1R - 425-66

REPORTS

DATE:

8-7-12

Rice Environmental Consulting & Safety
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

CERTIFIED MAIL
RETURN RECEIPT NO. 7007 2560 0000 4569 9507

August 7th, 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: **Corrective Action Plan (CAP) Report – Plug and Abandon MW-1 and Replace with MW-1R**
Rice Operating Company – Vacuum SWD System
Vacuum L-26 vent (1R425-66): UL/L sec. 26 T17S R35E

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 Vacuum Salt Water Disposal (SWD) system. ROC is the service provider (agent) for the Vacuum 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 4 miles east of Buckeye, New Mexico at UL/L sec. 26 T17S R35E as shown on the Site Location Map (Figure 1). Groundwater sampling at the site indicates that groundwater is located at +/- 56 ft bgs.

ROC conducted a junction box excavation and sampling program in 2008. Soil samples were collected at regular intervals within a 30 x 30 x 12 ft deep excavation. The samples were screened in the field for both chlorides and hydrocarbons and representative composite samples were sent to a commercial laboratory for analysis. Gasoline Range Organics (GRO) readings were non-detect in the bottom composite and backfill composite but had a reading of 88.5 mg/kg in the 4-wall composite. Diesel Range Organics (DRO) readings were 869 mg/kg for the 4-wall composite, 214 mg/kg for the bottom composite and 436 mg/kg for the backfill composite. Excavated soil was blended on-site and returned to the excavation up to 4 feet bgs. At 4 feet bgs, a geo-synthetic liner was installed across the 30 x 30 foot excavation with a six inch padding of blow sand both above and below. After the site was excavated in 2011 to prepare for the 20-mil reinforced polyethylene liner installation, it was determined the geo-synthetic liner was actually installed deeper at approximately 4.5 to 5 feet bgs. The excavation was backfilled with remaining soil on site and contoured to match the surrounding area.

On May 10th, 2010, four soil bores were installed at the site. The soil bores were sampled at regular intervals and field tested for chlorides and hydrocarbons. Representative samples from each bore were taken to a commercial laboratory for verification of field sampling numbers. Laboratory readings in all soil bores, except SB-3, exhibited chloride concentrations that decreased with depth. SB-1 decreased from 4,320 mg/kg at 30 ft to 528 mg/kg at 60 ft, SB-2 decreased from 3,400 mg/kg at 5 ft to 192 mg/kg at 20 ft, and SB-4 decreased from 2,880 mg/kg at 25 ft to 1,540 mg/kg at 40 ft. SB-3 increased with depth from 320 mg/kg at 15 ft to 704 mg/kg at 20 ft. Laboratory readings for GRO, DRO, and BTEX showed non-detect throughout all bores.

On September 14th, 2010, an 'Initial Characterization Report and Corrective Action Plan' was submitted to NMOCD and approved on April 4th, 2011. Included in the report were recommendations to: (1) install a monitoring well 50 feet down gradient from the site and (2) surface restoration, including the removal of large rocks and seeding the area to encourage re-vegetation. On April 1st, 2011, an addendum to the CAP was submitted to NMOCD. It stated that a single monitoring well (MW-1) had been installed on November 15th, 2010 and based on the initial monitor well sampling results, additional monitoring wells would be installed to further delineate groundwater quality. In addition, ROC proposed the installation of a 64 ft x 63 ft, 20-mil reinforced polyethylene liner to further protect the groundwater. The excavation would be backfilled with soil containing a chloride concentration below 500 mg/kg and a PID (field) reading below 100 ppm. The site would then be seeded with a native seed mix.

Beginning on May 23rd, 2011, a 64 ft x 63 ft area was excavated to a depth of five feet below the surface (bgs), uncovering the existing 30 ft by 30 ft geo-synthetic liner that was installed in December 2008. The bottom of the excavation was padded with six inches of clean blow sand and a 20-mil reinforced polyethylene liner was installed at 4.5 feet bgs. A 6-inch pad of clean blow sand was placed above the liner to protect the liner from punctures. Pond bottom soil was used to backfill the excavation and blow sand was used to complete the backfill and to contour the site to the surrounding area. On July 15th, 2011, soil amendments were added to the site and the site was seeded with a native vegetative mix. On August 2nd, 2011, an 'Initial CAP Report – Liner Installation' was submitted to NMOCD delineating the liner installation activities. In response to this report, NMOCD approved the soil closure for this site on October 13th, 2011, and required that ROC place additional monitoring wells at the site.

Two additional monitoring wells were installed at the site on April 11th, 2011. Both wells were field tested for chlorides and hydrocarbons as they were advanced and showed clean soil throughout. All three wells have been sampled quarterly since their installation; the most recent sampling event occurring on May 29th, 2012 (Figure 2). The source well, MW-1, had a chloride reading of 710 mg/kg, the up gradient well, MW-2, had a chloride reading of 28 mg/kg and the down gradient well, MW-3, had a chloride reading of 380 mg/kg (Appendix A). ROC will continue quarterly monitor well sampling at the site.

On February 6th, 2012, ROC submitted an 'Additional Groundwater Monitoring and Corrective Action Plan for Groundwater' to NMOCD which was approved on February

16th, 2012. It was evident from the quarterly groundwater sampling that chlorides from the site have leached through the vadose zone into groundwater. Therefore, RECS submitted the following as a 'Corrective Action Plan for Groundwater'. MW-1, a 2-inch monitor well, would be plugged and replaced with a 4-inch recovery well. MW-1 would be plugged and abandoned using a 1-3% bentonite/concrete slurry and a three foot concrete cap. Once the recovery well was installed, a recovery system would be placed at the site and ROC would conduct a groundwater source removal and test pumping program. The purpose of this pumping program was to determine if groundwater may be restored within a short period of time and to assist in the evaluation of groundwater restoration methods. Water removed from the recovery well would be used for well and pipeline maintenance. ROC would evaluate the results of the pumping program and submit a written report which would include recommendations.

CAP Report – Plug and Abandon MW-1 and Replace with MW-1R
RECS personnel were on site on July 9th, 2012 to plug and abandon MW-1 and install MW-1R. MW-1 was plugged using a 1-3% bentonite/concrete slurry and a three foot concrete cap. MW-1R was installed six feet southeast of the former monitor well (Figure 2) and samples were not taken as the well was advanced (Appendix B).

A recovery system was installed in MW-1R and the groundwater source removal and pumping program began on July 26th, 2012 (Appendix C). RECS recommends that ROC continue the pumping program at the site to evaluate groundwater restoration methods. Once the pumping program is completed, ROC will submit either a 'CAP for Groundwater' with our estimate for chloride mass removal or a request for 'remediation termination'.

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

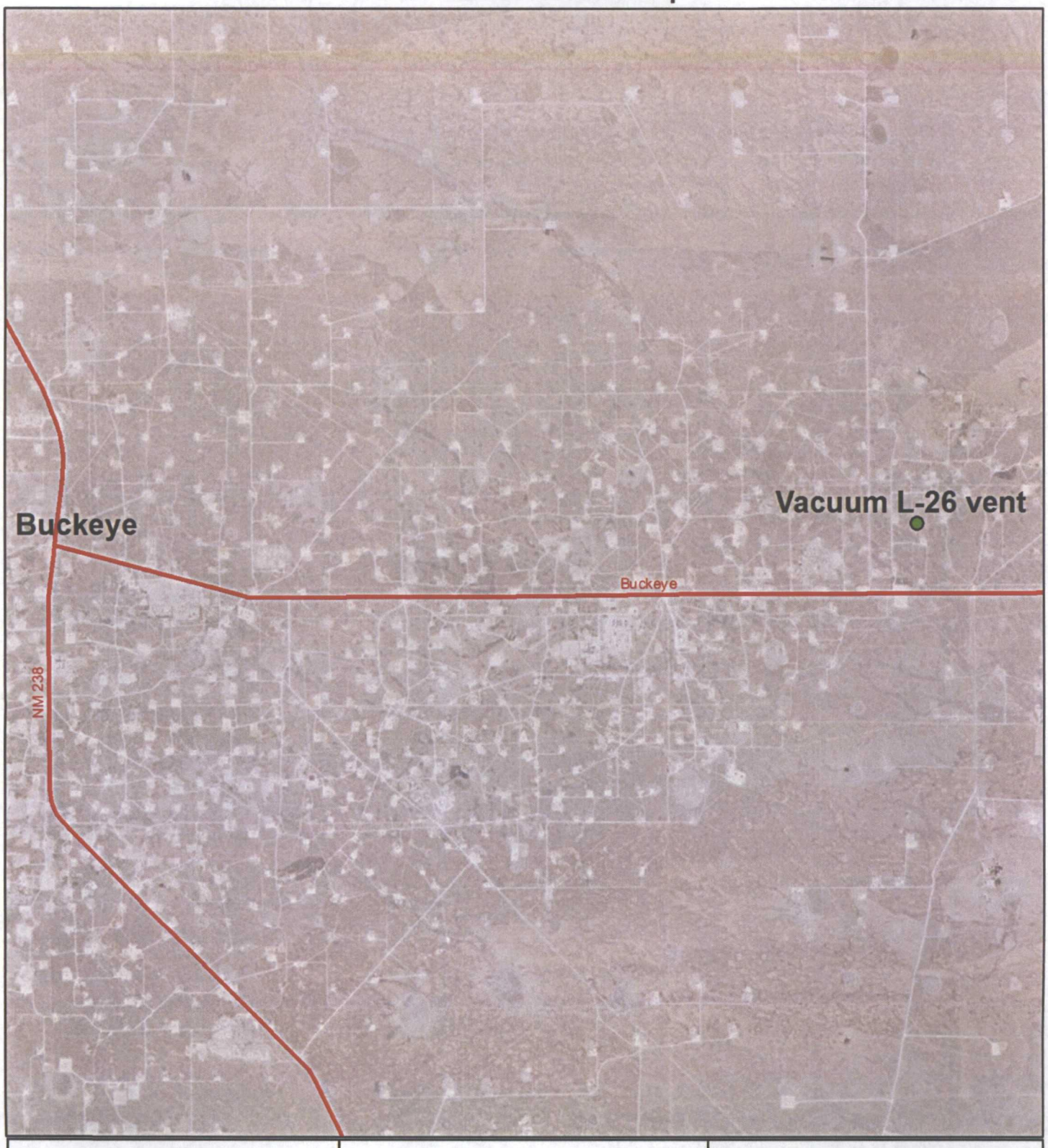
Attachments:

- Figure 1 – Site Location Map
- Figure 2 – Monitor Well Sampling Map
- Appendix A – Monitor Well Sampling Lab
- Appendix B – Plug and Abandon MW-1 and Install MW-1R Documentation
- Appendix C – Recovery System Photo

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
RECS
CONSULTING & SAFETY, LLC

Vacuum L-26 vent

Case #: 1R425-66

Legals: UL/L sec. 26
T17S R35E

Figure 1

N
W E
S

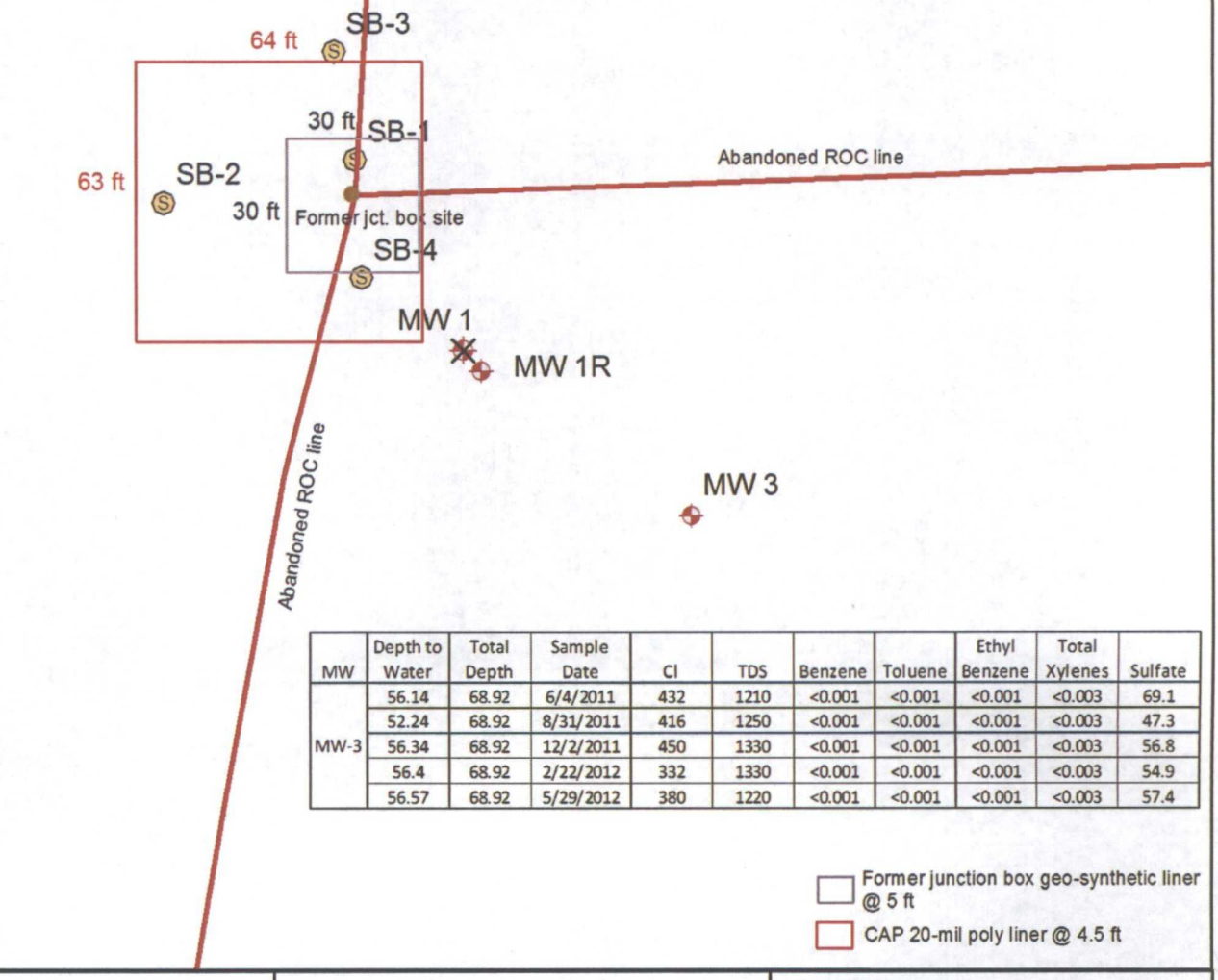
0 0.25 0.5 1
Miles

Drawing date: 1-11-12
Drafted by: L. Weinheimer

Monitor Well Sampling

MW	Depth to Water	Total Depth	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
MW-1	56.53	72.54	11/22/2010	940	2120	<0.001	<0.001	<0.001	<0.003	79.6
	56.6	72.57	2/16/2011	960	2130	<0.001	<0.001	<0.001	<0.003	64
	56.7	72.57	6/4/2011	1040	2710	<0.001	<0.001	<0.001	<0.003	64.7
	56.79	72.57	8/31/2011	940	2440	<0.001	<0.001	<0.001	<0.003	67
	56.88	72.57	12/2/2011	920	2230	<0.001	<0.001	<0.001	<0.003	73.7
	56.95	72.57	2/22/2012	970	1930	<0.001	<0.001	<0.001	<0.003	66.3
	57.06	72.57	5/29/2012	710	1910	<0.001	<0.001	<0.001	<0.003	66.4

MW	Depth to Water	Total Depth	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
MW-2	56.83	62.78	6/4/2011	32	457	<0.001	<0.001	<0.001	<0.003	37
	56.93	62.78	8/31/2011	32	374	<0.001	<0.001	<0.001	<0.003	33.5
	57.02	62.78	12/2/2011	36	405	<0.001	<0.001	<0.001	<0.003	40.8
	57.09	62.78	2/22/2012	92	408	<0.001	<0.001	<0.001	<0.003	41.6
	57.2	62.78	5/29/2012	28	411	<0.001	<0.001	<0.001	<0.003	41.4



MW	Depth to Water	Total Depth	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
MW-3	56.14	68.92	6/4/2011	432	1210	<0.001	<0.001	<0.001	<0.003	69.1
	52.24	68.92	8/31/2011	416	1250	<0.001	<0.001	<0.001	<0.003	47.3
	56.34	68.92	12/2/2011	450	1330	<0.001	<0.001	<0.001	<0.003	56.8
	56.4	68.92	2/22/2012	332	1330	<0.001	<0.001	<0.001	<0.003	54.9
	56.57	68.92	5/29/2012	380	1220	<0.001	<0.001	<0.001	<0.003	57.4

Former junction box geo-synthetic liner @ 5 ft

CAP 20-mil poly liner @ 4.5 ft

DGW = 56 ft

RICE ENVIRONMENTAL CONSULTING & SAFETY, LLC

Vacuum L-26 vent

Legals: UL/L sec. 26
T17S R35E

Case #: 1R425-66

Figure 2

N W E S

0 20 40 80 Feet

Drawing date: 8-1-12
Drafted by: L. Weinheimer

Appendix A

Monitor Well Sampling Lab

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

June 07, 2012

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: VACUUM L-26 VENT

Enclosed are the results of analyses for samples received by the laboratory on 06/04/12 14:07.

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:	06/04/2012	Sampling Date:	05/29/2012
Reported:	06/07/2012	Sampling Type:	Water
Project Name:	VACUUM L-26 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	T17S-R35E-SEC26 L-LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H201245-01)

BTEX 8021B mg/L Analyzed By: ZZZ

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	06/05/2012	ND	0.048	95.4	0.0500	2.66	
Toluene*	<0.001	0.001	06/05/2012	ND	0.050	100	0.0500	3.50	
Ethylbenzene*	<0.001	0.001	06/05/2012	ND	0.051	102	0.0500	3.80	
Total Xylenes*	<0.003	0.003	06/05/2012	ND	0.152	101	0.150	3.85	

Surrogate: 4-Bromofluorobenzene (PID *101 %* *89.5-126*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**710**	4.00	06/05/2012	ND	104	104	100	0.00	

Sulfate 375.4 mg/L Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**66.4**	10.0	06/05/2012	ND	18.2	91.0	20.0	11.1	

TDS 160.1 mg/L Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**1910**	5.00	06/04/2012	ND	238	99.2	240	0.432	

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:	06/04/2012	Sampling Date:	05/29/2012
Reported:	06/07/2012	Sampling Type:	Water
Project Name:	VACUUM L-26 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	T17S-R35E-SEC26 L-LEA CTY., NM		

Sample ID: MONITOR WELL #2 (H201245-02)

BTEX 8021B mg/L Analyzed By: ZZZ

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	06/05/2012	ND	0.048	95.4	0.0500	2.66	
Toluene*	<0.001	0.001	06/05/2012	ND	0.050	100	0.0500	3.50	
Ethylbenzene*	<0.001	0.001	06/05/2012	ND	0.051	102	0.0500	3.80	
Total Xylenes*	<0.003	0.003	06/05/2012	ND	0.152	101	0.150	3.85	
Surrogate: 4-Bromofluorobenzene (PID	*99.9 %*	*89.5-126*							

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**28.0**	4.00	06/05/2012	ND	104	104	100	0.00	

Sulfate 375.4 mg/L Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**41.4**	10.0	06/05/2012	ND	18.2	91.0	20.0	11.1	

TDS 160.1 mg/L Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**411**	5.00	06/04/2012	ND	238	99.2	240	0.432	

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:	06/04/2012	Sampling Date:	05/29/2012
Reported:	06/07/2012	Sampling Type:	Water
Project Name:	VACUUM L-26 VENT	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	T17S-R35E-SEC26 L-LEA CTY., NM		

Sample ID: MONITOR WELL #3 (H201245-03)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	06/05/2012	ND	0.048	95.4	0.0500	2.66	
Toluene*	<0.001	0.001	06/05/2012	ND	0.050	100	0.0500	3.50	
Ethylbenzene*	<0.001	0.001	06/05/2012	ND	0.051	102	0.0500	3.80	
Total Xylenes*	<0.003	0.003	06/05/2012	ND	0.152	101	0.150	3.85	

Surrogate: 4-Bromofluorobenzene (PID *99.9 %* *89.5-126*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**380**	4.00	06/05/2012	ND	104	104	100	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**57.4**	10.0	06/05/2012	ND	18.2	91.0	20.0	11.1	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**1220**	5.00	06/04/2012	ND	238	99.2	240	0.432	

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

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: Vacuum L-26 Vent
Project Location: T17S-R35E-Sec26 L ~ 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) H201245	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	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	3	X				2				1		5-29	10:20		X																X	X	X	
2	Monitor Well #2	G	3	X				2				1		5-29	8:10		X																X	X	X	
3	Monitor Well #3	G	3	X				2				1		5-29	9:10		X																X	X	X	

Relinquished by: Rozanne Johnson	Date: 10-4-2012	Time: 14:06	Received by: Date: 10/4/12 Time: 14:07
Relinquished by:	Date:	Time:	Received By: (Laboratory Staff) Date: Time:

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
rozanne@valornet.com

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

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

CHECKED BY: (Initials)

#26

Appendix B

Plug and Abandon MW-1 and Install MW-1R
Documentation

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

Logger:	Kyle Norman
Driller:	Harrison & Cooper, Inc.
Drilling Method:	Mud rotary
Start Date:	7/9/2012
End Date:	7/9/2012

Company: Rice Operating Company
Project Name: Vacuum L-26 Vent
Well ID: MW-1R
Project Consultant: RECS

Comments:
No sampling occurred on this well. Installed monitor well. Surface completion - 6"x6" steel upright w/ 2'x2' concrete pad, borehole 7 7/8"
DRAFTED BY: A.C. Ruth

TD = 99 ft. GW = 56 ft.

Location: UL/L sec. 26 T17S R35E
Lat: N32°48.198678' **County**: Lea
Long: W104°25.966506' **State**: NM

Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
0 ft				No samples taken		4 in PVC; bentonite seal; sand; riser sump
10 ft						
20 ft						
30 ft						
40 ft						
50 ft						
60 ft						
70 ft						
80 ft						
90 ft						
99 ft						

HARRISON & COOPER, INC.

Drilling & Pump Professionals

7414 85th Street, Lubbock, Texas 79424-4951

P.O. Box 96, Wolfforth, Texas 79382-0096

Ph: (806) 866-4026 Fax: (806) 866-4044 hcidrill.com

Plugging Report

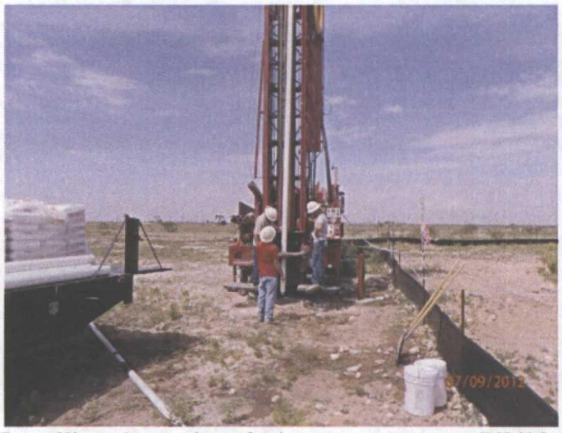
Client	Rice Operating
Contractor	Harrison & Cooper
Date Completed	7/9/2012
Site	Vacuum L-26 Vent
Well ID	MW-1
Casing Diameter	2"
Well Depth	70'
Casing Material	PVC
Plugging Material	Portland/Bentonite Slurry
Slurry Interval	3'-70'
Cement Interval	0'-3'

Copies: File
Email (Rice)

Vacuum L-26 vent
Unit Letter L, Section 26, T-17-S, R-35-E

Drilling MW-1R, facing west 7/9/12

Mudding in MW-1R, facing southwest 7/9/12



Installing the casing, facing west 7/9/12

Installing the sand pack 7/9/12

Installing the bentonite seal 7/9/12

Concreting the well in 7/9/12

Completed MW-1R, facing west 7/9/12

Pulling MW-1, facing west 7/9/12

Plugging MW-1 with 1-3% bentonite/concrete slurry, facing west 7/9/12

Plug and abandon of MW-1 complete 7/9/12

Appendix C

Recovery System Photo

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

Vacuum L-26 vent

UL/L sec. 26 T-17-S R-35-E

1R425-66

On-Site Recovery System

Facing west 8-6-12