1R - 428-51

REPORTS

DATE:

11-8-13

L. Peter Galusky, Jr. Ph.D., P.G.
Texerra LLC
20055 Laredo Lane Monument, CO 80132
Tel: 719-339-6791 E-mail: lpg@texerra.com

November 8th, 2013

Mr. Edward Hansen
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87504

Re: **CAP Report and Termination Request**
Rice Operating Company – Hobbs O-29 EOL
UL O, Sec 29, T18S, R38E
OCD Case No. 1R428-51

Sent via Certified Mail w/ Return Receipt No. 7011 0110 0002 5197 1457

Mr. Hansen:

This letter summarizes work completed by Rice Operating Company (ROC) at their Hobbs O-29 EOL former junction box site, as outlined in the Corrective Action Plan (CAP) and CAP Addendum of August 8th and 27th, respectively, and approved by NMOCD on September 3rd 2013.

The subject site is located in west Hobbs, New Mexico. The apparent direction of groundwater flow is toward the southeast. The estimated depth to groundwater (the water table) is approximately 67 ft bgs.

In May 2010, soils were sampled and analyzed for residual chlorides and petroleum hydrocarbons per the Investigation and Characterization Plan (ICP) approved by the NMOCD on January 20th, 2010. The results of this work were reported in the CAP noted above. In brief, petroleum hydrocarbons were significant only near the former junction box (in SB-1) near the surface and to a depth of 40 ft bgs (as evidenced by a field PID reading greater than 100). Total BTEX measured 9.24 mg/kg at 5 ft bgs and 2.80 mg/kg at 40 ft bgs. Petroleum hydrocarbons were essentially insignificant in all of the other soil borings. Residual soil chlorides decreased with depth to 352 mg/kg at 70 ft bgs in SB-1, 96 mg/kg at 65 ft in SB-2, 416 mg/kg at 40 ft in SB-3, 768 mg/kg at 40 ft in SB-4, and 464 mg/kg at 40 ft in SB-5.

Although these levels of residual soil chlorides and hydrocarbons were not high, we nevertheless proposed to install an impermeable, synthetic subsurface liner to protect groundwater from potential future impacts per the CAP and CAP addendum. According to the CAP and Addendum, ROC would install four separate liners due to the presence of a buried injection line running north-south and a buried pipeline running east-west. The Multimed simulation model was used to determine if residual chloride or BTEX pose a threat to groundwater quality. Multimed proved that residual constituents would not pose a threat to groundwater quality with the installation of a 20-mil liner. This work, summarized below, was completed in October of this year:

1. Once ROC began spotting lines, it was discovered that the buried pipeline running east to west through the site was abandoned. This allowed the installation of two liners, one on each side of the buried injection line. The east and west side of the site was excavated to a depth of 5 ft bgs.

2. ROC padded each excavation with 6 inches of blow sand, then installed and properly seated a 20-mil, reinforced poly liner in each of the excavations. The west liner measured approximately 13x53-ft and the east liner measured approximately 40x53-ft. The liners were then padded with approximately 1 foot of blow sand. Approximately 636 cu yds of soil material was hauled to and disposed at Sundance, a NMOCD approved oil field disposal facility.

3. The west excavation was backfilled with base coarse to ground surface. A composite sample of the base coarse was analyzed by a commercial laboratory resulting in a chloride concentration of 112 mg/kg. The sample was also field analyzed for hydrocarbon, resulting in a PID reading of 32 ppm. The east excavation was backfilled with blow sand to ground surface. A composite sample of the imported blow sand was analyzed by a commercial laboratory resulting in a chloride concentration of <16 mg/kg. The sample was also field analyzed for hydrocarbon, resulting in a PID reading of 38 ppm. Approximately 546 cu yds of clean material was imported to the site.

4. ROC restored the surface to natural grade and added amendments and seed with a blend of native vegetation mix.

As ROC has protected groundwater from potential future impacts from residual soil chlorides or hydrocarbons we respectfully request remediation termination or similar regulatory closure status for this project.

ROC is the service provider (agent) for the Hobbs 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.

Please do not hesitate to contact either Rice Operating Company or myself if you have any questions or need additional information.

Thank you for your consideration.

Sincerely,

L. Peter Galusky, Jr. Ph.D.
Principal

Copy: Rice Operating Company

APPENDIX

- ✓ Site Location Map
- ✓ Liner Installation Map with Soil Bore Sampling Summary
- ✓ Laboratory Analysis of Imported Soil Material
- ✓ PID (hydrocarbon screening) of Imported Soil Material
- ✓ Revegetation Form
- ✓ Photographs

Site Location

RICE ENVIRONMENTAL CONSULTING & SAFETY, LLC
RECS

Hobbs O-29 EOL

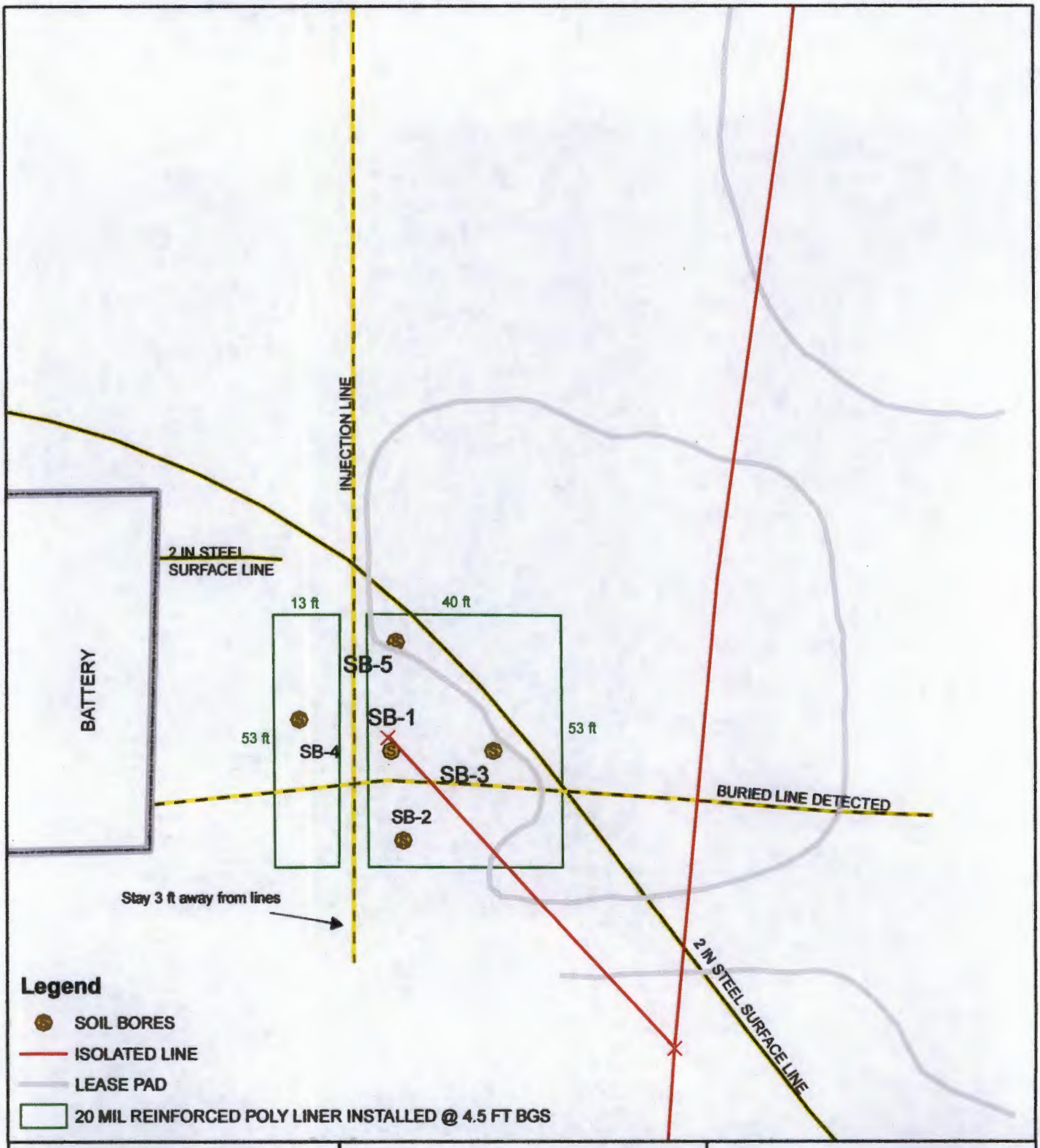
Legals: UL/O sec. 29
T18S R38E

Case #: 1R428-51

N
W E
S

0 0.175 0.35
Miles

Drawing date: 10/23/12
Drafted by: L. Weinheimer



RICE ENVIRONMENTAL RECS CONSULTING & SAFETY, LLC

Hobbs O-29 EOL

Legals: UL/O sec. 29
T18S R38E

Case #: 1R428-51

N
W E
S

0 12.5 25 50 Feet

Drawing date: 11/8/13
Drafted by: T. Grieco

CARDINAL Laboratories

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

October 21, 2013

KYLE NORMAN

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: HOBBS O-29 EOL

Enclosed are the results of analyses for samples received by the laboratory on 10/17/13 8:01.

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
KYLE NORMAN
112 W. Taylor
Hobbs NM, 88240
Fax To: (575) 397-1471

Received:	10/17/2013	Sampling Date:	10/16/2013
Reported:	10/21/2013	Sampling Type:	Soil
Project Name:	HOBBS O-29 EOL	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T18S R35E		

Sample ID: BLOW SAND (H302513-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/21/2013	ND	416	104	400	0.00	

Sample ID: BASE COARSE (H302513-02)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	10/21/2013	ND	416	104	400	0.00	

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: Kyle Norman		P.O. #:	
Address:		Company:	
City: Hobbs	State: NM Zip: 88240	Attn:	
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name: Hobbs 6-29 EDL		State: Zip:	
Project Location: T18S R35E		Phone #:	
Sampler Name: Amber Groves		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
H30258																				
1	Pshaw Sand	G	1			✓							10-14-15	9:00	✓					
2	Base Coarse	G	1			✓							10-14-15	12:00	✓					

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: Amber Groves	Date: 10-14-15 Time: 3:01	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 knorman@rice-ecs.com hconder@rice-ecs.com; Lweinheimer@rice-ecs.com; kjones@riceswd.com; Lpena@riceswd.com; sedwards@rice-ecs.com agroves@rice-ecs.com

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

#54

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
	X	MODEL: PGM 7300	SERIAL NO: 590-001413
		MODEL: PGM 7320	SERIAL NO: 592-903318
		MODEL: PGM ____	SERIAL NO: _____

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO :Hal-248-100-1	EXPIRATION DATE: 7-1-2015
METER READING ACCURACY:	

ACCURACY : +/- 2%

COMPANY
ROC

SITE	UNIT	SECTION	TOWN SHIP	RANGE
Hobbs O-29 EOL	UL/O	29	18S	38E

SAMPLE ID	PID	SAMPLE ID	PID
Imported Blow Sand	38		
Imported Base Coarse	32		

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

SIGNATURE: Amber Groves

DATE: 10/16/2013

PO Box 2498
Hobbs, NM 88241
Phone: (575) 393-2967
Fax: (575) 393-0293

VEGETATION FORM

1. General Information

Site name:	Hobbs O-29 EOL					
U/L	Section	Township	Range	County	Latitude	Longitude
O	29	T18S	R38E	Lea	32.713623	-103.1662385
Contact Name:	Hack Conder					
Email:	hconder@riceswd.com					
Site size:	75X100 ft		square feet:	7,500 sq ft		

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

Salvaged from site		Bioremediated		Imported	X	Blended		Depth (in)		
Texture:	Sand		Describe soil & subsoil:		Blow Sand					
Soil prep methods:	Rip		Depth (in)	3 in	Disc	X	Depth (in)		Rollerpack	
Date completed:	10/23/2013									

3. Bioremediation

Fertilizer	X	Hay		Other	
Type:				Describe:	16 bags Potting Soil, 16 bags Restore
Lbs acre:				2 bags Manure	

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

Custom Seed Mix	X	Prescribed Mix		Seed Mix Name:	10 lbs each Side Oats, Blue Grama,Winter	Date:	10/23/2013
Broadcast	Mechanical Seeder				Method:	Used Dew Drop Grain drill to seed site	
Soil conditions during seed:	Dry	x	Damp		Wet		
Observations:	The Seed was tilled into the soil.						

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:	Amber Groves	Title:	Environmental Technician	Date:	10/23/2013
Signature:					

Hobbs O-29 EOL (1R428-51)
Unit Letter O, Section 29, T18S, R38E

Site prior to excavation, facing west 6/25/2013

Excavating the west side of the site, facing southwest 10/15/2013

Padding the west excavation with blow sand, facing southwest 10/16/2013

20-mil, reinforced liner installed, facing southeast 10/16/2013

Padding the liner with blow sand, facing southwest 10/16/2013

Backfilling with base coarse, facing northwest 10/16/2013

Exporting excavated soil,
facing east 10/21/2013

Importing blow sand,
facing south 10/21/2013

Excavating the east side of the site, facing
southeast 10/21/2013

Padding the excavation with blow sand,
facing southeast 10/22/2013

Padding the 20-mil, reinforced liner with blow
sand, facing north 10/22/2013

Backfilling the excavation,
facing northwest 10/22/2013

Discing the backfilled site, facing southwest 10/23/2013

Adding amendments to the soil, facing southwest 10/23/2013

Seeding the site, facing southwest 10/23/213

Site complete, facing west 10/23/2013