14	ug/Kg	*	10/09/12 16:38	10/12/12 19:01	1
1,2,4-Trimethylbenzene	35		21	12	ug/Kg	*	10/09/12 16:38	10/12/12 19:01	1
1,3,5-Trimethylbenzene	50		21	12	ug/Kg	*	10/09/12 16:38	10/12/12 19:01	1
Xylenes, Total	33		21	12	ug/Kg	*	10/09/12 16:38	10/12/12 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		80 - 120	10/09/12 16:38	10/12/12 19:01	1
a,a,a-Trifluorotoluene	89		80 - 120	10/09/12 16:38	10/12/12 19:01	1

Client Sample ID: D-3A

Lab Sample ID: 500-51048-2

Date Collected: 10/08/12 12:15

Matrix: Solid

Date Received: 10/09/12 08:00

Percent Solids: 94.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<11		18	11	ug/Kg	*	10/09/12 16:38	10/12/12 19:29	1
1,3,5-T methylbenzene	<11		18	11	ug/Kg	*	10/09/12 16:38	10/12/12 19:29	1
Benzene	<13		18	13	ug/Kg	*	10/09/12 16:38	10/12/12 19:29	1
Ethylbenzene	<14		18	14	ug/Kg	*	10/09/12 16:38	10/12/12 19:29	1
Methyl te t-butyl ether	<8.8		18	8.8	ug/Kg	*	10/09/12 16:38	10/12/12 19:29	1
Naphthalene	<88		1800	88	ug/Kg	*	10/09/12 16:38	10/12/12 19:29	1
Toluene	<12		18	12	ug/Kg	*	10/09/12 16:38	10/12/12 19:29	1
Xylenes, Total	<11		18	11	ug/Kg	*	10/09/12 16:38	10/12/12 19:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	93		80 - 120	10/09/12 16:38	10/12/12 19:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	270	H B	32	9.0	mg/Kg	*	10/22/12 14:05	10/23/12 12:06	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
C35 (Sun)	81		19 - 150	10/22/12 14:05	10/23/12 12:06	5

Client Sample ID: P-1A

Lab Sample ID: 500-51048-3

Date Collected: 10/08/12 12:30

Matrix: Solid

Date Received: 10/09/12 08:00

Percent Solids: 93.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<17		23	17	ug/Kg	*	10/09/12 16:38	10/12/12 19:56	1
C6-C10 WI	2300	J	4600	2300	ug/Kg	*	10/09/12 16:38	10/12/12 19:56	1
Ethylbenzene	<17		23	17	ug/Kg	*	10/09/12 16:38	10/12/12 19:56	1
Methyl tert-butyl ether	<11		23	11	ug/Kg	*	10/09/12 16:38	10/12/12 19:56	1
Naphthalene	<110		2300	110	ug/Kg	*	10/09/12 16:38	10/12/12 19:56	1
Toluene	<16		23	16	ug/Kg	*	10/09/12 16:38	10/12/12 19:56	1
1,2,4-T methylbenzene	<14		23	14	ug/Kg	*	10/09/12 16:38	10/12/12 19:56	1

Client Sample Results

Client: American Engineering Testing Inc.
Project/Site: Rihn Oil - 03-04523

TestAmerica Job ID: 500-51048-1

Client Sample ID: P-1A

Lab Sample ID: 500-51048-3

Date Collected: 10/08/12 12:30

Matrix: Solid

Date Received: 10/09/12 08:00

Percent Solids: 93.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	<14		23	14	ug/Kg	*	10/09/12 16:38	10/12/12 19:56	1
Xylenes, Total	<14		23	14	ug/Kg	*	10/09/12 16:38	10/12/12 19:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		80 - 120				10/09/12 16:38	10/12/12 19:56	1
a,a,a-Trifluorotoluene	90		80 - 120				10/09/12 16:38	10/12/12 19:56	1

Client Sample ID: MEOH BLANK

Lab Sample ID: 500-51048-4

Date Collected: 10/08/12 00:00

Matrix: Solid

Date Received: 10/09/12 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<18		25	18	ug/Kg		10/09/12 16:38	10/12/12 18:34	1
C6-C10 WI	<2500		5000	2500	ug/Kg		10/09/12 16:38	10/12/12 18:34	1
Ethylbenzene	<19		25	19	ug/Kg		10/09/12 16:38	10/12/12 18:34	1
Methyl tert-butyl ether	<12		25	12	ug/Kg		10/09/12 16:38	10/12/12 18:34	1
Naphthalene	<120		2500	120	ug/Kg		10/09/12 16:38	10/12/12 18:34	1
Toluene	<17		25	17	ug/Kg		10/09/12 16:38	10/12/12 18:34	1
1,2,4-Trimethylbenzene	<15		25	15	ug/Kg		10/09/12 16:38	10/12/12 18:34	1
1,3,5-Trimethylbenzene	<15		25	15	ug/Kg		10/09/12 16:38	10/12/12 18:34	1
Xylenes, Total	<15		25	15	ug/Kg		10/09/12 16:38	10/12/12 18:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		80 - 120				10/09/12 16:38	10/12/12 18:34	1
a,a,a-Trifluorotoluene	88		80 - 120				10/09/12 16:38	10/12/12 18:34	1

Definitions/Glossary

Client: American Engineering Testing Inc.
Project/Site: Rihn Oil - 03-04523

TestAmerica Job ID: 500-51048-1

Qualifiers

GC 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.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
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.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
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: American Engineering Testing Inc.
Project/Site: Rihn Oil - 03-04523

TestAmerica Job ID: 500-51048-1

GC VOA

Prep Batch: 26823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-51048-1	D-1A	Total/NA	Solid	5035	
500-51048-2	D-3A	Total/NA	Solid	5035	
500-51048-3	P-1A	Total/NA	Solid	5035	
500-51048-4	MEOH BLANK	Total/NA	Solid	5035	

Analysis Batch: 27591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-51048-1	D-1A	Total/NA	Solid	WDNR	26823
500-51048-2	D-3A	Total/NA	Solid	WDNR	26823
500-51048-3	P-1A	Total/NA	Solid	WDNR	26823
500-51048-4	MEOH BLANK	Total/NA	Solid	WDNR	26823
LCS 490-27591/2	Lab Control Sample	Total/NA	Solid	WDNR	
LCSD 490-27591/31	Lab Control Sample Dup	Total/NA	Solid	WDNR	
MB 490-27591/19	Method Blank	Total/NA	Solid	WDNR	

GC Semi VOA

Prep Batch: 29989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-51048-2	D-3A	Total/NA	Solid	WI DRO PREP	
LCS 490-29989/2-A	Lab Control Sample	Total/NA	Solid	WI DRO PREP	
LCSD 490-29989/3-A	Lab Control Sample Dup	Total/NA	Solid	WI DRO PREP	
MB 490-29989/1-A	Method Blank	Total/NA	Solid	WI DRO PREP	

Analysis Batch: 30023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-51048-2	D-3A	Total/NA	Solid	WI-DRO	29989
LCS 490-29989/2-A	Lab Control Sample	Total/NA	Solid	WI-DRO	29989
LCSD 490-29989/3-A	Lab Control Sample Dup	Total/NA	Solid	WI-DRO	29989
MB 490-29989/1-A	Method Blank	Total/NA	Solid	WI-DRO	29989

General Chemistry

Analysis Batch: 26781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-51048-1	D-1A	Total/NA	Solid	Moisture	
500-51048-1 DU	D-1A	Total/NA	Solid	Moisture	
500-51048-2	D-3A	Total/NA	Solid	Moisture	
500-51048-3	P-1A	Total/NA	Solid	Moisture	

Surrogate Summary

Client: American Engineering Testing Inc.
Project/Site: Rihn Oil - 03-04523

TestAmerica Job ID: 500-51048-1

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	TFT				
		(80-120)	(80-120)				
500-51048-1	D-1A	94	94				
500-51048-2	D-3A	93	93				
500-51048-3	P-1A	95	95				
500-51048-4	MEOH BLANK	95	95				
LCS 490-27591/2	Lab Control Sample	113	113				
LCSD 490-27591/31	Lab Control Sample Dup	98	98				
MB 490-27591/19	Method Blank	90	90				
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	C35 (Surr)					
		(19-150)					
500-51048-2	D-3A	81					
LCS 490-29989/2-A	Lab Control Sample	72					
LCSD 490-29989/3-A	Lab Control Sample Dup	83					
MB 490-29989/1-A	Method Blank	85					
Surrogate Legend							
C35 (Surr) = C35 (Surr)							

QC Sample Results

Client: American Engineering Testing Inc.
Project/Site: Rihn Oil - 03-04523

TestAmerica Job ID: 500-51048-1

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

Lab Sample ID: MB 490-27591/19

Matrix: Solid

Analysis Batch: 27591

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Result	MB MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10 W	<2500		5000	2500	ug/Kg			10/12/12 18:06	1
Benzene	<18		25	18	ug/Kg			10/12/12 18:06	1
Ethylbenzene	<19		25	19	ug/Kg			10/12/12 18:06	1
Methyl tert-butyl ether	<12		25	12	ug/Kg			10/12/12 18:06	1
Naphthalene	<120		2500	120	ug/Kg			10/12/12 18:06	1
1,2,4-Trimethylbenzene	<15		25	15	ug/Kg			10/12/12 18:06	1
Toluene	<17		25	17	ug/Kg			10/12/12 18:06	1
1,3,5-Trimethylbenzene	<15		25	15	ug/Kg			10/12/12 18:06	1
Xylenes, Total	<15		25	15	ug/Kg			10/12/12 18:06	1

Surrogate	%Recovery	MB MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	90		80 - 120		10/12/12 18:06	1
a,a,a-Trifluorotoluene	84		80 - 120		10/12/12 18:06	1

Lab Sample ID: LCS 490-27591/2

Matrix: Solid

Analysis Batch: 27591

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C10 W	1000	937		ug/Kg		94	80 - 120
Benzene	100	97.1		ug/Kg		97	76 - 120
Ethylbenzene	100	96.1		ug/Kg		96	77 - 120
Methyl tert-butyl ether	100	93.3		ug/Kg		93	73 - 120
Naphthalene	100	94.8		ug/Kg		95	74 - 127
1,2,4-Trimethylbenzene	100	95.5		ug/Kg		96	60 - 140
Toluene	100	96.5		ug/Kg		97	79 - 120
1,3,5-Trimethylbenzene	100	96.2		ug/Kg		96	74 - 133
Xylenes, Total	300	285		ug/Kg		95	

Surrogate	%Recovery	LCS LCS Qualifier	Limits
a,a,a-Trifluorotoluene	113		80 - 120
a,a,a-Trifluorotoluene	102		80 - 120

Lab Sample ID: LCSD 490-27591/31

Matrix: Solid

Analysis Batch: 27591

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
C6-C10 W	1000	908		ug/Kg		91	80 - 120	3	20
Benzene	100	93.7		ug/Kg		94	76 - 120	4	27
Ethylbenzene	100	93.1		ug/Kg		93	77 - 120	3	49
Methyl tert-butyl ether	100	91.4		ug/Kg		91	73 - 120	2	31
Naphthalene	100	94.1		ug/Kg		94	74 - 127	1	50
1,2,4-Trimethylbenzene	100	92.0		ug/Kg		92	60 - 140	4	50
Toluene	100	93.4		ug/Kg		93	79 - 120	3	37
1,3,5-Trimethylbenzene	100	92.3		ug/Kg		92	74 - 133	4	42
Xylenes, Total	300	276		ug/Kg		92		3	

QC Sample Results

Client: American Engineering Testing Inc.
Project/Site: Rihn Oil - 03-04523

TestAmerica Job ID: 500-51048-1

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

Lab Sample ID: LCSD 490-27591/31

Matrix: Solid

Analysis Batch: 27591

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
a,a,a-Trifluorotoluene	98		80 - 120
a,a,a-Trifluorotoluene	91		80 - 120

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

Lab Sample ID: MB 490-29989/1-A

Matrix: Solid

Analysis Batch: 30023

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29989

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
C10-C28	1.42	J	5.0	1.4	mg/Kg		10/22/12 14:05	10/22/12 19:17	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
C35 (Surr)	85		19 - 150				10/22/12 14:05	10/22/12 19:17	1	

Lab Sample ID: LCS 490-29989/2-A

Matrix: Solid

Analysis Batch: 30023

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29989

	Spike	LCS	LCS					%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
C10-C28	19.8	22.8		mg/Kg		115	70 - 120		
Surrogate	%Recovery	Qualifier	Limits						
C35 (Surr)	72		19 - 150						

Lab Sample ID: LCSD 490-29989/3-A

Matrix: Solid

Analysis Batch: 30023

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29989

	Spike	LCSD	LCSD				%Rec.	RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C10-C28	19.7	22.6		mg/Kg		115	70 - 120	1	20
Surrogate	%Recovery	Qualifier	Limits						
C35 (Surr)	83		19 - 150						

Lab Chronicle

Client: American Engineering Testing Inc.
Project/Site: Rihn Oil - 03-04523

TestAmerica Job ID: 500-51048-1

Client Sample ID: D-1A

Date Collected: 10/08/12 12:00

Date Received: 10/09/12 08:00

Lab Sample ID: 500-51048-1

Matrix: Solid

Percent Solids: 94.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			26823	10/09/12 16:38	ML	TALNSH
Total/NA	Analysis	WDNR		1	27591	10/12/12 19:01	BH	TALNSH
Total/NA	Analysis	Moisture		1	26781	10/09/12 15:35	RS	TALNSH

Client Sample ID: D-3A

Date Collected: 10/08/12 12:15

Date Received: 10/09/12 08:00

Lab Sample ID: 500-51048-2

Matrix: Solid

Percent Solids: 94.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			26823	10/09/12 16:38	ML	TALNSH
Total/NA	Analysis	WDNR		1	27591	10/12/12 19:29	BH	TALNSH
Total/NA	Prep	WI DRO PREP			29989	10/22/12 14:05	AK	TALNSH
Total/NA	Analysis	WI-DRO		5	30023	10/23/12 12:06	KP	TALNSH
Total/NA	Analysis	Moisture		1	26781	10/09/12 15:35	RS	TALNSH

Client Sample ID: P-1A

Date Collected: 10/08/12 12:30

Date Received: 10/09/12 08:00

Lab Sample ID: 500-51048-3

Matrix: Solid

Percent Solids: 93.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			26823	10/09/12 16:38	ML	TALNSH
Total/NA	Analysis	WDNR		1	27591	10/12/12 19:56	BH	TALNSH
Total/NA	Analysis	Moisture		1	26781	10/09/12 15:35	RS	TALNSH

Client Sample ID: MEOH BLANK

Date Collected: 10/08/12 00:00

Date Received: 10/09/12 08:00

Lab Sample ID: 500-51048-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			26823	10/09/12 16:38	ML	TALNSH
Total/NA	Analysis	WDNR		1	27591	10/12/12 18:34	BH	TALNSH

Laboratory References:

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

Certification Summary

Client: American Engineering Testing Inc.
Project/Site: Rihn Oil - 03-04523

TestAmerica Job ID: 500-51048-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAC	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAC	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAC	7	E-10161	10-31-12
Kentucky	State Program	4	90023	12-31-12
Kentucky (UST)	State Program	4	66	04-11-13
L-A-B	DoD ELAP		L2304	01-06-13
L-A-B	ISO/IEC 17025		L2304	01-06-13
Louisiana	NELAC	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-13
North Carolina DENR	State Program	4	291	12-31-12
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAC	6	T104704252-09-TX	02-28-13
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAC	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	ACIL		393	10-30-12
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alabama	State Program	4	41150	05-31-13
Alaska (UST)	State Program	10	UST-087	07-24-13
Arizona	State Program	9	AZ0473	05-05-13
Arkansas DEQ	State Program	6	88-0737	04-25-13
California	NELAC	9	1168CA	10-31-12
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Colorado	State Program	8	N/A	02-28-13
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAC	4	E87358	06-30-13
Illinois	NELAC	5	200010	12-09-12
Iowa	State Program	7	131	05-01-14
Kansas	NELAC	7	E-10229	10-31-12
Kentucky	State Program	4	90038	12-31-12
Kentucky (UST)	State Program	4	19	09-15-13
Louisiana	NELAC	6	LA120025	12-31-12
Louisiana	NELAC	6	30613	06-30-13
Maryland	State Program	3	316	03-31-13
Massachusetts	State Program	1	M-TN032	06-30-13
Minnesota	NELAC	5	047-999-345	12-31-12
Mississippi	State Program	4	N/A	06-30-13
Montana (UST)	State Program	8	NA	01-01-15

Certification Summary

Client: American Engineering Testing Inc.
Project/Site: Rihn Oil - 03-04523

TestAmerica Job ID: 500-51048-1

Laboratory: TestAmerica Nashville (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Nevada	State Program	9	TN00032	07-31-13
New Hampshire	NELAC	1	2963	10-09-13
New Jersey	NELAC	2	TN965	06-30-13
New York	NELAC	2	11342	04-01-13
North Carolina DENR	State Program	4	387	12-31-12
North Dakota	State Program	8	R-146	06-30-13
Ohio VAP	State Program	5	CL0033	01-19-14
Oklahoma	State Program	6	9412	08-31-13
Oregon	NELAC	10	TN200001	04-30-13
Pennsylvania	NELAC	3	68-00585	06-30-13
Rhode Island	State Program	1	LAO00268	12-30-12
South Carolina	State Program	4	84009 (001)	02-28-13
South Carolina	State Program	4	84009 (002)	02-23-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAC	6	T104704077-09-TX	08-31-13
USDA	Federal		S-48469	11-02-13
Utah	NELAC	8	TAN	06-30-13
Virginia	NELAC	3	460152	06-14-13
Washington	State Program	10	C789	07-19-13
West Virginia DEP	State Program	3	219	02-28-13
Wisconsin	State Program	5	998020430	08-31-13
Wyoming (UST)	A2LA	8	453.07	12-31-13

Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-51048-1

Login Number: 51048

List Source: TestAmerica Chicago

List Number: 1

Creator: Lunt, Jeff T

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
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	
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.	True	
Samples are received within Holding Time.	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	

Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-51048-1

Login Number: 51048

List Number: 1

Creator: Himelick, John

List Source: TestAmerica Nashville

List Creation: 10/09/12 02:34 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <= 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	
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.	True	
Samples are received within Holding Time.	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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	