1R - 428-69

APPROVALS

YEAR(S):

2013

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Thursday, May 02, 2013 4:42 PM
To: Hack Conder (hconder@riceswd.com)
Cc: Leking, Geoffrey R, EMNRD; Laura Pena (lpena@riceswd.com); Katie Jones <kjones@riceswd.com> (kjones@riceswd.com); Lara Weinheimer (lweinheimer@rice-ecs.com); Scott Curtis (scurtis@riceswd.com)
Subject: Remediation Plan (1R428-69) Termination - ROC Hobbs O-5 Vent Site

RE: Termination Request
for the Rice Operating Company's
Hobbs O-5 Vent Site
Unit Letters O, Section 5, T19S, R38E, NMPM, Lea County, New Mexico
Remediation Plan (1R428-69) 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 April 18, 2013. The report is acceptable to the OCD. Please submit to the OCD a plugging report for groundwater monitoring wells (MW-1 and MW-2) within 90 days.

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 (1R428-69) 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 Environmental Consulting & Safety
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

CERTIFIED MAIL
RETURN RECEIPT NO. 7008 1140 0001 3073 0599

April 18th, 2013

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**
Rice Operating Company – Hobbs SWD System
Hobbs O-5 vent (1R428-69): UL/O sec. 5 T19S R38E

Mr. Hansen:

RICE Operating Company (ROC) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site in the abandoned Hobbs Salt Water Disposal (SWD) system. ROC is the service provider (agent) for the abandoned 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 in Hobbs, New Mexico at UL/O sec. 5 T19S R38E as shown on the Site Location Map (Figure 1). Groundwater sampling at the site shows groundwater to be located at +/- 35 ft.

On April 11th, 2007, ROC submitted an Investigation and Characterization Plan to NMOCD which was approved on August 6th, 2007. As part of the ICP, ROC installed two soil bores and a monitor well at the site on August 9th, 2007. Both soil bores returned laboratory chloride results below 40 mg/kg. BTEX analyses of both bores returned results of non-detect except for SB-2 at 20 ft bgs where the xylene reading was 0.95 mg/kg. A source monitor well was also installed at the site and returned low soil field chloride results ranging from 441 mg/kg at 10 ft bgs to 90 mg/kg at 30 ft bgs.

An ICP Amendment was submitted to NMOCD of May 6th, 2009 and approved on September 30th, 2009. An up-gradient monitor well was installed at the site on November 2nd, 2009 (Figure 2). Samples were taken every five feet as the well was advanced to a depth of 25 ft bgs. Below this depth, the soil was too moist to sample. Representative soil samples from the well were taken to a commercial laboratory for analysis. The 5 ft bgs sample returned a chloride result of 32 mg/kg and a Gasoline

Range Organics (GRO) and Diesel Range Organics (DRO) readings of non-detect. The 25 ft sample returned chloride, GRO and DRO readings of non-detect.

The monitor wells have been sampled quarterly since they have been installed (Figure 2). Chloride concentrations in the near-source well (MW-1) have decreased since the maximum concentration was observed in 2009, and have remained below 250 mg/L for ten consecutive quarters. During the most recent quarterly monitor well sampling event collected on November 29th, 2012, MW-1 had a chloride value of 188 mg/L and MW-2 had a chloride value of 60 mg/L (Appendix A). It is evident from the monitor well data that the chlorides contributed to groundwater by the site are slight and have abated.

On November 1st and 2nd, 2012, soil amendments were added to the site and then was seeded with a blend of native vegetation. Vegetation will provide an infiltration barrier for the site, since plants capture water through their roots thereby reducing the amount of water traveling through the vadose zone to groundwater. Documentation for this seeding event will be found in Appendix B.

Since the monitor wells have been below WQCC standards for more than eight quarters, which is evidence that the chlorides in the groundwater have abated, and the site has been seeded and is expected to return to a normal vegetative state, ROC respectfully requests 'remediation termination' or similar closure status of the site. Upon approval of this report, both monitoring wells (MW-1 and MW-2) will be plugged and abandoned using a 1-3% bentonite/concrete slurry and a three foot cap of cement.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-9174 or me if you have any questions or wish to discuss the site.

Sincerely,

Lara Weinheimer
Project Scientist
RECS
(575) 441-0431

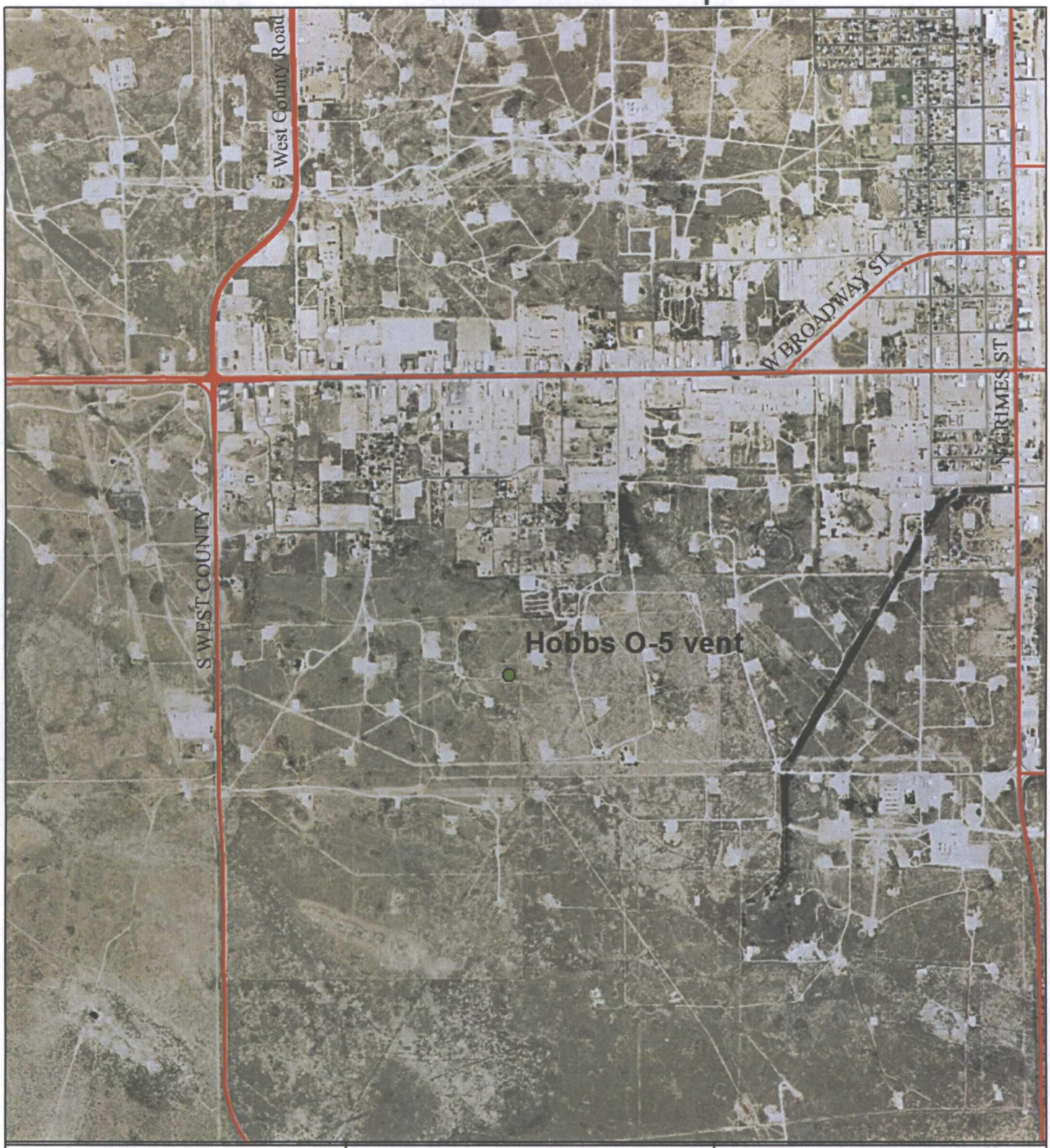
Attachments:

- Figure 1 – Site Location Map
- Figure 2 – MW Soil Data and MW Sampling Data
- Appendix A – MW Sampling Laboratory
- Appendix B – Seeding Documentation

Figures

RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

Site Location Map



RICE ENVIRONMENTAL CONSULTING & SAFETY, LLC
RECS

Hobbs O-5 vent

LEGALS: UL/O sec. 5
T-19-S R-38-E

NMOCD CASE#: 1R428-69

Figure 1

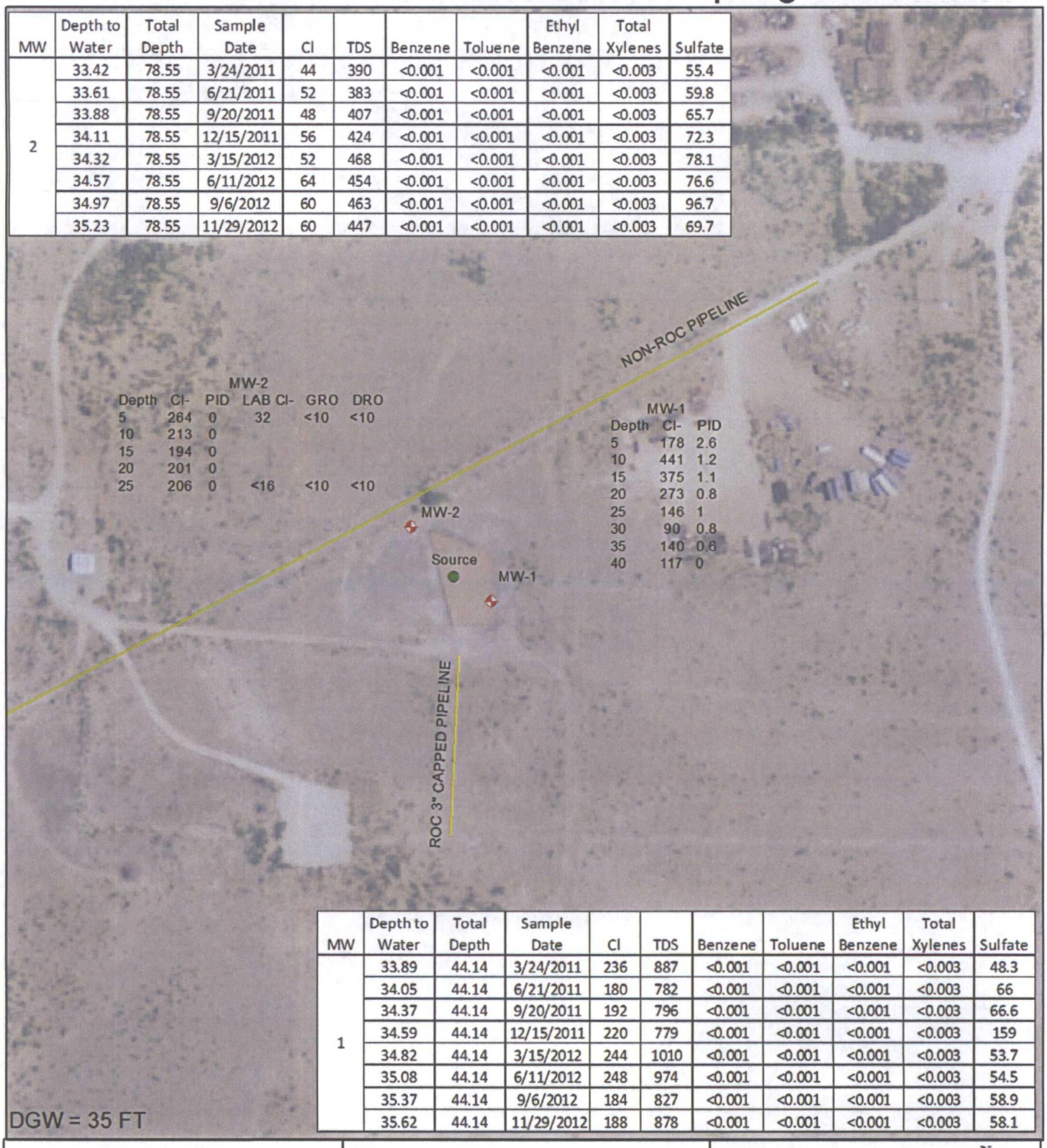
N
W E
S

0 0.25 0.5
Miles

Drawing date: 12/3/12
Drafted by: L. Weinheimer

MW Soil Data and MW Sampling Data

MW	Depth to Water	Total Depth	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
2	33.42	78.55	3/24/2011	44	390	<0.001	<0.001	<0.001	<0.003	55.4
	33.61	78.55	6/21/2011	52	383	<0.001	<0.001	<0.001	<0.003	59.8
	33.88	78.55	9/20/2011	48	407	<0.001	<0.001	<0.001	<0.003	65.7
	34.11	78.55	12/15/2011	56	424	<0.001	<0.001	<0.001	<0.003	72.3
	34.32	78.55	3/15/2012	52	468	<0.001	<0.001	<0.001	<0.003	78.1
	34.57	78.55	6/11/2012	64	454	<0.001	<0.001	<0.001	<0.003	76.6
	34.97	78.55	9/6/2012	60	463	<0.001	<0.001	<0.001	<0.003	96.7
	35.23	78.55	11/29/2012	60	447	<0.001	<0.001	<0.001	<0.003	69.7



MW	Depth to Water	Total Depth	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
1	33.89	44.14	3/24/2011	236	887	<0.001	<0.001	<0.001	<0.003	48.3
	34.05	44.14	6/21/2011	180	782	<0.001	<0.001	<0.001	<0.003	66
	34.37	44.14	9/20/2011	192	796	<0.001	<0.001	<0.001	<0.003	66.6
	34.59	44.14	12/15/2011	220	779	<0.001	<0.001	<0.001	<0.003	159
	34.82	44.14	3/15/2012	244	1010	<0.001	<0.001	<0.001	<0.003	53.7
	35.08	44.14	6/11/2012	248	974	<0.001	<0.001	<0.001	<0.003	54.5
	35.37	44.14	9/6/2012	184	827	<0.001	<0.001	<0.001	<0.003	58.9
	35.62	44.14	11/29/2012	188	878	<0.001	<0.001	<0.001	<0.003	58.1

RICE ENVIRONMENTAL RECS CONSULTING & SAFETY, LLC

Hobbs O-5 vent

LEGALS: UL/O sec. 5
T-19-S R-38-E

NMOCD CASE#: 1R428-69

Figure 2

N W E S

0 70 140 280
Feet

Drawing date: 2/21/13
Drafted by: L. Weinheimer

Appendix A

MW Sampling Laboratory

RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

CARDINAL Laboratories

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

December 10, 2012

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: HOBBS O-5 SITE

Enclosed are the results of analyses for samples received by the laboratory on 12/03/12 8:48.

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:	12/03/2012	Sampling Date:	11/29/2012
Reported:	12/10/2012	Sampling Type:	Water
Project Name:	HOBBS O-5 SITE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T19S-R38E-SEC5 O-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H202899-01)

BTEX 8021B mg/L Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	12/05/2012	ND	0.048	95.4	0.0500	4.02	
Toluene*	<0.001	0.001	12/05/2012	ND	0.051	103	0.0500	4.38	
Ethylbenzene*	<0.001	0.001	12/05/2012	ND	0.049	97.5	0.0500	4.49	
Total Xylenes*	<0.003	0.003	12/05/2012	ND	0.150	99.9	0.150	4.40	
Total BTEX	<0.006	0.006	12/05/2012	ND					

Surrogate: 4-Bromofluorobenzene (PID *125 %* *89.5-126*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**188**	4.00	12/04/2012	ND	104	104	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*	**58.1**	10.0	12/10/2012	ND	16.7	83.7	20.0	7.64	

TDS 160.1 mg/L Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**878**	5.00	12/05/2012	ND	239	99.6	240	4.31	

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

Received:	12/03/2012	Sampling Date:	11/29/2012
Reported:	12/10/2012	Sampling Type:	Water
Project Name:	HOBBS O-5 SITE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T19S-R38E-SEC5 O-LEA CTY., NM		

Sample ID: MONITOR WELL #2 (H202899-02)

BTEX 8021B mg/L **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	12/05/2012	ND	0.048	95.4	0.0500	4.02	
Toluene*	<0.001	0.001	12/05/2012	ND	0.051	103	0.0500	4.38	
Ethylbenzene*	<0.001	0.001	12/05/2012	ND	0.049	97.5	0.0500	4.49	
Total Xylenes*	<0.003	0.003	12/05/2012	ND	0.150	99.9	0.150	4.40	
Total BTEX	<0.006	0.006	12/05/2012	ND					

Surrogate: 4-Bromofluorobenzene (PID *124 %* *89.5-126*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**60.0**	4.00	12/04/2012	ND	104	104	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*	**69.7**	10.0	12/10/2012	ND	16.7	83.7	20.0	7.64	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**447**	5.00	12/05/2012	ND	239	99.6	240	4.31	

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

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
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 # ______

Field	Value
Company Name:	RICE Operating Company
Project Manager:	Hack Conder
Address: (Street, City, Zip)	122 W Taylor Street ~ Hobbs, New Mexico 88240
Phone #:	(575) 393-9174
Fax #:	(575) 397-1471
Project #:	
Project Name:	Hobbs O-5 Site
Project Location:	T19S-R38E-Sec5 O ~ Lea County - New Mexico
BILL TO Company:	RICE Operating Company
PO#:	
Address: (Street, City, Zip)	122 W Taylor Street ~ Hobbs, New Mexico 88240
Phone#:	(575) 393-9174
Fax#:	(575)397-1471
Sampler Signature:	Rozanne Johnson (575)631-9310 rozanne@valornet.com

H202899-

LAB # (LAB USE ONLY)	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 (2012)	TIME
AAC 01	Monitor Well #1	G	3	X					2				1		11-29	16:45
02	Monitor Well #2	G	3	X					2				1		11-29	14:10

ANALYSIS REQUEST
(Circle or Specify Method No.)

Analysis	Monitor Well #1	Monitor Well #2
MTBE 8021B/602		
BTEX 8021B/602	X	X
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	X	X
Total Dissolved Solids	X	X
Chlorides	X	X
Turn Around Time ~ 24 Hours		

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Rozanne Johnson	12/3/2012	8:00	[signature]	12/3/2012	8:01
[signature]	12/3/2012	8:48	Received By: (Laboratory Staff) [signature]	12/3/12	8:48

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

Delivered By: (Circle One) Sampler - UPS - Bus - Other (circled)

Sample Condition: Cool Yes ✓ No; Intact Yes ✓ No

CHECKED BY: (Initials) Cole

#26

REMARKS:

Email Results to: hconder@riceswd.com
lweinheimer@rice-ecs.com
kjones@riceswd.com
rozanne@valornet.com

Appendix B
Seeding Documentation

RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

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

REVEGETATION FORM

1. General Information

Site name: Hobbs O-5 vent						
U/L O	Section 5	Township 19S	Range 38E	County LEA	Latitude 32°41'10.098" N	Longitude 103°10'1.825" W
Contact Name: Zachary Conder						
Email: zconder@rice-ecs.com						
Site size: 120x70 ft 8,400 square feet				Map detail of site attached ☐		
Additional information:						

2. Soils **Do not rip caliches 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):		Roller pack ☐
Date completed: 12-12-2002				

3. Bioremediation

Fertilizer ☐	Hay ☐	Other ☒
Type:		Describe: 1,300 lbs RestoreNHance, 320 lbs potting soil, 6 bags manure
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: 25 lbs sideoats grama, 25 lbs blue grama, 25 lbs winter rye Seeding date: 11-1-2012 and 11-2-2012
Drop ☒ Method: Dew Drop Seeder on 11-1-2012 Broadcast ☒ Method: Mechanical Hand Seeder on 11-2-2012		
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: Eduardo Garcia	Title: Environmental Tech	Date: 11-02-2012
Signature: Eduardo Garcia		

Hobbs O-5 vent (1R428-69)

Unit Letter O, Section 5, T19S, R38E

Tilling the location, facing east 11/1/12

Adding soil amendments, facing west 11/1/12

Seeding the site, facing east 11/1/12

Site photo of completed work, facing west 11/2/12