1R - 425-104

REPORTS

DATE:

4-17-12

IR425-104

Vacuum I-7 EOL
2011

CLOSURE

RICE *Operating Company*
122 West Taylor • Hobbs, New Mexico 88240
Phone: (575) 393-9174 • Fax: (575) 397-1471

May 1, 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: Termination Request
Vacuum I-7 EOL: UL/I, Sec. 7, T18S, R35E
RICE Operating Company – Vacuum SWD System

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
In 2011, ROC initiated work on the former I-7 EOL. The site is located in UL/I, Sec. 7, T18S, R35E. NM OSE records indicate that groundwater would likely be encountered at a depth of approximately 87 +/- feet. After the former junction box was removed, an investigation was conducted using a drilling rig to collect soil samples at regular intervals. The soil bore was initiated on 7/25/2011 and was advanced to a total depth of 5 ft below ground surface. Each sample was field titrated for chlorides and field screened using a PID for hydrocarbons, resulting in low concentrations of each. The 5-ft sample was sent to a commercial laboratory for analysis of chloride and TPH, resulting in a chloride concentration of 192 mg/kg, and concentrations of gasoline range organics (GRO) and diesel range organics (DRO) below detectable limits. The bore was plugged with bentonite to ground surface. This site was not seeded due to the close proximity of the lease road. The junction box final report, photo documentation, laboratory analysis, PID sheet, and chloride graph.

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

RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
Vacuum	I-7 EOL	I	7	18S	35E	Lea	Eliminated		

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

Depth to Groundwater 87 feet NMOCD SITE ASSESSMENT RANKING SCORE: 10

Date Started 7/25/2011 Date Completed 7/25/2011 OCD Witness No

Soil Excavated N/A cubic yards Excavation Length N/A Width N/A Depth 5 feet

Soil Disposed N/A cubic yards Offsite Facility N/A Location N/A

FINAL ANALYTICAL RESULTS: **Sample Date** 7/25/2011 **Sample Depth** 5'

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
Source @ 5'	4.3	<10.0	<10.0	192

CHLORIDE FIELD TESTS		
LOCATION	DEPTH	mg/kg
background	6"	115
SB-1 at source	1'	294
	2'	226
	3'	372
	4'	235
	5'	174

General Description of Remedial Action: This junction was eliminated during the Vacuum SWD system abandonment program. After the former junction box was removed, an investigation was conducted using a drilling rig to collect soil samples at regular intervals. The soil bore was initiated on 7/25/2011 and was advanced to a total depth of 5-ft. below ground surface. Chloride field tests were performed on each sample and organic vapors were measured using a PID. The 5-ft. samle was taken to a commercial laboratory for analysis of chloride and TPH which yielded low TPH and decreasing chloride concentration. The bore was plugged with bentonite to ground surface. This site was not seeded due to the close proximity of the lease road.

enclosures: photos, soil bore log, 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 Kyle Norman SIGNATURE Kyle Norman

REPORT ASSEMBLED BY Amy C. Ruth SIGNATURE _____ COMPANY RICE OPERATING COMPANY

PROJECT LEADER Zach Conder SIGNATURE _____ DATE 4-17-12

Vacuum I-7 EOL

Unit I, Section 7, T18S, R35E

Site prior to drilling, facing west 7.25.2011

Drilling SB-1, facing north 7.25.2011

Plugging SB-1 in total with bentonite 7.25.2011

SB-1 complete, facing north 7.25.2011

Logger:	Kyle Norman		RICE ENVIRONMENTAL CONSULTING & SAFETY, LLC — RECS
Driller:	Harrison & Cooper, Inc.		**Project Name:** Vacuum I-7 EOL **Well ID:** SB-1
Drilling Method:	Air rotary		**Project Consultant:** Junction box plan
Start Date:	7/25/2011		
End Date:	7/25/2011		
Comments: Located at the source of the former junction box site. All samples were from cuttings. **DRAFTED BY: L. Weinheimer** TD = 5 ft GW = 87 ft			**Location:** UL/I sec. 7 T18S R35E **Lat:** 32°45'37.987"N **Long:** 103°29'28.065"W **County**: Lea **State**: NM

Depth (feet)	Chloride field tests	LAB	PID	Description	Lithology	Well Construction
				Brown Fine Sand With Some Caliche		bentonite seal
SS	115		1.1			
1 ft	294		0.9			
2 ft	226		4.1			
3 ft	372		3.3			
4 ft	235		1.5			
5 ft	174	Cl-192	4.3			
		GRO <10				
		DRO <10				

CARDINAL Laboratories

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

July 27, 2011

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM I-7 EOL

Enclosed are the results of analyses for samples received by the laboratory on 07/25/11 15:50.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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 (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:	07/25/2011	Sampling Date:	07/25/2011
Reported:	07/27/2011	Sampling Type:	Soil
Project Name:	VACUUM I-7 EOL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: INITIAL @ 5' (H101543-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	07/26/2011	ND	400	100	400	3.92	

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	07/26/2011	ND	184	91.8	200	3.23	
DRO >C10-C28	<10.0	10.0	07/26/2011	ND	167	83.4	200	3.62	

Surrogate: 1-Chlorooctane	*117 %*	*70-130*
Surrogate: 1-Chlorooctadecane	*127 %*	*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

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

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		BILL TO	
Project Manager: Hack Conder		P.O. #:	
Address:		Company:	
City:	State: NM Zip:	Attn:	
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:		State:	Zip:
Project Location: Vacuum I-7 EOL		Phone #:	
Sampler Name: Kyle Norman		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	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS					
H10543																									
-1	Initial @ 5'	G	1			✓					✓		7-25-11	11:00	✓	✓									

COPY

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: 7-25-11	Received By:	Phone Result: ☐ Yes ☑ No Add'l Phone #:
	Time: 3:50	Dodi Henson	Fax Result: ☐ Yes ☑ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: email results kjones@riceswd.com Zconder@rice-ecs.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No	CHECKED BY: (Initials)	

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

#126

RICE ENVIRONMENTAL CONSULTING & SAFETY

122 West Taylor Hobbs, NM 88240
PHONE: (505) 393-9174 FAX: (505) 397-1471
PID METER CALIBRATION & FIELD REPORT FORM

CK.		MODEL: PGM 7300	SERIAL NO: 590-000508
MODEL	x	MODEL: PGM 7300	SERIAL NO: 590-000504
NO.		MODEL: PGM 7320	SERIAL NO: 592-903318
		MODEL: PGM 7300	SERIAL NO: 590-000183

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO : 930360	EXPIRATION DATE: 5/24/2013
METER READING ACCURACY: 99.9 ppm	

ACCURACY : +/- 2%

COMPANY
Rice Operating Company

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
Vacuum	I-7 EOL	I	7	18S	35E

SAMPLE ID	PID	SAMPLE ID	PID
Background @ 6"	1.1		
1'	0.9		
2'	4.1		
3'	3.3		
4'	1.5		
5'	4.3		

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

SIGNATURE: Kyle Rice

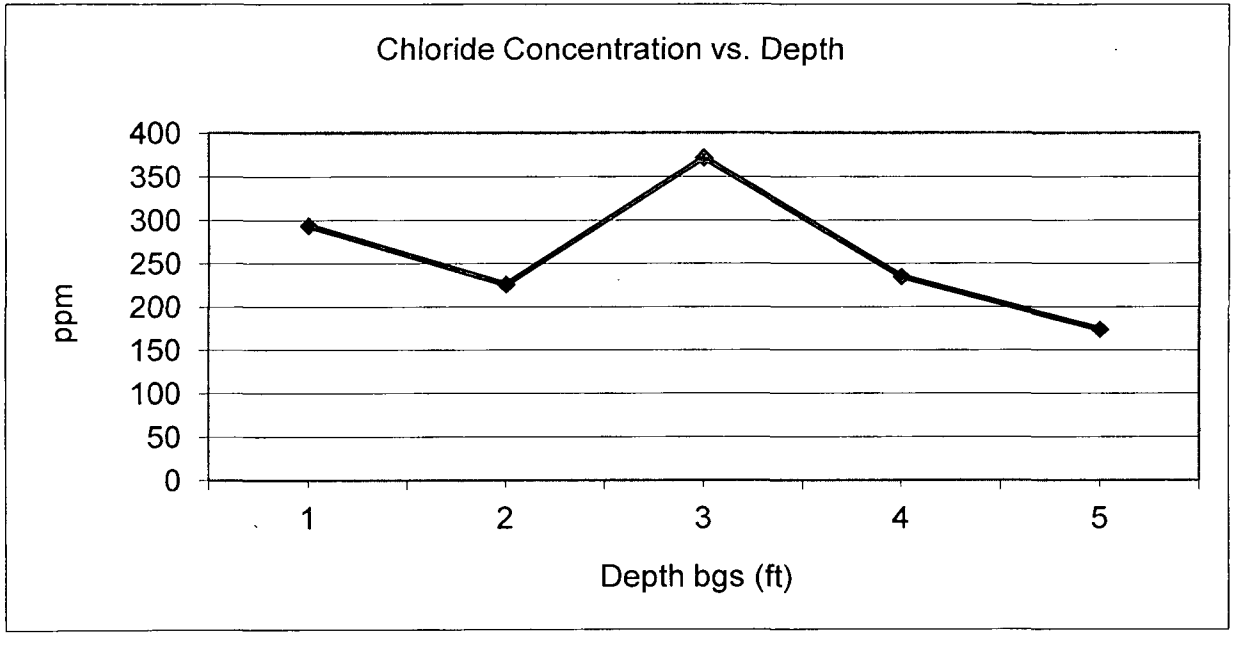
DATE: 7/25/2011

Vacuum I-7 EOL

Unit 'I', Sec. 7, T18S, R35E

Soil bore samples at the source

Depth bgs (ft)	[Cl-] ppm
1	294
2	226
3	372
4	235
5	174



Groundwater = 87 ft