

1R - 427-340

APPROVALS

YEAR(S):

2013

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Tuesday, March 19, 2013 11:09 AM
To: Hack Conder (hconder@riceswd.com)
Cc: Leking, Geoffrey R, EMNRD; Laura Pena (lpena@riceswd.com); Katie Jones <kjones@riceswd.com> (kjones@riceswd.com); Scott Curtis (scurtis@riceswd.com)
Subject: Remediation Plan (1R427-340) Termination - ROC EME Jct L-21 Site

**RE: Termination Request
for the Rice Operating Company's
EME Jct L-21 Site
Unit Letter L, Section 21, T19S, R37E, NMPM, Lea County, New Mexico
Remediation Plan (1R427-340) Termination**

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has received Rice Operating Company's report and request to close the above-referenced site, dated March 1, 2013 (received March 4, 2013). The reports are acceptable to the OCD.

The above-referenced report, submitted in accordance with 19.15.29 NMAC (Rule 29; formally, Rule 116), indicates that Rice Operating Company has met the requirements of 19.15.29 NMAC; therefore, the OCD approves the report and hereby notifies you that the remediation plan (1R427-340) is terminated in accordance with 19.15.29 NMAC.

Please be advised that OCD approval of this report does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau

RICE *Operating Company*

112 West Taylor • Hobbs, New Mexico 88240

Phone: (575) 393-9174 • Fax: (575) 397-1471

CERTIFIED MAIL

RETURN RECEIPT NO. 7007 2560 0000 4569 9262

March 1, 2013

Mr. Edward Hansen
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

RE: Termination Request
EME Jct. L-21 (1R427-340): UL/L, Sec. 21, T19S, R37E
RICE Operating Company – Eunice Monument Eumont SWD System

Mr. Hansen:

Rice Operating Company (ROC) is the service provider (agent) for the EME Saltwater Disposal (SWD) System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis.

Background

In 2010, ROC initiated work on the former L-21 junction box. The site is located in UL/L, Sec. 21, T21S, R37E. NM OSE records indicate that groundwater would likely be encountered at a depth of approximately 47 +/- feet. The site was delineated using a backhoe to collect soil samples at regular intervals, creating a 30x25x12 ft deep excavation. Each sample was field titrated for chlorides and field screened using a PID for hydrocarbons, resulting in chloride concentrations that did not relent with depth. The excavated soil was blended on site and representative samples were collected from the excavation 4-wall, excavation bottom, and blended backfill and sent to a commercial laboratory for analysis of chloride and TPH, resulting in a 4-wall chloride concentration of 800 mg/kg, a concentration of gasoline range organics (GRO) below detectable limits and a diesel range organics (DRO) concentration of 72.6 mg/kg. The bottom composite resulted in a chloride concentration of 576 mg/kg and concentrations of GRO and DRO below detectable limits. The blended backfill resulted in a chloride concentration of 400 mg/kg, a GRO concentration below detectable limits, and a DRO concentration of 16.6 mg/kg. At 12 ft below ground surface (BGS), a 20-mil liner was installed with a six inch pad of clean imported blow sand below and above the liner. The blended backfill was

2013 MAR -11 P 12:51
RECEIVED OGD

returned to the excavation to 1 ft BGS. The remaining excavation was backfilled with clean imported soil to ground surface and contoured to the surrounding area.

To further investigate the depth of chloride presence, a soil bore was initiated on June 11, 2010 at 10 ft south of the former junction box. The boring was advanced to 45 ft BGS with soil samples collected every 3 ft. The 18 ft and 45 ft samples were taken to a commercial laboratory for analysis, resulting in a SB-1 at 18 ft chloride concentration of 496 mg/kg and concentrations of GRO and DRO below detectable limits. SB-1 at 45 ft resulted in a chloride concentration of 224 mg/kg and concentrations of GRO and DRO below detectable limits. The entire bore hole was plugged with bentonite to ground surface.

On June 1, 2010, the site was seeded and reseeded on November 30, 2010, with a blend of native vegetation. A junction box is no longer needed at the site. Vegetation has rebounded at the site, so no re-vegetation efforts are needed.

The junction box site location map, final report, photodocumentation, soil bore log, laboratory analysis, PID sheet, cross-section, chloride graph and current photodocumentation are attached.

Recommendations

Site investigation demonstrates that residual chloride and hydrocarbons in the vadose zone will not with reasonable probability contaminate groundwater in excess of NMOCD standards. This site meets the requirements of the NMOCD-approved Revised Junction Box Upgrade Work Plan (July 16, 2003). As such, ROC request termination of the regulatory file, or similar closure status.

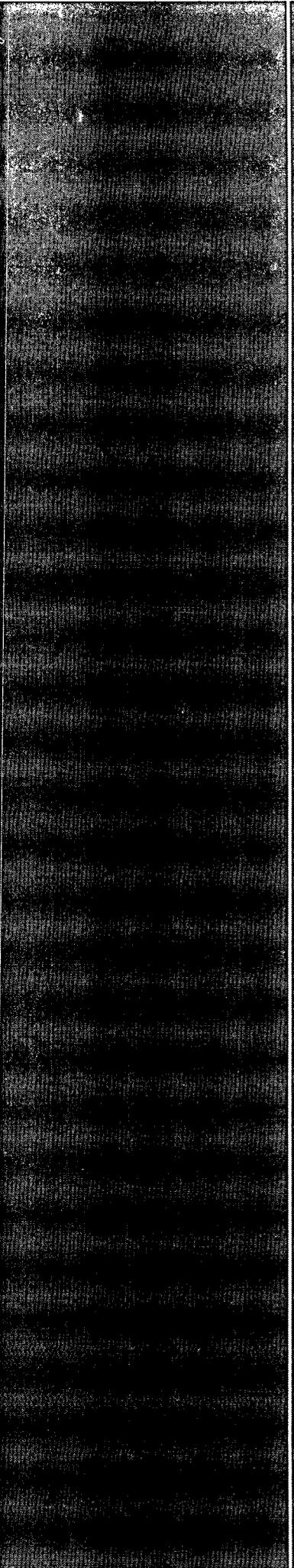
Please contact me at (575)393-9174 if you have any questions or wish to discuss this site. Thank you for your time and consideration.

Sincerely,
RICE Operating Company



Hack Conder
Environmental Manager

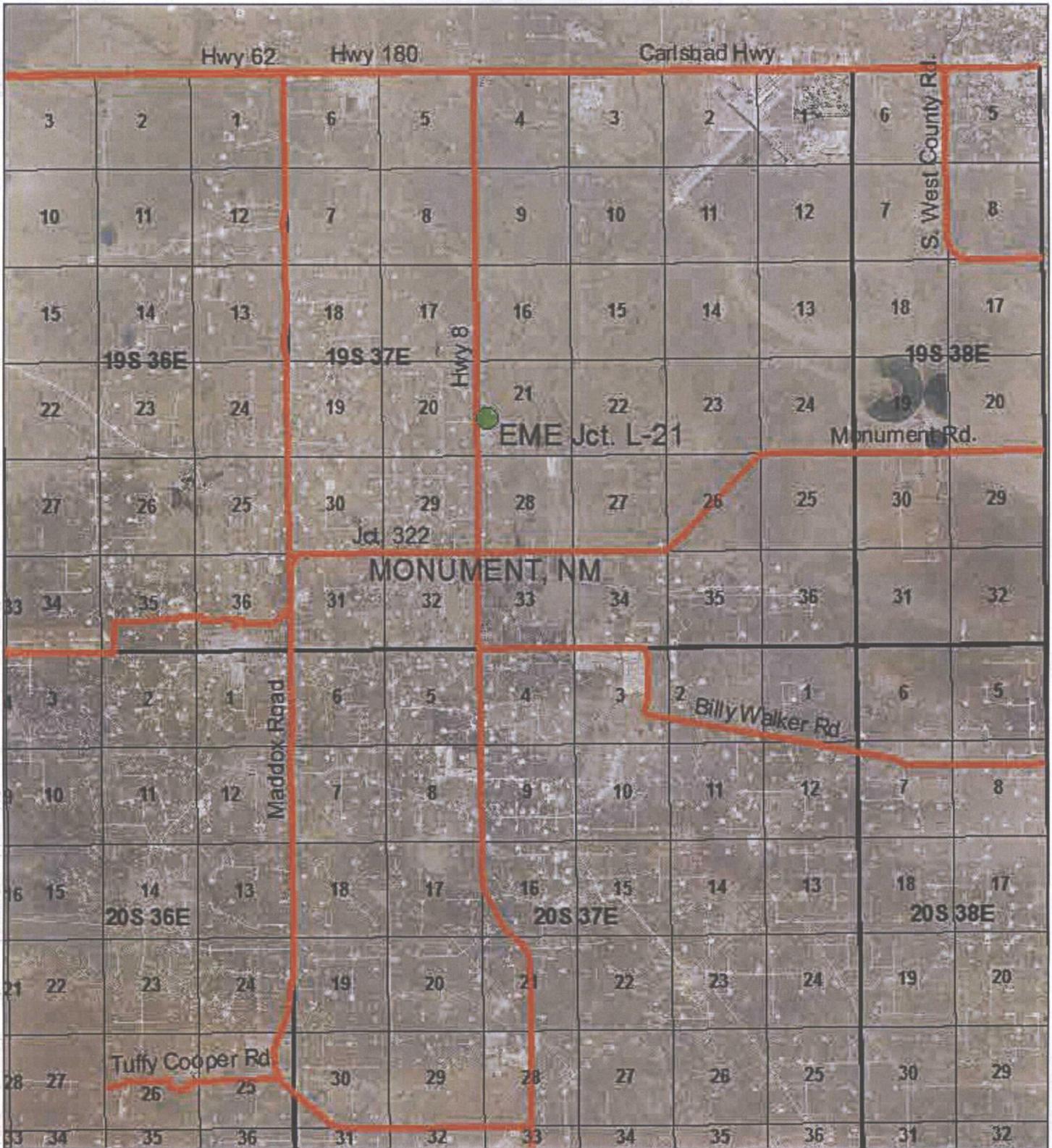
enclosures



Site Location Map

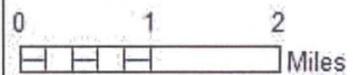
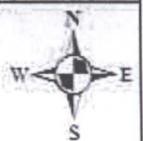
RICE *Operating Company* (ROC)
112 West Taylor Hobbs, NM 88240
Phone: (575) 393-9174 Fax: (575) 397-1471

Site Location Map

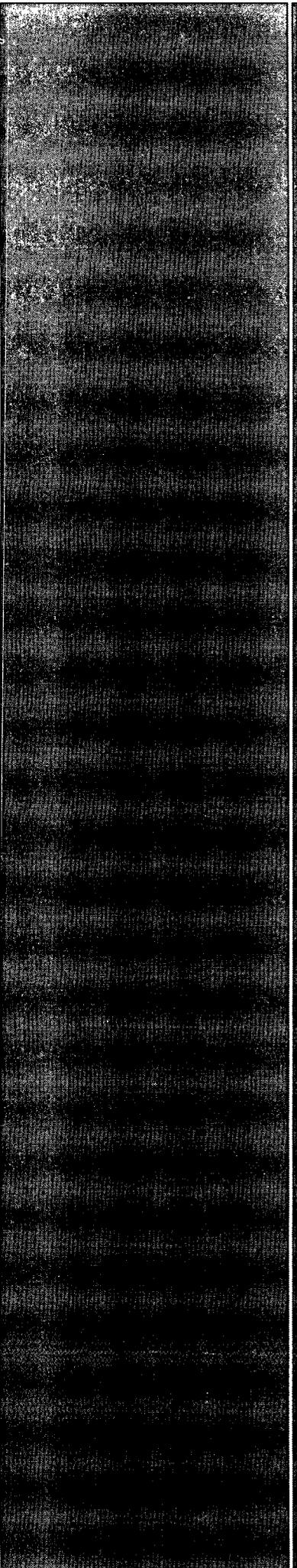


**EME Jct. L-21
(1R427-340)**

UL L, SECTION 21,
T-19-S, R-37-E
LEA COUNTY, NM



Drawing date: 2/25/13



Junction Box Report

RICE *Operating Company* (ROC)
112 West Taylor Hobbs, NM 88240
Phone: (575) 393-9174 Fax: (575) 397-1471

EME JCT. L-21

Unit L, Section 21, T19S, R37E



Site before excavation

4/22/2010



6" blow sand pad below plastic liner

5/26/2010



Plastic liner installed

5/26/2010



6" blow sand pad above plastic liner

5/26/2010



Seeding site

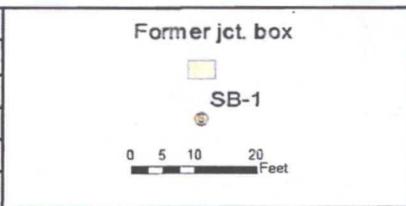
6/01/2010



Drilling soil bore

6/11/2010

Logger:	Jordan Woodfin
Driller:	Harrison & Cooper
Consultant:	Junction box upgrade
Drilling Method:	Air Rotary
Start Date:	6/11/2010
End Date:	6/11/2010



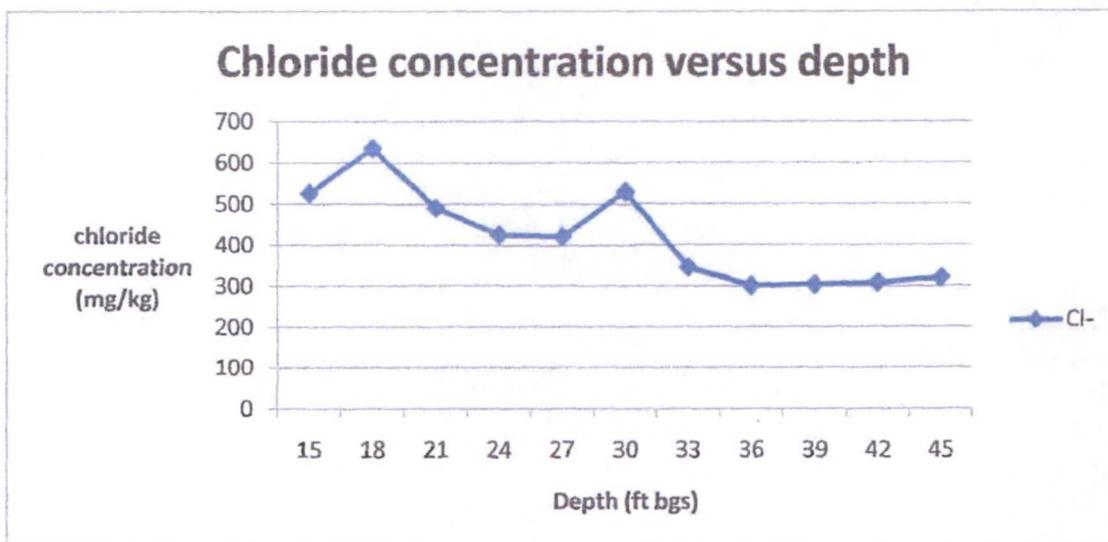
Comments: All samples from cuttings. Located 10 ft south of the former junction box site.
 Drafted by: Lara Weinheimer
 TD = 45 ft DGW = 47 ft

Project Name: EME jct. L-21 **Well ID:** SB-1
Location: UL/L sec. 21 T19S R37E
Lat: 32°38'40.475"N **County:** Lea
Long: 103°15'49.343" **State:** NM

Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction			
15 ft	526		0.9	12 - 30 ft SAND tan to red					
18 ft	635	Cl- 496	0.6						
		GRO <10							
		DRO <10							
21ft	492		0.4						
24 ft	426		0.6						
27 ft	422		0.2						
30 ft	530		0.3						
33 ft	346		0.2				30 - 36 ft SAND AND CALICHE RUBBLE tan to red		bentonite seal
36 ft	302		0.1						

COPY

Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
39 ft	305		0	36 - 45 ft SAND tan to red		
42 ft	309		0			
45 ft	321	Cl- 224	0			
		GRO <10				
		DRO <10				



COPY

RICE OPERATING COMPANY

122 West Taylor Hobbs, NM 88240
 PHONE: (575) 393-9174 FAX: (575) 397-1471
 PID METER CALIBRATION & FIELD REPORT FORM

Check Model Number:

✓

Model: PGM 7300 Serial No: 590-000183
 Model: PGM 7300 Serial No: 590-000508
 Model: PGM 7300 Serial No: 590-000504

Model: PGM 7600 Serial No: 110-023920
 Model: PGM 7600 Serial No: 110-013744
 Model: PGM 7600 Serial No: 110-013676

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO: 927041	EXPIRATION DATE: 11-16-12
FILL DATE: 11-17-09	METER READING ACCURACY: 100

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
EME	L-21	L	21	19 S	37 E

SAMPLE ID	PID	SAMPLE ID	PID
SB #1			
15'	0.9		
18'	0.6		
21'	0.4		
24'	0.6		
27'	0.2		
30'	0.3		
33'	0.2		
36'	0.1		
39'	0		
42'	0		
45'	0		

I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

SIGNATURE:

Jordan Woolf

DATE: 10-11-10



ARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: BRUCE BAKER
112 W. TAYLOR
HOBBS, NM 88240

Receiving Date: 05/18/10
Reporting Date: 05/20/10
Project Number: NOT GIVEN
Project Name: EME JCT. L-21 (19/37)
Project Location: EME JCT. L-21 (19/37)

Sampling Date: 05/17/10
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: JH
Analyzed By: AB/HM

LAB NUMBER	SAMPLE ID	GRO	DRO	CI*
		(C ₆ -C ₁₀) (mg/kg)	(>C ₁₀ -C ₂₈) (mg/kg)	(mg/kg)

ANALYSIS DATE	05/19/10	05/19/10	05/18/10
H19915-1 5PT. BOTTOM COMP @ 12'	<10.0	<10.0	576
H19915-2 4-WALL COMP.	<10.0	72.6	800
H19915-3 BLENDED BACKFILL	<10.0	16.6	400
Quality Control	499	489	500
True Value QC	500	500	500
% Recovery	99.8	97.8	100
Relative Percent Difference	0.3	1.1	<0.1

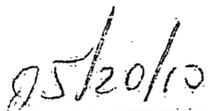
METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI: Std. Methods 4500-CIB

*Analyses performed on 1:4 w:w aqueous extracts.

Reported on wet weight.



Chemist



Date

H19915 TCL RICE

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603

(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

Company Name: <u>Rice Operating Company</u>		BILL TO		ANALYSIS REQUEST																						
Project Manager: <u>Bruce Baker</u>		P.O. #:		<div style="font-size: 2em; font-weight: bold; text-align: center;"> (C) (E) </div> <div style="font-size: 1.5em; font-weight: bold; text-align: center; margin-top: 20px;"> CL TPH 8015M </div>																						
Address: <u>122 W. Taylor</u>		Company:																								
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>		Attn:																								
Phone #: <u>575-393-9174</u> Fax #: <u>575-397-1471</u>		Address:																								
Project #: _____ Project Owner: _____		City:																								
Project Name: _____		State: _____ Zip: _____																								
Project Location: <u>EMF TCT. L-21 (19/97)</u>		Phone #:																								
Sampler Name: <u>Robert Egan</u>		Fax #:																								
FOR LAB USE ONLY																										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS											MATRIX					PRESERV.			SAMPLING				
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME												
<u>H19915-1</u>	<u>5pt. Bottom Comp. 2'</u>	<u>C</u>	<u>1</u>			<u>✓</u>					<u>✓</u>		<u>5-17-10</u>	<u>8:00</u>	<u>✓</u>	<u>✓</u>										
<u>2</u>	<u>4-Wall Comp.</u>	<u>C</u>	<u>1</u>			<u>✓</u>					<u>✓</u>		<u>5-17-10</u>	<u>7:25</u>	<u>✓</u>	<u>✓</u>										
<u>3</u>	<u>Blended Backfill</u>	<u>C</u>	<u>1</u>			<u>✓</u>					<u>✓</u>		<u>5-17-10</u>	<u>7:25</u>	<u>✓</u>	<u>✓</u>										

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <u>Robert</u>	Date: _____	Received By: _____	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: _____
Relinquished By: _____	Date: <u>5/18/10</u>	Received By: <u>Yodi Nenson</u>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #: _____
Delivered By: (Circle One) <u>Sampler</u> - UPS - Bus - Other:	Time: <u>8:05</u>	Sample Condition Cool/Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	REMARKS: <u>E-Mail Results To:</u> <u>KJones @ Ricefuel.com</u> <u>Baker " " " "</u> <u>Egan " " " "</u>	
		CHECKED BY: <u>[Signature]</u> (Initials)		

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#26

RICE OPERATING COMPANY

122 West Taylor Hobbs, NM 88240

PHONE: (575) 393-9174 FAX: (575) 397-1471

PID METER CALIBRATION & FIELD REPORT FORM

Check Model Number:

✓

Model: PGM 7300 Serial No: 590-000183
 Model: PGM 7300 Serial No: 590-000508
 Model: PGM 7300 Serial No: 590-000504

Model: PGM 7600 Serial No: 110-023920
 Model: PGM 7600 Serial No: 110-013744
 Model: PGM 7600 Serial No: 110-013676

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO: 928547	EXPIRATION DATE: 2-4-2013
FILL DATE:	METER READING ACCURACY: 99.8 PPM

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
EME	L-21	L	21	T195	R37E

SAMPLE ID		PID	SAMPLE ID		PID
20' South	2	720.1	5 FT Bottom		2.9
	4	169.3	4 Well comp.		3.5
	6	66.6	Blended Backfill		2.3
	8	50.9			
	10	99.1			
	12	87.2			
20' East	2	0.4			
	4	0.4			
	6	0.5			
	8	0.6			
	10	0.5			
	12	0.5			

I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

SIGNATURE: *Carolee Hernandez*

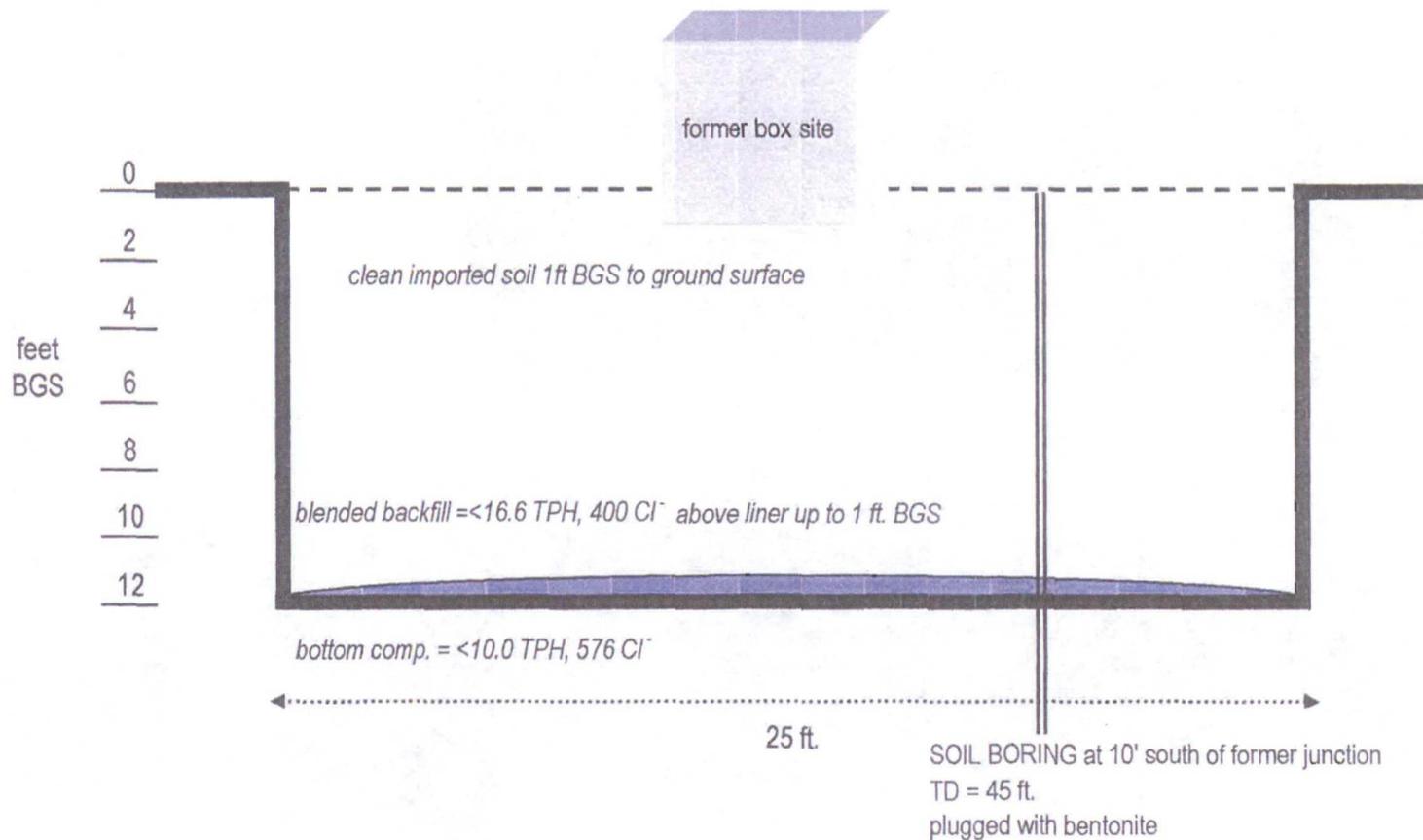
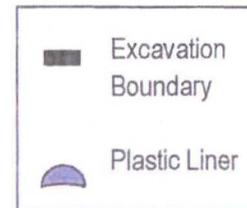
DATE: **5-17-10**

BD Jct. L-21
Unit 'L', Sec. 21, T19S, R37E

Excavation Cross-Section

N

S



CHLORIDE CONCENTRATION CURVE

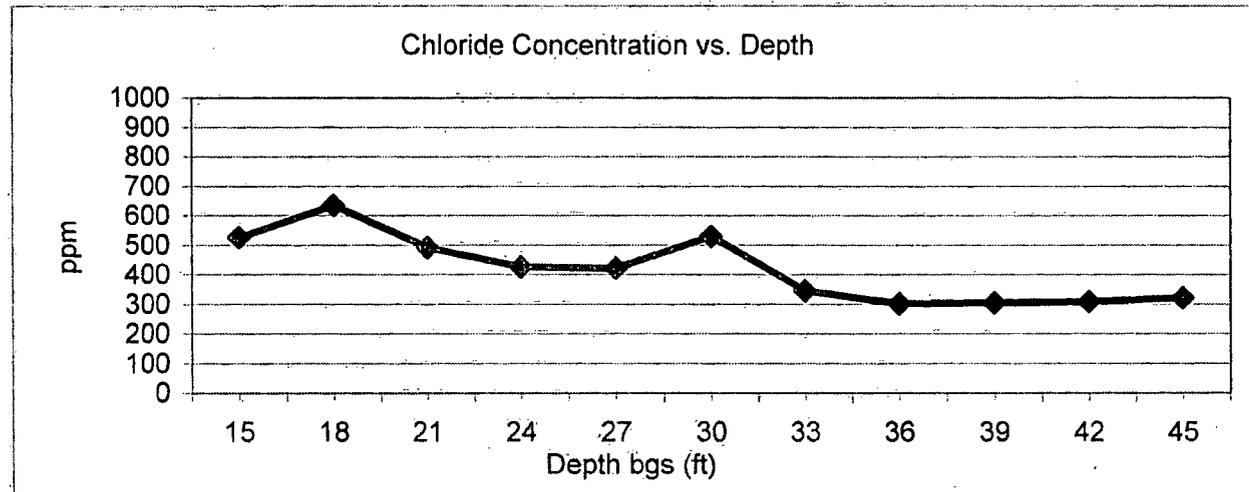
RICE Operating Company

EME Jct. L-21

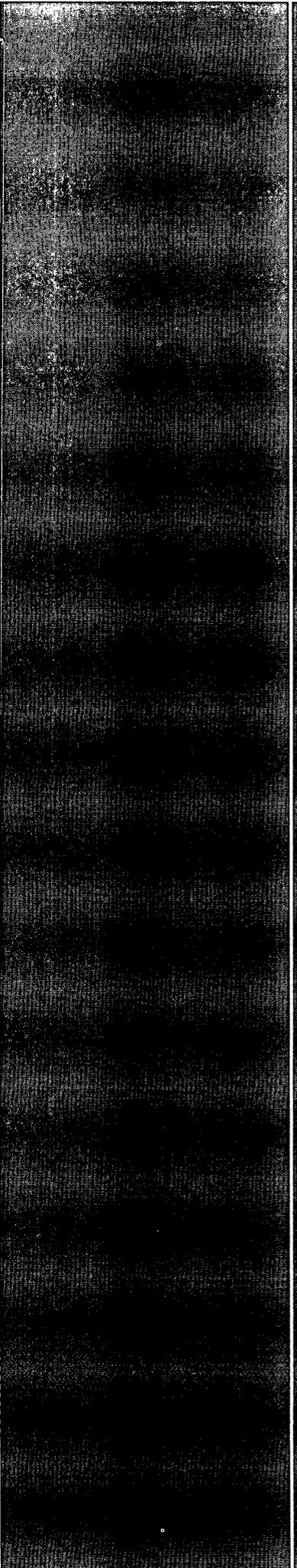
Unit 'L', Sec. 21, T19S, R37E

Soil bore 10 ft. south of former junction box (source)

Depth bgs (ft)	[Cl ⁻] ppm
15	526
18	635
21	492
24	426
27	422
30	530
33	346
36	302
39	305
42	309
45	321



Groundwater = 47 ft.



Current Photodocumentation

RICE *Operating Company* (ROC)
112 West Taylor Hobbs, NM 88240
Phone: (575) 393-9174 Fax: (575) 397-1471

EME Jct. L-21
UL/L, Section 21, T19S, R37E



Facing south

2/13/2013



Facing east

2/13/2013