1R428-67

Termination Request

Approved
December 2014

From: Lowe, Leonard, EMNRD
To: "Laura Flores"
Cc: "Hack Conder"; "Katie Jones"
Subject: TERMINATION REQUEST APPROVED ROC - Hobbs Jct. E-33-1 (1R428-67)
Date: Monday, December 22, 2014 4:31:00 PM

Termination Request Approved for the
Hobbs SWD System
Hobbs Jct. E – 33 - 1 (1R428-67)
Unit Letter E Section 33, T18S, R38E, NMPM, Lea County, New Mexico

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has received RICE Environmental 's Request to terminate the above-referenced site, dated November 26, 2014. The termination request 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 Environmental has met the requirements of 19.15.29 NMAC; therefore, the OCD approves the report and hereby notifies you that the remediation plan (1R-428-67) 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 505-476-3492.

Leonard Lowe
Environmental Engineer
[Environmental Bureau]
Oil **C**onservation **D**ivision
Energy **M**inerals and **N**atural **R**esources **D**epartment
1220 South St. Frances
Santa Fe, New Mexico 87004
Office: 505-476-3492
Fax: 505-476-3462
E-mail: leonard.lowe@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/

From: Laura Flores [mailto:lflores@rice-ecs.com]
Sent: Wednesday, November 26, 2014 8:03 AM
To: Lowe, Leonard, EMNRD
Cc: 'Hack Conder'; 'Katie Jones'
Subject: ROC - Hobbs Jct. E-33-1 (1R428-67) Termination Request

Mr. Lowe,

Attached is the Termination Request for the Hobbs Jct. E-33-1 (1R428-67) site.

If you have any questions or require any additional information, please contact Hack Conder, Katie Jones or me.

Thank you,

Laura Flores
Project Manager
Rice Environmental Consulting & Safety (RECS)

RECS RICE ENVIRONMENTAL CONSULTING & SAFETY

PO Box 2948 | Hobbs, NM 88241 | Phone 575.393.2967

November 26, 2014

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

RE: **Termination Request**
Rice Operating Company – Hobbs SWD System
Hobbs Jct. E-33-1 (1R428-67): UL/E, Sec. 33, T18S, R38E

Mr. Lowe:

RICE Operating Company (ROC) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced sites in the Hobbs Salt Water Disposal (SWD) system.

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.

Background and Previous Work

The site is located approximately 1.7 miles west of Hobbs, New Mexico, at UL/E, Sec. 33, T18S R38E, as shown on the Site Location Map (Figure 1). Groundwater beneath this site is located at approximately 69 +/- feet below ground surface (bgs).

With the abandonment of the Hobbs SWD system in 2002, ROC removed the Hobbs E-33-1 junction box and the upper four feet of the vadose zone. The resultant excavation was then backfilled with a mixture of silty loam and some caliche.

As part of the Investigation and Characterization Plan (ICP) submitted to NMOCD on January 20th, 2006 and approved on February 23rd, 2006, one soil boring was advanced immediately over the former junction box on May 2nd, 2006. The bore was field tested for chlorides and screened for hydrocarbons with a photo-ionization detector (PID). The highest chloride field numbers were between 20 and 40 ft bgs with a peak chloride reading at 35 ft bgs of 1,381 mg/kg which declined to 729 mg/kg at 60 ft bgs. All PID readings throughout the bore were 0 ppm. A representative sample from the bore was taken to a commercial laboratory for confirmation of chloride field numbers. At 24 ft bgs, the laboratory chloride reading was 1,640 mg/kg. Based on the elevated chloride readings in the bore, a monitor well was installed within the bore to a depth of 75 ft bgs. The monitoring well has been sampled quarterly since installation. A table summarizing the quarterly sampling data can be found in Appendix A.

On January 3rd, 2007, ROC submitted a Corrective Action Plan (CAP) to NMOCD, which was approved on August 8th, 2007. The report recommended that ROC restore the ground surface surrounding the former junction box. The surface surrounding the former junction box was restored and seeded on February 3rd, 2009. Since then, vegetation has recovered. Photographs of this are included in Appendix C.

ROC submitted an Update Report on December 11th, 2012 in which RECS recommended that ROC install an up gradient monitor well to determine if an up gradient source exists to account for the elevated chloride and TDS concentrations in MW-1. NMOCD approved this plan on December 26th, 2012. The up gradient well (MW-2) was installed on February 14th, 2013, and has been sampled quarterly since installation (Appendix A). Documentation of monitor well installation can be found in Appendix B.

Chloride concentrations in MW-1 have generally remained low, with a max concentration of 530 mg/L being observed in August 2010. Since then, concentrations have decreased, with the last four quarters being below WQCC standards. MW-1 had a chloride reading of 234 mg/kg in quarter 4 of 2013. Quarter 1 of 2014 had a chloride value of 236 mg/kg. Quarters 2 and 3 of 2014 both had a chloride value of 212 mg/kg. Chloride concentrations in MW-2 have remained low, all below 172 mg/L, since the well was installed.

Given that the monitor well chloride concentrations have remained below regulatory standards for four consecutive quarters, and that vegetation surrounding the site has recover, ROC respectfully requests 'remediation termination' or similar closure status of the site.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-2967 if you have any questions or wish to discuss the site.

Sincerely,

L Flores

Laura Flores
Rice Environmental Consulting & Safety (RECS)
Project Manager

Attachments:

- Figure 1 – Site Location Map
- Figure 2 – Site Map
- Appendix A – Quarterly Monitoring Well Sampling Data and Most Recent Lab Result
- Appendix B – MW-2 Installation Documentation
- Appendix C – Photo Documentation

Figures

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948, Hobbs, NM 88241
Phone 575.393.2967

Site Location Map

RECS
RICE ENVIRONMENTAL
CONSULTING & SERVICES

Hobbs jct. E-33-1

NMOCD Case #: 1R428-67

LEGALS: UL/E sec. 33
T-18-S E-38-E

Figure 1

N
W E
S

0 0.275 0.55
Miles

Drawing date: 1/24/12
Drafted by: L. Weinheimer

Site Map

RICE ENVIRONMENTAL CONSULTING & SERVICES

Hobbs jct. E-33-1

NMOCD Case #: 1R428-67

LEGALS: UL/E sec. 33
T-18-S E-38-E

Figure 2

N
W E
S

0 25 50 100
Feet

Drawing date: 7/29/14
Drafted by: B. Cooper

Appendix A

Quarterly Monitoring Well Sampling
Data and Most Recent Lab Results

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

ROC Hobbs Jct. E-33-1													
MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	64.44	79.35	2.4	10	5/17/2006	142	678	<0.001	<0.001	<0.001	<0.001	93.4	Silt to Clear/No Odor
1	64.48	79.35	2.4	10	10/31/2006	164	620	<0.001	<0.001	<0.001	<0.001	96.2	Silt and Sand Present Clear
1	64.67	79.12	2.3	8	2/22/2007	222	678	<0.001	<0.001	<0.001	<0.001	112	Silt to sand present Clear No odor
1	64.77	79.12	2.3	8	4/25/2007	195	684	<0.001	<0.001	<0.001	<0.001	101	No Odor/ Silt and Sand Present clear
1	64.89	79.12	2.3	8	7/30/2007	215	754	<0.001	<0.001	<0.001	<0.001	115	Silt and Sand Present Clear No Odor
1	65.03	79.12	2.3	8	12/19/2007	308	933	<0.002	<0.002	<0.002	<0.006	174	Clear/silt and sand present No odor
1	65.08	79.1	2.2	8	2/8/2008	368	1120	<0.002	<0.002	<0.002	<0.004	176	Clear with silt and sand present No odor
1	65.21	79.1	2.2	8	5/1/2008	116	677	<0.002	<0.002	<0.002	<0.006	178	Silt to sand to clear No odor
1	65.28	79.1	2.2	8	7/25/2008	196	785	<0.002	<0.002	<0.002	<0.006	100	Silt to sand to clear No odor
1	65.47	79.4	2.2	8	10/29/2008	344	1240	<0.001	<0.001	<0.001	<0.003	170	Silt and sand present Clear No odor
1	65.68	79.36	2.2	8	2/2/2009	328	1160	XXX	XXX	XXX	XXX	166	Silt and sand present Clear No odor
1	65.73	79.36	2.2	8	5/4/2009	332	1240	XXX	XXX	XXX	XXX	158	Silt and sand present Clear No odor
1	65.85	79.36	2.2	8	8/10/2009	348	1170	XXX	XXX	XXX	XXX	159	Silt and sand present Clear No odor
1	65.98	79.36	2.1	8	10/27/2009	380	1200	XXX	XXX	XXX	XXX	168	Silt/sand to clear No odor
1	66.21	79.38	2.1	8	3/12/2010	436	1290	XXX	XXX	XXX	XXX	198	No Odor / Silt and Sand Present Clear
1	66.32	79.38	2.1	8	6/4/2010	428	1440	XXX	XXX	XXX	XXX	160	Silt/sand to clear No odor
1	66.42	79.38	2.1	8	8/30/2010	530	1600	XXX	XXX	XXX	XXX	130	Silt/sand to clear No odor
1	66.54	79.38	2.1	8	12/10/2010	472	1250	XXX	XXX	XXX	XXX	202	Silt/Sand to clear No odor
1	66.68	79.38	2	8	3/23/2011	510	1490	XXX	XXX	XXX	XXX	193	Silt/sand to clear No odor
1	66.84	79.38	2	8	6/20/2011	470	1290	XXX	XXX	XXX	XXX	188	Silt/sand to clear No odor
1	66.94	79.38	2	8	9/20/2011	500	1420	XXX	XXX	XXX	XXX	221	Silt/sand to clear No odor
1	67.14	79.38	2	8	12/15/2011	480	1330	XXX	XXX	XXX	XXX	222	Silt/sand to clear No odor
1	67.27	79.38	1.9	8	3/13/2012	456	1300	XXX	XXX	XXX	XXX	214	Silt/sand to clear No odor
1	67.46	79.38	1.9	8	6/11/2012	400	1200	XXX	XXX	XXX	XXX	220	Silt/sand to clear No odor
1	67.69	79.38	1.9	8	9/6/2012	343	1090	XXX	XXX	XXX	XXX	195	Silt/sand to clear No odor
1	67.88	79.38	1.8	8	11/29/2012	320	1130	XXX	XXX	XXX	XXX	139	Silt/sand to clear No odor
1	67.97	79.38	1.8	8	3/1/2013	284	1040	XXX	XXX	XXX	XXX	190	Silt/sand to clear No odor
1	68.25	79.38	1.8	8	6/24/2013	264	1080	XXX	XXX	XXX	XXX	190	Silt/sand to clear No odor
1	68.43	79.38	1.8	8	9/16/2013	336	1170	XXX	XXX	XXX	XXX	193	Silt/sand to clear No odor
1	68.62	79.38	1.7	8	12/12/2013	224	896	XXX	XXX	XXX	XXX	164	Silt/sand present clear No odor

ROC Hobbs Jct. E-33-1													
MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
1	68.79	79.38	1.7	8	3/19/2014	236	782	XXX	XXX	XXX	XXX	147	Silt sand present clear/No Odor
1	68.98	79.38	1.7	8	6/16/2014	212	888	XXX	XXX	XXX	XXX	169	Silt and sand present clear/no odor
1	69.27	79.38	1.6	8	9/10/2014	212	776	XXX	XXX	XXX	XXX	163	No odor/Silt and sand present clear

ROC Hobbs Jct. E-33-1													
MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate	Comments
2	68.09	79.1	1.8	8	3/1/2013	164	691	XXX	XXX	XXX	XXX	111	No odor/Silt Sand Present Clear
2	68.32	79.1	1.7	8	6/24/2013	164	710	XXX	XXX	XXX	XXX	109	No Odor/Silt sand present clear
2	68.49	79.1	1.7	8	9/16/2013	160	686	XXX	XXX	XXX	XXX	87	No odor/Silt sand present clear
2	68.71	79.1	1.7	8	12/12/2013	156	714	XXX	XXX	XXX	XXX	107	No odor/ Silt sand present clear
2	68.86	79.1	1.6	8	3/19/2014	160	672	XXX	XXX	XXX	XXX	104	No Odor/silt sand present clear
2	69.12	79.1	1.6	8	6/16/2014	168	750	XXX	XXX	XXX	XXX	104	No odor/silt and sand present clear
2	69.34	79.1	1.6	8	9/10/2014	172	750	XXX	XXX	XXX	XXX	96	No odor/Silt and sand present clear

CARDINAL Laboratories

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

September 22, 2014

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: HOBBS JUNCTION E-33-1

Enclosed are the results of analyses for samples received by the laboratory on 09/16/14 15:09.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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:	09/16/2014	Sampling Date:	09/10/2014
Reported:	09/22/2014	Sampling Type:	Water
Project Name:	HOBBS JUNCTION E-33-1	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	T18S-R38E-SEC33 E-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H402870-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**212**	4.00	09/19/2014	ND	100	100	100	3.92	

Sulfate 375.4 **mg/L** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**163**	25.0	09/17/2014	ND	18.8	93.8	20.0	2.76	

TDS 160.1 **mg/L** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**776**	5.00	09/18/2014	ND	530	101	527	4.72	

Sample ID: MONITOR WELL #2 (H402870-02)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**172**	4.00	09/19/2014	ND	100	100	100	3.92	

Sulfate 375.4 **mg/L** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**96.0**	25.0	09/17/2014	ND	18.8	93.8	20.0	2.76	

TDS 160.1 **mg/L** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**750**	5.00	09/18/2014	ND	530	101	527	4.72	

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

101 East Marland - Hobbs, New Mexico
88240 Tel
(575) 393-2326 Fax
(575) 393-2476

Cardinal Laboratories, Inc.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # _____

Company Name: RICE Operating Company	BILL TO Company: RICE Operating Company PO#
Project Manager: Hack Conder	Address: (Street, City, Zip) 122 W Taylor Street ~ Hobbs, New Mexico 88240
Address: (Street, City, Zip) 122 W Taylor Street ~ Hobbs, New Mexico 88240	Phone#: (575) 393-9174 Fax#: (575)397-1471
Phone #: (575) 393-9174	Fax #: (575) 397-1471
Project #:	Project Name: Hobbs Junction E-33-1
Project Location: T18S-R38E-Sec33 E ~ Lea County - New Mexico	Sampler Signature: Rozanne Johnson (575)631-9310 rozanne@valornet.com

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY) H402870	FIELD CODE	(G)rab or (C)omp	# CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL (2-40ml VOA)	HNO_3	$NaHSO_4$	H_2SO_4	ICE (1-1Liter HDPE)	NONE	SAMPLING: DATE (2014)	TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005 / TX1005 Extended (C35)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Moisture Content	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	Sulfates	Total Dissolved Solids	Chlorides	Turn Around Time ~ 24 Hours
1	Monitor Well #1	G	1	X								1		9/10	14:20																		X	X	X	
2	Monitor Well #2	G	1	X								1		9/10	13:15																		X	X	X	

Relinquished by: Rozanne Johnson	Date: 9-16-2014	Time: 15:08	Received by:
Relinquished by:	Date:	Time:	Received By: (Laboratory Staff) Jodi Henson 9-16-2014 15:09
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition: Cool Yes / Intact Yes		CHECKED BY: (Initials)

Phone Results		Yes		No
Fax Results		Yes		No Additional Fax Number:

REMARKS:

Email Results to: hconder@riceswd.com
lweinheimer@rice-ecs.com
kjones@riceswd.com
rozanne11@windstream.net

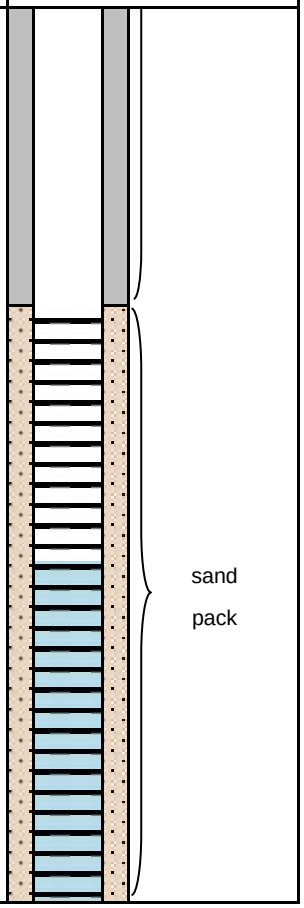
Appendix B

MW-2 Installation Documentation

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

Logger:	Kyle Norman		
Driller:	Harrison & Cooper, Inc.		
Drilling Method:	Air rotary	**Project Name:** Hobbs jct. E-33-1	**Well ID:** MW-2
Start Date:	2/14/2013		
End Date:	2/14/2013	**Project Consultant:** RECS	
Comments: MW-2 is located 100 ft northwest of MW-1. No samples were taken as the well was installed. **DRAFTED BY: L. Weinheimer** TD = 78 ft GW = 67 ft		**Location:** UL/E sec. 33 T-18-S R-38-E **Lat:** 32°42'15.934"N **Long:** 103°9'29.594"W	**County**: Lea **State**: NM

Depth (feet)	Chloride field tests	LAB	PID	Description	Lithology	Well Construction
				NO SAMPLES TAKEN		2 in PVC; bentonite seal
SS						
5 ft						
10 ft						
15 ft						
20 ft						
25 ft						
30 ft						
35 ft						
40 ft						
45 ft						

Depth (feet)	Chloride field tests	LAB	PID	Description		Lithology		Well Construction
				NO SAMPLES TAKEN				
50 ft								
55 ft								
60 ft								
65 ft								
70 ft								
75 ft								
78 ft								

Hobbs Jct. E-33-1 (1R428-67)
Unit Letter E, Section 33, T18S, R38E

Installing MW-2, facing east 2/14/13

Installing the casing in MW-2, facing south 2/14/13

Installing the sand pack, facing south 2/14/13

Installing the bentonite seal, facing south 2/14/13

Concreting the well in, facing east 2/14/13

Completed MW-2, facing east 2/14/13

Appendix C

Photo Documentation

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

Hobbs Jct. E-33-1

UL/E Sec.33 (T18S-R38E)

Site prior to surface restoration, 2/3/2009

Spreading imported topsoil 2/3/2009

Seeding remediated area, 2/3/2009

Final photo, facing north 10/9/2014