# 1R-426-124

# REPORTS

DATE:

Calledon

#### Rice Environmental Consulting & Safety

P.O. Box 5630 Hobbs, NM 88241 Phone 575.393.4411 Fax 575.393.0293

RECEIVED OCD

CERTIFIED MAIL RETURN RECEIPT NO. 7007 2560 0000 4569 9484

.2012 AUG 29 P 12: 48

August 24th, 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 for Groundwater and Termination Request
Rice Operating Company – BD SWD System
BD jct. P-30 (1R426-124): UL/P sec. 30 T21S R37E

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 BD Salt Water Disposal (SWD) system. ROC is the service provider (agent) for the BD 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 2 miles west of Eunice, New Mexico at UL/P sec. 30 T21S R37E as shown on the Site Location Map (Figure 1). Monitor well sampling at the site indicates that groundwater is located at 97 ft bgs.

The former P-30 junction box was rebuilt at a location approximately 30 feet to the south of its former location as part of the ROC Pipeline Replacement/Upgrade Program. Between June 12<sup>th</sup> and June 21<sup>st</sup>, 2006, a 30 ft x 30 ft area was excavated to a depth of 12 feet below ground surface (bgs). Following the characterization of the soil, the excavated soil was blended and returned to the excavation up to 6 feet bgs. A 1-foot thick compacted clay barrier was installed to prevent the downward migration of any residual contaminants and the remaining blended soil was placed above the clay.

Using an air rotary drilling rig, five soil borings were completed on June 4<sup>th</sup>, 2008, to delineate the vadose zone conditions. On June 16<sup>th</sup>, 2009, one monitoring well (MW-1) was installed using an air rotary drilling rig. Soil samples were collected at regular intervals and field tested to analyze for chloride content. Select duplicate samples were submitted to a commercial laboratory for comparison with field values. The laboratory chloride readings for all five bores and MW-1, showed precipitous declines as the bores

were advanced to depth with only SB-1 and SB-3 having rather elevated chloride levels at depth.

On December 21<sup>st</sup>, 2010, ROC submitted a Corrective Action Plan (CAP) to NMOCD. An Addendum to the CAP was submitted on January 31<sup>st</sup>, 2011, and the CAP and Addendum were approved on February 1<sup>st</sup>, 2011. In the CAP and Addendum, ROC stated that they would install and properly seat a 20-mil reinforced poly liner measuring 110 ft x 103 ft to a depth of approximately 4 ft bgs. Soil with chloride concentrations no greater than 500 mg/kg and field hydrocarbon readings below 100 ppm would be backfilled over the liner. Any soils requiring disposal would be disposed of at a NMOCD approved facility. The site would then be seeded with a blend of native vegetation. Vegetation above the liner also provides a natural infiltration barrier for the site since plants capture water through their roots thereby reducing the volume of water moving through the vadose zone to groundwater.

ROC proposed to remove chloride impacted groundwater from the existing groundwater system located at BD O-23 vent and O-23-1 vent. Removed water would be used for pipeline and well maintenance. The estimate conservatively reflected the net impact to groundwater at the BD Jct. P-30 resulting from the former junction box site. It did not take into account other sources or regional conditions that may have existed up gradient from the site. The estimated chloride mass beneath the site was determined to be 599 kg.

Excavation for liner installation began on July 1<sup>st</sup>, 2011. The site was excavated to 111 ft x 104 ft to a depth of 4.5 ft. A 20-mil reinforced poly liner was installed and properly seated into the excavation over the 30 ft x 30 ft clay liner installed at 6-5 ft bgs. Padding of the liner was not necessary, since the soil at the site was primarily sandy/silty soils without appreciable rock. The site was backfilled with a blend of the excavated soil and soil imported to the site. The area was seeded with a mixture of native vegetation and a silt net fence was placed around the site to maintain seed integrity. A Corrective Action Plan Report on the Vadose Zone Remediation was submitted to NMOCD on August 1<sup>st</sup>, 2011, which detailed the liner installation activities. NMOCD approved the report and granted soil closure on September 22<sup>nd</sup>, 2011.

#### **Corrective Action Plan Report for Groundwater**

Groundwater recovery began at the BD O-23 vent and O-23-1 vent on July 19<sup>th</sup>, 2012 for the BD Jct. P-30 site and was completed on July 27<sup>th</sup>, 2012. During the recovery process, a total of 297 barrels were removed from BD O-23 vent and a total of 448 barrels were removed from BD O-23-1 vent. Given that at BD O-23 vent, MW-1R had a chloride concentration of 7,500 mg/L and RW-2 had a chloride concentration of 10,200 mg/L, the removal of the 297 barrels equates to 418 kg of chlorides extracted from the aquifer. At BD O-23-1 vent, MW-1R had a chloride concentration of 4,300 mg/L and RW-2 had a chloride concentration of 5,000 mg/L (Appendix A). Therefore, the 448 barrels removed equates to 331 kg of chlorides removed from the groundwater. Between the two sites, the recovery systems removed 745 barrels of groundwater which equates to 749 kg of chlorides removed (Appendix B).

ROC has completed the corrective actions as approved by NMOCD in the CAP by installing and properly seating a 20-mil reinforced liner measuring 111 ft x 104 ft x 4.5 ft deep over the 30 ft x 30 ft clay layer and by removing the necessary 599 kg of chloride the site contributed to groundwater. Therefore, ROC requests 'remediation termination' status of the regulatory file.

Upon NMOCD's approval of this report, MW-1 will be plugged and abandoned with a 1-3 % bentonite/concrete slurry with a three foot concrete cap and a report documenting this action will be submitted to NMOCD.

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** 

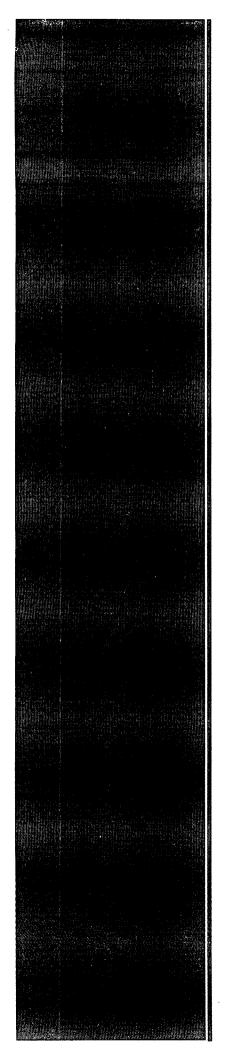
(575) 441-0431

Attachments:

Figure 1 – Site Location Map

Appendix A – BD O-23 and O-23-1 vent MW Sampling Labs

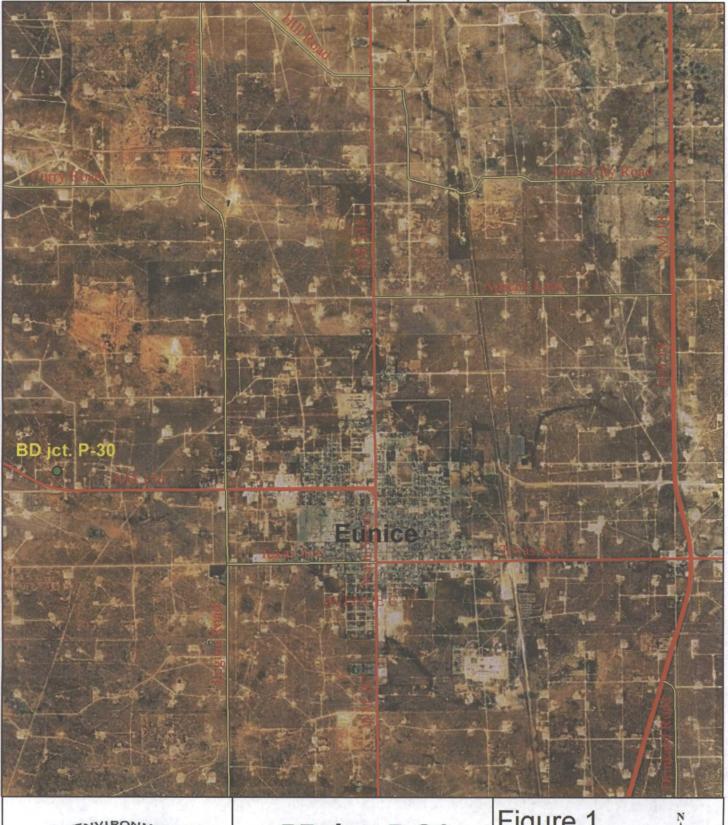
Appendix B – Groundwater Withdrawal Sheet



### Figures

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

Site Map

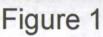




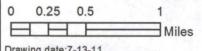
BD jct. P-30

NMOCD Case #: 1R426-124

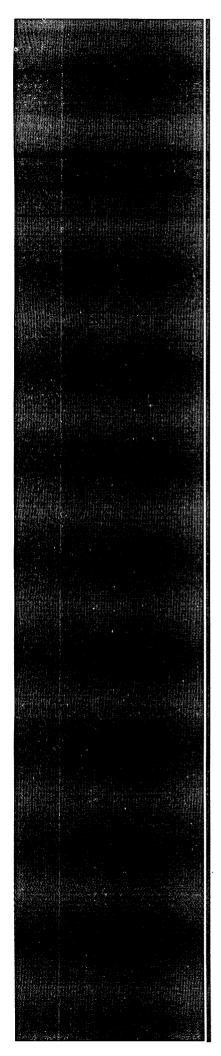
Legals: UL/P sec. 30 T21S R37E







Drawing date:7-13-11 Drafted by: L. Weinheimer



Appendix A
BD O-23 and O-23-1 vent MW Sampling Labs



July 31, 2012

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

**RE: BD O-23-1 VENT** 

Enclosed are the results of analyses for samples received by the laboratory on 07/25/12 13:11.

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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> 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.

Celey D. Keens

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



Rice Operating Company Hack Conder 112 W. Taylor Hobbs NM, 88240

(575) 397-1471 Fax To:

Received:

07/25/2012

Sampling Date:

07/20/2012

Reported:

07/31/2012

Sampling Type:

Water

Project Name:

Sampling Condition:

Cool & Intact

**BD O-23-1 VENT** 

Project Number:

NOT GIVEN

Sample Received By:

Jodi Henson

Project Location:

T21S R37E SEC23 O-LEA CTY., NM

#### Sample ID: MONITOR WELL 1R (H201716-01)

BTEX 8260B	mg/	L	Analyze	d By: ms		•			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	07/26/2012	ND	0.019	95.7	0.0200	1.61	
Toluene*	< 0.001	0.001	07/26/2012	ND	0.019	94.8	0.0200	0.368	
Ethylbenzene*	< 0.001	0.001	07/26/2012	ND	0.019	94.4	0.0200	0.265	•
Total Xylenes*	<0.003	0.003	07/26/2012	ND	0.056	93.4	0.0600	0.161	
Surrogate: Dibromofluoromethane	105 9	% 59.8-16	I						
Surrogate: Toluene-d8	99.3	% 75.2-11.	5						
Surrogate: 4-Bromofluorobenzene	88.5	% 53.7-12	0						
Chloride, SM4500CI-B	mg/	L	Analyze	d By: AP					
· Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	4300	4.00	07/30/2012	ŅD	104	104	100	0.00	
Sulfate 375.4	mg/	L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	465	10.0	07/31/2012	ND	18.8	94.0	20.0	11.3	
TDS 160.1	mg/	L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	8100	5.00	07/26/2012	ND	232	96.7	240	3.57	

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keene



Rice Operating Company Hack Conder 112 W. Taylor Hobbs NM, 88240

Fax To: (5

(575) 397-1471

Received:

07/25/2012

Sampling Date:

07/20/2012

Reported:

07/31/2012

Sampling Type:

Water

Project Name:

BD O-23-1 VENT

Sampling Condition:

Cool & Intact

Project Number:

NOT GIVEN

Sample Received By:

Jodi Henson

Project Location:

T21S R37E SEC23 O-LEA CTY., NM

#### Sample ID: RECOVERY WELL 2R (H201716-02)

BTEX 8260B	mg/	L	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	07/26/2012	·ND	0.019	95.7	0.0200	1.61	
Toluene*	<0.001	0.001	07/26/2012	ND	0.019	94.8	0.0200	0.368	
Ethylbenzene*	<0.001	0.001	07/26/2012	ND	0.019	94.4	0.0200	0.265	
Total Xylenes*	<0.003	0.003	07/26/2012	ND	0.056	93.4	0.0600	0.161	
Surrogate: Dibromofluoromethane	104 9	% 59.8-16	1						
Surrogate: Toluene-d8	99.1	% 75.2-11.	5						
Surrogate: 4-Bromofluorobenzene	88.8	% 53.7-12	0						
Chloride, SM4500CI-B	mg/	L	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	5000	4.00	07/30/2012	ND	104	104	100	0.00	
Sulfate 375.4	mg/	L	Analyze	d By: HM		<u></u>		•	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	472	10.0	07/31/2012	ND	18.8	94.0	20.0	11.3	
TDS 160.1	mg/	<u>L</u>	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	-True Value QC	RPD	Qualifier

Cardinal Laboratories \*=Accredited Analyte

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Celey & Keene



Rice Operating Company Hack Conder 112 W. Taylor Hobbs NM, 88240

Fax To:

(575) 397-1471

Received:

07/25/2012

Sampling Date:

07/20/2012

Reported:

RTFY 8260B

07/31/2012

Sampling Type:

Water

Project Name:

BD O-23-1 VENT

Sampling Condition:

Cool & Intact

Project Number:

NOT GIVEN

Sample Received By:

Jodi Henson

Project Location:

T21S R37E SEC23 O-LEA CTY., NM

#### Sample ID: MONITOR WELL 2 (H201716-03)

BTEX 8260B	mg,	<u>'L</u>	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.001	0.001	07/26/2012	ND	0.019	95.7	0.0200	1.61	
Toluene*	<0.001	0.001	07/26/2012	ND	0.019	94.8	0.0200	0.368	
Ethylbenzene*	<0.001	0.001	07/26/2012	ND	0.019	94.4	0.0200	0.265	
Total Xylenes*	<0.003	0.003	07/26/2012	ND	0.056	93.4	0.0600	0.161	
Surrogate: Dibromofluoromethane	104	% 59.8-16	TI .						
Surrogate: Toluene-d8	97.8	% 75.2-11	5				•		
Surrogate: 4-Bromofluorobenzene	87.2	% 53.7-12	0						
Chloride, SM4500CI-B	mg,	'L	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	2150	4.00	07/30/2012	ND	104	104	100	0.00	
Sulfate 375.4	mg,	/L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzęd	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	377	10.0	07/31/2012	ND	18.8	94.0	20.0	11.3	
TDS 160.1	mg,	/L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	4560	5.00	07/26/2012	ND	232	96.7	240	3.57	
1									

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keene



#### **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

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Celey & Keene

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LAB USE ONLY	FIELD CODE	(G)rab or (C)omp	# CONTAINERS	WATER /	SOIL	AIR	SLUDGE		HCL (2 40ml VOA)		H <sub>2</sub> SO <sub>4</sub>	r HDPE)	NONE	DATE (2012)	TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005 / TX1005 Extended (C35)	PAH 8270C	rotal inetals Ag As Ba Cd Ct Pb Se Hg 60 105/200./	TCLP Volatiles	TCLP Semi Volatiles	ICLP Pesticides	RCI	GC/MS. Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Moisture Content	Anions (CI, SO4, CO3, HCO3)	Cations (Ca, Mg, Na	Sulfates (SO4)	Chlorides	Turn Around Time ~ 24 Hours
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#26



July 31, 2012

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD O-23 VENT

Enclosed are the results of analyses for samples received by the laboratory on 07/25/12 13:11.

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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited 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.

Celey D. Keens

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



Rice Operating Company Hack Conder 112 W. Taylor Hobbs NM, 88240

Fax To:

(575) 397-1471

Analyzed Dynme

Received:

07/25/2012

Sampling Date:

07/20/2012

Reported:

BLEA 6350B

07/31/2012

Sampling Type:

Water

Project Name:

BD O-23 VENT

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

T21S R37E SEC23 O-LEA CTY., NM

#### Sample ID: MONITOR WELL 1R (H201717-01)

BTEX 8260B	mg,	/L	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	07/26/2012	ND	0.019	95.7	0.0200	1.61	
Toluene*	< 0.001	0.001	07/26/2012	ND	0.019	94.8	0.0200	0.368	
Ethylbenzene*	<0.001	0.001	07/26/2012	ND	0.019	94.4	0.0200	0.265	
Total Xylenes*	<0.003	0.003	07/26/2012	ND	0.056	93.4	0.0600	0.161	
Surrogate: Dibromofluoromethane	106	% 59.8-16	51						
Surrogate: Toluene-d8	99.5	% 75.2-11	5						
Surrogate: 4-Bromofluorobenzene	87.8	% 53.7-12	0						
Chloride, SM4500CI-B	mg,	/L	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	7500	4.00	07/30/2012	ND	100	100	100	3.92	
Sulfate 375.4	mg,	/L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	478	10.0	07/31/2012	ND	18.8	94.0	20.0	11.3	
TDS 160.1	mg,	/L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	12800	5.00	07/26/2012	ND	227	94.6	240	2.32	
			•						

#### Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keine



Rice Operating Company Hack Conder 112 W. Taylor Hobbs NM, 88240

Fax To:

(575) 397-1471

Received:

07/25/2012

Sampling Date:

07/20/2012

Reported:

07/31/2012

Sampling Type:

Water

Project Name:

BD O-23 VENT

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

T21S R37E SEC23 O-LEA CTY., NM

#### Sample ID: RECOVERY WELL 2R (H201717-02)

BTEX 8260B	mg/	L	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	07/26/2012	ND	0.019	95.7	0.0200	1.61	
Toluene*	<0.001	0.001	07/26/2012	ND	0.019	94.8	0.0200	0.368	
Ethylbenzene*	< 0.001	0.001	07/26/2012	ND	0.019	94.4	0.0200	0.265	
Total Xylenes*	<0.003	0.003	07/26/2012	ND	0.056	93.4	0.0600	0.161	
Surrogate: Dibromofluoromethane	108 %	% 59.8-16	il						
Surrogate: Toluene-d8	100 %	% 75.2-11	5						
Surrogate: 4-Bromofluorobenzene	86.9	% 53.7-12	0						
Chloride, SM4500CI-B	mg/	L	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	10200	4.00	07/30/2012	ND	100	100	100	3.92	
Sulfate 375.4	mg/	L	Analyze	d By: HM	_				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	403	10.0	07/31/2012	ND	18.8	94.0	20.0	11.3	
TDS 160.1	mg/	L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	18700	5.00	07/26/2012	ND	227	94.6	240	2.32	

\*=Accredited Analyte Cardinal Laboratories

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Celey & Keene



Rice Operating Company Hack Conder 112 W. Taylor Hobbs NM, 88240

Fax To:

(575) 397-1471

Received:

07/25/2012

Sampling Date:

07/20/2012

Reported:

07/31/2012

Sampling Type:

Water

Project Name:

BD O-23 VENT

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

T21S R37E SEC23 O-LEA CTY., NM

#### Sample ID: MONITOR WELL 2 (H201717-03)

BTEX 8260B	mg/	'L	Analyze	d By: ms		·			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	07/26/2012	ND	0.019	95.7	0.0200	1.61	
Toluene*	<0.001	0.001	07/26/2012	ND	0.019	94.8	0.0200	0.368	
Ethylbenzene*	< 0.001	0.001	07/26/2012	ND	0.019	94.4	0.0200	0.265	
Total Xylenes*	<0.003	0.003	07/26/2012	ND	0.056	93.4	0.0600	0.161	
Surrogate: Dibromofluoromethane	106 9	% 59.8-16	71						
Surrogate: Toluene-d8	98.8	% 75.2-11	5						
Surrogate: 4-Bromofluorobenzene	85.4	% 53.7-12	0						
Chloride, SM4500CI-B	mg/	'L	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	4050	4.00	07/30/2012	ND	100	100	100	3.92	
Sulfate 375.4	mg/	'L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	298	10.0	07/31/2012	ND	18.8	94.0	20.0	11.3	
TDS 160.1	mg/	′L	Analyze	d By: HM				•	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	7710	5.00	07/26/2012	ND	227	94.6	240	2.32	

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Celey & Keine



#### **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 SM4500CI-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

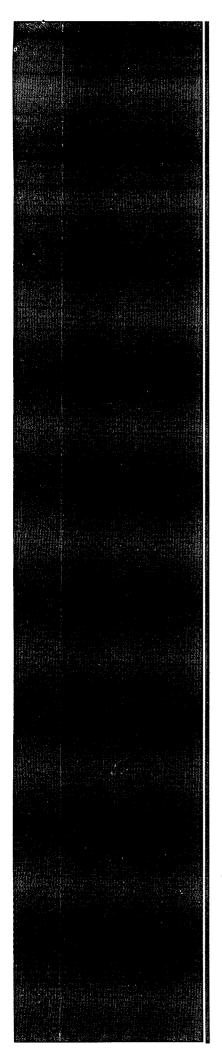
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Celey D. Kune

Tel (575) 393-2326 Fax (575) 393-2476  Company Name: RICE Operating Company Project Manager: Hack Conder Address: (Street, City, Zip) Hack Conder 122 W Taylor Street ~ Hobbs, New Mexico 88240 Address: (Street, City, Zip) Phone#: Fax #: (575) 393-9174  (575) 393-9174	101 East Marland Mexico 8	- Hobbs, New		1 T	_ 1			- 4		•			T					С	HA	IN-(	OF-	CU	USTODY AND ANALYSIS REQUEST												
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#26



## $\begin{array}{c} Appendix \ B \\ \text{Groundwater Withdrawal Sheet} \end{array}$

P.O. Box 5630 Hobbs, NM 88241 Phone 575.393.4411 Fax 575.393.0293

### Record of Groundwater Withdrawal Site Name: BD Jct. P-30 (1R426-124)

#### O-23 vent

Date	Fluid Hauled (bbls)	Lab	(	Comments	Date	Fluid Hauled (bbls)		Lab	Comments
7/19/2012				Started Pumping	7/19/2012				Started Pumping
7/20/2012	42.5		7,500		7/20/2012	42.5		10,200	)
7/23/2012	42.5				7/23/2012	42.5			
7/25/2012	42.5	,	•		7/25/2012	42.5			
7/27/2012	21				7/27/2012	21			
Total for July	148.5	bbls To	otal kg of Chloride	177	Total for July	148.5	bbls	Total kg of Chloride	241
	6237	gallons	removed			6237	gallons	removed	
BD O-23 vent	418	kg of Chloride	removed						
	297	bbls removed							
	12474	gallons remove	ed						

#### **O-23-1** vent

Date	Fluid Hauled (bbls)	1	.ab	Comments	Date	Fluid Hauled (bbls)		Lab	Comments
7/19/2012		<u> </u>		Started Pumping	7/19/2012				Started Pumping
7/20/2012	52		4,300		7/20/2012	52		5,000	
7/23/2012	65				7/23/2012	65			
7/25/2012	59.5	•			7/25/2012	59.5	•		
7/27/2012	47.5				7/27/2012	47.5			
Total for July	224	bbls	Total kg of Chloride	153	Total for July	224	bbls	Total kg of Chloride	178
	9408	gallons	removed			9408	gallons	removed	
BD 0-23-1 vent	331	kg of Chlor	ride removed	<del></del>					_
	448	bbls remo	ved						
	18816	gallons rer	moved						
Total combined:	749	kg of Chlo	ride removed		•				
~	745	bbls remo	ved						
	31290	gallons rer	noved						