1R - 423-07

WORKPLANS

Date:

4-16-12

TETRA TECH

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CERTIFIED MAIL
RETURN RECEIPT NO. 7008 3230 0001 9310 7686

April 16, 2012

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

RE: ICP REPORT
JUSTIS E-26
UNIT "E", SEC. 26, T24S, R37E
LEA COUNTY, NEW MEXICO
NMOCD #1R0423-07

Mr. Hansen:

RICE Operating Company (ROC) has retained Tetra Tech, Inc. (Tetra Tech) to address potential environmental concerns at the Justis SWD System E-26 site. ROC is the service provider (agent) for the Justis SWD System and has no ownership of any portion of the pipeline, well or facility. The Justis SWD system is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis. In general, project funding is not forthcoming until NMOCD approves the work plan. Therefore, your timely review of this submission is requested.

BACKGROUND & PREVIOUS WORK

As part of the ROC Junction Box Upgrade Workplan, starting on June 27, 2003, the junction box was removed and a new, watertight junction box was installed 25 feet south of the former junction box. The former junction box site was excavated to a depth of 12 feet deep with a backhoe. PID readings and chloride field tests were conducted at regular intervals. Based on the field PID readings and the chloride field tests, both the TPH and chlorides did not exhibit a decrease with depth. Upon completion of the excavation, the site was backfilled with clean imported soils and brought up to surface grade. In March 2004, ROC submitted a Junction Box Disclosure Report to the NMOCD. See Figures 1 and 2 for site location.

In order to determine the vertical extent of hydrocarbon and chloride impacts, on March 18, 2004, a soil boring (SB-1) was drilled in the former junction box to a depth of 67 feet below ground surface (bgs). Analytical results from the drilling indicate the TPH

Tetra Tech
1910 North Big Spring, Midland, TX 79705
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

concentrations decreased with depth, while the chloride concentrations did not exhibit a significant decline with depth. The chloride concentration was 587 milligrams per kilogram (mg/Kg) at 67 feet bgs. Upon completion of the drilling, the soil boring was backfilled with bentonite to ground surface.

Between March 18 and 22, 2010, six additional soil borings (SB-2 through SB-7) and one monitor well (MW-1) were installed in the vicinity of the former junction box in order to delineate the chlorides/TPH within the soil and determine if groundwater was impacted. In SB-2, SB-5, SB-6, and SB-7, laboratory chloride concentrations remained elevated; however, chloride readings decreased with depth. Chloride concentrations were low throughout SB-3 with a concentration of 144 mg/kg at 5 feet and <16 mg/kg at 30 feet. Chloride concentrations also decreased in SB-4 from 592 mg/kg at 20 feet to 160 mg/kg at 50 feet. See Figure 3 for soil analytical results. Chloride concentrations in monitor well MW-1 are elevated ranging from 1,560 to 1,840 mg/L. Groundwater at the site is located at a depth of approximately 68 feet below ground surface. See attached Table 1 for groundwater analytical results. Copies of the laboratory analysis are presented in Appendix A. Copies of the boring and monitor well logs and completion diagrams are included in Appendix B.

On October 24, 2011, a second up-gradient monitor well (MW-2) was installed northwest of the former junction box. Chloride analytical results for the well were 1,460 mg/L, which is consistent with the results in source well MW-1. This indicates an up-gradient source contributing chlorides to the groundwater. See attached Table 2 for groundwater analytical results.

As discussed above, existing site data suggest an up-gradient source is contributing to the impairment of groundwater quality. Therefore the work elements described below are designed to assist ROC in selecting an appropriate vadose zone and groundwater remedy.

Additional Delineation to the Vadose Zone

In order to complete delineation of the chlorides in the vadose zone, ROC proposes to install an additional soil boring north of SB-7. The soil boring samples will be field screened for chloride concentrations and the data collected will be utilized to estimate liner dimensions for the proposed soils remediation. Upon completion of the drilling and collection of the analysis, ROC will submit a CAP addressing the proposed liner location and dimensions.

Chloride Remediation within Groundwater

Based on the results of the soil sampling, ROC will perform Mass Loading Calculations as part of the CAP. The mass loading will be utilized to determine a volume of chloride impacted groundwater to be removed.

As part of the remediation of the groundwater, ROC proposes to plug and abandon the two inch monitor well MW-1 and reinstall as a four inch well (MW-1R). The recovery well will be constructed in accordance with EPA and industry standards and

TETRA TECH

developed either by bailing with a rig or hand bailer, or pumping with an electric submersible pump to remove fine grain sediment disturbed during drilling and to ensure collection of representative groundwater samples.

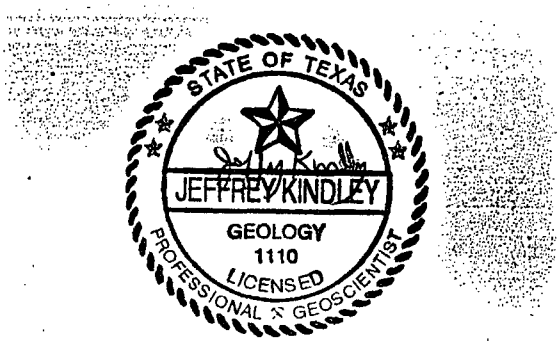
Should you have any questions, please contact me at (432) 682-4559. Your prompt review of this submission is appreciated. Thank you for your attention to this matter.

Tetra Tech, Inc.

Jeffrey Kindley, P.G.
Senior Environmental Geologist

cc: ROC – Hack Conder
NMOCD – Geoffrey Leking

enclosures: Figures, Tables, Laboratory Analysis, Soil Bore and Monitor Well Logs



FIGURES

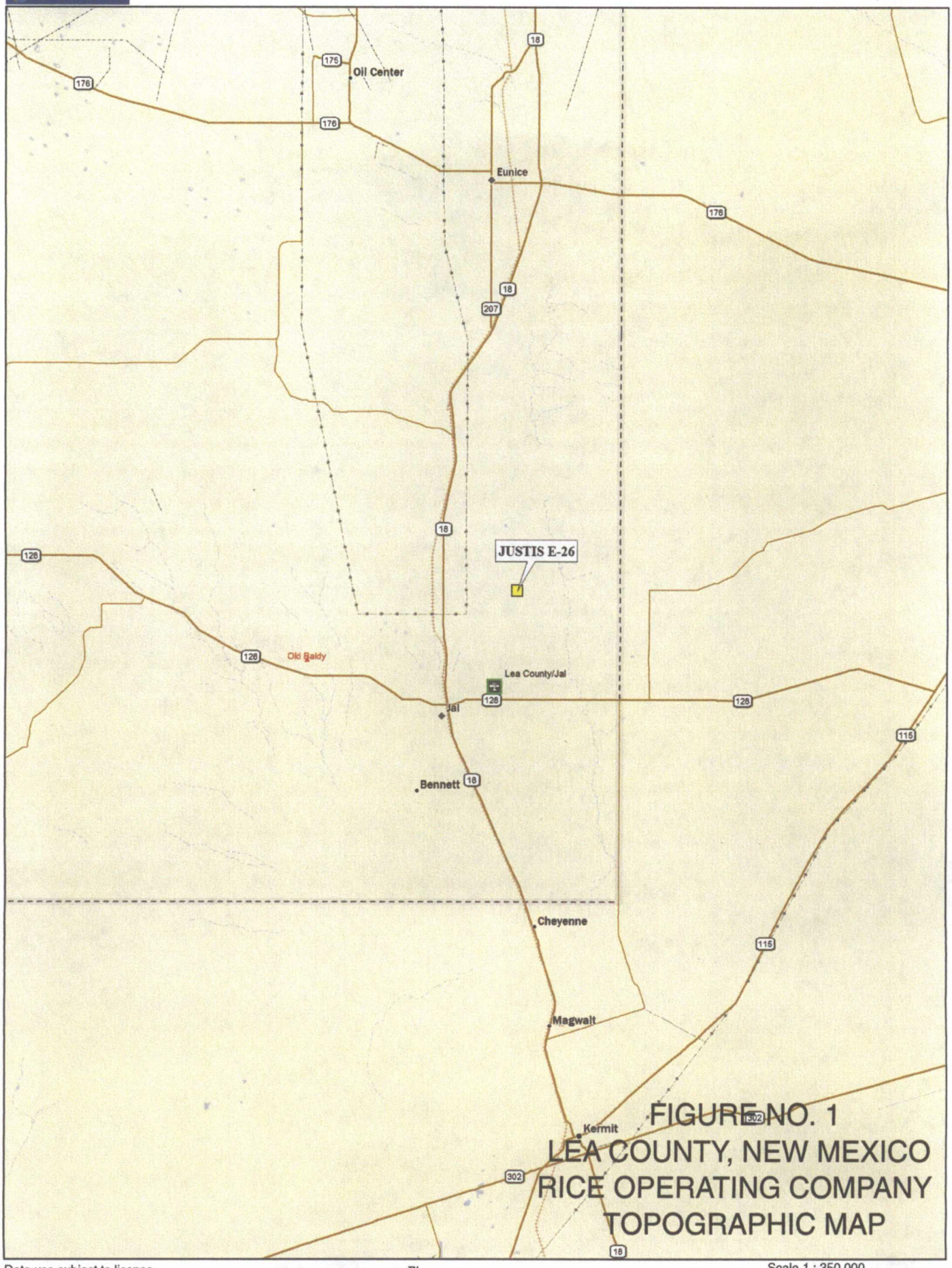


FIGURE NO. 1
LEA COUNTY, NEW MEXICO
RICE OPERATING COMPANY
TOPOGRAPHIC MAP

TN
MN (7.3°E)

Scale 1 : 350,000
1" = 5.52 mi
Data Zoom 9-4

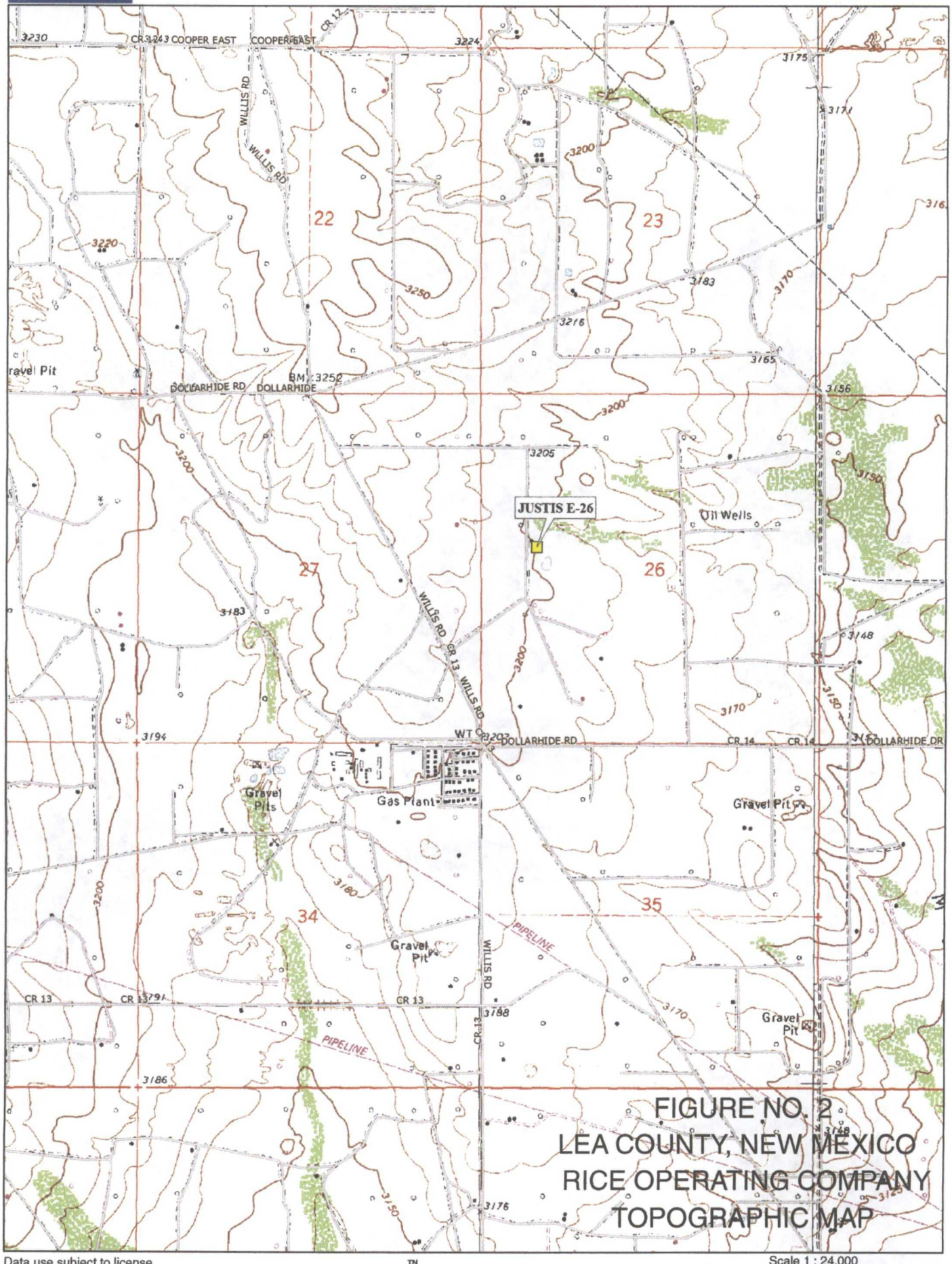


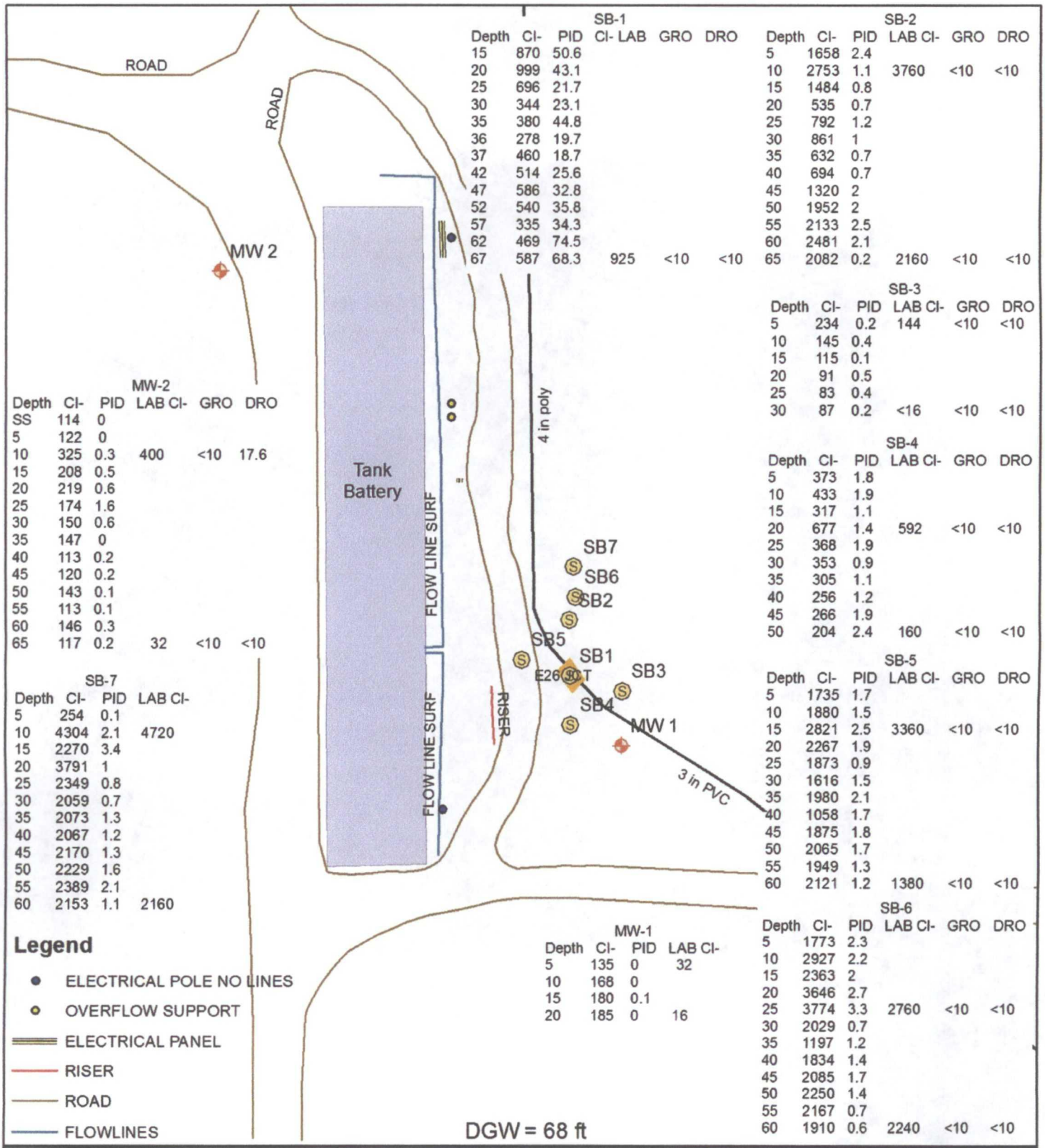
FIGURE NO. 2
LEA COUNTY, NEW MEXICO
RICE OPERATING COMPANY
TOPOGRAPHIC MAP

TN
MN (7.3°E)

Scale 1 : 24,000

1" = 2,000.0 ft

Data Zoom 13-3



SB-1

Depth	Cl-	PID	Cl- LAB	GRO	DRO
15	870	50.6			
20	999	43.1			
25	696	21.7			
30	344	23.1			
35	380	44.8			
36	278	19.7			
37	460	18.7			
42	514	25.6			
47	586	32.8			
52	540	35.8			
57	335	34.3			
62	469	74.5			
67	587	68.3	925	<10	<10

SB-2

Depth	Cl-	PID	LAB Cl-	GRO	DRO
5	1658	2.4			
10	2753	1.1	3760	<10	<10
15	1484	0.8			
20	535	0.7			
25	792	1.2			
30	861	1			
35	632	0.7			
40	694	0.7			
45	1320	2			
50	1952	2			
55	2133	2.5			
60	2481	2.1			
65	2082	0.2	2160	<10	<10

SB-3

Depth	Cl-	PID	LAB Cl-	GRO	DRO
5	234	0.2	144	<10	<10
10	145	0.4			
15	115	0.1			
20	91	0.5			
25	83	0.4			
30	87	0.2	<16	<10	<10

SB-4

Depth	Cl-	PID	LAB Cl-	GRO	DRO
5	373	1.8			
10	433	1.9			
15	317	1.1			
20	677	1.4	592	<10	<10
25	368	1.9			
30	353	0.9			
35	305	1.1			
40	256	1.2			
45	266	1.9			
50	204	2.4	160	<10	<10

SB-5

Depth	Cl-	PID	LAB Cl-	GRO	DRO
5	1735	1.7			
10	1880	1.5			
15	2821	2.5	3360	<10	<10
20	2267	1.9			
25	1873	0.9			
30	1616	1.5			
35	1980	2.1			
40	1058	1.7			
45	1875	1.8			
50	2065	1.7			
55	1949	1.3			
60	2121	1.2	1380	<10	<10

SB-6

Depth	Cl-	PID	LAB Cl-	GRO	DRO
5	1773	2.3			
10	2927	2.2			
15	2363	2			
20	3646	2.7			
25	3774	3.3	2760	<10	<10
30	2029	0.7			
35	1197	1.2			
40	1834	1.4			
45	2085	1.7			
50	2250	1.4			
55	2167	0.7			
60	1910	0.6	2240	<10	<10

MW-2

Depth	Cl-	PID	LAB Cl-	GRO	DRO
SS	114	0			
5	122	0			
10	325	0.3	400	<10	17.6
15	208	0.5			
20	219	0.6			
25	174	1.6			
30	150	0.6			
35	147	0			
40	113	0.2			
45	120	0.2			
50	143	0.1			
55	113	0.1			
60	146	0.3			
65	117	0.2	32	<10	<10

SB-7

Depth	Cl-	PID	LAB Cl-
5	254	0.1	
10	4304	2.1	4720
15	2270	3.4	
20	3791	1	
25	2349	0.8	
30	2059	0.7	
35	2073	1.3	
40	2067	1.2	
45	2170	1.3	
50	2229	1.6	
55	2389	2.1	
60	2153	1.1	2160

MW-1

Depth	Cl-	PID	LAB Cl-
5	135	0	32
10	168	0	
15	180	0.1	
20	185	0	16

RICE ENVIRONMENTAL CONSULTING & SAFETY, LLC

RECS

Justis E-26

LEGALS: UL/E sec. 26
T24S R37E

NMOCD Case #: 1R423-07

Figure 3

N W E S

0 15 30 60
Feet

Drawing date: 4/11/12
Drafted by: L. Weinheimer

TABLES

Table 1
Rice Operating Company
Justis E-26
Lea County, New Mexico

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl mg/L	TDS mg/L	Benzene mg/L	Toluene mg/L	Ethyl Benzene mg/L	Total Xylenes mg/L	Sulfate mg/L	Comments
1	67.93	78.65	1.70	10.0	04/11/10	1800	3400	<0.001	<0.001	<0.001	<0.003	299	Clear no odor
1	67.92	78.65	1.70	10.0	06/02/10	1580	3340	<0.001	<0.001	<0.001	<0.003	265	Clear no odor
1	67.99	78.65	1.70	10.0	08/26/10	1560	3360	<0.001	<0.001	<0.001	<0.003	260	Clear no odor
1	68.02	78.65	1.70	10.0	12/01/10	1680	3650	<0.001	<0.001	<0.001	<0.003	324	Clear no odor
1	68.02	78.64	1.70	10.0	03/24/11	1840	4000	<0.001	<0.001	<0.001	<0.003	260	Clear no odor
1	68.03	78.64	1.70	10.0	06/10/11	1760	3520	<0.001	<0.001	<0.001	<0.003	266	Clear no odor
1	68.06	78.64	1.70	10.0	09/14/11	1700	3550	<0.001	<0.001	<0.001	<0.003	281	Clear no odor
1	68.13	78.64	1.70	10.0	12/08/11	1680	3600	<0.001	<0.001	<0.001	<0.003	281	Clear no odor
1	68.05	78.64	1.70	10.0	03/08/12	1860	3920	<0.001	<0.001	<0.001	<0.003	292	Clear no odor

Graph 1
Rice Operating Company
MW-1
Justis E-26
Lea County, New Mexico

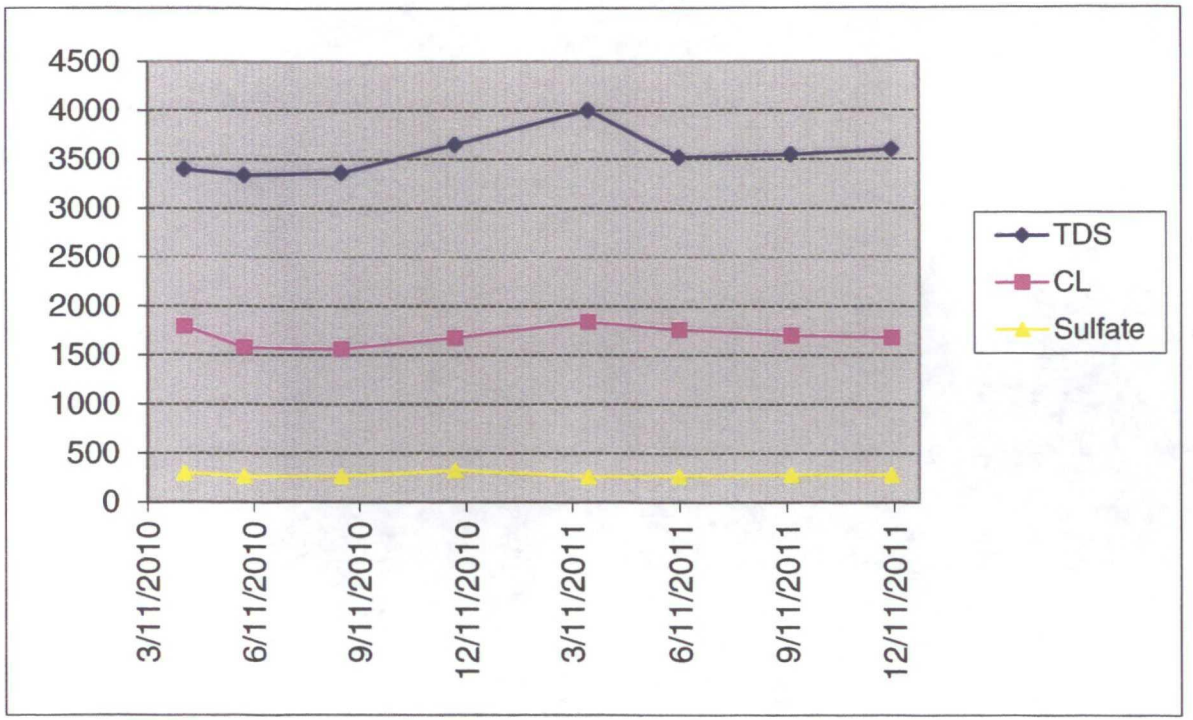
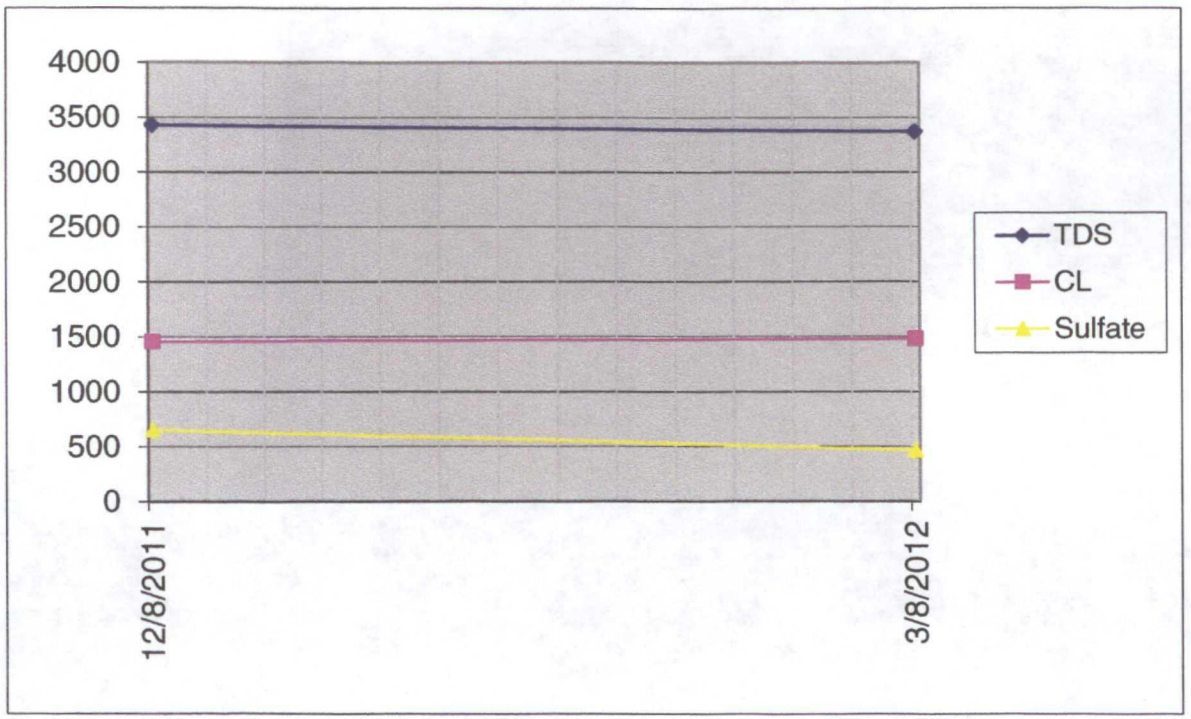


Table 2
Rice Operating Company
Justis E-26
Lea County, New Mexico

MW	Depth to Water	Total Depth	Well Volume	Volume Purged	Sample Date	Cl mg/L	TDS mg/L	Benzene mg/L	Toluene mg/L	Ethyl Benzene mg/L	Total Xylenes mg/L	Sulfate mg/L	Comments
2	68.28	78.64	1.70	10.0	12/08/11	1460	3430	<0.001	<0.001	<0.001	<0.003	652	Clear no odor
2	68.23	78.64	1.70	10.0	03/08/12	1480	3370	<0.001	<0.001	<0.001	<0.003	465	Clear no odor

Graph 2
Rice Operating Company
MW-2
Justis E-26
Lea County, New Mexico



APPENDIX A
LABORATORY ANALYTICAL

CARDINAL Laboratories

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

March 16, 2012

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: JUSTIS JUNCTION E-26

Enclosed are the results of analyses for samples received by the laboratory on 03/12/12 12:20.

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:	03/12/2012	Sampling Date:	03/08/2012
Reported:	03/16/2012	Sampling Type:	Water
Project Name:	JUSTIS JUNCTION E-26	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	T24S-R37E-SEC26 E - LEA CTY., NM		

Sample ID: MONITOR WELL #1 (H200630-01)

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	03/14/2012	ND	0.052	104	0.0500	2.79	
Toluene*	<0.001	0.001	03/14/2012	ND	0.054	109	0.0500	3.43	
Ethylbenzene*	<0.001	0.001	03/14/2012	ND	0.056	112	0.0500	4.26	
Total Xylenes*	<0.003	0.003	03/14/2012	ND	0.172	114	0.150	4.83	

Surrogate: 4-Bromofluorobenzene (PIL *106 %* *70.7-118*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**1860**	4.00	03/14/2012	ND	104	104	100	3.92	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**292**	10.0	03/15/2012	ND	18.8	94.2	20.0	2.14	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**3920**	5.00	03/13/2012	ND	237	98.8	240	0.517	

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:	03/12/2012	Sampling Date:	03/08/2012
Reported:	03/16/2012	Sampling Type:	Water
Project Name:	JUSTIS JUNCTION E-26	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	T24S-R37E-SEC26 E - LEA CTY., NM		

Sample ID: MONITOR WELL #2 (H200630-02)

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	03/14/2012	ND	0.052	104	0.0500	2.79	
Toluene*	<0.001	0.001	03/14/2012	ND	0.054	109	0.0500	3.43	
Ethylbenzene*	<0.001	0.001	03/14/2012	ND	0.056	112	0.0500	4.26	
Total Xylenes*	<0.003	0.003	03/14/2012	ND	0.172	114	0.150	4.83	

Surrogate: 4-Bromofluorobenzene (PIL *104 %* *70.7-118*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	**1480**	4.00	03/14/2012	ND	104	104	100	3.92	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate*	**465**	10.0	03/15/2012	ND	18.8	94.2	20.0	2.14	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS*	**3370**	5.00	03/13/2012	ND	237	98.8	240	0.517	

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

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:	BILL TO Company:	PO#
RICE Operating Company	RICE Operating Company	
Project Manager:	**Address:** (Street, City, Zip)	
Hack Conder	122 W Taylor Street ~ Hobbs, New Mexico 88240	
Address: (Street, City, Zip)	**Phone#:**	**Fax#:**
122 W Taylor Street ~ Hobbs, New Mexico 88240	(575) 393-9174	(575)397-1471
Phone #:	**Fax #:**	
(575) 393-9174	(575)397-1471	
Project #:	**Project Name:**	
	Justis Junction E-26	
Project Location:	**Sampler Signature:**	Rozanne Johnson (575)631-9310
T24S-R37E-Sec26 E ~ Lea County - New Mexico		rozanne@valornet.com

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY) H200623	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		3-8	15:45		X																X	X	X	
2	Monitor Well #2	G	3	X				2				1		3-8	14:40		X																X	X	X	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Rozanne Johnson	3-12-2012	12:20	Jodi Henson	3/13/12	12:20
Relinquished by:	Date:	Time:	Received By: (Laboratory Staff)	Date:	Time:

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

REMARKS:

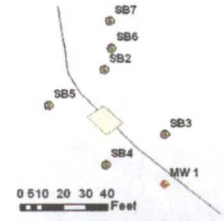
Email Results to: hconder@riceswd.com
lweinheimer@rice-ecs.com
kjones@riceswd.com
rozanne@valornet.com

Delivered By: (Circle One)	Sample Condition				CHECKED BY:
	Cool		Intact		
Sampler - UPS - Bus - Other:	Yes	✓	Yes	✓	(Initials)
	No		No		

#26

APPENDIX B
SOIL BORING MONITOR WELL LOGS

Logger:	Lara Weinheimer
Driller:	Harrison & Cooper, Inc. Drilling
Drilling Method:	Air rotary
Start Date:	3/18/10
End Date:	3/18/10



RICE OPERATING COMPANY
ROC
SINCE 1955

Project Name: Justis E-26 **Well ID:** SB-2

Location: UL/E sec. 26 T24S R37E
Lat: 32°11'21.405"N **County:** Lea
Long: 103°8'21.789" W **State:** NM

Comments: Split spoon sampling at 20 ft. All other were from cuttings. Located 24 ft N of the current junction box site.

Drafted by: Lara Weinheimer

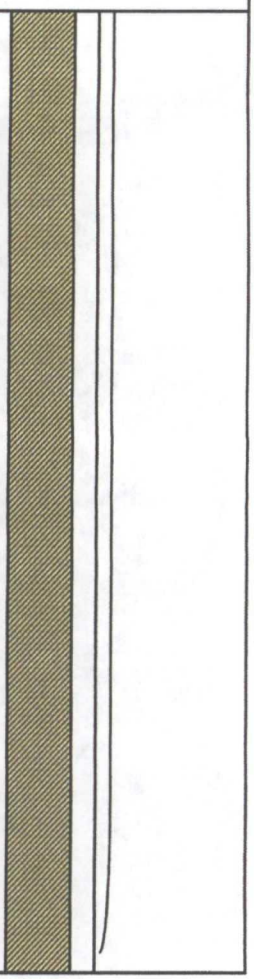
TD = 65 ft GW = 68 ft

Depth (feet)	chloride field tests (ppm)	LAB	PID	Description
				0 - 5 ft
				VERY FINE TO FINE SAND; SANDSTONE; CALICHE
5	1658		2.4	orangey-brown, slightly moist, no odor
				5 - 10 ft
				VERY FINE TO FINE SAND; SANDSTONE
10	2753	Cl- 3760	1.1	orangey-brown, dry, no odor
		GRO <10.0		10 - 15 ft
		DRO <10.0		VERY FINE TO FINE SAND; SANDSTONE
15	1484		0.8	light orangey-brown, dry, no odor
				15 - 20 ft
				VERY FINE TO FINE SAND; SANDSTONE
20	535		0.7	orangey-brown, slightly moist, no odor
25	792		1.2	
30	861		1	
				20 - 65 ft
				VERY FINE TO FINE SAND
35	632		0.7	orangey-brown, slightly moist, no odor
40	694		0.7	

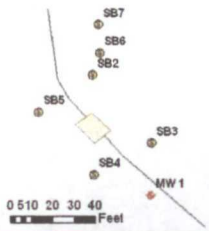
Lithology

Bore Construction

bentonite seal

Depth (feet)	chloride field tests (ppm)	LAB	PID	Description	Lithology	Bore Construction
						
45	1320		2			
				20 - 65 ft		
				VERY FINE TO FINE SAND		
50	1952		2	orangey-brown, slightly moist, no odor		
55	2133		2.5			
60	2481		2.1			
65	2082	Cl- 2160	0.2			
		GRO <10.0				
		DRO <10.0				

Logger:	Lara Weinheimer
Driller:	Harrison & Cooper, Inc. Drilling
Drilling Method:	Air rotary
Start Date:	3/19/10
End Date:	3/19/10



RICE OPERATING COMPANY
ROC
SINCE 1955

Project Name: Justis E-26 **Well ID:** SB-3

Location: UL/E sec. 26 T24S R37E
Lat: 32°11'21.095"N **County:** Lea
Long: 103°8'21.518" W **State:** NM

Comments: Split spoon sampling at 15 - 20 ft. All other were from cuttings. Located 24 ft E of the current junction box site.

Drafted by: Lara Weinheimer

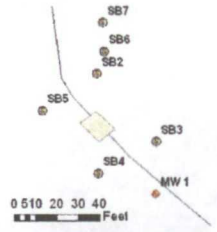
TD = 30 ft GW = 68 ft

Depth (feet)	chloride field tests (ppm)	LAB	PID	Description
				0 - 5 ft
				VERY FINE TO FINE SAND; SANDSTONE; CALICHE
5	234	Cl- 144	0.2	light brown, dry, no odor
		GRO <10.0		5 - 10 ft
		DRO <10.0		VERY FINE TO FINE SAND
10	145		0.4	light brown, dry, no odor
				10 - 15 ft
				VERY FINE TO FINE SAND; SANDSTONE
15	115		0.1	light orangey-brown, slightly moist, no odor
				15 - 20 ft
				VERY FINE TO FINE SAND; SANDSTONE
20	91		0.5	orangey-brown, slightly moist, no odor
				20 - 30 ft
25	83		0.4	VERY FINE TO FINE SAND
				orangey-brown, slightly moist, no odor
30	87	Cl- <16	0.2	
		GRO <10.0		
		DRO <10.0		

Lithology

Bore Construction: bentonite seal

Logger:	Lara Weinheimer
Driller:	Harrison & Cooper, Inc. Drilling
Drilling Method:	Air rotary
Start Date:	3/19/10
End Date:	3/19/10



RICE OPERATING COMPANY ROC SINCE 1955

Project Name: Justis E-26 **Well ID:** SB-4

Location: UL/E sec. 26 T24S R37E
Lat: 32°11'20.949"N **County:** Lea
Long: 103°8'21.784" W **State:** NM

Comments: Split spoon sampling at 15 ft. All other were from cuttings. Located 23 ft S of the current junction box site.

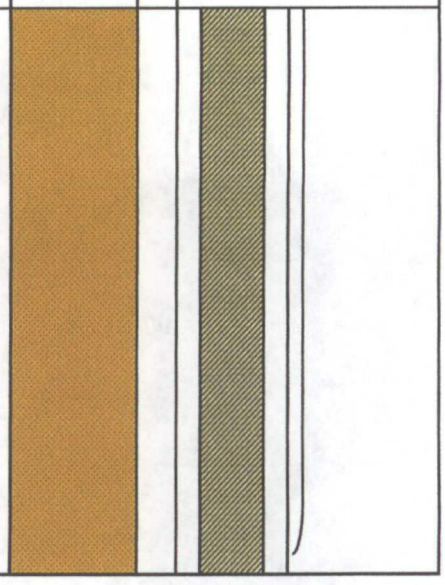
Drafted by: Lara Weinheimer

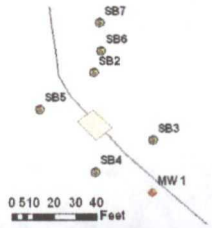
TD = 50 ft GW = 68 ft

Depth (feet)	chloride field tests (ppm)	LAB	PID	Description
				0 - 5 ft VERY FINE TO FINE SAND; SANDSTONE; CALICHE light brown, dry, no odor
5	373		1.8	
10	433		1.9	
				10 - 20 ft VERY FINE TO FINE SAND; SANDSTONE orangey-brown, slightly moist, no odor
15	317		1.1	
20	677	Cl- 592	1.4	
		GRO <10.0		20 - 50 ft VERY FINE TO FINE SAND orangey-brown, moist, no odor
		DRO <10.0		
25	368		1.9	
30	353		0.9	
35	305		1.1	

Lithology

Bore Construction: bentonite seal

Depth (feet)	chloride field tests (ppm)	LAB	PID	Description	Lithology	Bore Construction
						
40	256		1.2			
				20 - 50 ft		
				VERY FINE TO FINE SAND		
45	266		1.9	orangey-brown, moist, no odor		
50	204	Cl- 160	2.4			
		GRO <10.0				
		DRO <10.0				

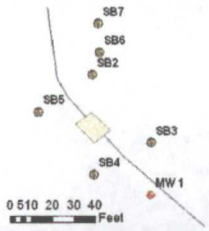
Logger:	Lara Weinheimer		RICE OPERATING COMPANY ROC SINCE 1955
Driller:	Harrison & Cooper, Inc. Drilling		
Drilling Method:	Air rotary		**Project Name:** Justis E-26 **Well ID:** SB-5
Start Date:	3/19/10		**Location:** UL/E sec. 26 T24S R37E
End Date:	3/19/10		**Lat:** 32°11'21.235"N **County:** Lea
Comments: Split spoon sampling at 20 ft. All other were from cuttings. Located 22 ft W of the current junction box site. **Drafted by: Lara Weinheimer** TD = 60 ft GW = 68 ft			**Long:** 103°8'22.039" W **State:** NM

Depth (feet)	chloride field tests (ppm)	LAB	PID	Description
				0 - 10 ft VERY FINE TO FINE SAND; SANDSTONE light brown, dry, no odor
5	1735		1.7	
10	1880		1.5	
				10 - 15 ft VERY FINE TO FINE SAND light orangey-brown, dry, no odor
15	2821	Cl- 3360	2.5	
		GRO <10.0		15 - 25 ft VERY FINE TO FINE SAND; SANDSTONE orangey-brown, slightly moist, no odor
		DRO <10.0		
20	2267		1.9	
25	1873		0.9	
				25 - 60 ft VERY FINE TO FINE SAND orangey-brown, moist, no odor
30	1616		1.5	
35	1980		2.1	

Lithology

Bore Construction: bentonite seal

Depth (feet)	chloride field tests (ppm)	LAB	PID	Description	Lithology	Bore Construction
40	1058		1.7			
45	1875		1.8			
				25 - 60 ft		
				VERY FINE TO FINE SAND		
50	2065		1.7	orangey-brown, moist, no odor		
55	1949		1.3			
60	2121	Cl- 1380	1.2			
		GRO <10.0				
		DRO <10.0				

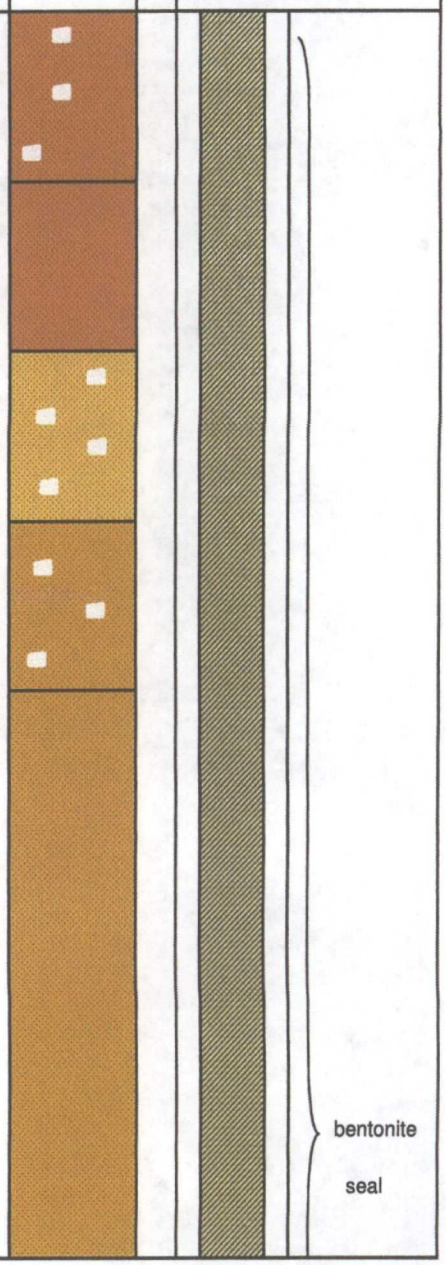
Logger:	Lara Weinheimer		RICE OPERATING COMPANY ROC SINCE 1955
Driller:	Harrison & Cooper, Inc. Drilling		
Drilling Method:	Air rotary		
Start Date:	3/19/10		**Project Name:** Justis E-26 **Well ID:** SB-6
End Date:	3/19/10		**Location:** UL/E sec. 26 T24S R37E **Lat:** 32°11'21.512"N **County:** Lea **Long:** 103°8'21.756" W **State:** NM

Comments: Split spoon sampling at 20 ft. All other were from cuttings. Located 34 ft N of the current junction box site.

Drafted by: Lara Weinheimer

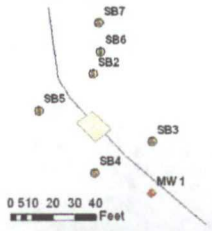
TD = 60 ft GW = 68 ft

Depth (feet)	chloride field tests (ppm)	LAB	PID	
				0 - 5 ft
				VERY FINE TO FINE SAND; SANDSTONE
5	1773		2.3	light brown, dry, no odor
				5 - 10 ft
				VERY FINE TO FINE SAND
10	2927		2.2	light brown, dry, no odor
				10 - 15 ft
				VERY FINE TO FINE SAND
15	2363		2	light orangey-brown, dry, no odor
				15 - 20 ft
				VERY FINE TO FINE SAND; SANDSTONE
20	3646		2.7	orangey-brown, slightly moist, no odor
25	3774	Cl- 2760	3.3	
		GRO <10.0		
		DRO <10.0		20 - 60 ft
30	2029		0.7	VERY FINE TO FINE SAND
				orangey-brown, moist, no odor
35	1197		1.2	



Depth (feet)	chloride field tests (ppm)	LAB	PID		Lithology	Bore Construction
40	1834		1.4			
45	2085		1.7			
				20 - 60 ft		
				VERY FINE TO FINE SAND		
50	2250		1.4	orangey-brown, moist, no odor		
55	2167		0.7			
60	1910	Cl- 2240	0.6			
		GRO <10.0				
		DRO <10.0				

Logger:	Lara Weinheimer
Driller:	Harrison & Cooper, Inc. Drilling
Drilling Method:	Air rotary
Start Date:	3/22/10
End Date:	3/22/10



RICE OPERATING COMPANY ROC SINCE 1955

Project Name: Justis E-26 **Well ID:** SB-7

Location: UL/E sec. 26 T24S R37E
Lat: 32°11'21.64"N **County:** Lea
Long: 103°8'21.763" W **State:** NM

Comments: Split spoon sampling at 15 - 30 ft. All other were from cuttings. Located 47 ft N of the current junction box site.

Drafted by: Lara Weinheimer

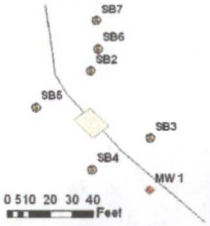
TD = 60 ft GW = 68 ft

Depth (feet)	chloride field tests (ppm)	LAB	PID	Description
				0 - 10 ft
				VERY FINE TO FINE SAND; SANDSTONE
5	254		0.1	light brown, dry, no odor
10	4304	Cl- 4720	2.1	
				10 - 15 ft
				VERY FINE TO FINE SAND; SANDSTONE
15	2270		3.4	light orangey-brown, dry, no odor
				15 - 20 ft
				VERY FINE TO FINE SAND; SANDSTONE
20	3791		1	orangey-brown, slightly moist, no odor
25	2349		0.8	
				20 - 60 ft
30	2059		0.7	VERY FINE TO FINE SAND
				orangey-brown, moist, no odor
35	2073		1.3	

Lithology

Bore Construction: bentonite seal

Depth (feet)	chloride field tests (ppm)	LAB	PID	Description	Lithology	Bore Construction
40	2067		1.2			
45	2170		1.3			
				20 - 60 ft		
				VERY FINE TO FINE SAND		
50	2229		1.6	orangey-brown, moist, no odor		
55	2389		2.1			
60	2153	Cl-2160	1.1			

Logger:	None	
Driller:	Harrison & Cooper, Inc. Drilling	
Drilling Method:	Air rotary	
Start Date:	3/22/2010	
End Date:	3/22/2010	

RICE OPERATING COMPANY
ROC
SINCE 1955

Project Name: Justis E-26 **Well ID:** MW-1

Comments: Split spoon sampling at 20 ft. All other from cuttings. Located 40 ft SE of former junction box site.

DRAFTED BY LARA WEINHEIMER

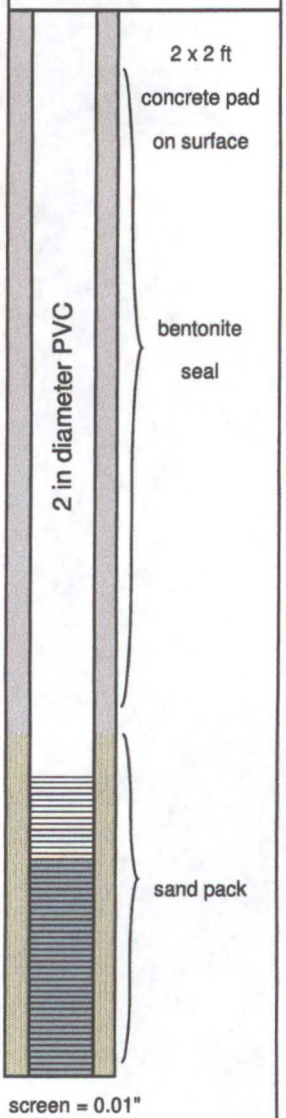
TD = 76 ft GW = 68 ft

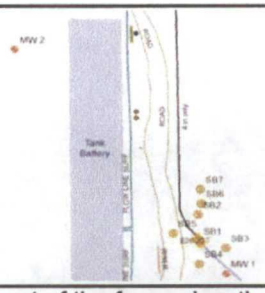
Location: UL/E sec. 26 T24S R37E
Lat: N32°11'20.856" County: LEA
Long: W103°8'21.517" State: NM

Depth (feet)	chloride field tests (ppm)	LAB	PID	Description
5	135	Cl-32	0	0 - 15 ft VERY FINE TO FINE SAND; SANDSTONE light brown, dry, no odor
10	168		0	
15	180		0.1	15 - 20 ft VERY FINE TO FINE SAND; SANDSTONE orangey-brown, dry, no odor
20	185	Cl-16	0	
30				NO SAMPLES TAKEN
40				
50				
60				
70				
80				

Lithology

Well Construction



Logger:	Kyle Norman		RICE ENVIRONMENTAL CONSULTING & SAFETY, LLC — RECS
Driller:	Harrison & Cooper, Inc.		**Project Name:** Justis E-26 — **Well ID:** MW-2
Drilling Method:	Air rotary		
Start Date:	10/24/2011		
End Date:	10/24/2011		

Comments: MW-2 is located 240 ft northwest of the former junction box site. All samples were from cuttings.

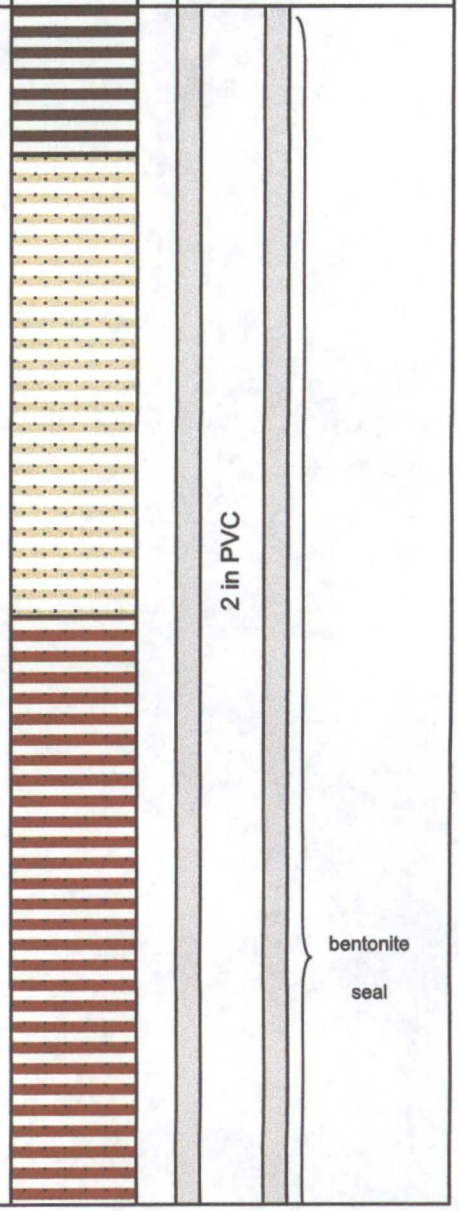
DRAFTED BY: L. Weinheimer

TD = 83 ft GW = 68 ft

Location: UL/E sec. 26 T24S R37E

Lat: 32°11'22.962"N **Long:** 103°8'23.611"W **County:** Lea **State:** NM

Depth (feet)	Chloride field tests	LAB	PID	Description
				Brown Sand
SS	114		0	
				Tan Sand With Some Caliche
5 ft	122		0	
10 ft	325	Cl- 400	0.3	
		GRO <10		
		DRO 17.6		
15 ft	208		0.5	
				Red Fine Sand
20 ft	219		0.6	
25 ft	174		1.6	
30 ft	150		0.6	
35 ft	147		0	



Depth (feet)	Chloride field tests	LAB	PID	Description	Lithology	Well Construction
				Red Fine Sand		
40 ft	113		0.2			
45 ft	120		0.2			
50 ft	143		0.1			
55 ft	113		0.1			
60 ft	146		0.3			
65 ft	117	CI- 32	0.2			
		GRO <10		NO SAMPLES TAKEN		
		DRO <10				
70 ft						
75 ft						
80 ft						
85 ft						
83 ft						

sand pack

CARDINAL LABORATORIES

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

April 5, 2010

Hack Conder
Rice Operating Company
122 West Taylor
Hobbs, NM 88240

Re: Justis Jct. E-26 (Revised Report)

Enclosed are the results of analyses for sample number H19502, received by the laboratory on 03/22/10 at 9:50 am.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited though 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 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,

Celey D. Keene
Laboratory Director

This report conforms with NELAP requirements.

CARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: HACK CONDER
112 W. TAYLOR
HOBBS, NM 88240

Receiving Date: 03/22/10
Reporting Date: 04/05/10**
Project Number: NOT GIVEN
Project Name: JUSTIS JCT. E-26
Project Location: JUSTIS JCT. E-26

Sampling Date: 03/18/10 & 03/19/10
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: JH
Analyzed By: AB/HM

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/kg)	DRO (>C_{10}-C_{28}) (mg/kg)	Cl* (mg/kg)
ANALYSIS DATE		03/24/10	03/24/10	03/24/10
H19502-1	SB-2 @ 10'	<10.0	<10.0	3,760
H19502-2	SB-2 @ 65'	<10.0	<10.0	2,160
H19502-3	SB-3 @ 5'	<10.0	<10.0	144
H19502-4	SB-3 @ 30'	<10.0	<10.0	<16
H19502-5	SB-4 @ 20'	<10.0	<10.0	592
H19502-6	SB-4 @ 50'	<10.0	<10.0	160
H19502-7	SB-5 @ 15'	<10.0	<10.0	3,360
H19502-8	SB-5 @ 60'	<10.0	<10.0	1,380**
H19502-9	SB-6 @ 25'	<10.0	<10.0	2,760
H19502-10	SB-6 @ 60'	<10.0	<10.0	2,240
Quality Control		506	535	490
True Value QC		500	500	500
% Recovery		101	107	98.0
Relative Percent Difference		1.7	4.8	8.5

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl: Std. Methods 4500-Cl B
*Analyses performed on 1:4 w:v aqueous extracts.
Reported on wet weight.
**REVISED REPORT

Chemist

04/05/10
Date

H19502 TCL RICE

CARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name:	Rice Operating Company	**BILL TO**	
Project Manager:	Hack Conder	**P.O. #:**	
Address:	122 West Taylor	**Company:**	
City:	Hobbs **State:** NM **Zip:** 88240	**Attn:**	
Phone #:	393-9174 **Fax #:** 397-1471	**Address:**	
Project #:	**Project Owner:**	**City:**	
Project Name:	Justis jct. E-26	**State:** **Zip:**	
Project Location:	Justis jct. E-26	**Phone #:**	
Sampler Name:	Lara Weinheimer	**Fax #:**	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	**Sample I.D.**	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions							
H19502-1	SB-2 @ 10'		1			✓					✓		3/18/10	01:32	✓	✓									
-2	SB-2 @ 65'		1			✓					✓		3/18/10	02:22	✓	✓									
-3	SB-3 @ 5'		1			✓					✓		3/19/10	08:39	✓	✓									
4	SB-3 @ 30'		1			✓					✓		3/19/10	09:04	✓	✓									
-5	SB-4 @ 20'		1			✓					✓		3/19/10	10:11	✓	✓									
-6	SB-4 @ 50'		1			✓					✓		3/19/10	10:46	✓	✓									
-7	SB-5 @ 15'		1			✓					✓		3/19/10	12:36	✓	✓									
8	SB-5 @ 60'		1			✓					✓		3/19/10	01:18	✓	✓									
9	SB-6 @ 25'		1			✓					✓		3/19/10	02:18	✓	✓									
10	SB-6 @ 60'		1			✓					✓		3/19/10	02:38	✓	✓									

Relinquished By: L Weinheimer	**Date:** 3-19-10 **Time:** 4:40	**Received By:**	
Relinquished By:	**Date:** 3/22/10 **Time:** 9:50	**Received By:** Jodi Henson	
Delivered By: (Circle One) Sampler - UPS - Bus - (Other):	**Sample Condition** Cool: ☐ Yes ☐ No Intact: ☑ Yes ☐ No	**CHECKED BY: (Initials)** JH	

Phone Result:	☐ Yes	☑ No	**Add'l Phone #:**
Fax Result:	☐ Yes	☑ No	**Add'l Fax #:**

REMARKS:

email results

Hconder@riceswd.com; jpurvis@riceswd.com;
Lweinheimer@riceswd.com

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#26

CARDINAL LABORATORIES

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

April 7, 2010

Hack Conder
Rice Operating Company
112 West Taylor
Hobbs, NM 88240

Re: Justis Jct E-26

Enclosed are the results of analyses for sample number H19600, received by the laboratory on 04/05/10 at 4:50 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited though 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 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,

Celey D. Keene
Laboratory Director

This report conforms with NELAP requirements.

CARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: HACK CONDER
112 WEST TAYLOR
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 04/05/10
Reporting Date: 04/06/10
Project Owner: NOT GIVEN
Project Name: JUSTIS JCT. E-26
Project Location: JUSTIS JCT. E-26

Analysis Date: 04/06/10
Sampling Date: 03/22/10
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: JH
Analyzed By: HM

LAB NO.	SAMPLE ID	Cl^- (mg/kg)
H19600-1	SB-7 @ 10'	4,720
H19600-2	SB-7 @ 60'	2,160
H19600-3	MW-1 @ 5'	32
H19600-4	MW-1 @ 20'	16
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		2.0

METHOD: Standard Methods	4500-Cl B

Note: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

04/07/10
Date

H19600 Rice

CARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name: Rice Operating Company		**BILL TO**	
Project Manager: Hack Conder		**P.O. #:**	
Address: 122 West Taylor		**Company:**	
City: Hobbs	**State:** NM **Zip:** 88240	**Attn:**	
Phone #: 393-9174	**Fax #:** 397-1471	**Address:**	
Project #:	**Project Owner:**	**City:**	
Project Name: Justis jct. E-26		**State:** **Zip:**	
Project Location: Justis jct. E-26		**Phone #:**	
Sampler Name: B. Baker		**Fax #:**	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions							
H19600-1	SB-7 @ 10'		1			✓					✓		3/22/10	08:37	✓										
-2	SB-7 @ 60'		1			✓					✓		3/22/10	09:28	✓										
-3	MW-1 @ 5'		1			✓					✓		3/22/10	10:01	✓										
-4	MW-1 @ 20'		1			✓					✓		3/22/10	10:08	✓										

Relinquished By: B. Baker	**Date:** 4-5-10 **Time:** 4:50	**Received By:**	**Phone Result:** ☐ Yes ☑ No	**Add'l Phone #:**
			Fax Result: ☐ Yes ☑ No	**Add'l Fax #:**
Relinquished By:	**Date:** 4/5/10 **Time:** 4:50	**Received By:** Jodi Henson	**REMARKS:** email results Hconder@riceswd.com; jpurvis@riceswd.com; Lweinheimer@riceswd.com	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	-11°C	**Sample Condition** Cool ☑ Yes ☐ No / Intact ☑ Yes ☐ No	**CHECKED BY: (Initials)**	

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#26

CARDINAL Laboratories

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

November 01, 2011

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: JUSTIS E-26 (24/37)

Enclosed are the results of analyses for samples received by the laboratory on 10/25/11 8:06.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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 (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:	10/25/2011	Sampling Date:	10/24/2011
Reported:	11/01/2011	Sampling Type:	Soil
Project Name:	JUSTIS E-26 (24/37)	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: MW - 2 @ 10' (H102314-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**400**	16.0	10/27/2011	ND	416	104	400	3.77	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/28/2011	ND	167	83.4	200	3.24	
DRO >C10-C28	**17.6**	10.0	10/28/2011	ND	190	95.1	200	4.50	

Surrogate: 1-Chlorooctane	*85.2 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*74.3 %*	*57.6-158*

Sample ID: MW - 2 @ 65' (H102314-02)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	10/27/2011	ND	416	104	400	3.77	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/28/2011	ND	167	83.4	200	3.24	
DRO >C10-C28	<10.0	10.0	10/28/2011	ND	190	95.1	200	4.50	

Surrogate: 1-Chlorooctane	*84.5 %*	*55.5-154*
Surrogate: 1-Chlorooctadecane	*117 %*	*57.6-158*

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

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101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name: Rice	BILL TO	P.O. #:	
Project Manager: Kyle Norman		Company:	
Address:		Attn:	
City: State: NM Zip:		Address:	
Phone #: Fax #:		City:	
Project #: Project Owner:		State: Zip:	
Project Name:		Phone #:	
Project Location: Justis E-26 (24-37)		Fax #:	
Sampler Name: Kyle Norman			

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS						
H102314																										
1	MW-2 @10'	G				•					✓		10-24-11	9:30	✓	✓										
2	MW-2 @65'	G				✓					✓		10-24-11	1000	✓	✓										

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Kyle Norman	Date: 10-25-11 Time: 7:30	Received By:	Phone Result: ☐ Yes ☑ No Add'l Phone #:
Relinquished By:	Date: 10/25/11 Time: 8:00	Received By: Brad Henson	Fax Result: ☐ Yes ☑ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)	REMARKS: email results kjones@riceswd.com; knorman@rice-ecs.com; Zconder@rice-ecs.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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