

1R - 423-08

**Annual GW Mon.  
REPORTS**

**DATE:**

2010



**TETRA TECH**

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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

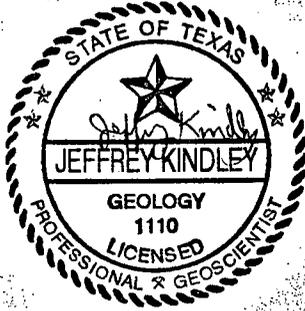
Tetra Tech  
1910 North Big Spring, Midland, TX 79705  
Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com



**TETRA TECH**

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.



Respectfully Submitted,  
Tetra Tech, Inc.

  
\_\_\_\_\_  
Jeffrey Kindley, P.G.  
Senior Project Manager

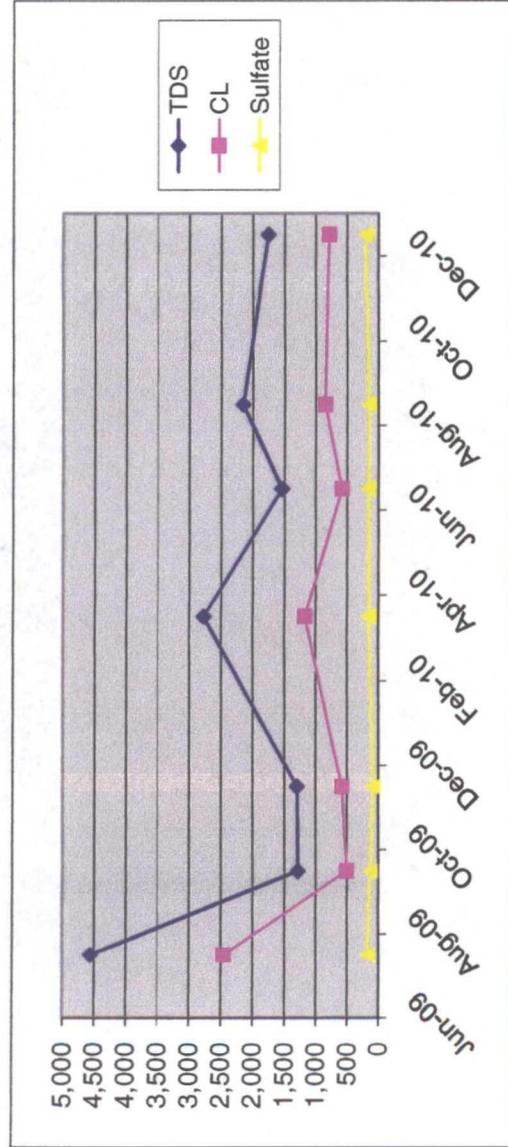
cc: ROC- Hack Conder  
Enclosures: Figure, Table, Graph, Lab Results

**TABLES**

Table 1  
 Rice Operating Company  
 Justis D-1  
 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	91.41	99.39	1.30	5	07/09/09	2,460	4,560	<0.001	<0.001	<0.001	<0.003	173	Clear no odor
1	91.43	99.39	1.30	5	09/08/09	500	1,280	<0.001	<0.001	<0.001	<0.003	124	Clear no odor
1	91.42	99.39	1.30	5	11/17/09	580	1,290	<0.001	<0.001	<0.001	<0.003	82.4	Clear no odor
1	91.38	99.40	1.30	5	03/08/10	1,170	2,770	<0.001	<0.001	<0.001	<0.003	149	Clear no odor
1	91.39	99.40	1.30	5	06/02/10	580	1,530	<0.001	<0.001	<0.001	<0.003	151	Clear no odor
1	91.44	99.40	1.30	5	08/26/10	850	2,150	<0.001	<0.001	<0.001	<0.003	143	Clear no odor
1	91.48	99.40	1.30	5	12/01/10	790	1,750	<0.001	<0.001	<0.001	<0.003	200	Clear no odor

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 Hydrocarbons

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

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 (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: 12/01/2010  
 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		Analyzed 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 % 80-120

Chloride, SM4500Cl-B		mg/L		Analyzed 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		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Sulfate	200	10.0	12/06/2010	ND	43.2	108	40.0	0.995	

TDS 160.1		mg/L		Analyzed 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

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Caley 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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Celey D. Keene, Lab Director/Quality Manager

