1R - 427-385

REPORTS

DATE:

3-22-12

EME K-9 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
EME K-9 EOL: UL/K, Sec. 9, T21S, R36E
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/us age basis.

Background
In 2011, ROC initiated work on the former K-9 EOL junction box. The site is located in UL/K, Sec. 9, T21S, R36E. NM OSE records indicate that groundwater would likely be encountered at a depth of approximately 159.5 +/- feet. The site was delineated using a backhoe to collect soil samples at regular intervals, creating a 3x7x6-ft deep excavation. Each sample was field titrated for chlorides and field screened using a PID for hydrocarbons, resulting in low concentrations of each. The 6-ft sample was sent to a commercial laboratory for analysis of chloride and TPH, resulting in a chloride concentration of 48 mg/kg, and concentrations of gasoline range organics (GRO) and diesel range organics (DRO) below detectable limits. A total of 12 cubic yards of soil was transported to a NMOCD approved disposal facility. The excavation was backfilled with clean imported soil to ground surface and contoured to the surrounding area. A sample of the imported soil was sent to a commercial laboratory for analysis of chloride, resulting in a chloride concentration of <16 mg/kg. On 7/1/2011, the site was seeded with a blend of native vegetation and is expected to return to a productive capacity at a normal rate. The junction box final report, photo documentation, laboratory analysis, PID sheet, chloride graph, and revegetation form 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

RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
Eunice Monument Eumont (EME)	K-9 EOL	K	9	21S	36E	Lea	Eliminated		

LAND TYPE: BLM ___ STATE ___ FEE LANDOWNER Millard Deck Estate OTHER ___

Depth to Groundwater 159.5 feet NMOCD SITE ASSESSMENT RANKING SCORE: 0

Date Started 7/1/2011 Date Completed 7/1/2011 OCD Witness No

Soil Excavated 4.7 cubic yards Excavation Length 3 Width 7 Depth 6 feet

Soil Disposed 12 cubic yards Offsite Facility Sundance Services, Inc. Location Eunice, NM

FINAL ANALYTICAL RESULTS: **Sample Date** 7/1/2011 **Sample Depth** 6'

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 6' GRAB	10.7	<10.0	<10.0	48
BLOW SAND	7.5			<16

CHLORIDE FIELD TESTS		
LOCATION	DEPTH	mg/kg
background	6"	157
vertical delineation trench at the junction (source)	2'	147
	3'	148
	4'	146
	5'	155
	6'	145

General Description of Remedial Action: This junction and line were eliminated during the pipeline replacement/upgrade program. After the former junction box was removed, an investigation was conducted using a backhoe to collect soil samples at regular intervals creating a 3X7X6-ft. deep excavation. Chloride field tests performed on each sample yielded concentrations similar to that of the background sample. Organic vapors were measured using a PID, which yielded low concentrations. The deepest sample, 6 ft. BGS, was sent to a commercial laboratory for analysis of chloride and TPH, which confirmed low concentrations of each. A total of 12 cubic yards of soil was transported to a NMOCD approved disposal facility. The excavation was backfilled with clean imported soil to ground surface and contoured to the surrounding area. On 7/1/2011, 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 graph, revegetation form

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 Laura Peña SIGNATURE Laura Peña COMPANY RICE OPERATING COMPANY

PROJECT LEADER Zach Conder SIGNATURE Zach Conder DATE 3-22-12

EME K-9 EOL

Unit K, Section 9, T21S, R36E

Site prior to excavation, facing north 7.1.11

Collecting sample, facing north 7.1.11

Exporting soil, facing northeast 7.1.11

Importing blow sand, facing south 7.1.11

Seeding site, facing north 7.1.11

Site completed, facing north 7.1.11

CARDINAL Laboratories

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

July 06, 2011

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: EME K-9 EOL

Enclosed are the results of analyses for samples received by the laboratory on 07/01/11 15:40.

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

COPY

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:	07/01/2011	Sampling Date:	07/01/2011
Reported:	07/06/2011	Sampling Type:	Soil
Project Name:	EME K-9 EOL	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: INITIAL SOURCE @ 6' (H101369-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	07/05/2011	ND	432	108	400	3.77	

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	07/06/2011	ND	172	85.8	200	3.10	
DRO >C10-C28	<10.0	10.0	07/06/2011	ND	154	76.9	200	3.30	

Surrogate: 1-Chlorooctane	*87.6 %*	*70-130*
Surrogate: 1-Chlorooctadecane	*96.4 %*	*70-130*

Sample ID: BLOW SAND WALLACH (H101369-02)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/05/2011	ND	432	108	400	3.77	

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: EME H-9 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					
H10369																									
-1	Initial Source @ 6'	G	1			✓					✓		7-1-11	10:30	✓	✓									
-2	Blow Sand Wallach	G	1			✓							7-1-11	3:00	✓										

OK

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: 7-1-11 Time: 3:40	Received By: Jodi Henson	Phone Result: ☐ Yes ☑ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	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 kjones@riceswd.com Zconder@rice-ecs.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

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 NO.		MODEL: PGM 7300	SERIAL NO: 590-000508
		MODEL: PGM 7300	SERIAL NO: 590-000504
	x	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: 100.0 PPM	

ACCURACY : +/- 2%

COMPANY
RICE

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
EME	K-9 EOL	K	9	21S	36E

SAMPLE ID	PID	SAMPLE ID	PID
Back Ground at 6"	0		
Initial Source at 2'	44.1		
at 3'	66.2		
at 4'	15.3		
at 5'	22.9		
at 6'	10.7		
Blow Sand From Wallach	7.5		

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

SIGNATURE: [signature]

DATE: 7/1/2011

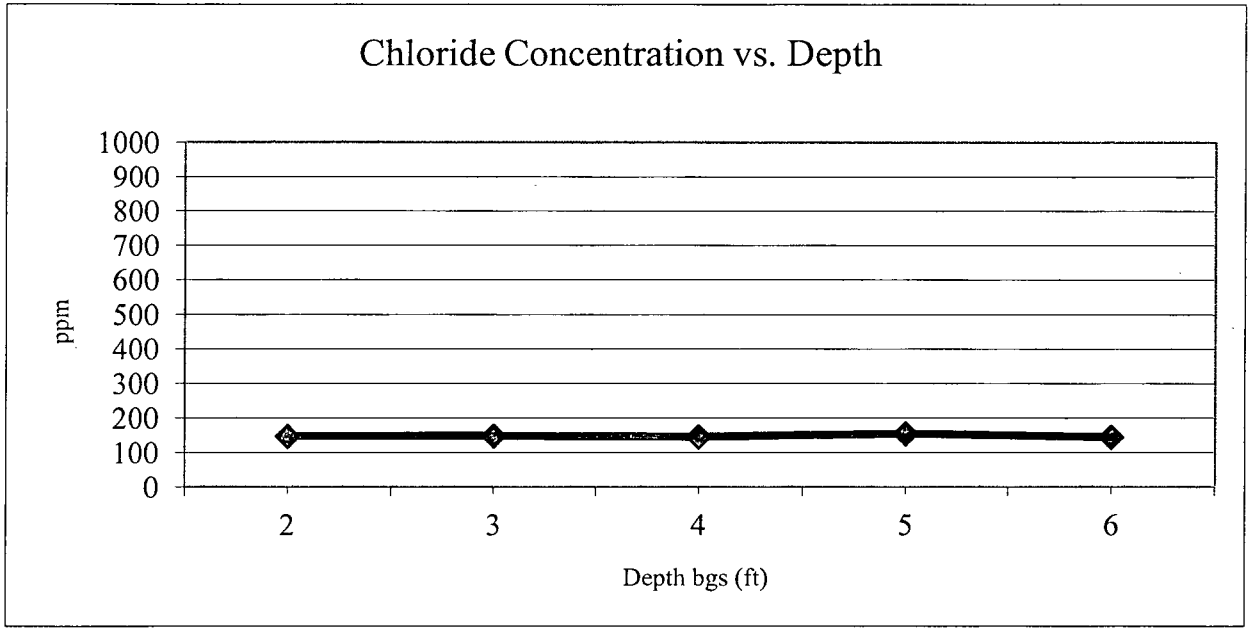
EME K-9 EOL

Unit 'K', Sec. 9, T21S, R36E

Backhoe samples at junction (source)

Depth bgs (ft)	[Cl⁻] ppm
2	147
3	148
4	146
5	155
6	145

Groundwater = 159.5 ft



PO Box 5630
Hobbs, NM 88241
Phone: (575) 393-4411
Fax: (575) 393-0293

REVEGETATION FORM

1. General Information

Site name: EME K-9 EOL						
U/L K	Section 9	Township 21S	Range 36E	County Lea	Latitude N 32* 29.389'	Longitude W 103* 16.339'
Contact Name: Hack Conder						
Email: hconder@rice-ecs.com						
Site size. 900 square feet			Map detail of site attached ☐			
Additional information:						

2. Soils **Do not rip caliche subsoils; caliche rocks brought to the surface by ripping shall be removed.*

Salvaged from site ☒	Bioremediated ☐	Imported ☒	Blended ☐	Depth (in):
Texture:	Describe soil & subsoil:			
Soil prep methods:	Rip ☐ Depth(in):	Disc ☐ Depth (in):	Rollerpack ☐	
Date completed: 7 /1/2011				

3. Bioremediation

Fertilizer ☐	Hay ☐	Other ☐
Type:		Describe:
Lbs/acre:		

4. Seeding **Attach seed bag tags to this form. Seed bag tags shall contain the site name and S-T-R.*

Custom seed mix ☒	Prescribed mix ☐	Seed mix name: Boyd Johnston Mix	Seeding date: 7 /1/2011
Broadcast ☒ Method: Hand seeder			
Soil conditions during seeding: Dry ☒ Damp ☐ Wet ☐			
Photos attached ☐ Number of photos:	Observations:		

5. Certification I hereby certify that the information in this form and attachments is true and complete to the best of my knowledge and belief.

Name: Kyle Norman	Title: Environmental Tech	Date: 7/1/2011
Signature: Kyle Norman		

COF 1