1R - 425-102

APPROVALS

YEAR(S):

2012

Hansen, Edward J., EMNRD

From:	Hansen, Edward J., EMNRD
Sent:	Thursday, July 26, 2012 2:49 PM
To:	Hack Conder (hconder@riceswd.com)
Cc:	Leking, Geoffrey R, EMNRD; Laura Pena (lpena@riceswd.com)
Subject:	Remediation Plan (1R425-102) Termination - ROC Vacuum J-33 EOL Site

RE: Update Report and Termination Request
for the Rice Operating Company's
Vacuum J-33 EOL Site
Unit Letter J, Section 33, T17S, R35E, NMPM, Lea County, New Mexico
Remediation Plan (1R425-102) 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 June 22, 2012 (received June 28, 2012). The report is 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 (1R425-102) 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*
122 West Taylor • Hobbs, New Mexico 88240
Phone: (575) 393-9174 • Fax: (575) 397-1471

CERTIFIED MAIL
RETURN RECEIPT NO. 7007 2560 0000 4569 8616

June 22nd, 2012

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: **Update Report and Termination Request**
Rice Operating Company – ~~BD~~ Vac SWD System
Vacuum J-33 EOL (1R425-102): UL/J sec. 33 T17S R35E

Mr. Hansen:

Rice Operating Company (ROC) is the service provider (agent) for the abandoned Vacuum 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 and Previous Work
The site is located approximately 3 miles southeast of Buckeye, New Mexico at UL/J, Sec. 33, T17S, R35E as shown on the Site Location Map (Figure 1). Groundwater at this site is located approximately 61 +/- feet below ground surface (bgs).

In 2010, ROC initiated work on the former ~~EME~~ Vac J-33 EOL junction box. The site was delineated using a backhoe to form a 15 ft x 15 ft x 12 ft deep excavation and soil samples were screened at regular intervals for both hydrocarbons and chlorides. From the excavation, the four-wall composite and the bottom composite were taken to a commercial laboratory for analysis. Laboratory tests of the four-wall composite showed a chloride reading of 1,340 mg/kg and concentrations of gasoline range organics (GRO) and diesel range organics (DRO) below detectable limits. The bottom composite showed a chloride laboratory reading of 416 mg/kg, a GRO reading below detectable limits and a DRO reading of 14.9 mg/kg. The excavated soil was blended on site and returned to the excavation to ground surface. Laboratory analysis of the blended backfill showed a chloride reading of 416 mg/kg and concentrations of GRO and DRO below detectable limits.

The area was contoured to the surrounding landscape and seeded. A junction box closure report (Appendix A) was submitted to NMOCD with all the 2010 junction box closures and disclosures.

Further Evaluation

On February 28th, 2012, NMOCD requested ROC determine chloride concentrations in the vadose zone greater than 12 ft bgs. On April 23rd, 2012, one soil bore was advanced through the former junction box site to a depth of 25 ft bgs. Soil samples were field tested at regular intervals to a depth of 25 ft bgs for chlorides and screened in the field with a photo-ionization detector for hydrocarbons. Representative samples from the bore were taken to a commercial laboratory for confirmation of chloride and hydrocarbon field numbers. Laboratory tests resulted in a chloride concentration of 32 mg/kg at 15 ft bgs and 64 mg/kg at 25 ft bgs. GRO was below detectable limits in both samples. DRO was below detectable limits at 15 ft bgs and 16.9 mg/kg at 25 ft bgs (Appendix B).

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

Figure 1 – Site Location Map
Appendix A – Junction Box Closure Report
Appendix B – Soil Bore Installation Log and Laboratory Analysis

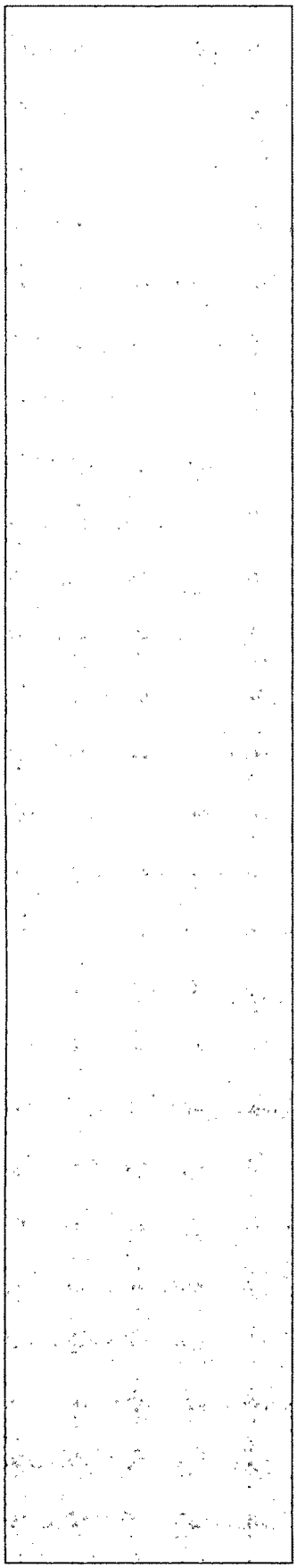
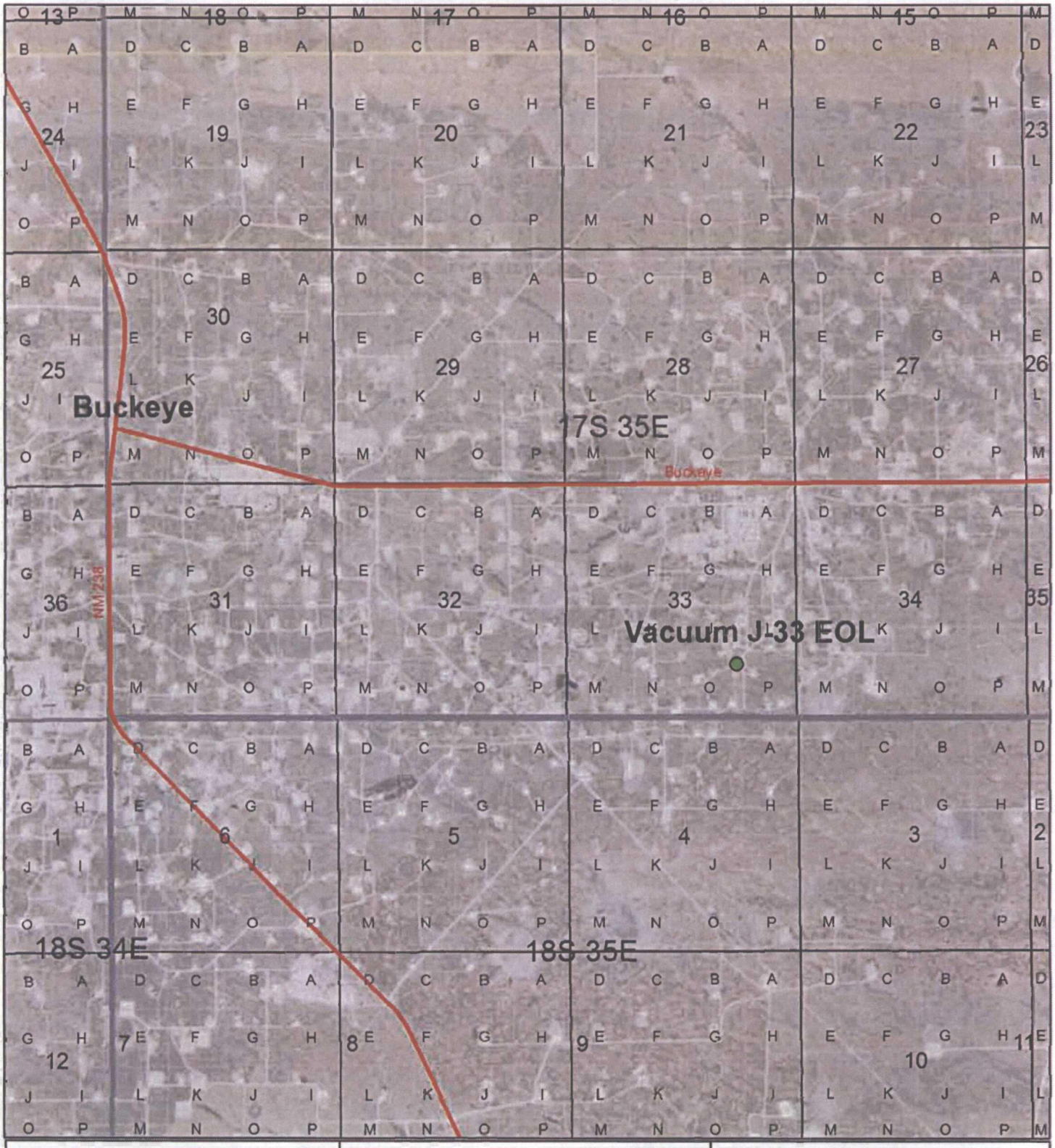


Figure 1
Site Location Map

Site Location Map



RICE ENVIRONMENTAL RECS CONSULTING & SAFETY, LLC

Vacuum J-33 EOL

Case #: 1R425-102

Legals: UL/J sec. 33
T-17-S R-35-E
LEA COUNTY, NM

N
W E
S

0 0.2 0.4 0.8
Miles

Drawing date: 6-8-12
Drafted by: L. Weinheimer

Appendix A
Junction Box Closure Report

RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
Vacuum	J-33 EOL	J	33	17S	35E	Lea	eliminated		

LAND TYPE: BLM ___ STATE X FEE LANDOWNER _____ OTHER _____

Depth to Groundwater 61' feet NMOCD SITE ASSESSMENT RANKING SCORE: 20

Date Started 7/19/2010 Date Completed 9/2/2010 OCD Witness no

Soil Excavated 100.0 cubic yards Excavation Length 15 Width 15 Depth 12 feet

Soil Disposed 72 cubic yards Offsite Facility Sundance Location Eunice, NM

FINAL ANALYTICAL RESULTS:

Sample Date 7/28/2010, 8/31/2010 **Sample Depth** 12 ft

Procure 5-point composite sample of bottom and 4-point composite sample of sidewalls. TPH and Chloride laboratory test results completed by using an approved lab and testing procedures pursuant to NMOCD guidelines.

Sample Location	PID (field) ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
4-WALL COMP.	0.9	<10.0	<10.0	1,340
BOTTOM COMP.	0.4	<10.0	14.9	416
BLENDED BACKFILL	N/A	<10.0	174	832
BLENDED BACKFILL W/ IMPORTED SOIL	2.7	<10.0	<10.0	416

CHLORIDE FIELD TESTS

LOCATION	DEPTH	mg/kg
4-wall comp.	n/a	882
bottom comp.	12'	285
blended backfill	n/a	550
background	6"	57
vertical delineation 10 ft. south of junction (source)	2'	87
	4'	89
	6'	300
	8'	153
	10'	142
	12'	85

General Description of Remedial Action: This junction box was addressed during the Vacuum SWD System abandonment. An investigation was conducted at the former junction box using a backhoe to collect soil samples at regular intervals creating a 15x15x12-ft. deep excavation. Chloride field tests were performed on each sample which yielded relatively low concentrations. Organic vapors were measured using a PID, which yielded low concentrations. The excavated soil was blended on site and representative samples were collected from the blended backfill, the bottom of the excavation, and excavation walls. The representative samples were sent to a commercial laboratory for analysis of chloride and TPH. The blended backfill was returned to the excavation and contoured to the surrounding area. On 9/10/2010, the site was seeded with a blend of native vegetation and is expected to return to a productive capacity at a normal rate.

enclosures: photos, lab results, PID (field) screenings, chloride curve

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

SITE SUPERVISOR Gerardo Martinez SIGNATURE Not Available COMPANY RICE OPERATING COMPANY

REPORT ASSEMBLED BY Larry Bruce Baker Jr. INITIAL LBB

PROJECT LEADER Larry Bruce Baker Jr. SIGNATURE Larry Bruce Baker Jr. DATE 3-30-11

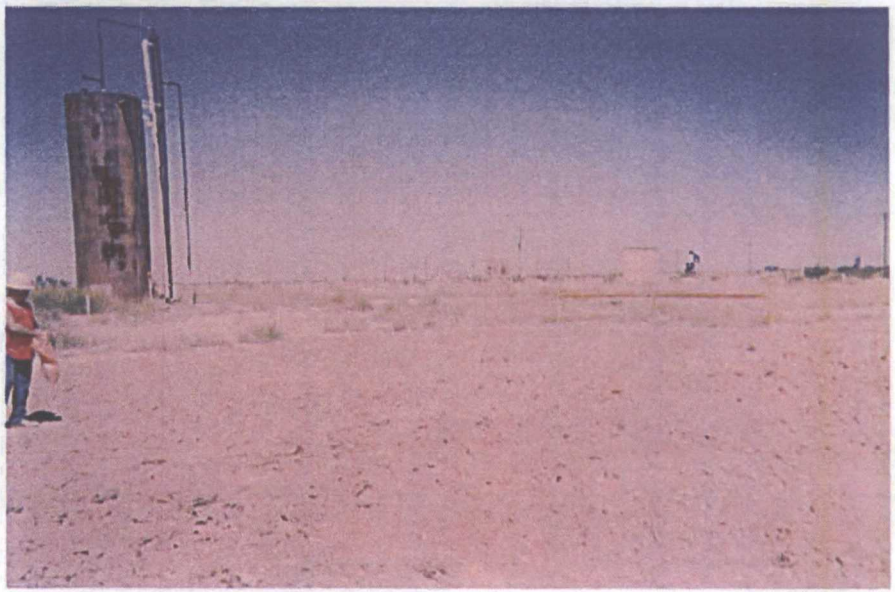
Vacuum J-33 EOL

Unit J, Section 33, T17S, R35E

Digging initial delineation trench 7/19/2010

Collecting sample 7/19/2010

Loading contaminated soil 8/30/2010



Seeding excavation 9/10/2010

CARDINAL Laboratories

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

Analytical Results For:

Rice Operating Company
Bruce Baker
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received:	07/29/2010	Sampling Date:	07/28/2010
Reported:	08/05/2010	Sampling Type:	Soil
Project Name:	VACUUM J-33 EOL 17/35	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	VACUUM J-33 EOL 17/35		

Sample ID: 5 PT BOTTOM COMP @ 12' (H020462-01)

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**416**	16.0	08/02/2010	ND	448	112	400	3.64	QM-05

TPH 8015M mg/kg Analyzed By: AB

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/04/2010	ND	167	83.5	200	1.23	
DRO >C10-C28	**14.9**	10.0	08/04/2010	ND	160	80.2	200	0.545	

Surrogate: 1-Chlorooctane	*83.4 %*	*70-130*
Surrogate: 1-Chlorooctadecane	*106 %*	*70-130*

Sample ID: 4-WALL COMP (H020462-02)

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1340**	16.0	08/02/2010	ND	448	112	400	3.64	QM-05

TPH 8015M mg/kg Analyzed By: AB

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/04/2010	ND	167	83.5	200	1.23	
DRO >C10-C28	<10.0	10.0	08/04/2010	ND	160	80.2	200	0.545	

Surrogate: 1-Chlorooctane	*90.4 %*	*70-130*
Surrogate: 1-Chlorooctadecane	*112 %*	*70-130*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Rice Operating Company
Bruce Baker
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received:	07/29/2010	Sampling Date:	07/29/2010
Reported:	08/05/2010	Sampling Type:	Soil
Project Name:	VACUUM J-33 EOL 17/35	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	VACUUM J-33 EOL 17/35		

Sample ID: BLENDED BACKFILL (H020462-03)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**832**	16.0	08/02/2010	ND	448	112	400	3.64	QM-05

TPH 8015M mg/kg **Analyzed By: AB**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/04/2010	ND	167	83.5	200	1.23	
DRO >C10-C28	**174**	10.0	08/04/2010	ND	160	80.2	200	0.545	

Surrogate: 1-Chlorooctane	*87.9 %*	*70-130*
Surrogate: 1-Chlorooctadecane	*116 %*	*70-130*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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: Rice Operating Company	BILL TO
Project Manager: Bruce Baker	P.O. #:
Address: 122 W. Taylor	Company:
City: Hobbs State: NM Zip: 88240	Attn:
Phone #: 575-393-9174 Fax #: 575-397-1471	Address:
Project #: Project Owner:	City:
Project Name: Vacuum 5-33 Fed 12135	State: Zip:
Project Location:	Phone #:
Sampler Name: Gerardo Martinez	Fax #:

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE	ICE / COOL	OTHER:	DATE	TIME	CL	TPH 8015M		
H20462-1	5pT Bottom Comp @ 12'	C	1			✓					✓		7-28-10	12:12	✓	✓		
2	4-Wall Comp	C	1			✓					✓		7-28-10	12:00	✓	✓		
3	Blended backfill	C	1			✓					✓		7-29-10	10:25	✓	✓		

Relinquished By: Gerardo	Date:	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time:		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date: 7/29/10	Received By: Jodi Henson	REMARKS: E-Mail Results To:
	Time: 4:20		JKJones@RiceSWD.com
Delivered By: (Circle One)	Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No	CHECKED BY: (Initials)	BBaker " " " "
Sampler - UPS - Bus - Other:			" " " "
			LMartinez@ricesud.com

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

RICE OPERATING COMPANY

122 West Tayor 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 7600	Serial No: 110-023920
✓	Model: PGM 7300	Serial No: 590-000508			Model: PGM 7600	Serial No: 110-013744
	Model: PGM 7300	Serial No: 590-000504			Model: PGM 7600	Serial No: 110-013676

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO: 92 4503	EXPIRATION DATE: 7-05-2012
FILL DATE:	METER READING ACCURACY: 101 PPM

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP.	RANGE
vacuum	J-33 E02	J	33	17S	35E

SAMPLE ID	PID	SAMPLE ID	PID
5-PT Bottom Composite	0.4		
4-well composite	0.9		
		COPY	

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

SIGNATUE: Gerardo Martinez DATE: 7-28-10

CARDINAL Laboratories

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

Analytical Results For:

Rice Operating Company
Bruce Baker
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received:	08/31/2010	Sampling Date:	08/31/2010
Reported:	09/01/2010	Sampling Type:	Soil
Project Name:	VAC. J-33 EOL 17/35	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: BLENDED BACKFILL W/ IMPORTED SOIL (H020773-01)

Chloride, SM4500Cl-B mg/kg Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**416**	16.0	08/31/2010	ND	448	112	400	0.00	

TPH 8015M mg/kg Analyzed By: AB

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/01/2010	ND	163	81.7	200	2.10	
DRO >C10-C28	<10.0	10.0	09/01/2010	ND	181	90.7	200	4.83	
Surrogate: 1-Chlorooctane	*80.7 %*	*70-130*							
Surrogate: 1-Chlorooctadecane	*86.1 %*	*70-130*							

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

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:	Rice Operating Company
Project Manager:	Bruce Baker
Address:	122 W. Taylor
City:	Hobbs State: NM Zip: 88240
Phone #:	575-393-9174 Fax #: 575-397-1471
Project #:	Project Owner:
Project Name:	
Project Location:	Vac. J-33 E of 17/35
Sampler Name:	J. Gatts

BILL TO

P.O. #:	
Company:	
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Cl.	TPH 8015										
H20773-1	Blended Backfill w/ Imported Soil	C	1			X					X		8/31/10	2:00	X	X										

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:	Date:	Received By:	
	Time:		
Relinquished By:	Date: 8/31/10	Received By:	
	Time: 4:20		
Delivered By: (Circle One)	Sample Condition: Cool: Yes / No; Intact: Yes / No	CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other:	11.5°C		

Phone Result: ☐ Yes ☐ No Add'l Phone #:

Fax Result: ☐ Yes ☐ No Add'l Fax #:

REMARKS: E-Mail Results TO: KJones@Ricesud.com BBaker " " " Regans " " " jgatts Rush please ☺

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

#26

* Sample just taken & brought to Lab. Not enough time to reach temp.

RICE OPERATING COMPANY

122 West Tayor 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 7600	Serial No: 110-023920
✓	Model: PGM 7300	Serial No: 590-000508			Model: PGM 7600	Serial No: 110-013744
	Model: PGM 7300	Serial No: 590-000504			Model: PGM 7600	Serial No: 110-013676

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO : 924503	EXPIRATION DATE: 7-05-2012
FILL DATE:	METER READING ACCURACY: 100 PPM

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
VACUUM	5-33 EOL	J	33	17S	35E

SAMPLE ID	PID	SAMPLE ID	PID
Blended Backfill composite	2.7		

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

SIGNATUE: Gerardo Martinez DATE: 7-29-10

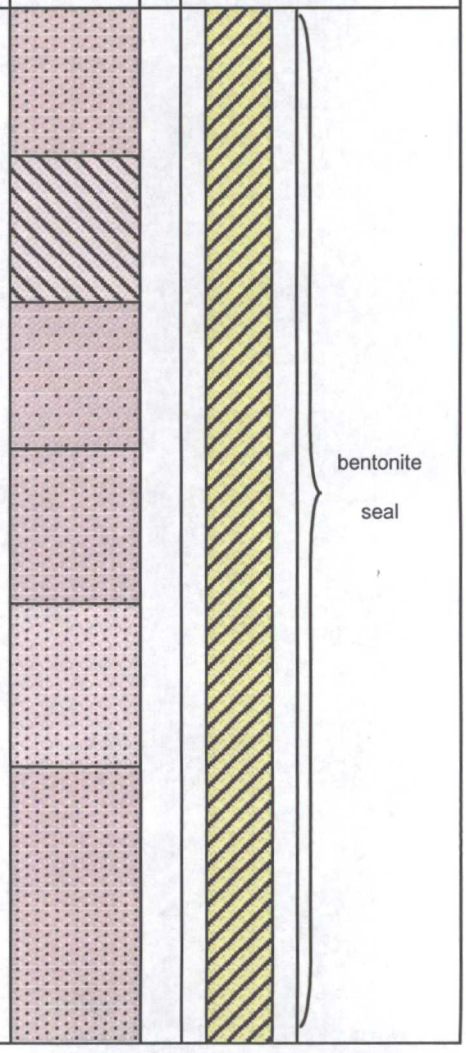
Appendix B
Soil Bore Installation and Laboratory Analysis

Logger:	Kyle Norman	Tank Battery	RICE ENVIRONMENTAL RECS CONSULTING & SAFETY, LLC
Driller:	Harrison & Cooper, Inc.		
Drilling Method:	Air rotary	Source SB-1	**Project Name:** Vacuum J-33 EOL Junction Box Delineation
Start Date:	4/23/2012		**Well ID:** SB-1
End Date:	4/23/2012		

Comments: SB-1 is located 7 ft south of the former junction box site. All samples were from cuttings.
DRAFTED BY: L. Weinheimer
TD = 25 ft GW = 61 ft

Location: UL/O sec. 33 T17S R35E
Lat: 32°47'14.959"N **Long:** 103°27'30.315"W
County: Lea **State:** NM

Depth (feet)	Chloride field tests	LAB	PID	Description
				Light brown very fine sand with some caliche. Dry. No odor.
SS				
				Tan caliche. Dry. No odor.
5 ft				
				Light brown very fine sand. Dry. No odor.
10 ft				
				Light brown very fine sand with some caliche. Dry. No odor.
15 ft	116	Cl- 32	0.2	
		GRO <10		Tan very fine sand with some caliche. Dry. No odor.
		DRO <10		
20 ft	93		0.3	
				Light brown very fine sand with some caliche. Dry. No odor.
25 ft	118	Cl- 64	0.6	
		GRO <10		
		DRO 16.9		



CARDINAL Laboratories

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

April 25, 2012

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM J-33 EOL 17/35

Enclosed are the results of analyses for samples received by the laboratory on 04/24/12 9:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Rice Operating Company
Hack Conder
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received:	04/24/2012	Sampling Date:	04/23/2012
Reported:	04/25/2012	Sampling Type:	Soil
Project Name:	VACUUM J-33 EOL 17/35	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	VACUUM J-33 EOL 17/35		

Sample ID: SB 1 @ 15' (H200930-01)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	04/25/2012	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/24/2012	ND	178	89.2	200	0.284	
DRO >C10-C28	<10.0	10.0	04/24/2012	ND	187	93.6	200	0.749	

Surrogate: 1-Chlorooctane	*87.9 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*84.3 %*	*57.6-158*

Sample ID: SB 1 @ 25' (H200930-02)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	04/25/2012	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/24/2012	ND	178	89.2	200	0.284	
DRO >C10-C28	**16.9**	10.0	04/24/2012	ND	187	93.6	200	0.749	

Surrogate: 1-Chlorooctane	*84.5 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*82.8 %*	*57.6-158*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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: Rice	**BILL TO**
Project Manager: Hack Conder	P.O. #:
Address:	Company:
City: Hobbs State: NM Zip: 88240	Attn:
Phone #: Fax #:	Address:
Project #: Project Owner:	City:
Project Name:	State: Zip:
Project Location: Vacuum J-33 Sec. 17S-35E	Phone #:
Sampler Name: Kyle Norman	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS
H200930																				
1	SB1 @ 15'	G	1			✓					✓		4-23-12	9:15	✓	✓				
2	SB1 @ 25'	G	1			✓					✓		4-23-12	9:30	✓	✓				

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: Kyle Norman	Date: 4-24-12 Time: 7:45AM	Received By:	Phone Result: ☐ Yes ☑ No Add'l Phone #:
Relinquished By:	Date: 4-24-12 Time: 0910	Received By: Kate Henson	Fax Result: ☐ Yes ☑ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)	REMARKS: email results: zconder@rice-ecs.com Knorman@rice-ecs.com; lpena@riceswd.com Kjones@riceswd.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com

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

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