# 1R - 423-08

# Annual GW Mon. REPORTS

DATE:
2000



RECEIVED OCD ZOII APR - 1 A 12: 49

CERTIFIED MAIL
RETURN RECIEPT NO. 7008 3230 0001 9310 9116

March 28, 2011

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

RE: 2010 Annual Groundwater Summary Report and Project Status Report, Rice Operating Company, Justis Saltwater Disposal System (SWD) D-1 Vent, Unit "D", Section 1, T-25-S, R-37-E, Lea County, New Mexico NMOCD #1R0423-08

Mr. Hansen:

Tetra Tech Inc. (Tetra Tech) submits the following 2010 Annual Groundwater Summary Report for the Rice Operating Company (ROC), D-1 Vent, located in the Justis Salt Water Disposal System. This report consists of the following sections:

- 1. A figure presenting the location of the monitoring wells and most recent groundwater sampling results.
- 2. A table summarizing all laboratory results and depths to groundwater at the site, including the current year (2010).
- 3. A graph depicting the concentration of chlorides, total dissolved solids (TDS), and sulfates over time.
- 4. Laboratory results for the most recent groundwater sampling event.

An Investigation & Characterization Work Plan (ICP) was submitted to the NMOCD on April 30, 2008. As part of the approved ICP, ROC was onsite to install one monitor well and three soil borings on June 15, 2009. During a site visit to the property, ROC personnel observed apparent up gradient monitor wells along an adjacent pipeline. ROC is currently in the process of determining ownership of the wells and if they may possibly be an up gradient source of impact to the onsite ROC well. Quarterly sampling will continue throughout 2011.

ROC is the service provider (agent) for the Justis Salt Water Disposal 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.

Thank you for your consideration of this annual summary information. If you have any questions, please contact me at (432) 682-4559, or Hack Conder of ROC at (575) 393-9174.

JEFFREY KINDLEY

GEOLOGY

1110

CENSED

ONAL & GEOGO

Respectfully Submitted, Tetra Tech, Inc.

Jeffrey Kindley, P.G. Senior Project Manager

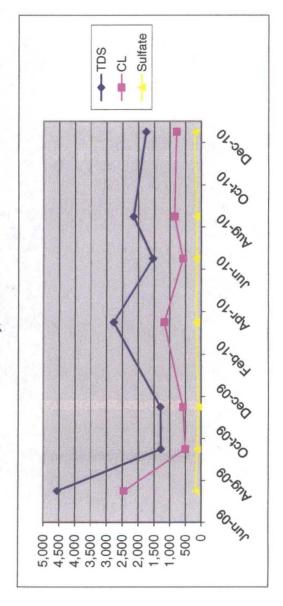
cc: ROC- Hack Conder

Enclosures: Figure, Table, Graph, Lab Results

# **TABLES**

			te Comments		Clear no odor	Clear no odor	82.4 Clear no odor					
			Sulfa	mg/L	173	124	82.4	149	151	143	200	
			Total Xylenes	mg/L	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
			Benzene   Toluene   Ethyl Benzene   Total Xylenes   Sulfate	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
			Toluene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	Rice Operating Company	Lea County, New Mexico	Benzene	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Table 1	erating	unty, New	TDS	mg/L	4,560	1,280	580 1,290	2,770	1,530	2150	1750	
	Rice Op	ea Cou	ਹ	mg/L mg/L	2,460 4,560	200	580	1,170 2,770	580	850	790	
	_	1	Sample	Date	60/60/20	60/80/60	11/17/09	03/08/10	06/02/10	08/26/10	12/01/10	1
			Volume	Purged	2	5	5	5	5	2	5	17
			Well	Volume	1.30	1.30	1.30	1.30	1.30	1.30	1.30	
			Total	Depth	99.39	99.39	99.39	99.40	99.40	99.40	99.40	
			Depth to	Water	91.41	91.43	91.42	91.38	91.39	91.44	91.48	
			M		-	-	-	-	-	-	-	-

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



## **APPENDIX A**



December 07, 2010

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: JUSTIS D-1 VENT

Enclosed are the results of analyses for samples received by the laboratory on 12/01/10 14:35.

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

Lab Director/Quality Manager

Celey D. Keine



### Analytical Results For:

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

Fax To:

(575) 397-1471

Received:

12/01/2010

Reported:

12/07/2010

Project Name:

JUSTIS D-1 VENT

Project Number:

**NOT GIVEN** 

Project Location:

T25S-R37E-SEC1 D - LEA CTY., NM

Sampling Date:

12/01/2010

Sampling Type:

Water

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

#### Sample ID: MONITOR WELL #1 (H021425-01)

BTEX 8021B	mg/	'L	Analyze	d By: cms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	12/03/2010	ND	0.049	97.8	0.0500	2.25	
Toluene*	<0.001	0.001	12/03/2010	ND	0.048	95.8	0.0500	2.95	
Ethylbenzene*	<0.001	0.001	12/03/2010	ND	0.047	94.7	0.0500	4.31	
Total Xylenes*	<0.003	0.003	12/03/2010	ND	0.140	93.5	0.150	4.64	
Surrogate: 4-Bromofluorobenzene (PIL	103 9	% 80-120							
Chloride, SM4500CI-B	mg/	'L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	790	4.00	12/07/2010	ND	104	104	100	3.77	
Sulfate 375.4	mg/	L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	ŖPD	Qualifier
Sulfate	200	10.0	12/06/2010	ND	43.2	108	40.0	0.995	
TDS 160.1	mg/	L	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TDS	1750	5.00	12/02/2010	ND				2.86	

Cardinal Laboratories

\*=Accredited Analyte

ed unless made in writing and received by Cardinal within thirty (30) days after completion of the applica including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its substitiaries, affiliates or successors arising out of or related to the perform claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories. affiliates or successors arising out of or related to the perform



#### **Notes and Definitions**

maryte mor	DETECTED	at or an	ove ule	cpoining	1111 1 111
7	Haryte NOT	Haryte NOT DETECTED.	lially to NOT DETECTED at 01 abo	lialyte NOT DETECTED at of above the i	nalyte NOT DETECTED at or above the reporting

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  $6^{\circ}$ C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

PLEASE MOTE: 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 client for enabyses. All claims, including those for negligence and any other cause whatsoever shall be deemed warved unless made in writing and received by Cardinal within thirty (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 substitutients, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above started resource or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine

Company   Comp		BLE BAR			2		ز			2	Order II	#						
RELECTION   RELE	Fax (575) 393-2476			4						:		ļ.						
Colore One   Col	erating Company	BILL TO RICE C	Company.  Sperating	Compai		Б #0					ANA	YSIS	REQU	EST				
State Co. 20   Stat	roject Manager. Hack Conder	122 W Ta	Address:	Ago, addo	à	, City, Zip) 240		_	-	· · · · · · · · · · · · · · · · · · ·		- Apec	× —					
10   10   10   10   10   10   10   10	ddress. (Street, City, Zlp)		Phone#:			Fax#:				L								
A   Training   A   A   A   A   A   A   A   A   A	122 W Taylor Street ~ Hobbs, New Mexico 88240.	_	93-9174			(575)	397-147	<u>-</u> 1		500								
Tubble Name	_	(575)397-14	, L						(980	/80ro								
The County   New When   New Whe								T	) pəpu									
MATTER   M	7E-Sec1 D	Mexico	Sampler SI	gnature	Rozanne J	ohnson (5)	75)831-931 mei con	6 6	elx3 č				SS			(60		sın
The company of the control of the			MATRIX		RESERV	ATIVE	SAMPLII	Q Q	001XT					8	. <del>К</del> )	3' HC	sp	24 HO
Minimips				(AOV		(3dGH	(				səlitslo		78 .loV	09\A180	inein	204, CC	ed Solic	~ əmiT
		# CONTAI	SOIL SOIL		DSH8N	ICE (1-1Ller I		ITSE BOZI	Nr. 814 H93	rotal Metals	V imas 9101	IOS	3CW2 Semi	)8 sabioitae <sup>c</sup>	ioO enutaioN	Anions (CI, 5 Sulfates		bnuoiA niu
Collection   Col		3				E					_	1-		,	1	×	1	
Giby:         Date:         Time:         Received by         Date:         Time:         Phone Results         Yes         No           Apson         12-1-22/10         14:35         Fax Results         Yes         No           Apson         12-1-22/10         14:35         Fax Results         Yes         No           Apson         12-1-22/10         14:35         Fax Results         Yes         No           A by         Date:         Time:         Remark         Remark         No         No<																	↓	
Chicke One)   Concision   Co																E		
d by Date: Time: Received by Date: Time: Phone Results Nes No Date: Time: Repeived By (Laboratory Staff) Date: Time: Results to: No Date: Time: Results t				3														
d.by.  Date: Time: Regived by (Laboratory Staff)  Date: Time: Phone Results Yes No  Phone Results Yes No  Date: Time: Regived by (Laboratory Staff)  Email Results to: Noonder@riv  Weinheimer  Your (Circle One)																		
diby:         Date:         Time:         Received by:         Image:         Time:         Phone Results:         Yes:         No           Aby:         Date:         Time:         Prone Results:         Yes:         No           Aby:         Date:         Time:         Repeived by:         (Laboratory Staff)         Date:         Time:         Remarks:         No           Aby:         Date:         Time:         Remarks:         Remair Results to:         hoonder@ni           y:         (Circle One)         Sample Condition:         Checked By:         (Initials)         Right Edynce (More)           y:         (Circle One)         Yes:         Edynces         Right Edynce (More)         Right Edynce (More)																		
Charle   Time:   Received by:   Carle   Carl			1		1													
Date: Time: Received by,			1							$\dashv$							-	
dby: Date: Time: Received by: Leboratory Staff) Date: Time: Phone Results Yes No described By: (Leboratory Staff) Date: Time: Rehadriks: Email Results to: Hoonder@right: Circle One) Sample Condition  Yes Pres Pres (Initials) (Initials) (Initials) (Initials) (Initials) (Initials)								+	1				1	+	1			
Application   14:35	Date	Received by:			Date	Time		Phon	e Result		, g	ž	1	1	1			
d by: Date: Time: Repeived By: (Laboratory Staff). Date: Time: Remarks: Email Results to: hconder@rivers: Email Results to: hconder@rivers: Weinheimer V: (Circle One) Sample Condition Index Cool Index (Initials) (Initial		2000	Mo	M Da	Z	2/1/1			Results	-	Yes	S N	Addi	ional Fa	X Numb			
y. (Circle Orie) Sample Condition ChECKED BY: Cool Intak Yes			Laboratory	Staff)	Date:	Time:		E C	ARKS:	erille to		inder	Orices	acc ba				
	(Circle One)	Sample Condition Co	\$ \$	ਤ <u>ਵ</u>	ECKED BY			<b>'</b>				nes@	icesiw icesiw	ce-ecs 1.com	шоэ - Го			

of 1

Page