

1R - 428-67

# Annual GW Mon. Report

Year:  
2011

**Rice Environmental Consulting & Safety**

P.O. Box 5630 Hobbs, NM 88241

Phone 575.393.4411 Fax 575.393.0293

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CERTIFIED MAIL

RETURN RECEIPT NO. 7008 1140 0001 3070 6143

**March 30<sup>th</sup>, 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: 2011 Annual Groundwater Monitoring Report**

**Rice Operating Company – Hobbs SWD System**

**Hobbs jct. E-33-1 (1R428-67): UL/E sec. 33 T18S 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 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.

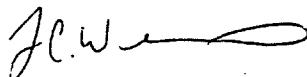
This 2011 Annual Groundwater Monitoring Report contains:

1. A table presenting all laboratory results with the depths to groundwater for the well at the site.
2. Graphs showing the concentrations of chloride and TDS in groundwater over time.
3. A map showing the well location.
4. The laboratory analytical results for the most recent sampling event.

Quarterly groundwater sampling will continue in 2012.

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

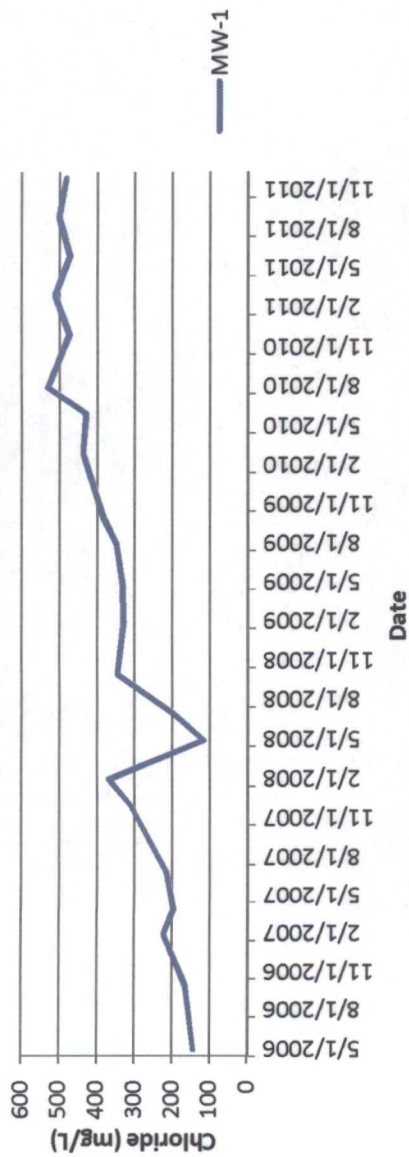
(575) 441-0431

Hobbs jct. E-33-1 (1R428-67)

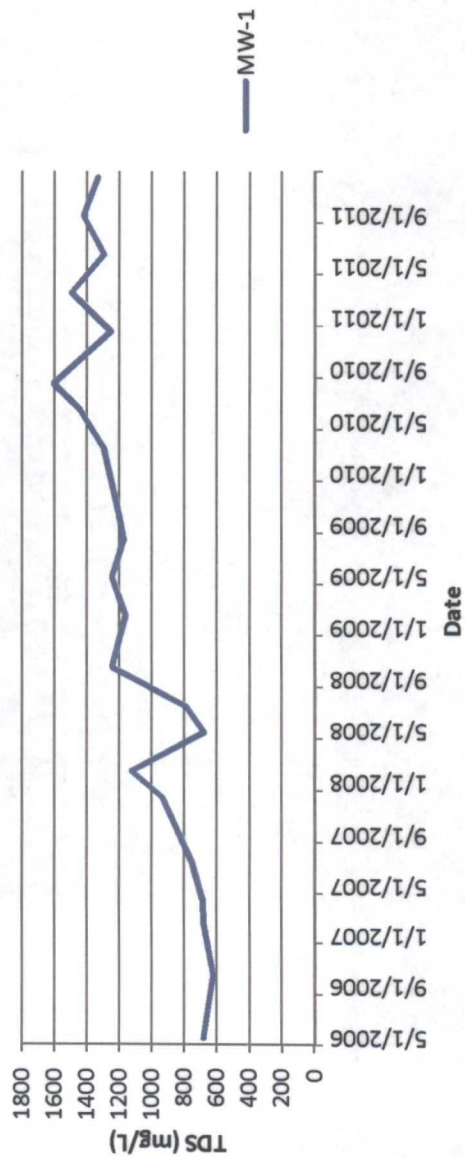
MW	Depth to Water	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
(mg/L)									
1	64.44	5/17/2006	142	678	<0.001	<0.001	<0.001	<0.001	93.4
1	64.48	10/31/2006	164	620	<0.001	<0.001	<0.001	<0.001	96.2
1	64.67	2/22/2007	222	678	<0.001	<0.001	<0.001	<0.001	112
1	65.21	5/1/2008	116	677	<0.002	<0.002	<0.002	<0.006	178
1	64.77	4/25/2007	195	684	<0.001	<0.001	<0.001	<0.001	101
1	64.89	7/30/2007	215	754	<0.001	<0.001	<0.001	<0.001	115
1	65.03	12/19/2007	308	933	<0.002	<0.002	<0.002	<0.006	174
1	65.08	2/8/2008	368	1120	<0.002	<0.002	<0.002	<0.004	176
1	65.28	7/25/2008	196	785	<0.002	<0.002	<0.002	<0.006	100
1	65.47	10/29/2008	344	1240	<0.001	<0.001	<0.001	<0.003	170
1	65.68	2/2/2009	328	1160	XXX	XXX	XXX	XXX	166
1	65.73	5/4/2009	332	1240	XXX	XXX	XXX	XXX	158
1	65.85	8/10/2009	348	1170	XXX	XXX	XXX	XXX	159
1	65.98	10/27/2009	380	1200	XXX	XXX	XXX	XXX	168
1	66.21	3/12/2010	436	1290	XXX	XXX	XXX	XXX	198
1	66.32	6/4/2010	428	1440	XXX	XXX	XXX	XXX	160
1	66.42	8/30/2010	530	1600	XXX	XXX	XXX	XXX	130
1	66.54	12/10/2010	472	1250	XXX	XXX	XXX	XXX	202
1	66.68	3/23/2011	510	1490	XXX	XXX	XXX	XXX	193
1	66.84	6/20/2011	470	1290	XXX	XXX	XXX	XXX	188
1	66.94	9/20/2011	500	1420	XXX	XXX	XXX	XXX	221
1	67.14	12/15/2011	480	1330	XXX	XXX	XXX	XXX	222

XXX: Not Sampled with NMOCD Permission

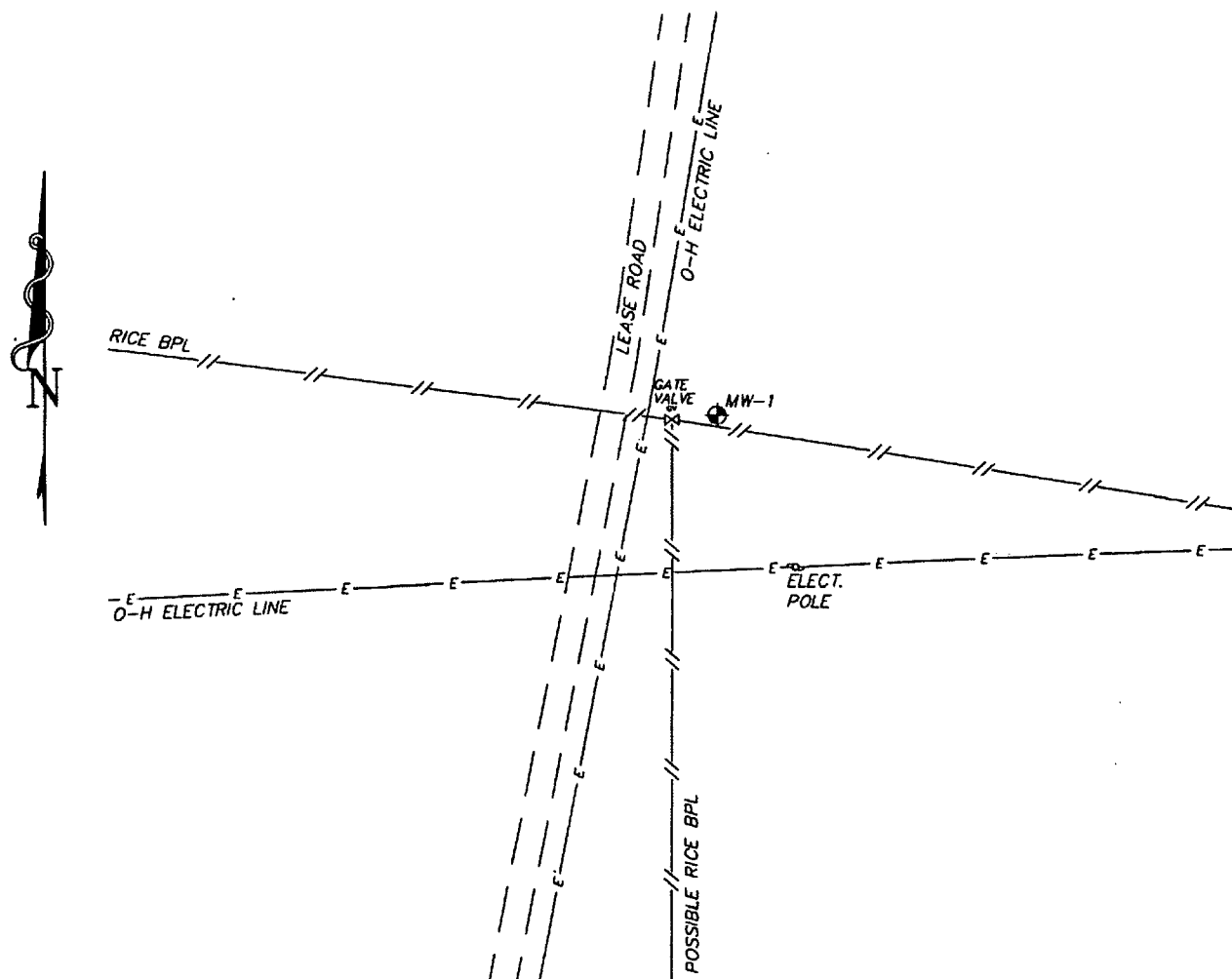
### Hobbs jct. E-33-1 Chloride in Groundwater



### Hobbs jct. E-33-1 TDS in Groundwater



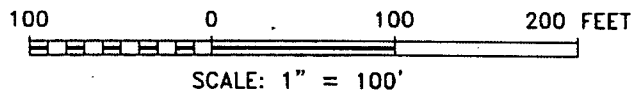
SECTION 33, TOWNSHIP 18 SOUTH, RANGE 38 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



NOTE:  
ELEVATIONS ARE ON BLACK MARK  
ON NORTH SIDE OF PVC CASING.

NEW MEXICO STATE PLANE COORDINATES (NAD83)

WELL	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEV. PVC	ELEV. GRND
MW-1	621927.894	902873.960	N 32°42'15.2"	W 103°09'28.8"	3639.44'	3637.68'



I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED  
FROM FIELD NOTES OF AN ACTUAL SURVEY AND  
MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND  
SURVEYS AS SPECIFIED BY THIS STATE.

GARY L. JONES N.M. P.S. No. 1977  
TEXAS P.L.S. No. 5074

## RICE OPERATING COMPANY

REF: MONITOR WELL FOR THE E-33-1 HOBBS SITE

MONITOR WELL LOCATED IN

SECTION 33, TOWNSHIP 18 SOUTH, RANGE 38 EAST,  
N.M.P.M., LEA COUNTY, NEW MEXICO.

**BASIN SURVEYS** P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 6995

Drawn By: J. M. SMALL

Date: 08-09-2006

Disk: JMS 6995MW

Survey Date: 08-08-2006

Sheet 1 of 1 Sheets

December 27, 2011

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 12/19/11 15:46.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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

Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 12/19/2011  
 Reported: 12/27/2011  
 Project Name: HOBBS JUNCTION E-33-1  
 Project Number: NONE GIVEN  
 Project Location: T18S-R38E-SEC33 E-LEA CTY., NM

 Sampling Date: 12/15/2011  
 Sampling Type: Water  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

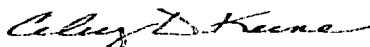
**Sample ID: MONITOR WELL #1 (H102734-01)**

Chloride, SM4500Cl-B		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	480	4.00	12/27/2011	ND	108	108	100	0.00		
Sulfate 375.4		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Sulfate*	222	10.0	12/27/2011	ND	18.6	93.0	20.0	0.539		
TDS 160.1		mg/L		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TDS*	1330	5.00	12/21/2011	ND	232	96.7	240	4.31		

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

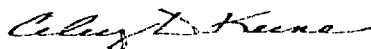
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Cardinal Laboratories

\*=Accredited Analyte

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Celest D. Keene, Lab Director/Quality Manager



<b>Cardinal Laboratories, Inc.</b> 101 East Marland - Hobbs, New Mexico 88240 Tel: (575) 393-2326 Fax: (575) 393-2476		<b>CHAIN-OF-CUSTODY AND ANALYSIS REQUEST</b> LAB Order ID # _____	
Company Name: <b>RICE Operating Company</b> Project Manager: <b>Hack Conder</b> Address: (Street, City, Zip) <b>122 W Taylor Street ~ Hobbs, New Mexico 88240</b> Phone #: <b>(575) 393-9174</b> Fax #: <b>(575) 393-1471</b>		ANALYSIS REQUEST (Circle or Specify Method No.)	
BILL TO Company: <b>RICE Operating Company</b> Address: <b>122 W Taylor Street ~ Hobbs, New Mexico 88240</b> Phone #: <b>(575) 393-9174</b> Fax #: <b>(575) 393-1471</b>		PCBs 8082/608 GC/MS Semi. Vol. 8270C/625 GC/MS Vol. 8260B/624 RCI TCLP Pesticides TCLP Semi Volatiles TCLP Volatiles TCLP Metals Ag As Ba Cd Cr Pb Se Hg Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7 PAH 8270C TPH 418.1/TX1005 /TX1005 Extended (C35) BTEX 8021B/602 MTBE 8021B/602	
Project Location: <b>T18S-R38E-Sec33 E ~ Lea County ~ New Mexico</b> Project Name: <b>Hobbs Junction E-33-1</b>		Turn Around Time ~ 24 Hours	
Project Location: <b>T18S-R38E-Sec33 E ~ Lea County ~ New Mexico</b> Project Name: <b>Hobbs Junction E-33-1</b>		Sulfates Anions (Cl, SO4, CO3, HCO3) Cations (Ca, Mg, Na, K) Moisture Content BOD, TSS, pH Pesticides 8081A/608	
Project Location: <b>T18S-R38E-Sec33 E ~ Lea County ~ New Mexico</b> Project Name: <b>Hobbs Junction E-33-1</b>		Total Dissolved Solids Chlorides	
Project Location: <b>T18S-R38E-Sec33 E ~ Lea County ~ New Mexico</b> Project Name: <b>Hobbs Junction E-33-1</b>		CHAIN-OF-CUSTODY AND ANALYSIS REQUEST	

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