

AP - 64

**ANNUAL GW MONITORING
REPORT**

**DATE:
2004**

RICE Operating Company

122 West Taylor • Hobbs, New Mexico 88240
Phone: (505)393-9174 • Fax: (505) 397-1471

AP-64
Annual GW Mon. Report
2004

CERTIFIED MAIL
RETURN RECEIPT NO. 7002 2410 0000 4940 1725

February 18, 2005

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

**RE: 2004 MONITOR WELL REPORT/SAMPLING SUMMARY
F-29 SWD, HOBBS SWD SYSTEM
UNIT 'F', SEC. 29, T18S, R38E**

Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the 2004 Monitor Well Report for the F-29 Salt Water Disposal Facility located on the West County Road By-Pass in Hobbs. There are 3 monitor wells at this site that are sampled quarterly pursuant to NMOCD guidelines. These groundwater impacts became evident during the removal of redwood tanks in 1999.

MW - 2
- 3
- 4
In 2004, Basin Environmental Service Technologies (Basin) of Lovington sampled the wells. In 2005, Basin will sample the wells and Environmental Lab of Texas of Odessa, Texas will continue to analyze the water samples.

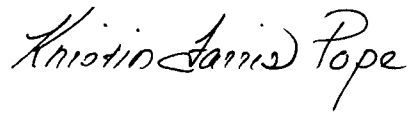
Evaluation and investigation of the groundwater at this site is ongoing. NMOCD may expect findings and conclusions to be submitted by March 31, 2005.

MW - F

400 PM

Thank you for your consideration concerning this annual summary of groundwater monitoring information. If you have any questions, do not hesitate to contact me.

RICE OPERATING COMAPANY

A handwritten signature in cursive script that reads "Kristin Farris Pope".

Kristin Farris Pope
Project Scientist

enclosures: Summary tables & graphs
 Analytical results
 Regional map
 Survey map

cc: LBG, CDH, Roy Escobedo, file, Rob Roy Industries,

Chris Williams
NMOCD, District I Office
1625 N. French Drive
Hobbs, NM 88240.

**SECTION 29, TOWNSHIP 18 SOUTH, RANGE 38 EAST, N.M.P.M.,
LEA COUNTY,**

NEW MEXICO.

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

WELL	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION
MW-2	827819.025	898021.191	N 32°43'14.0"	W 103°10'24.4"	3645.71'
MW-3	827908.772	898025.082	N 32°43'14.9"	W 103°10'24.8"	3645.78'
MW-4	827693.822	898134.408	N 32°43'12.7"	W 103°10'23.6"	3645.76'
HOBBS 1-29-1A BLACK ON WEST SIDE OF NORTH P.C. CASE	827723.789	899029.154	N 32°43'13.2"	W 103°10'13.1"	3648.89' 3645.5' - GROUND
HOBBS 1-29-1A BLACK ON NORTH SIDE OF SOUTH P.C. CASE	827723.572	899029.160	N 32°43'13.2"	W 103°10'13.1"	3648.78' 3645.5' - GROUND
HOBBS HENT 1-29 BLACK ON NORTH SIDE OF P.C. CASE	826371.385	897480.875	N 32°42'58.8"	W 103°09'56.3"	3630.63' 3647.6' - GROUND

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 DIRECTED BY THIS STATE

[Signature]
CARY L. JONES, N.M.P.S. No. 7977
TEXAS P.L.S. No. 5074

BASIN SURVEYS P.O. BOX 1285 - HOBBS, NEW MEXICO

0 200 400 FEET

RICE OPERATING COMPANY

NEW MONITOR WELLS

MONITOR WELLS LOCATED IN

SECTION 29, TOWNSHIP 18 SOUTH, RANGE 38 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO

W.O. Number: 0001 Drawn By: K. GORD

Date: 02-11-2005 Draw: KUG CD#4 - KUGBLOW

Survey Date: VARIES Sheet: 1 of 1 Sheets

N. B. MEXICO 5/23 PLANT COORDINATES (NAD83)

WELL	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION
MA-2	627819.025	098001.191	N 32°43'34.0"	W 103°30'24.8"	3645.71'
MA-3	627808.779	098025.002	N 32°43'14.9"	W 103°30'24.8"	3645.75'
MA-4	627693.022	098124.400	N 32°43'12.1"	W 103°30'23.6"	3645.70'
ACQUIS. C-29-1A BLVD ON NORTH SIDE OF SOUTH 2 ND AVE	627703.759	099029.154	N 32°43'13.2"	W 103°30'13.1"	3648.89' 3645.3'-CANG
ACQUIS. C-29-1A BLVD ON NORTH SIDE OF SOUTH 2 ND AVE	627703.579	099029.160	N 32°43'13.3"	W 103°30'13.1"	3648.78' 3645.3'-CANG
ACQUIS. HUNT, 29 BLVD ON NORTH SIDE OF 2 ND AVE	626371.385	098480.875	N 32°42'58.8"	W 103°30'36.3"	3630.63' 3647.6'-CANG

Figure 1. *Salmonella* serotype distribution in 1997.

SECTION 22, TOWNSHIP 10 NORTH, RANGE 30 EAST.

N.M.F.M., LAS CRUCES, NEW MEXICO

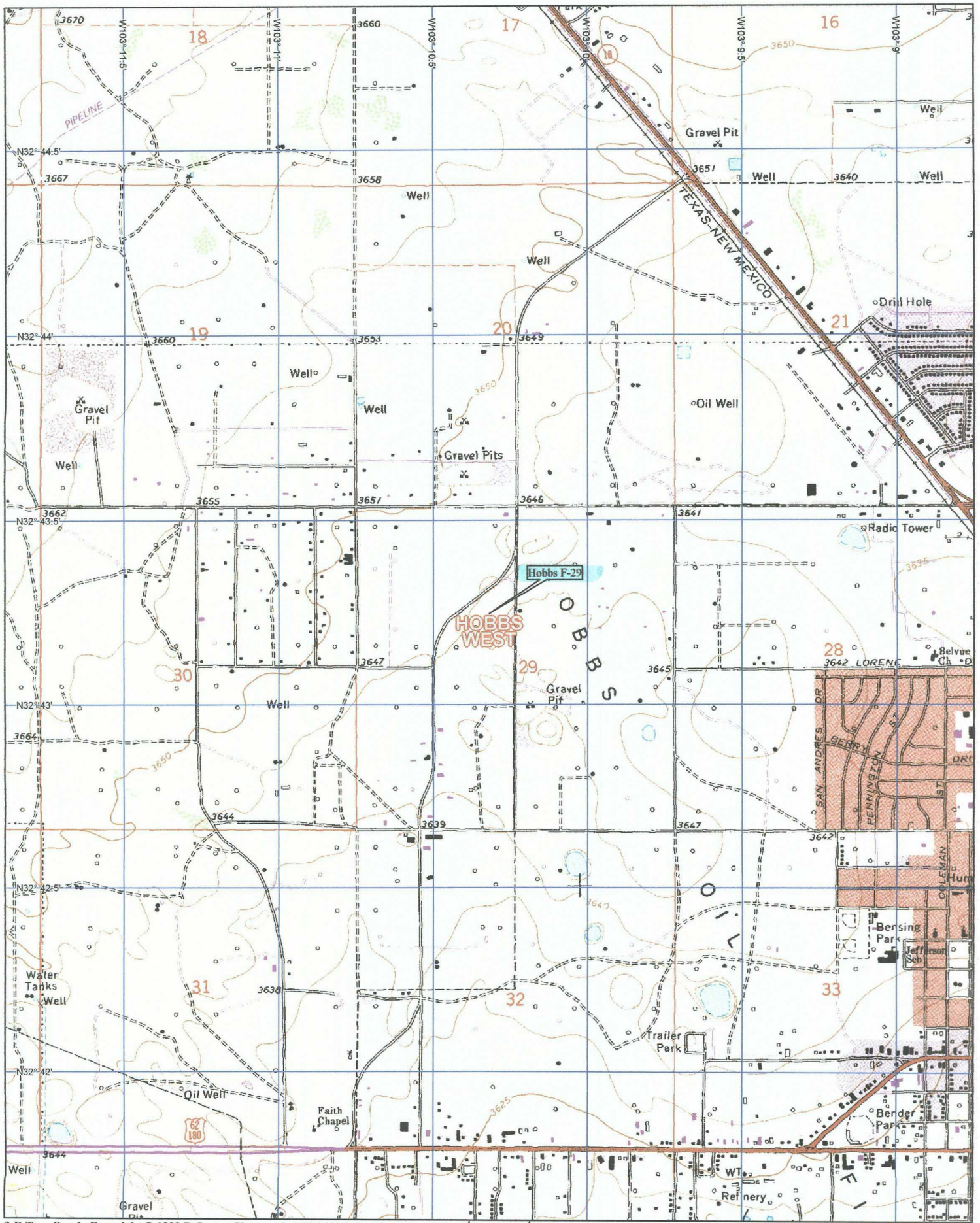
BASIN SURVEYS P.O. BOX 1285 - HOBBS, NEW MEXICO

W.D. Southern DIST	Ocean Bl. K. COAD
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Date: 02-11-2005 Doc: KJG CH04 - KJG BOMC

Survey Date: 10/05/2015

Sum of 61 = 2000



Hobbs F-29 SWD

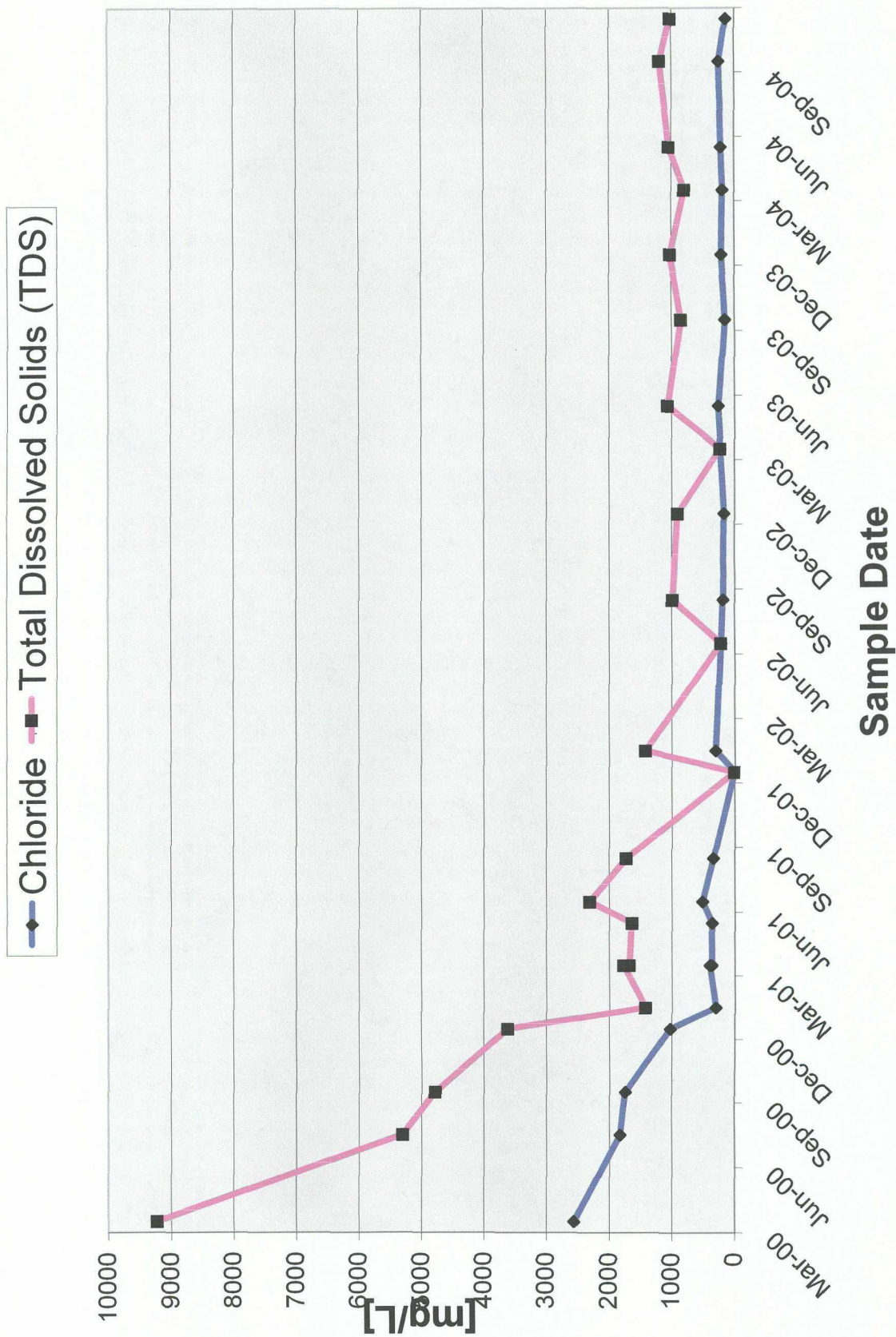
Unit 1, Sec. 29, T18S, R38E

RICE Operating Company
 Monitor Well Data Sheet

(ft) (gal) All concentrations are in mg/L

MW #	DEPTH TO WATER	TOTAL DEPTH	WELL VOLUME	VOLUME PURGED	SAMPLE DATE	Cl ⁻	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	COMMENTS
2	XXX	XXX	XXX	XXX	3/21/00	2564	6660	XXX	XXX	XXX	XXX	
2	49.00	XXX	XXX	XXX	7/10/00	1829	3470	<0.002	<0.002	<0.002	<0.006	
2	49.26	XXX	XXX	XXX	9/27/00	1748	3032	<0.002	<0.002	<0.002	<0.006	
2	49.61	XXX	XXX	XXX	12/12/00	1027	2586	<0.002	<0.002	<0.002	<0.006	
2	XXX	XXX	XXX	XXX	1/4/01	308	1114	XXX	XXX	XXX	XXX	
2	XXX	XXX	XXX	XXX	3/16/01	396	1373	XXX	XXX	XXX	XXX	
2	XXX	XXX	XXX	XXX	3/23/01	368	1312	XXX	XXX	XXX	XXX	
2	XXX	XXX	XXX	XXX	5/7/01	365	1272	XXX	XXX	XXX	XXX	
2	XXX	XXX	XXX	XXX	6/8/01	513	1796	XXX	XXX	XXX	XXX	
2	XXX	XXX	XXX	XXX	8/14/01	340	1385	XXX	XXX	XXX	XXX	
2	51.13	59.41	XXX	XXX	12/29/01	XXX	XXX	XXX	XXX	XXX	XXX	
2	51.16	59.15	XXX	XXX	1/4/02	308	1114	XXX	XXX	XXX	XXX	
2	XXX	XXX	XXX	XXX	6/6/02	221	XXX	<0.001	<0.001	<0.001	<0.001	
2	52.07	59.93	XXX	20.50	8/14/02	186	806	<0.001	<0.001	<0.001	<0.001	
2	52.58	59.82	4.71	14.12	12/11/02	172	738	<0.002	<0.002	<0.002	<0.006	
2	52.94	59.76	4.43	13.29	3/21/03	230	XXX	<0.001	<0.001	<0.001	<0.001	
2	53.15	59.74	4.28	12.85	5/28/03	257	804	<0.001	<0.001	<0.001	<0.001	
2	53.71	69.77	10.48	31.46	9/22/03	151	700	<0.001	<0.001	<0.001	<0.001	
2	54.10	59.86	3.76	11.28	12/18/03	208	815	<0.002	0.003	<0.002	0.014	
2	54.33	59.89	3.63	10.89	3/15/04	186	607	<0.001	<0.001	<0.001	<0.001	
2	XXX	XXX	XXX	XXX	5/27/04	213	830	<0.001	<0.001	<0.001	<0.001	
2	54.60	59.80	3.38	10.14	9/8/04	248	946	0.00464	0.000412	0.000979	0.001199	
2	54.20	59.80	3.640	10.90	11/23/04	139	888	0.00448	<0.001	<0.001	0.000714	

Hobbs F-29 Monitor Well #2



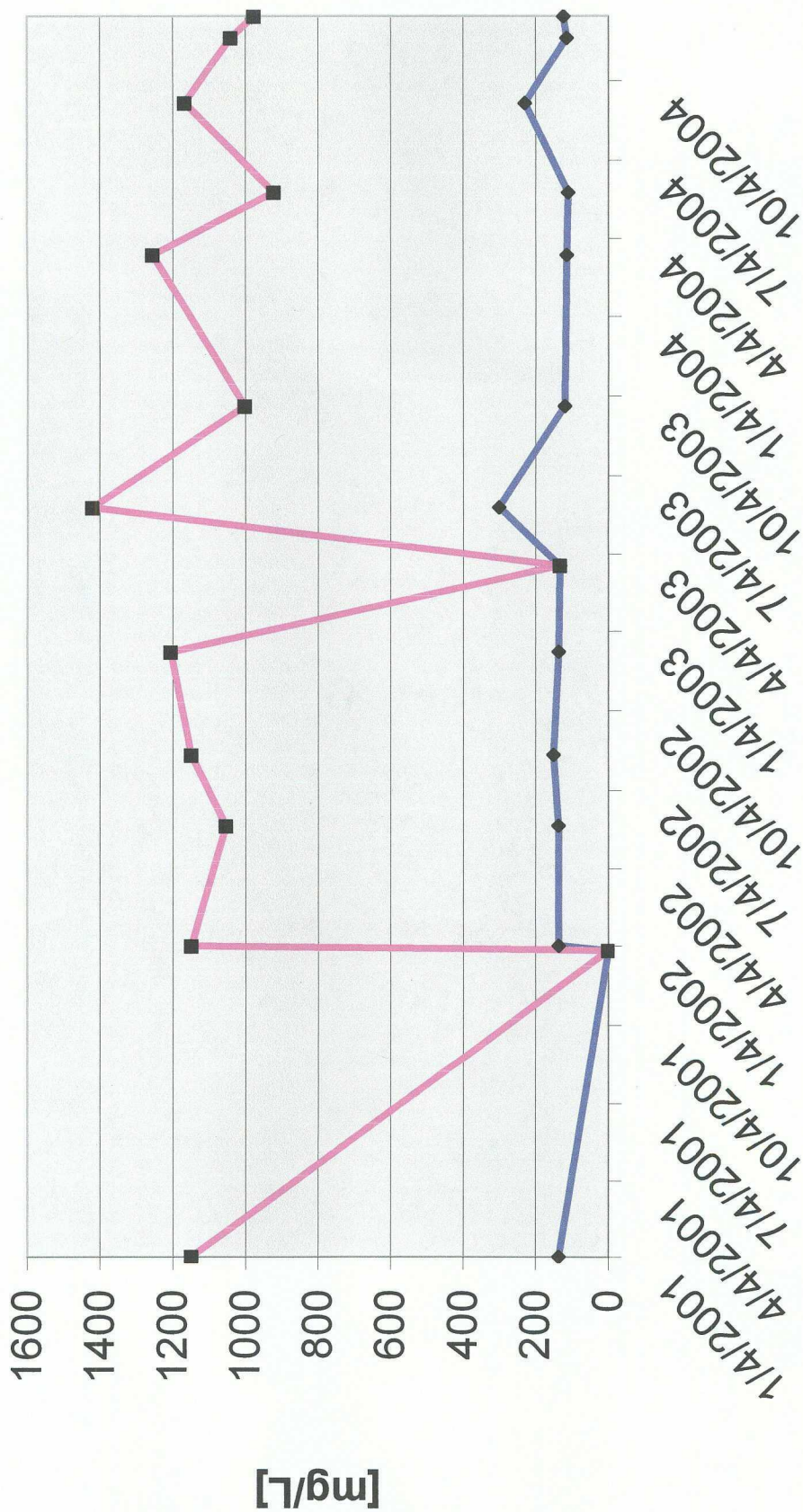
(ft) (gal)

All concentrations are in mg/L

MW #	DEPTH TO WATER	TOTAL DEPTH	WELL VOLUME	VOLUME PURGED	SAMPLE DATE	Cl ⁻	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	COMMENTS
3	XXX	XXX	XXX	XXX	01/04/01	136	1013	XXX	XXX	XXX	XXX	
3	51.20	60.95	XXX	XXX	12/29/01	XXX	XXX	XXX	XXX	XXX	XXX	
3	51.24	53.50	XXX	XXX	01/04/02	136	1013	XXX	XXX	XXX	XXX	
3	XXX	XXX	XXX	XXX	05/24/02	137	917	<0.001	<0.001	<0.001	<0.001	
3	52.12	66.33	XXX	9.00	08/14/02	151	998	<0.001	<0.001	<0.001	<0.001	
3	52.64	64.65	1.92	5.76	12/11/02	136	1069	0.005	<0.002	<0.002	<0.006	
3	52.98	64.47	1.83	5.51	03/21/03	133	XXX	<0.001	<0.001	<0.001	<0.001	
3	53.70	62.58	1.42	4.26	05/28/03	301	1120	<0.001	<0.001	<0.001	<0.001	
3	53.74	63.15	1.53	4.60	09/22/03	120	881	<0.001	<0.001	<0.001	<0.001	
3	54.59	62.43	1.27	3.83	12/18/04	124	852	<0.002	<0.002	<0.002	<0.006	
3	54.35	63.08	1.420	4.26	03/15/04	115	1140	<0.001	<0.001	<0.001	<0.001	
3	XXX	XXX	XXX	XXX	05/27/04	111	810	<0.001	<0.001	<0.001	<0.001	
3	54.60	62.70	1.30	3.89	09/08/04	230	937	<0.001	<0.001	<0.001	<0.001	
3	54.04	62.70	1.390	4.20	11/23/04	115	925	<0.001	<0.001	<0.001	<0.001	

Hobbs F-29 Monitor Well #3

◆ [Total Dissolved Solids] ■ [Chloride]



Sample Date

Hobbs F-29 SWD

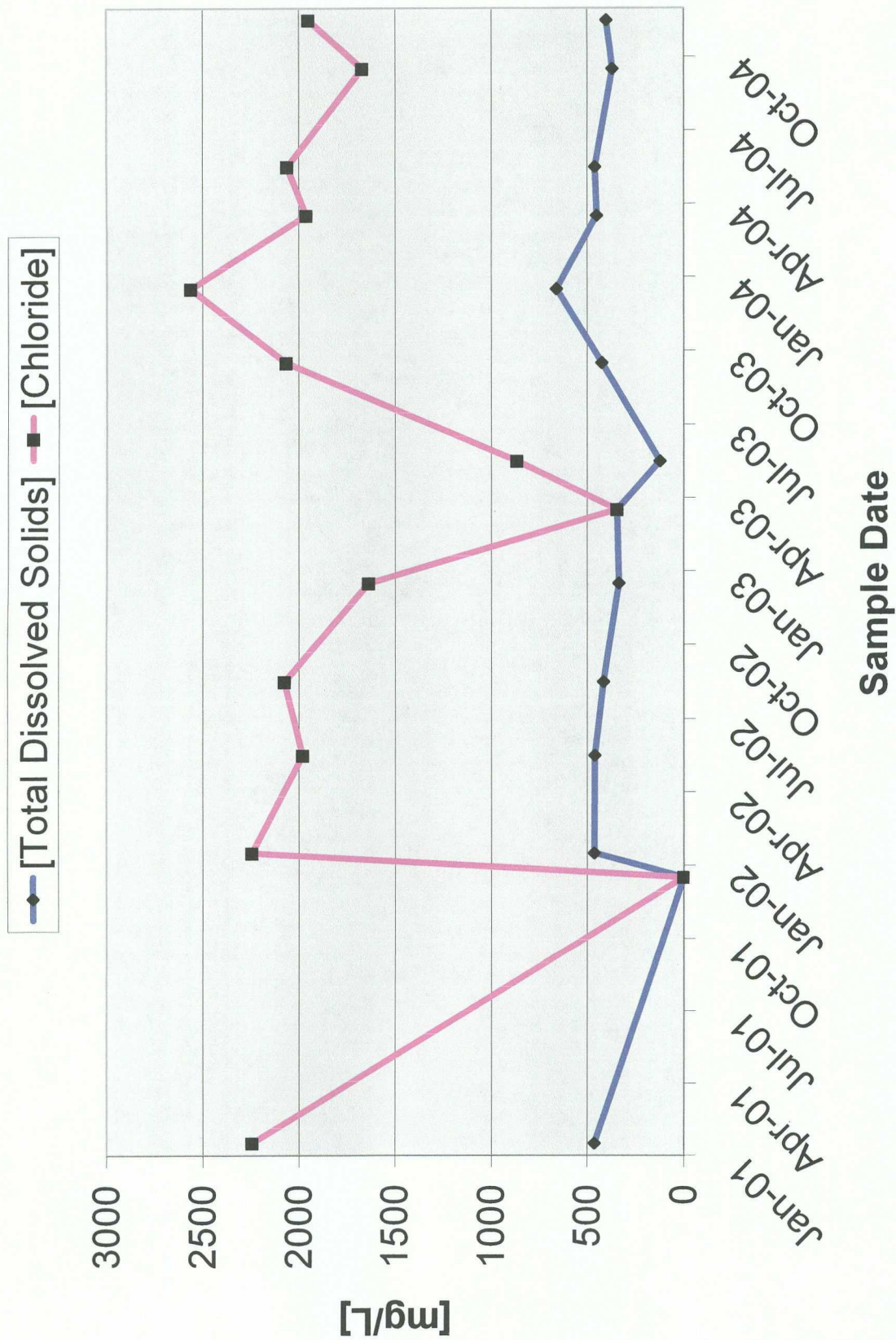
unit 'F', Sec. 29, T18S, R38E

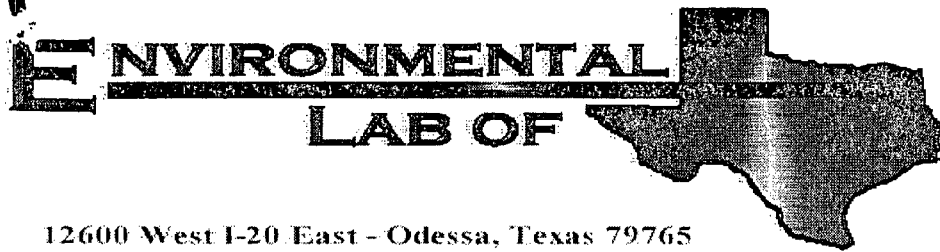
RICE Operating Company
 Monitor Well Data Sheet

(ft) (gal) All concentrations are in mg/L

MW #	DEPTH TO WATER	TOTAL DEPTH	WELL VOLUME	VOLUME PURGED	SAMPLE DATE	Cl ⁻	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	COMMENTS
4	XXX	XXX	XXX	XXX	01/04/01	464	1781	XXX	XXX	XXX	XXX	
4	51.51	57.91	XXX	XXX	12/29/01	XXX	XXX	XXX	XXX	XXX	XXX	
4	51.56	53.74	XXX	XXX	01/04/02	464	1781	XXX	XXX	XXX	XXX	
4	XXX	XXX	XXX	XXX	05/24/02	461	1520	<0.001	<0.001	<0.001	<0.001	
4	52.50	65.30	XXX	8.50	08/14/02	416	1660	<0.001	<0.001	<0.001	<0.001	
4	53.00	63.59	1.69	5.08	12/11/02	336	1302	0.003	<0.002	<0.002	<0.006	
4	53.41	63.31	1.58	4.75	03/21/03	346	XXX	<0.001	<0.001	<0.001	<0.001	
4	53.25	63.78	1.68	5.50	05/28/03	124	742	<0.001	<0.001	<0.001	<0.001	
4	54.21	62.46	1.34	4.03	09/22/03	425	1640	<0.001	<0.001	<0.001	<0.001	
4	54.12	63.11	1.46	4.39	12/18/03	660	1902	<0.002	<0.002	<0.002	<0.006	
4	54.84	62.55	1.250	3.77	03/15/04	452	1510	<0.001	<0.001	<0.001	<0.001	
4	XXX	XXX	XXX	XXX	05/27/04	461	1600	<0.001	<0.001	<0.001	<0.001	
4	54.80	62.30	1.20	3.60	09/08/04	372	1300	<0.001	<0.001	<0.001	<0.001	
4	54.40	62.30	1.260	3.80	11/23/04	401	1550	<0.001	<0.001	<0.001	<0.001	

Hobbs F-29 Monitor Well #4





12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris
Rice Operating Co.
122 W. Taylor
Hobbs, NM 88240

Project: F-29 SWD
Project Number: RI 2407
Location: Hobbs

Lab Order Number: 4C16001

Report Date: 03/24/04

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: RI 2407
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
03/24/04 11:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2	4C16001-01	Water	03/15/04 08:00	03/16/04 07:45
MW-3	4C16001-02	Water	03/15/04 09:00	03/16/04 07:45
MW-4	4C16001-03	Water	03/15/04 10:00	03/16/04 07:45

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: RI 2407
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
03/24/04 11:43

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-2 (4C16001-01)

Benzene	ND	0.00100	mg/L	1	EC42314	03/23/04	03/23/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		91.6 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		86.7 %	80-120		"	"	"	"	

MW-3 (4C16001-02)

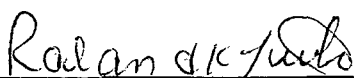
Benzene	ND	0.00100	mg/L	1	EC41907	03/18/04	03/18/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		112 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		81.5 %	80-120		"	"	"	"	

MW-4 (4C16001-03)

Benzene	ND	0.00100	mg/L	1	EC41907	03/18/04	03/18/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		104 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		85.0 %	80-120		"	"	"	"	

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.


Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: RI 2407
Project Manager: Kristin Farris

Fax: (505) 397-1471

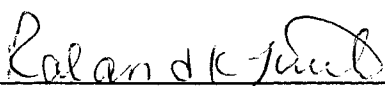
Reported:
03/24/04 11:43

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4C16001-01)									
Carbonate Alkalinity	ND	0.100	mg/L	1	EC42221	03/21/04	03/21/04	EPA 310.2M	O-04
Bicarbonate Alkalinity	181	2.00	"	"	"	"	"	"	O-04
Hydroxide Alkalinity	ND	0.100	"	"	"	"	"	"	O-04
Chloride	186	5.00	"	"	EC42209	"	"	SW 846 9253	
Total Dissolved Solids	607	5.00	"	"	EC42304	03/22/04	03/23/04	EPA 160.1	
Sulfate	103	1.25	"	2.5	EC42211	03/21/04	03/21/04	EPA 375.4	
MW-3 (4C16001-02)									
Carbonate Alkalinity	ND	0.100	mg/L	1	EC41817	03/17/04	03/17/04	EPA 310.2M	
Bicarbonate Alkalinity	196	2.00	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.100	"	"	"	"	"	"	
Chloride	115	5.00	"	"	EC41819	03/17/04	03/17/04	SW 846 9253	
Total Dissolved Solids	1140	5.00	"	"	EC41831	03/18/04	03/18/04	EPA 160.1	
Sulfate	248	2.50	"	5	EC41813	03/17/04	03/17/04	EPA 375.4	
MW-4 (4C16001-03)									
Carbonate Alkalinity	ND	0.100	mg/L	1	EC41817	03/17/04	03/17/04	EPA 310.2M	
Bicarbonate Alkalinity	211	2.00	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.100	"	"	"	"	"	"	
Chloride	452	5.00	"	"	EC41819	03/17/04	03/17/04	SW 846 9253	
Total Dissolved Solids	1510	5.00	"	"	EC41831	03/18/04	03/18/04	EPA 160.1	
Sulfate	290	2.50	"	5	EC41813	03/17/04	03/17/04	EPA 375.4	

Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: RI 2407
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
03/24/04 11:43

Total Metals by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4C16001-01)									
Calcium	113	1.00	mg/L	100	EC42310	03/23/04	03/23/04	EPA 6010B	
Magnesium	23.8	0.0100	"	10	"	"	03/23/04	"	
Potassium	4.53	0.0500	"	1	"	"	03/23/04	"	
Sodium	89.2	0.100	"	10	"	"	03/23/04	"	

MW-3 (4C16001-02)

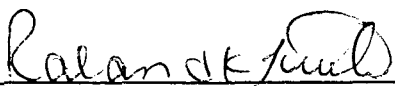
Calcium	108	1.00	mg/L	100	EC41905	03/16/04	03/19/04	EPA 6010B	
Magnesium	20.3	0.0100	"	10	"	"	03/19/04	"	
Potassium	4.26	0.0500	"	1	"	"	03/19/04	"	
Sodium	76.7	0.100	"	10	"	"	03/19/04	"	

MW-4 (4C16001-03)

Calcium	203	1.00	mg/L	100	EC41905	03/16/04	03/19/04	EPA 6010B	
Magnesium	44.7	0.0100	"	10	"	"	03/19/04	"	
Potassium	5.56	0.0500	"	1	"	"	03/19/04	"	
Sodium	132	1.00	"	100	"	"	03/19/04	"	

Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: RI 2407
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
03/24/04 11:43

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EC41907 - EPA 5030C (GC)

Blank (EC41907-BLK1)

Prepared & Analyzed: 03/18/04

Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	23.5		ug/l	20.0		118	80-120			
Surrogate: 4-Bromofluorobenzene	16.0		"	20.0		80.0	80-120			

LCS (EC41907-BS1)

Prepared & Analyzed: 03/18/04

Benzene	84.1		ug/l	100		84.1	80-120			
Toluene	86.6		"	100		86.6	80-120			
Ethylbenzene	88.7		"	100		88.7	80-120			
Xylene (p/m)	183		"	200		91.5	80-120			
Xylene (o)	94.1		"	100		94.1	80-120			
Surrogate: a,a,a-Trifluorotoluene	20.8		"	20.0		104	80-120			
Surrogate: 4-Bromofluorobenzene	21.5		"	20.0		108	80-120			

Calibration Check (EC41907-CCV1)

Prepared & Analyzed: 03/18/04

Benzene	88.0		ug/l	100		88.0	80-120			
Toluene	91.6		"	100		91.6	80-120			
Ethylbenzene	94.5		"	100		94.5	80-120			
Xylene (p/m)	197		"	200		98.5	80-120			
Xylene (o)	95.1		"	100		95.1	80-120			
Surrogate: a,a,a-Trifluorotoluene	20.3		"	20.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	20.2		"	20.0		101	80-120			

Duplicate (EC41907-DUP1)

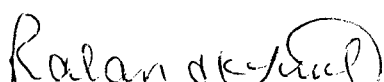
Source: 4C16003-01

Prepared & Analyzed: 03/18/04

Benzene	0.00433	0.00100	mg/L		0.00458			5.61	20	
Toluene	ND	0.00100	"		ND				20	
Ethylbenzene	0.00230	0.00100	"		0.00236			2.58	20	
Xylene (p/m)	0.00121	0.00100	"		0.00136			11.7	20	
Xylene (o)	J [0.000565]	0.00100	"		0.000569			0.705	20	J
Surrogate: a,a,a-Trifluorotoluene	31.8		ug/l	20.0		159	80-120			S-04
Surrogate: 4-Bromofluorobenzene	16.6		"	20.0		83.0	80-120			

Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: RI 2407
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
03/24/04 11:43

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EC41907 - EPA 5030C (GC)

Matrix Spike (EC41907-MS1)

Source: 4C16003-03

Prepared & Analyzed: 03/18/04

Benzene	86.6		ug/l	100	1.03	85.6	80-120			
Toluene	86.8		"	100	ND	86.8	80-120			
Ethylbenzene	85.6		"	100	ND	85.6	80-120			
Xylene (p/m)	180		"	200	ND	90.0	80-120			
Xylene (o)	90.6		"	100	ND	90.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	19.3		"	20.0		96.5	80-120			
Surrogate: 4-Bromofluorobenzene	16.2		"	20.0		81.0	80-120			

Batch EC42314 - EPA 5030C (GC)

Blank (EC42314-BLK1)

Prepared & Analyzed: 03/23/04

Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	87.1		ug/l	100		87.1	80-120			
Surrogate: 4-Bromofluorobenzene	83.8		"	100		83.8	80-120			

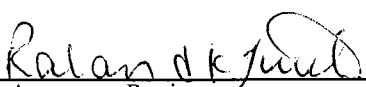
LCS (EC42314-BS1)

Prepared & Analyzed: 03/23/04

Benzene	87.2		ug/l	100		87.2	80-120			
Toluene	81.5		"	100		81.5	80-120			
Ethylbenzene	81.5		"	100		81.5	80-120			
Xylene (p/m)	164		"	200		82.0	80-120			
Xylene (o)	85.4		"	100		85.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	88.7		"	100		88.7	80-120			
Surrogate: 4-Bromofluorobenzene	86.0		"	100		86.0	80-120			

Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: RI 2407
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
03/24/04 11:43

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EC42314 - EPA 5030C (GC)

LCS Dup (EC42314-BSD1)

Prepared & Analyzed: 03/23/04

Benzene	95.9		ug/l	100		95.9	80-120	9.50	20	
Toluene	89.4		"	100		89.4	80-120	9.25	20	
Ethylbenzene	88.8		"	100		88.8	80-120	8.57	20	
Xylene (p/m)	178		"	200		89.0	80-120	8.19	20	
Xylene (o)	93.2		"	100		93.2	80-120	8.73	20	
Surrogate: a,a,a-Trifluorotoluene	95.1		"	100		95.1	80-120			
Surrogate: 4-Bromofluorobenzene	93.0		"	100		93.0	80-120			

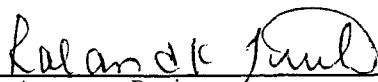
Calibration Check (EC42314-CCV1)

Prepared & Analyzed: 03/23/04

Benzene	90.9		ug/l	100		90.9	80-120			
Toluene	84.8		"	100		84.8	80-120			
Ethylbenzene	84.3		"	100		84.3	80-120			
Xylene (p/m)	169		"	200		84.5	80-120			
Xylene (o)	88.4		"	100		88.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	94.0		"	100		94.0	80-120			
Surrogate: 4-Bromofluorobenzene	92.7		"	100		92.7	80-120			

Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: RI 2407
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
03/24/04 11:43

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EC41813 - General Preparation (WetChem)

Blank (EC41813-BLK1)

Prepared & Analyzed: 03/17/04

Sulfate	ND	0.500	mg/L
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Calibration Check (EC41813-CCV1)

Prepared & Analyzed: 03/17/04

Sulfate	49.1		mg/L	50.0	98.2	80-120
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Duplicate (EC41813-DUP1)

Source: 4C16001-02

Prepared & Analyzed: 03/17/04

Sulfate	254	2.50	mg/L	248	2.39	20
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Batch EC41817 - General Preparation (WetChem)

Blank (EC41817-BLK1)

Prepared & Analyzed: 03/17/04

Carbonate Alkalinity	ND	0.100	mg/L
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Bicarbonate Alkalinity	ND	2.00	"
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Hydroxide Alkalinity	ND	0.100	"
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Duplicate (EC41817-DUP1)

Source: 4C16001-02

Prepared & Analyzed: 03/17/04

Carbonate Alkalinity	0.00	0.100	mg/L	0.00		20
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Bicarbonate Alkalinity	198	2.00	"	196	1.02	20
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Hydroxide Alkalinity	0.00	0.100	"	0.00		20
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Reference (EC41817-SRM1)

Prepared & Analyzed: 03/17/04

Carbonate Alkalinity	0.0496		mg/L	0.0500	99.2	80-120
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Batch EC41819 - General Preparation (WetChem)

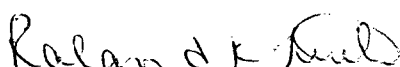
Blank (EC41819-BLK1)

Prepared & Analyzed: 03/17/04

Chloride	ND	5.00	mg/L
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Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: RI 2407
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
03/24/04 11:43

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EC41819 - General Preparation (WetChem)

Matrix Spike (EC41819-MS1) Source: 4C16001-02 Prepared & Analyzed: 03/17/04

Chloride	363		mg/L	250	115	99.2	80-120			
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Matrix Spike Dup (EC41819-MSD1) Source: 4C16001-02 Prepared & Analyzed: 03/17/04

Chloride	359		mg/L	250	115	97.6	80-120	1.11	20	
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Reference (EC41819-SRM1) Prepared & Analyzed: 03/17/04

Chloride	4960		mg/L	5000		99.2	80-120			
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Batch EC41831 - General Preparation (WetChem)

Blank (EC41831-BLK1) Prepared & Analyzed: 03/18/04

Total Dissolved Solids	ND	5.00	mg/L							
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Duplicate (EC41831-DUP1) Source: 4C16002-01 Prepared & Analyzed: 03/18/04

Total Dissolved Solids	793	5.00	mg/L		780			1.65	20	
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Batch EC42209 - General Preparation (WetChem)

Blank (EC42209-BLK1) Prepared & Analyzed: 03/21/04

Chloride	ND	5.00	mg/L							
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Matrix Spike (EC42209-MS1) Source: 4C16001-01 Prepared & Analyzed: 03/21/04

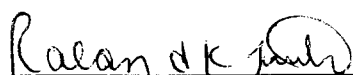
Chloride	691	5.00	mg/L	500	186	101	80-120			
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Matrix Spike Dup (EC42209-MSD1) Source: 4C16001-01 Prepared & Analyzed: 03/21/04

Chloride	682	5.00	mg/L	500	186	99.2	80-120	1.31	20	
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Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: RI 2407
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
03/24/04 11:43

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EC42209 - General Preparation (WetChem)

Reference (EC42209-SRM1)

Prepared & Analyzed: 03/21/04

Chloride	4960		mg/L	5000		99.2	80-120			
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Batch EC42211 - General Preparation (WetChem)

Blank (EC42211-BLK1)

Prepared & Analyzed: 03/21/04

Sulfate	ND	0.500	mg/L							
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Calibration Check (EC42211-CCV1)

Prepared & Analyzed: 03/21/04

Sulfate	49.0		mg/L	50.0		98.0	80-120			
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Duplicate (EC42211-DUP1)

Source: 4C16001-01

Prepared & Analyzed: 03/21/04

Sulfate	99.8	1.25	mg/L		103			3.16	20	
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Batch EC42221 - General Preparation (WetChem)

Blank (EC42221-BLK1)

Prepared & Analyzed: 03/21/04

Carbonate Alkalinity	ND	0.100	mg/L							
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Bicarbonate Alkalinity	ND	2.00	"							
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Hydroxide Alkalinity	ND	0.100	"							
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Duplicate (EC42221-DUP1)

Source: 4C16001-01

Prepared & Analyzed: 03/21/04

Carbonate Alkalinity	0.00	0.100	mg/L		0.00				20	O-04
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Bicarbonate Alkalinity	183	2.00	"		181			1.10	20	O-04
------------------------	-----	------	---	--	-----	--	--	------	----	------

Hydroxide Alkalinity	0.00	0.100	"		0.00				20	O-04
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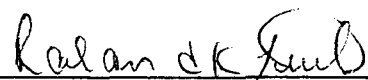
Reference (EC42221-SRM1)

Prepared & Analyzed: 03/21/04

Carbonate Alkalinity	0.0496		mg/L	0.0500		99.2	80-120			
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Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: RI 2407
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
03/24/04 11:43

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EC42304 - General Preparation (WetChem)

Blank (EC42304-BLK1)

Prepared: 03/22/04 Analyzed: 03/23/04

Total Dissolved Solids	ND	5.00	mg/L							
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Duplicate (EC42304-DUP1)

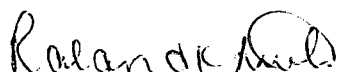
Source: 4C19010-01

Prepared: 03/22/04 Analyzed: 03/23/04

Total Dissolved Solids	1760	5.00	mg/L		1730			1.72	20	
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Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: RI 2407
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
03/24/04 11:43

Total Metals by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch EC41905 - General Preparation (Metals)

Blank (EC41905-BLK1)

Prepared: 03/16/04 Analyzed: 03/19/04

Calcium	ND	0.0100	mg/L
Magnesium	ND	0.00100	"
Potassium	ND	0.0500	"
Sodium	ND	0.0100	"

Calibration Check (EC41905-CCV1)

Prepared: 03/16/04 Analyzed: 03/19/04

Calcium	1.93		mg/L	2.00		96.5	85-115
Magnesium	1.98		"	2.00		99.0	85-115
Potassium	1.73		"	2.00		86.5	85-115
Sodium	1.78		"	2.00		89.0	85-115

Duplicate (EC41905-DUP1)

Source: 4C12015-01

Prepared: 03/16/04 Analyzed: 03/19/04

Calcium	159	1.00	mg/L	158		0.631	20
Magnesium	83.8	0.0100	"	83.6		0.239	20
Potassium	12.9	0.500	"	12.8		0.778	20
Sodium	202	1.00	"	198		2.00	20

Batch EC42310 - General Preparation (Metals)

Blank (EC42310-BLK1)

Prepared & Analyzed: 03/23/04

Calcium	ND	0.0100	mg/L
Magnesium	ND	0.00100	"
Potassium	ND	0.0500	"
Sodium	ND	0.0100	"

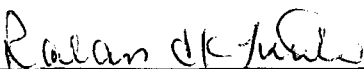
Calibration Check (EC42310-CCV1)

Prepared & Analyzed: 03/23/04

Calcium	1.91		mg/L	2.00		95.5	85-115
Magnesium	2.00		"	2.00		100	85-115
Potassium	1.73		"	2.00		86.5	85-115
Sodium	1.75		"	2.00		87.5	85-115

Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: RI 2407
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
03/24/04 11:43

Total Metals by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch EC42310 - General Preparation (Metals)

Duplicate (EC42310-DUP1)

Source: 4C19010-01

Prepared & Analyzed: 03/23/04

Calcium	158	1.00	mg/L		158			0.00	20	
Magnesium	64.5	0.0100	"		63.9			0.935	20	
Potassium	15.4	0.500	"		15.2			1.31	20	
Sodium	380	1.00	"		388			2.08	20	

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Quality Assurance Review

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122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: RI 2407
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
03/24/04 11:43

Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

O-04 This sample was analyzed outside the EPA recommended holding time.

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

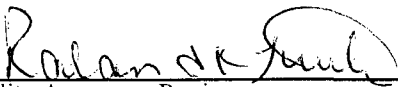
NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Environmental Lab of Texas

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Quality Assurance Review

12600 West I-20 East
Odessa, Texas 79763

Phone: 915-563-1800
Fax: 915-563-1713

Project Manager: Kristin Ferris

Company Name RICE Operating Co.

Company Address: 122 W. Taylor

City/State/Zip: Hobbs, NM 88240

Telephone No. (505) 393-9174 W 31-5075

Fax No: (505) 397-1471

Sampler Signature:

Thrinacospora corymbosa

COY
T/1A

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name: F-29 SWD

Project #: RZ2407

Project Loc: Hobbs

附

[illegible]

Environmental Lab of Texas

Variance / Corrective Action Report – Sample Log-In

Client: Rice Operating Co

Date/Time: 03-16-04 @ 0745

Order #: 4016001

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	☒ Yes	☐ No	2.0	C
Shipping container/cooler in good condition?	☒ Yes	☐ No		
Custody Seals intact on shipping container/cooler?	☒ Yes	☐ No	☒ Not present	
Custody Seals intact on sample bottles?	☒ Yes	☐ No	☒ Not present	
Chain of custody present?	☒ Yes	☐ No		
Sample Instructions complete on Chain of Custody?	☒ Yes	☐ No		
Chain of Custody signed when relinquished and received?	☒ Yes	☐ No		
Chain of custody agrees with sample label(s)	☒ Yes	☐ No		
Container labels legible and intact?	☒ Yes	☐ No		
Sample Matrix and properties same as on chain of custody?	☒ Yes	☐ No		
Samples in proper container/bottle?	☒ Yes	☐ No		
Samples properly preserved?	☒ Yes	☐ No		
Sample bottles intact?	☒ Yes	☐ No		
Preservations documented on Chain of Custody?	☒ Yes	☐ No		
Containers documented on Chain of Custody?	☒ Yes	☐ No		
Sufficient sample amount for indicated test?	☒ Yes	☐ No		
All samples received within sufficient hold time?	☒ Yes	☐ No		
VOC samples have zero headspace?	☒ Yes	☐ No	Not Applicable	

Other observations:

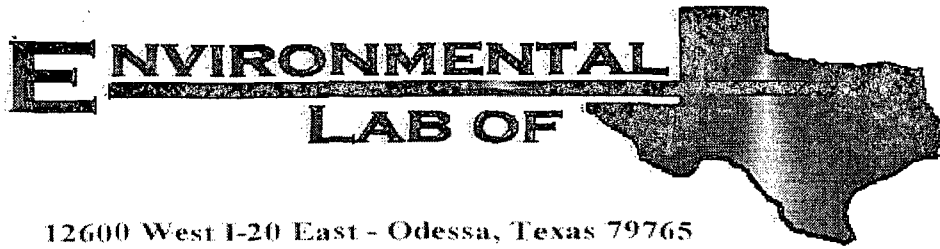
Samples for MW-2 Missing - Received Samples on 3-19-04 at 1200hrs. Upon delivery 40 mL Voas were frozen + broken. 2 40mL Voas preserved with HCl were replaced at the Lab + filled with Sample from plastic Container (from same Sample for additional Analysis) KA

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____

Regarding: _____

Corrective Action Taken: _____



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris
Rice Operating Co.
122 W. Taylor
Hobbs, NM 88240

Project: F-29 SWD
Project Number: None Given
Location: Hobbs

Lab Order Number: 4E29001

Report Date: 06/04/04

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Farris

Fax: (505) 397-1471
Reported:
06/04/04 16:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2	4E29001-01	Water	05/27/04 08:00	05/28/04 16:30
MW-3	4E29001-02	Water	05/27/04 09:00	05/28/04 16:30
MW-4	4E29001-03	Water	05/27/04 10:00	05/28/04 16:30

Ricc Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Farris

Fax: (505) 397-1471

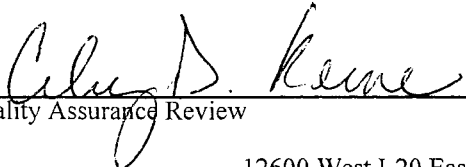
Reported:
06/04/04 16:48

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4E29001-01) Water									
Benzene	ND	0.00100	mg/L	1	EF40313	06/02/04	06/02/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		80.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		84.0 %	80-120		"	"	"	"	
MW-3 (4E29001-02) Water									
Benzene	ND	0.00100	mg/L	1	EF40313	06/02/04	06/02/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		113 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.0 %	80-120		"	"	"	"	
MW-4 (4E29001-03) Water									
Benzene	ND	0.00100	mg/L	1	EF40313	06/02/04	06/02/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		118 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	80-120		"	"	"	"	

Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Farris

Fax: (505) 397-1471

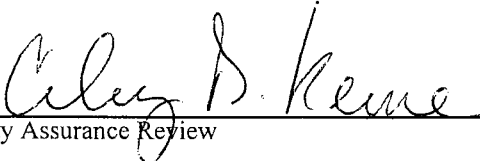
Reported:
06/04/04 16:48

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4E29001-01) Water									
Carbonate Alkalinity	ND	0.100	mg/L	1	EF40408	05/29/04	05/29/04	EPA 310.2M	
Bicarbonate Alkalinity	214	2.00	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.100	"	"	"	"	"	"	
Chloride	213	5.00	"	"	EF40407	06/03/04	06/03/04	EPA 325.3M	
Total Dissolved Solids	830	5.00	"	"	EF40310	06/01/04	06/02/04	EPA 160.1	
Sulfate	138	1.00	"	2	EF40418	06/04/04	06/04/04	EPA 375.4	
MW-3 (4E29001-02) Water									
Carbonate Alkalinity	ND	0.100	mg/L	1	EF40408	05/29/04	05/29/04	EPA 310.2M	
Bicarbonate Alkalinity	240	2.00	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.100	"	"	"	"	"	"	
Chloride	111	5.00	"	"	EF40407	06/03/04	06/03/04	EPA 325.3M	
Total Dissolved Solids	810	5.00	"	"	EF40310	06/01/04	06/02/04	EPA 160.1	
Sulfate	171	1.25	"	2.5	EF40418	06/04/04	06/04/04	EPA 375.4	
MW-4 (4E29001-03) Water									
Carbonate Alkalinity	ND	0.100	mg/L	1	EF40408	05/29/04	05/29/04	EPA 310.2M	
Bicarbonate Alkalinity	210	2.00	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.100	"	"	"	"	"	"	
Chloride	461	5.00	"	"	EF40407	06/03/04	06/03/04	EPA 325.3M	
Total Dissolved Solids	1600	5.00	"	"	EF40310	06/01/04	06/02/04	EPA 160.1	
Sulfate	174	1.25	"	2.5	EF40418	06/04/04	06/04/04	EPA 375.4	

Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
06/07/04 15:45

Total Metals by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4E29001-01) Water									
Calcium	170	1.00	mg/L	100	EF40416	06/02/04	06/02/04	EPA 6010B	
Magnesium	29.3	0.0100	"	10	"	"	"	"	
Potassium	4.82	0.0500	"	1	"	"	"	"	
Sodium	96.8	0.100	"	10	"	"	"	"	
MW-3 (4E29001-02) Water									
Calcium	150	1.00	mg/L	100	EF40416	06/02/04	06/02/04	EPA 6010B	
Magnesium	27.1	0.0100	"	10	"	"	"	"	
Potassium	4.24	0.0500	"	1	"	"	"	"	
Sodium	78.4	0.100	"	10	"	"	"	"	
MW-4 (4E29001-03) Water									
Calcium	231	1.00	mg/L	100	EF40416	06/02/04	06/02/04	EPA 6010B	
Magnesium	51.4	0.0100	"	10	"	"	"	"	
Potassium	5.82	0.0500	"	1	"	"	"	"	
Sodium	129	1.00	"	100	"	"	"	"	

Environmental Lab of Texas

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Quality Assurance Review

Page 4 of 10

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
06/04/04 16:48

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EF40313 - EPA 5030C (GC)

Blank (EF40313-BLK1)

Prepared & Analyzed: 06/02/04

Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	22.6		ug/l	20.0		113	80-120			
Surrogate: 4-Bromofluorobenzene	18.7		"	20.0		93.5	80-120			

LCS (EF40313-BS1)

Prepared & Analyzed: 06/02/04

Benzene	87.9		ug/l	100		87.9	80-120			
Toluene	94.6		"	100		94.6	80-120			
Ethylbenzene	91.2		"	100		91.2	80-120			
Xylene (p/m)	196		"	200		98.0	80-120			
Xylene (o)	94.9		"	100		94.9	80-120			
Surrogate: a,a,a-Trifluorotoluene	21.2		"	20.0		106	80-120			
Surrogate: 4-Bromofluorobenzene	22.0		"	20.0		110	80-120			

Calibration Check (EF40313-CCV1)

Prepared & Analyzed: 06/02/04

Benzene	83.3		ug/l	100		83.3	80-120			
Toluene	92.4		"	100		92.4	80-120			
Ethylbenzene	92.3		"	100		92.3	80-120			
Xylene (p/m)	196		"	200		98.0	80-120			
Xylene (o)	92.0		"	100		92.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	17.6		"	20.0		88.0	80-120			
Surrogate: 4-Bromofluorobenzene	20.7		"	20.0		104	80-120			

Matrix Spike (EF40313-MS1)

Source: 4E29001-01

Prepared & Analyzed: 06/02/04

Benzene	92.3		ug/l	100	ND	92.3	80-120			
Toluene	103		"	100	ND	103	80-120			
Ethylbenzene	99.5		"	100	ND	99.5	80-120			
Xylene (p/m)	214		"	200	ND	107	80-120			
Xylene (o)	102		"	100	ND	102	80-120			
Surrogate: a,a,a-Trifluorotoluene	22.2		"	20.0		111	80-120			
Surrogate: 4-Bromofluorobenzene	23.0		"	20.0		115	80-120			

Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
06/04/04 16:48

Organics by GC - Quality Control
Environmental Lab of Texas

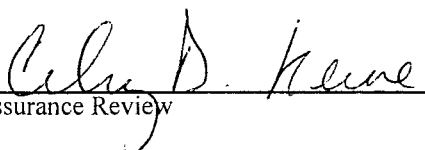
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EF40313 - EPA 5030C (GC)

Matrix Spike Dup (EF40313-MSD1)		Source: 4E29001-01		Prepared & Analyzed: 06/02/04						
Benzene	83.2		ug/l	100	ND	83.2	80-120	10.4	20	
Toluene	92.2		"	100	ND	92.2	80-120	11.1	20	
Ethylbenzene	89.4		"	100	ND	89.4	80-120	10.7	20	
Xylene (p/m)	192		"	200	ND	96.0	80-120	10.8	20	
Xylene (o)	92.6		"	100	ND	92.6	80-120	9.66	20	
Surrogate: a,a,a-Trifluorotoluene	20.5		"	20.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	22.8		"	20.0		114	80-120			

Environmental Lab of Texas

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Quality Assurance Review

Page 6 of 10

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
06/04/04 16:48

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EF40310 - Filtration Preparation

Blank (EF40310-BLK1)

Prepared: 06/01/04 Analyzed: 06/02/04

Total Dissolved Solids	ND	5.00	mg/L
------------------------	----	------	------

Duplicate (EF40310-DUP1)

Source: 4E29001-01

Prepared: 06/01/04 Analyzed: 06/02/04

Total Dissolved Solids	831	5.00	mg/L	830	0.120	20
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Batch EF40407 - General Preparation (WetChem)

Blank (EF40407-BLK1)

Prepared & Analyzed: 06/03/04

Chloride	ND	5.00	mg/L
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Matrix Spike (EF40407-MS1)

Source: 4E29001-01

Prepared & Analyzed: 06/03/04

Chloride	709	5.00	mg/L	500	213	99.2	80-120
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Matrix Spike Dup (EF40407-MSD1)

Source: 4E29001-01

Prepared & Analyzed: 06/03/04

Chloride	700	5.00	mg/L	500	213	97.4	80-120	1.28	20
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Reference (EF40407-SRM1)

Prepared & Analyzed: 06/03/04

Chloride	4960		mg/L	5000	99.2	80-120
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Batch EF40408 - General Preparation (WetChem)

Blank (EF40408-BLK1)

Prepared & Analyzed: 05/29/04

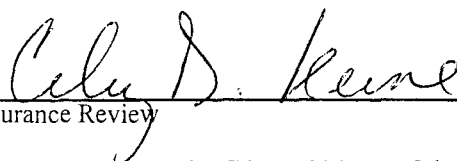
Carbonate Alkalinity	ND	0.100	mg/L
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Bicarbonate Alkalinity	ND	2.00	"
------------------------	----	------	---

Hydroxide Alkalinity	ND	0.100	"
----------------------	----	-------	---

Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
06/04/04 16:48

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch EF40408 - General Preparation (WetChem)

Duplicate (EF40408-DUP1)		Source: 4E29001-01		Prepared & Analyzed: 05/29/04						
Carbonate Alkalinity	0.00	0.100	mg/L		0.00				20	
Bicarbonate Alkalinity	214	2.00	"		214			0.00	20	
Hydroxide Alkalinity	0.00	0.100	"		0.00				20	

Reference (EF40408-SRM1)		Prepared & Analyzed: 05/29/04								
Carbonate Alkalinity	0.0496		mg/L	0.0500		99.2	80-120			

Batch EF40418 - General Preparation (WetChem)

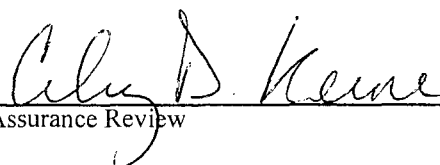
Blank (EF40418-BLK1)		Prepared & Analyzed: 06/04/04								
Sulfate	ND	0.500	mg/L							

Calibration Check (EF40418-CCV1)		Prepared & Analyzed: 06/04/04								
Sulfate	49.2		mg/L	50.0		98.4	80-120			

Duplicate (EF40418-DUP1)		Source: 4E29001-01		Prepared & Analyzed: 06/04/04						
Sulfate	140	1.00	mg/L		138			1.44	20	

Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Farris

Fax: (505) 397-1471

Reported:
06/07/04 15:45

Total Metals by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch EF40416 - General Preparation (Metals)

Blank (EF40416-BLK1)

Prepared & Analyzed: 06/02/04

Calcium	ND	0.0100	mg/L
Magnesium	ND	0.00100	"
Potassium	ND	0.0500	"
Sodium	ND	0.0100	"

Calibration Check (EF40416-CCV1)

Prepared & Analyzed: 06/02/04

Calcium	2.08		mg/L	2.00	104	85-115
Magnesium	2.29		"	2.00	114	85-115
Potassium	1.97		"	2.00	98.5	85-115
Sodium	1.93		"	2.00	96.5	85-115

Duplicate (EF40416-DUP1)

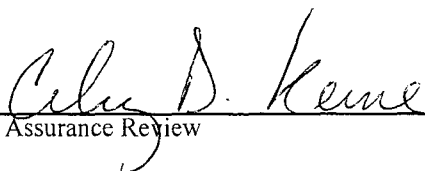
Source: 4E29001-01

Prepared & Analyzed: 06/02/04

Calcium	165	1.00	mg/L	170	2.99	20
Magnesium	29.9	0.0100	"	29.3	2.03	20
Potassium	4.76	0.0500	"	4.82	1.25	20
Sodium	96.5	0.100	"	96.8	0.310	20

Environmental Lab of Texas

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Quality Assurance Review

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Farris

Fax: (505) 397-1471

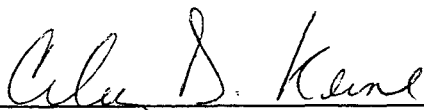
Reported:
06/04/04 16:48

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory.. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.



Quality Assurance Review

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Kristin Farris

Project Name:

F-29 SWD

Company Name

RICE Operating

Project #:

~~SECRET~~

Company Address:

33 W. Taylor

Project Loc:

30

City/State/Zip: Hobbs, NM 88240

Telephone No. (505) 393-9674

Fax No: (505) 397-1471

Sampler Signature:

10

PO #:

[illegible]

Email to enviro@lecca.net

Refiniquished by:

Date	Time
------	------

Received by.

Relinquished by:

Date	Time
11/01	

Page 10 of 10

RECEIVED BY FIELD
6/11/65

Date _____

Time _____

22.5, C

Special Instructions:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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capable of making the

Temperature Upon Receipt

Laboratory Comment:

Laboratory Comments:

100

100

WIN

100

100

Environmental Lab of Texas

Variance / Corrective Action Report – Sample Log-In

Client: Rice Operating Co.

Date/Time: 05-29-04 @ 1030

Order #: 4E29001

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	<u>(Yes)</u>	No	22.5 C
Shipping container/cooler in good condition?	<u>(Yes)</u>	No	
Custody Seals intact on shipping container/cooler?	Yes	No	<u>(Not present)</u>
Custody Seals intact on sample bottles?	Yes	No	<u>(Not present)</u>
Chain of custody present?	<u>(Yes)</u>	No	
Sample Instructions complete on Chain of Custody?	<u>(Yes)</u>	No	
Chain of Custody signed when relinquished and received?	Yes	No	missing 1 st rec. signature
Chain of custody agrees with sample label(s)	Yes	<u>(No)</u>	*
Container labels legible and intact?	<u>(Yes)</u>	No	
Sample Matrix and properties same as on chain of custody?	<u>(Yes)</u>	No	
Samples in proper container/bottle?	<u>(Yes)</u>	No	
Samples properly preserved?	Yes	No	should be 4°C ± 2°C
Sample bottles intact?	<u>(Yes)</u>	No	
Preservations documented on Chain of Custody?	<u>(Yes)</u>	No	
Containers documented on Chain of Custody?	<u>(Yes)</u>	No	
Sufficient sample amount for indicated test?	<u>(Yes)</u>	No	
All samples received within sufficient hold time?	<u>(Yes)</u>	No	
VOC samples have zero headspace?	<u>(Yes)</u>	No	Not Applicable

Other observations: * missing 2 ^{-40 ml} JMM glass w/ HCl for each sample (BTEX)

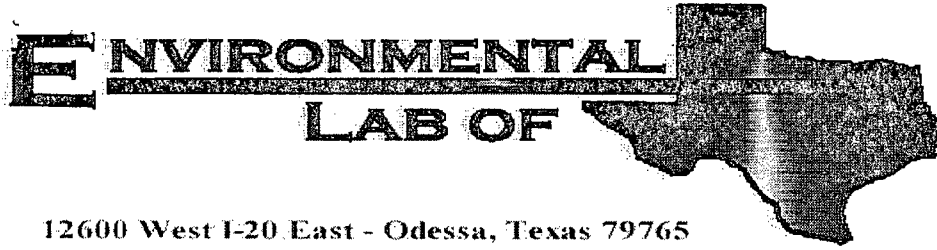
Variance Documentation:

Contact Person: - Carolyn Haynes Date/Time: 05-28-04 @ 500pm Contacted by: Jeanne McMurren

Regarding: missing containers

Corrective Action Taken:

Will bring BTEX samples on Tues 6/1/4.
BTEX samples brought 6/2/4 @ 0800 temp 0.5°C



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Pope
Rice Operating Co.
122 W. Taylor
Hobbs, NM 88240

Project: F-29 SWD
Project Number: None Given
Location: Hobbs

Lab Order Number: 4I10005

Report Date: 09/17/04

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
09/17/04 10:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2	4I10005-01	Water	09/08/04 11:30	09/09/04 19:20
MW-3	4I10005-02	Water	09/08/04 09:20	09/09/04 19:20
MW-4	4I10005-03	Water	09/08/04 10:30	09/09/04 19:20

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
09/17/04 10:52

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4I10005-01) Water									
Benzene	0.00464	0.00100	mg/L	1	EI41604	09/14/04	09/14/04	EPA 8021B	
Toluene	J [0.000412]	0.00100	"	"	"	"	"	"	J
Ethylbenzene	J [0.000979]	0.00100	"	"	"	"	"	"	J
Xylene (p/m)	J [0.000828]	0.00100	"	"	"	"	"	"	J
Xylene (o)	J [0.000371]	0.00100	"	"	"	"	"	"	J
Surrogate: a,a,a-Trifluorotoluene		116 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	80-120		"	"	"	"	
MW-3 (4I10005-02) Water									
Benzene	ND	0.00100	mg/L	1	EI41604	09/14/04	09/14/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		118 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.0 %	80-120		"	"	"	"	
MW-4 (4I10005-03) Water									
Benzene	ND	0.00100	mg/L	1	EI41604	09/14/04	09/14/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		118 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.0 %	80-120		"	"	"	"	

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
09/19/04 12:20

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4110005-01) Water									
Carbonate Alkalinity	ND	0.100	mg/L	1	EI41703	09/10/04	09/10/04	EPA 310.2M	
Bicarbonate Alkalinity	213	2.00	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.100	"	"	"	"	"	"	
Chloride	248	5.00	"	"	EI41612	09/12/04	09/12/04	EPA 325.3M	
Total Dissolved Solids	946	5.00	"	"	EI41702	09/13/04	09/13/04	EPA 160.1	
Sulfate	129	1.00	"	2	EI41701	09/10/04	09/10/04	EPA 375.4	
MW-3 (4110005-02) Water									
Carbonate Alkalinity	ND	0.100	mg/L	1	EI41703	09/10/04	09/10/04	EPA 310.2M	
Bicarbonate Alkalinity	195	2.00	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.100	"	"	"	"	"	"	
Chloride	230	5.00	"	"	EI41612	09/12/04	09/12/04	EPA 325.3M	
Total Dissolved Solids	937	5.00	"	"	EI41702	09/13/04	09/13/04	EPA 160.1	
Sulfate	186	1.25	"	2.5	EI41701	09/10/04	09/10/04	EPA 375.4	
MW-4 (4110005-03) Water									
Carbonate Alkalinity	ND	0.100	mg/L	1	EI41703	09/10/04	09/10/04	EPA 310.2M	
Bicarbonate Alkalinity	188	2.00	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	0.100	"	"	"	"	"	"	
Chloride	372	5.00	"	"	EI41612	09/12/04	09/12/04	EPA 325.3M	
Total Dissolved Solids	1300	5.00	"	"	EI41702	09/13/04	09/13/04	EPA 160.1	
Sulfate	260	2.50	"	5	EI41701	09/10/04	09/10/04	EPA 375.4	

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
09/17/04 10:52

Total Metals by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4I10005-01) Water									
Calcium	124	1.00	mg/L	100	EI41506	09/15/04	09/15/04	EPA 6010B	
Magnesium	21.6	0.0100	"	10	"	"	"	"	
Potassium	4.36	0.0500	"	1	"	"	"	"	
Sodium	109	1.00	"	100	"	"	"	"	
MW-3 (4I10005-02) Water									
Calcium	113	0.100	mg/L	10	EI41506	09/15/04	09/15/04	EPA 6010B	
Magnesium	21.9	0.0100	"	"	"	"	"	"	
Potassium	3.66	0.0500	"	1	"	"	"	"	
Sodium	67.9	0.100	"	10	"	"	"	"	
MW-4 (4I10005-03) Water									
Calcium	183	1.00	mg/L	100	EI41506	09/15/04	09/15/04	EPA 6010B	
Magnesium	38.5	0.0100	"	10	"	"	"	"	
Potassium	4.19	0.0500	"	1	"	"	"	"	
Sodium	107	1.00	"	100	"	"	"	"	

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
09/17/04 10:52

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EI41604 - EPA 5030C (GC)

Blank (EI41604-BLK1)

Prepared & Analyzed: 09/14/04

Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	20.0		ug/l	20.0		100	80-120			
Surrogate: 4-Bromofluorobenzene	17.4		"	20.0		87.0	80-120			

LCS (EI41604-BS1)

Prepared & Analyzed: 09/14/04

Benzene	95.7		ug/l	100		95.7	80-120			
Toluene	110		"	100		110	80-120			
Ethylbenzene	108		"	100		108	80-120			
Xylene (p/m)	228		"	200		114	80-120			
Xylene (o)	103		"	100		103	80-120			
Surrogate: a,a,a-Trifluorotoluene	21.5		"	20.0		108	80-120			
Surrogate: 4-Bromofluorobenzene	23.5		"	20.0		118	80-120			

LCS Dup (EI41604-BSD1)

Prepared & Analyzed: 09/14/04

Benzene	92.0		ug/l	100		92.0	80-120	3.94	20	
Toluene	104		"	100		104	80-120	5.61	20	
Ethylbenzene	103		"	100		103	80-120	4.74	20	
Xylene (p/m)	215		"	200		108	80-120	5.41	20	
Xylene (o)	99.5		"	100		99.5	80-120	3.46	20	
Surrogate: a,a,a-Trifluorotoluene	20.6		"	20.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	21.2		"	20.0		106	80-120			

Calibration Check (EI41604-CCV1)

Prepared & Analyzed: 09/14/04

Benzene	82.8		ug/l	100		82.8	80-120			
Toluene	94.0		"	100		94.0	80-120			
Ethylbenzene	91.4		"	100		91.4	80-120			
Xylene (p/m)	196		"	200		98.0	80-120			
Xylene (o)	89.9		"	100		89.9	80-120			
Surrogate: a,a,a-Trifluorotoluene	18.1		"	20.0		90.5	80-120			
Surrogate: 4-Bromofluorobenzene	17.1		"	20.0		85.5	80-120			

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
09/17/04 10:52

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EI41604 - EPA 5030C (GC)

Matrix Spike (EI41604-MS1)

Source: 4110005-02

Prepared: 09/14/04

Analyzed: 09/16/04

Benzene	81.1		ug/l	100	ND	81.1	80-120			
Toluene	83.7		"	100	ND	83.7	80-120			
Ethylbenzene	81.6		"	100	ND	81.6	80-120			
Xylene (p/m)	174		"	200	ND	87.0	80-120			
Xylene (o)	80.6		"	100	ND	80.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	17.0		"	20.0		85.0	80-120			
Surrogate: 4-Bromofluorobenzene	16.5		"	20.0		82.5	80-120			

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
09/17/04 10:52

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EI41612 - General Preparation (WetChem)

Blank (EI41612-BLK1)

Prepared & Analyzed: 09/12/04

Chloride	ND	5.00	mg/L
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Matrix Spike (EI41612-MS1)

Source: 4I09007-03

Prepared & Analyzed: 09/12/04

Chloride	1280	5.00	mg/L	500	780	100	90-110
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Matrix Spike Dup (EI41612-MSD1)

Source: 4I09007-03

Prepared & Analyzed: 09/12/04

Chloride	1280	5.00	mg/L	500	780	100	90-110	0.00	20
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Reference (EI41612-SRM1)

Prepared & Analyzed: 09/12/04

Chloride	4960		mg/L	5000		99.2	80-120
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Batch EI41701 - General Preparation (WetChem)

Blank (EI41701-BLK1)

Prepared & Analyzed: 09/10/04

Sulfate	ND	0.500	mg/L
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Calibration Check (EI41701-CCV1)

Prepared & Analyzed: 09/10/04

Sulfate	48.6		mg/L	50.0		97.2	80-120
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Duplicate (EI41701-DUP1)

Source: 4I10005-01

Prepared & Analyzed: 09/10/04

Sulfate	128	1.00	mg/L	129		0.778	20
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Batch EI41702 - Filtration Preparation

Blank (EI41702-BLK1)

Prepared & Analyzed: 09/13/04

Total Dissolved Solids	ND	5.00	mg/L
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Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
09/17/04 10:52

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EI41702 - Filtration Preparation

Duplicate (EI41702-DUP1) Source: 4I10005-02 Prepared & Analyzed: 09/13/04

Total Dissolved Solids	797	5.00	mg/L		937			16.1	20	
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Batch EI41703 - General Preparation (WetChem)

Blank (EI41703-BLK1) Prepared & Analyzed: 09/10/04

Total Alkalinity	ND	2.00	mg/L							
Carbonate Alkalinity	ND	0.100	"							
Bicarbonate Alkalinity	ND	2.00	"							
Hydroxide Alkalinity	ND	0.100	"							

Duplicate (EI41703-DUP1) Source: 4I10005-01 Prepared & Analyzed: 09/10/04

Total Alkalinity	0.00	2.00	mg/L		0.00				20	
Carbonate Alkalinity	0.00	0.100	"		0.00				20	
Bicarbonate Alkalinity	212	2.00	"		213			0.471	20	
Hydroxide Alkalinity	0.00	0.100	"		0.00				20	

Reference (EI41703-SRM1) Prepared & Analyzed: 09/10/04

Carbonate Alkalinity	0.0501	0.100	mg/L	0.0500		100	80-120			
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Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
09/17/04 10:52

Total Metals by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EI41506 - General Preparation (Metals)

Blank (EI41506-BLK1)

Prepared & Analyzed: 09/15/04

Calcium	ND	0.0100	mg/L
Magnesium	ND	0.00100	"
Potassium	ND	0.0500	"
Sodium	ND	0.0100	"

Blank (EI41506-BLK2)

Prepared & Analyzed: 09/15/04

Calcium	ND	0.0100	mg/L
Magnesium	ND	0.00100	"
Potassium	ND	0.0500	"
Sodium	ND	0.0100	"

Calibration Check (EI41506-CCV1)

Prepared & Analyzed: 09/15/04

Calcium	2.03		mg/L	2.00		102	85-115
Magnesium	2.04		"	2.00		102	85-115
Potassium	1.75		"	2.00		87.5	85-115
Sodium	1.79		"	2.00		89.5	85-115

Calibration Check (EI41506-CCV2)

Prepared & Analyzed: 09/15/04

Calcium	1.93		mg/L	2.00		96.5	85-115
Magnesium	2.02		"	2.00		101	85-115
Potassium	1.76		"	2.00		88.0	85-115
Sodium	1.77		"	2.00		88.5	85-115

Duplicate (EI41506-DUP1)

Source: 4103009-01

Prepared & Analyzed: 09/15/04

Calcium	281	1.00	mg/L	280		0.357	20
Magnesium	110	0.100	"	111		0.905	20
Potassium	8.18	0.500	"	8.31		1.58	20
Sodium	359	1.00	"	365		1.66	20

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
09/17/04 10:52

Total Metals by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EI41506 - General Preparation (Metals)

Duplicate (EI41506-DUP2)

Source: 4110015-01

Prepared & Analyzed: 09/15/04

Calcium	20.2	0.100	mg/L		20.2			0.00	20	
Magnesium	28.4	0.0100	"		28.6			0.702	20	
Potassium	16.4	0.500	"		16.6			1.21	20	
Sodium	103	0.100	"		103			0.00	20	

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
09/17/04 10:52

Notes and Definitions

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
LCS Laboratory Control Spike
MS Matrix Spike
Dup Duplicate

Report Approved By:

Raland K Tuttle

Date:

9-18-04

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Biezugbe, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas, Ltd.

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope

Project Name: F-29 SWD

Company Name RICE Operating

Project #:

Company Address: 122 W. Taylor St.

Project Loc: Hobbs

City/State/Zip: Hobbs, NM 88240

P.O. #:

Telephone No: (505) 393-9174

Fax No. (505) 397-1471

Sampler Signature:

[illegible]

Special Instructions:

Please email analysis to Kristin emiro@leaco.net

Relinquished by:

Date: _____ Time: _____

Received by:

Date	Time
------	------

Relinquished by:

11/11/20	Time
----------	------

Received by FLOT.

Date	Time
------	------

led. d/c 790

42-53-10261

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Rice Operating Co.

Date/Time: 09-10-04 @ 0900

Order #: 4110005

Initials: JMM

Sample Receipt Checklist

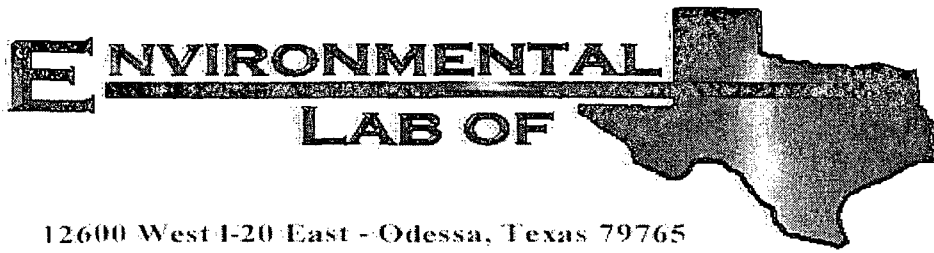
Temperature of container/cooler?	☒ Yes	No	4.0 C
Shipping container/cooler in good condition?	☒ Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	☒ Yes	No	
Sample Instructions complete on Chain of Custody?	☒ Yes	No	
Chain of Custody signed when relinquished and received?	☒ Yes	No	
Chain of custody agrees with sample label(s)	☒ Yes	No	
Container labels legible and intact?	☒ Yes	No	
Sample Matrix and properties same as on chain of custody?	☒ Yes	No	
Samples in proper container/bottle?	☒ Yes	No	
Samples properly preserved?	☒ Yes	No	
Sample bottles intact?	☒ Yes	No	
Preservations documented on Chain of Custody?	☒ Yes	No	
Containers documented on Chain of Custody?	☒ Yes	No	
Sufficient sample amount for indicated test?	☒ Yes	No	
All samples received within sufficient hold time?	☒ Yes	No	
VOC samples have zero headspace?	☒ Yes	No	Not Applicable

Other observations:

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____
Regarding: _____

Corrective Action Taken:



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Pope
Rice Operating Co.
122 W. Taylor
Hobbs, NM 88240

Project: F-29 SWD
Project Number: None Given
Location: Hobbs

Lab Order Number: 4K30005

Report Date: 12/08/04

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
12/08/04 17:21

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2	4K30005-01	Water	11/23/04 11:00	11/30/04 10:35
MW-3	4K30005-02	Water	11/23/04 12:00	11/30/04 10:35
MW-4	4K30005-03	Water	11/23/04 13:00	11/30/04 10:35

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
12/08/04 17:21

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4K30005-01) Water									
Benzene	0.00448	0.00100	mg/L	1	EL40601	12/02/04	12/02/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	J [0.000714]	0.00100	"	"	"	"	"	"	J
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		101 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		85.0 %	80-120		"	"	"	"	
MW-3 (4K30005-02) Water									
Benzene	ND	0.00100	mg/L	1	EL40601	12/02/04	12/02/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		110 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.5 %	80-120		"	"	"	"	
MW-4 (4K30005-03) Water									
Benzene	ND	0.00100	mg/L	1	EL40601	12/02/04	12/02/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		108 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.5 %	80-120		"	"	"	"	

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
12/08/04 17:21

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4K30005-01) Water									
Total Alkalinity	194	2.00	mg/L	1	EL40313	12/03/04	12/03/04	EPA 310.2M	
Total Dissolved Solids	888	5.00	"	"	EL40105	11/30/04	12/01/04	EPA 160.1	
MW-3 (4K30005-02) Water									
Total Alkalinity	216	2.00	mg/L	1	EL40313	12/03/04	12/03/04	EPA 310.2M	
Total Dissolved Solids	925	5.00	"	"	EL40105	11/30/04	12/01/04	EPA 160.1	
MW-4 (4K30005-03) Water									
Total Alkalinity	176	2.00	mg/L	1	EL40313	12/03/04	12/03/04	EPA 310.2M	
Total Dissolved Solids	1550	5.00	"	"	EL40105	11/30/04	12/01/04	EPA 160.1	

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
12/08/04 17:21

Total Metals by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4K30005-01) Water									
Calcium	120	1.00	mg/L	100	EL40101	11/30/04	11/30/04	EPA 6010B	
Magnesium	21.8	0.0100	"	10	"	"	"	"	
Potassium	4.64	0.0500	"	1	"	"	"	"	
Sodium	74.8	0.100	"	10	"	"	"	"	
MW-3 (4K30005-02) Water									
Calcium	158	1.00	mg/L	100	EL40101	11/30/04	11/30/04	EPA 6010B	
Magnesium	23.4	0.0100	"	10	"	"	"	"	
Potassium	4.61	0.0500	"	1	"	"	"	"	
Sodium	66.8	0.100	"	10	"	"	"	"	
MW-4 (4K30005-03) Water									
Calcium	215	1.00	mg/L	100	EL40101	11/30/04	11/30/04	EPA 6010B	
Magnesium	40.4	0.0100	"	10	"	"	"	"	
Potassium	3.19	0.500	"	"	"	"	"	"	
Sodium	166	1.00	"	100	"	"	"	"	

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
12/08/04 17:21

Anions by EPA Method 300.0
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (4K30005-01) Water									
Chloride	139	10.0	mg/L	20	EL40811	12/02/04	12/02/04	EPA 300.0	
Sulfate	125	10.0	"	"	EL40812	"	"	"	
MW-3 (4K30005-02) Water									
Chloride	115	10.0	mg/L	20	EL40811	12/02/04	12/02/04	EPA 300.0	
Sulfate	183	10.0	"	"	EL40812	"	"	"	
MW-4 (4K30005-03) Water									
Chloride	401	10.0	mg/L	20	EL40811	12/02/04	12/02/04	EPA 300.0	
Sulfate	217	10.0	"	"	EL40812	"	"	"	

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
12/08/04 17:21

Organics by GC - Quality Control Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL40601 - EPA 5030C (GC)

Blank (EL40601-BLK1)

Prepared & Analyzed: 12/02/04

Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	0.0223		"	0.0200		112	80-120			
Surrogate: 4-Bromofluorobenzene	0.0183		"	0.0200		91.5	80-120			

LCS (EL40601-BS1)

Prepared & Analyzed: 12/02/04

Benzene	99.2		ug/l	100		99.2	80-120			
Toluene	107		"	100		107	80-120			
Ethylbenzene	107		"	100		107	80-120			
Xylene (p/m)	219		"	200		110	80-120			
Xylene (o)	116		"	100		116	80-120			
Surrogate: a,a,a-Trifluorotoluene	0.0196		mg/L	0.0200		98.0	80-120			
Surrogate: 4-Bromofluorobenzene	0.0199		"	0.0200		99.5	80-120			

LCS Dup (EL40601-BSD1)

Prepared & Analyzed: 12/02/04

Benzene	100		ug/l	100		100	80-120	0.803	20	
Toluene	110		"	100		110	80-120	2.76	20	
Ethylbenzene	111		"	100		111	80-120	3.67	20	
Xylene (p/m)	230		"	200		115	80-120	4.44	20	
Xylene (o)	119		"	100		119	80-120	2.55	20	
Surrogate: a,a,a-Trifluorotoluene	0.0199		mg/L	0.0200		99.5	80-120			
Surrogate: 4-Bromofluorobenzene	0.0202		"	0.0200		101	80-120			

Calibration Check (EL40601-CCV1)

Prepared: 12/02/04 Analyzed: 12/03/04

Benzene	98.7		ug/l	100		98.7	80-120			
Toluene	105		"	100		105	80-120			
Ethylbenzene	109		"	100		109	80-120			
Xylene (p/m)	221		"	200		110	80-120			
Xylene (o)	111		"	100		111	80-120			
Surrogate: a,a,a-Trifluorotoluene	0.0218		mg/L	0.0200		109	80-120			
Surrogate: 4-Bromofluorobenzene	0.0227		"	0.0200		114	80-120			

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
12/08/04 17:21

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL40601 - EPA 5030C (GC)

Matrix Spike (EL40601-MS1) **Source: 4K30004-03** Prepared: 12/02/04 Analyzed: 12/03/04

Benzene	107		ug/l	100	ND	107	80-120			
Toluene	108		"	100	ND	108	80-120			
Ethylbenzene	114		"	100	ND	114	80-120			
Xylene (p/m)	229		"	200	ND	114	80-120			
Xylene (o)	111		"	100	ND	111	80-120			

Surrogate: *a,a,a*-Trifluorotoluene 0.0206 mg/L 0.0200 103 80-120

Surrogate: 4-Bromofluorobenzene 0.0201 " 0.0200 100 80-120

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
12/08/04 17:21

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL40105 - General Preparation (WetChem)

Blank (EL40105-BLK1)

Prepared: 11/30/04 Analyzed: 12/01/04

Total Dissolved Solids ND 5.00 mg/L

Duplicate (EL40105-DUP1)

Source: 4K24009-01

Prepared: 11/30/04 Analyzed: 12/01/04

Total Dissolved Solids 1480 5.00 mg/L 1480 0.00 20

Batch EL40313 - General Preparation (WetChem)

Blank (EL40313-BLK1)

Prepared & Analyzed: 12/03/04

Total Alkalinity ND 2.00 mg/L

Duplicate (EL40313-DUP1)

Source: 4K30004-01

Prepared & Analyzed: 12/03/04

Total Alkalinity 207 2.00 mg/L 208 0.482 20

Reference (EL40313-SRM1)

Prepared & Analyzed: 12/03/04

Carbonate Alkalinity 0.0501 mg/L 0.0500 100 80-120

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
12/08/04 17:21

Total Metals by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EL40101 - 6010B/No Digestion

Blank (EL40101-BLK1)

Prepared & Analyzed: 11/30/04

Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							

Calibration Check (EL40101-CCV1)

Prepared & Analyzed: 11/30/04

Calcium	1.87		mg/L	2.00		93.5	85-115			
Magnesium	2.08		"	2.00		104	85-115			
Potassium	1.83		"	2.00		91.5	85-115			
Sodium	1.78		"	2.00		89.0	85-115			

Duplicate (EL40101-DUP1)

Source: 4K24009-01

Prepared & Analyzed: 11/30/04

Calcium	108	1.00	mg/L		122			12.2	20	
Magnesium	46.0	0.0100	"		51.6			11.5	20	
Potassium	11.1	0.500	"		13.2			17.3	20	
Sodium	222	1.00	"		235			5.69	20	

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
12/08/04 17:21

Anions by EPA Method 300.0 - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL40811 - General Preparation (WetChem)										
Blank (EL40811-BLK1)				Prepared & Analyzed: 12/02/04						
Chloride	0.00	0.500	mg/L							
Blank (EL40811-BLK2)				Prepared & Analyzed: 12/02/04						
Chloride	0.00	0.500	mg/L							
LCS (EL40811-BS1)				Prepared & Analyzed: 12/02/04						
Chloride	5.73	0.500	mg/L	5.00		115	80-120			
LCS (EL40811-BS2)				Prepared & Analyzed: 12/02/04						
Chloride	5.81	0.500	mg/L	5.00		116	80-120			
LCS Dup (EL40811-BSD1)				Prepared & Analyzed: 12/02/04						
Chloride	5.42	0.500	mg/L	5.00		108	80-120	5.56	20	
LCS Dup (EL40811-BSD2)				Prepared & Analyzed: 12/02/04						
Chloride	5.51	0.500	mg/L	5.00		110	80-120	5.30	20	
Calibration Check (EL40811-CCV1)				Prepared & Analyzed: 12/02/04						
Chloride	25.8		mg/L	25.0		103	80-120			
Calibration Check (EL40811-CCV2)				Prepared & Analyzed: 12/02/04						
Chloride	26.1		mg/L	25.0		104	80-120			
Duplicate (EL40811-DUP1)		Source: 4K30004-03		Prepared & Analyzed: 12/02/04						
Chloride	55.7	10.0	mg/L		55.2			0.902	20	
Duplicate (EL40811-DUP2)		Source: 4K30006-01RE1		Prepared & Analyzed: 12/02/04						
Chloride	446	10.0	mg/L		445			0.224	20	

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
12/08/04 17:21

Anions by EPA Method 300.0 - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL40812 - General Preparation (WetChem)										
Blank (EL40812-BLK1)				Prepared & Analyzed: 12/02/04						
Sulfate	0.00	0.500	mg/L							
Blank (EL40812-BLK2)				Prepared & Analyzed: 12/02/04						
Sulfate	0.00	0.500	mg/L							
LCS (EL40812-BS1)				Prepared & Analyzed: 12/02/04						
Sulfate	5.28	0.500	mg/L	5.00		106	80-120			
LCS (EL40812-BS2)				Prepared & Analyzed: 12/02/04						
Sulfate	5.53	0.500	mg/L	5.00		111	80-120			
LCS Dup (EL40812-BSD1)				Prepared & Analyzed: 12/02/04						
Sulfate	5.22	0.500	mg/L	5.00		104	80-120	1.14	20	
LCS Dup (EL40812-BSD2)				Prepared & Analyzed: 12/02/04						
Sulfate	5.34	0.500	mg/L	5.00		107	80-120	3.50	20	
Calibration Check (EL40812-CCV1)				Prepared & Analyzed: 12/02/04						
Sulfate	10.1		mg/L	10.0		101	80-120			
Calibration Check (EL40812-CCV2)				Prepared & Analyzed: 12/02/04						
Sulfate	10.3		mg/L	10.0		103	80-120			
Duplicate (EL40812-DUP1)		Source: 4K30004-03		Prepared & Analyzed: 12/02/04						
Sulfate	101	10.0	mg/L		99.2			1.80	20	
Duplicate (EL40812-DUP2)		Source: 4K30006-01RE1		Prepared & Analyzed: 12/02/04						
Sulfate	123	10.0	mg/L		123			0.00	20	

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29 SWD
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
12/08/04 17:21

Notes and Definitions

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
LCS Laboratory Control Spike
MS Matrix Spike
Dup Duplicate

Report Approved By:

Raland K. Tuttle

Date:

12-09-04

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Fax No: (505) 397-1471

PO #:

SAMPLER SIGNATURE		FIELD CODE		Date Sampled	Time Sampled	No. of Containers	PRESERVATIVE						MATRIX				ANALYZE FOR:																	
							HNO ₃	HCl (~40ml/g ss)	NaOH	H ₂ O ₂	None LHDPE	Other (Specify)	Water	Sediment	Soil	Other (specify):	TPH: 418, 1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO ₄ , CO ₃ , HCO ₃)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Gamma	☒	X	Total Dissolved Solids	Standard TAT	RUSH TAT (Pre-Schedule		
LK30005	-01 MW-2	11-23-04	11:00	3			X	→			I		X	→				X	→	X				→										
	-02 MW-3	↓	12:00	3			X	→			I		X	→				X	→	X				→										
	-03 MW-4	↓	13:00	3			X	→			I		X	→				X	→	X				→										

Special Instructions:		Received by:		Date	Time
Please email analysis to Kristin	enviro@leaco.net	Kristin	Ray P. Dawson	11-30-04	10:30
Relinquished by:					
Relinquished by:	Jane Manning	Jane Manning		11-30-04	10:35

Sample Containers Intact? N

Temperature Upon Receipt: 0.5°C

Laboratory Comments:

Environmental Lab of Texas

Variance / Corrective Action Report – Sample Log-In

Client: Rice Operating

Date/Time: 11-30-04 @ 1045

Order #: 4K 30005

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	☒ Yes	☐ No	OS	C
Shipping container/cooler in good condition?	☒ Yes	☐ No		
Custody Seals intact on shipping container/cooler?	☐ Yes	☐ No	Not present	
Custody Seals intact on sample bottles?	☐ Yes	☐ No	Not present	
Chain of custody present?	☒ Yes	☐ No		
Sample Instructions complete on Chain of Custody?	☒ Yes	☐ No		
Chain of Custody signed when relinquished and received?	☒ Yes	☐ No		
Chain of custody agrees with sample label(s)	☒ Yes	☐ No		
Container labels legible and intact?	☒ Yes	☐ No		
Sample Matrix and properties same as on chain of custody?	☒ Yes	☐ No		
Samples in proper container/bottle?	☒ Yes	☐ No		
Samples properly preserved?	☒ Yes	☐ No		
Sample bottles intact?	☒ Yes	☐ No		
Preservations documented on Chain of Custody?	☒ Yes	☐ No		
Containers documented on Chain of Custody?	☒ Yes	☐ No		
Sufficient sample amount for indicated test?	☒ Yes	☐ No		
All samples received within sufficient hold time?	☒ Yes	☐ No		
VOC samples have zero headspace?	☒ Yes	☐ No	Not Applicable	

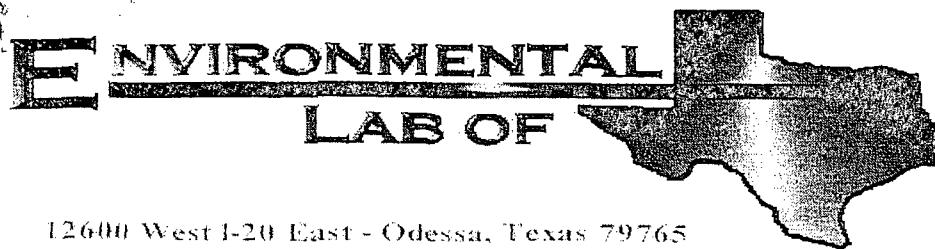
Other observations:

Variance Documentation:

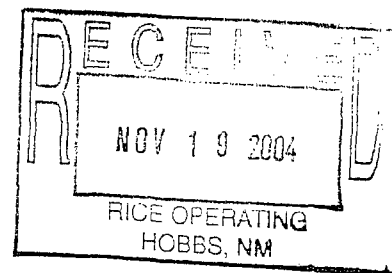
Contact Person: - _____ Date/Time: _____ Contacted by: _____

Regarding:

Corrective Action Taken:



12600 West I-20 East - Odessa, Texas 79765



Analytical Report

Prepared for:

Kristin Pope
Rice Operating Co.
122 W. Taylor
Hobbs, NM 88240

Project: F-29-1A
Project Number: None Given
Location: Hobbs

Lab Order Number: 4K10005

Report Date: 11/12/04

COPY

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

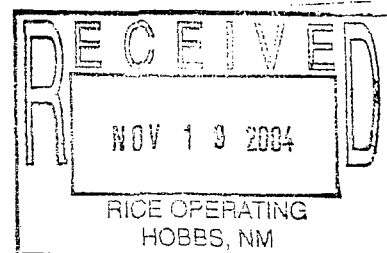
Project: F-29-1A
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
11/12/04 16:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB @ 11 ft.	4K10005-01	Solid	11/03/04 00:00	11/10/04 07:50
SB @ 59 ft.	4K10005-02	Solid	11/03/04 00:00	11/10/04 07:50



Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29-1A
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

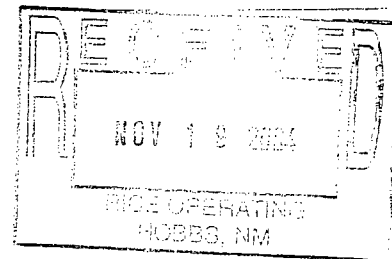
Reported:
11/12/04 16:01

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB @ 11 ft. (4K10005-01) Solid									
Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		82.2 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.9 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/11/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		93.2 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		103 %	70-130		"	"	"	"	

SB @ 59 ft. (4K10005-02) Solid

Benzene	ND	0.0250	mg/kg dry	25	EK41203	11/11/04	11/11/04	EPA 8021B	
Toluene	ND	0.0250	"	"	"	"	"	"	
Ethylbenzene	ND	0.0250	"	"	"	"	"	"	
Xylene (p/m)	ND	0.0250	"	"	"	"	"	"	
Xylene (o)	ND	0.0250	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		95.5 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	80-120		"	"	"	"	
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK40906	11/10/04	11/11/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		90.8 %	70-130		"	"	"	"	
Surrogate: 1-Chlorooctadecane		104 %	70-130		"	"	"	"	



Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

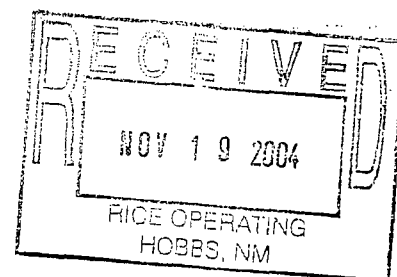
Project: F-29-1A
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
11/12/04 16:01

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB @ 11 ft. (4K10005-01) Solid									
Chloride	213	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	17.0		%	1	EK41101	11/10/04	11/11/04	% calculation	
SB @ 59 ft. (4K10005-02) Solid									
Chloride	74.4	20.0	mg/kg Wet	2	EK41209	11/10/04	11/11/04	SW 846 9253	
% Moisture	7.0		%	1	EK41101	11/10/04	11/11/04	% calculation	



Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29-1A
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
11/12/04 16:01

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EK40906 - Solvent Extraction (GC)

Blank (EK40906-BLK1)

Prepared: 11/09/04 Analyzed: 11/10/04

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	38.4		mg/kg	50.0		76.8	70-130			
Surrogate: 1-Chlorooctadecane	45.4		"	50.0		90.8	70-130			

Blank (EK40906-BLK2)

Prepared & Analyzed: 11/10/04

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	38.3		mg/kg	50.0		76.6	70-130			
Surrogate: 1-Chlorooctadecane	44.3		"	50.0		88.6	70-130			

LCS (EK40906-BS1)

Prepared: 11/09/04 Analyzed: 11/10/04

Gasoline Range Organics C6-C12	439		mg/kg	500		87.8	75-125			
Diesel Range Organics >C12-C35	523		"	500		105	75-125			
Total Hydrocarbon C6-C35	962		"	1000		96.2	75-125			
Surrogate: 1-Chlorooctane	49.1		"	50.0		98.2	70-130			
Surrogate: 1-Chlorooctadecane	47.2		"	50.0		94.4	70-130			

LCS (EK40906-BS2)

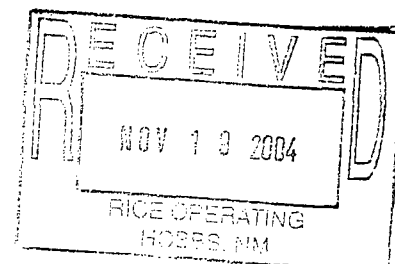
Prepared & Analyzed: 11/10/04

Gasoline Range Organics C6-C12	447	10.0	mg/kg wet	500		89.4	75-125			
Diesel Range Organics >C12-C35	530	10.0	"	500		106	75-125			
Total Hydrocarbon C6-C35	977	10.0	"	1000		97.7	75-125			
Surrogate: 1-Chlorooctane	49.8		mg/kg	50.0		99.6	70-130			
Surrogate: 1-Chlorooctadecane	49.1		"	50.0		98.2	70-130			

Calibration Check (EK40906-CCV1)

Prepared: 11/09/04 Analyzed: 11/10/04

Gasoline Range Organics C6-C12	527		mg/kg	500		105	80-120			
Diesel Range Organics >C12-C35	561		"	500		112	80-120			
Total Hydrocarbon C6-C35	1090		"	1000		109	80-120			
Surrogate: 1-Chlorooctane	57.0		"	50.0		114	70-130			
Surrogate: 1-Chlorooctadecane	57.7		"	50.0		115	70-130			



Environmental Lab of Texas

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Page 4 of 9

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29-1A
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
11/12/04 16:01

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EK40906 - Solvent Extraction (GC)

Calibration Check (EK40906-CCV2)

Prepared & Analyzed: 11/10/04

Gasoline Range Organics C6-C12	497		mg/kg	500		99.4	80-120			
Diesel Range Organics >C12-C35	559		"	500		112	80-120			
Total Hydrocarbon C6-C35	1060		"	1000		106	80-120			
Surrogate: 1-Chlorooctane	53.8		"	50.0		108	70-130			
Surrogate: 1-Chlorooctadecane	55.0		"	50.0		110	70-130			

Matrix Spike (EK40906-MS1)

Source: 4K10004-05

Prepared & Analyzed: 11/10/04

Gasoline Range Organics C6-C12	548	10.0	mg/kg dry	526	ND	104	75-125			
Diesel Range Organics >C12-C35	648	10.0	"	526	68.0	110	75-125			
Total Hydrocarbon C6-C35	1200	10.0	"	1050	68.0	108	75-125			
Surrogate: 1-Chlorooctane	63.6		mg/kg	50.0		127	70-130			
Surrogate: 1-Chlorooctadecane	62.7		"	50.0		125	70-130			

Matrix Spike (EK40906-MS2)

Source: 4K10004-15

Prepared & Analyzed: 11/10/04

Gasoline Range Organics C6-C12	572	10.0	mg/kg dry	562	ND	102	75-125			
Diesel Range Organics >C12-C35	628	10.0	"	562	ND	112	75-125			
Total Hydrocarbon C6-C35	1200	10.0	"	1120	ND	107	75-125			
Surrogate: 1-Chlorooctane	52.7		mg/kg	50.0		105	70-130			
Surrogate: 1-Chlorooctadecane	51.6		"	50.0		103	70-130			

Matrix Spike Dup (EK40906-MSD1)

Source: 4K10004-05

Prepared & Analyzed: 11/10/04

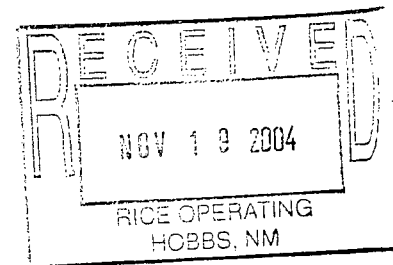
Gasoline Range Organics C6-C12	537	10.0	mg/kg dry	526	ND	102	75-125	2.03	20	
Diesel Range Organics >C12-C35	661	10.0	"	526	68.0	113	75-125	1.99	20	
Total Hydrocarbon C6-C35	1200	10.0	"	1050	68.0	108	75-125	0.00	20	
Surrogate: 1-Chlorooctane	61.2		mg/kg	50.0		122	70-130			
Surrogate: 1-Chlorooctadecane	57.1		"	50.0		114	70-130			

Matrix Spike Dup (EK40906-MSD2)

Source: 4K10004-15

Prepared & Analyzed: 11/10/04

Gasoline Range Organics C6-C12	569	10.0	mg/kg dry	562	ND	101	75-125	0.526	20	
Diesel Range Organics >C12-C35	625	10.0	"	562	ND	111	75-125	0.479	20	
Total Hydrocarbon C6-C35	1190	10.0	"	1120	ND	106	75-125	0.837	20	
Surrogate: 1-Chlorooctane	54.7		mg/kg	50.0		109	70-130			
Surrogate: 1-Chlorooctadecane	51.5		"	50.0		103	70-130			



Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29-1A
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
11/12/04 16:01

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EK41203 - EPA 5030C (GC)

Blank (EK41203-BLK1)

Prepared & Analyzed: 11/11/04

Benzene	ND	0.0250	mg/kg wet							
Toluene	ND	0.0250	"							
Ethylbenzene	ND	0.0250	"							
Xylene (p/m)	ND	0.0250	"							
Xylene (o)	ND	0.0250	"							
Surrogate: a,a,a-Trifluorotoluene	84.6		ug/kg	100		84.6	80-120			
Surrogate: 4-Bromofluorobenzene	99.5		"	100		99.5	80-120			

LCS (EK41203-BS1)

Prepared & Analyzed: 11/11/04

Benzene	91.3		ug/kg	100		91.3	80-120			
Toluene	100		"	100		100	80-120			
Ethylbenzene	107		"	100		107	80-120			
Xylene (p/m)	234		"	200		117	80-120			
Xylene (o)	113		"	100		113	80-120			
Surrogate: a,a,a-Trifluorotoluene	108		"	100		108	80-120			
Surrogate: 4-Bromofluorobenzene	119		"	100		119	80-120			

Calibration Check (EK41203-CCV1)

Prepared & Analyzed: 11/11/04

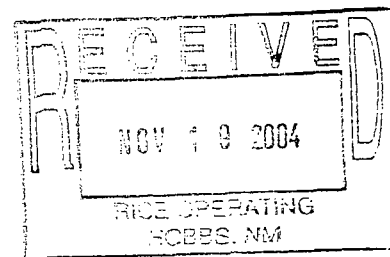
Benzene	93.9		ug/kg	100		93.9	80-120			
Toluene	104		"	100		104	80-120			
Ethylbenzene	103		"	100		103	80-120			
Xylene (p/m)	226		"	200		113	80-120			
Xylene (o)	109		"	100		109	80-120			
Surrogate: a,a,a-Trifluorotoluene	112		"	100		112	80-120			
Surrogate: 4-Bromofluorobenzene	116		"	100		116	80-120			

Matrix Spike (EK41203-MS1)

Source: 4K10007-02

Prepared & Analyzed: 11/11/04

Benzene	92.4		ug/kg	100	ND	92.4	80-120			
Toluene	105		"	100	ND	105	80-120			
Ethylbenzene	110		"	100	ND	110	80-120			
Xylene (p/m)	236		"	200	ND	118	80-120			
Xylene (o)	115		"	100	ND	115	80-120			
Surrogate: a,a,a-Trifluorotoluene	114		"	100		114	80-120			
Surrogate: 4-Bromofluorobenzene	120		"	100		120	80-120			



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Page 6 of 9

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29-1A
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
11/12/04 16:01

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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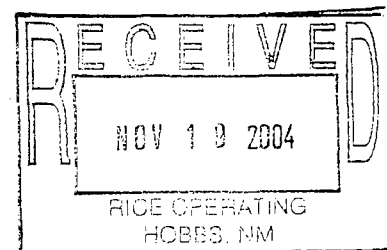
Batch EK41203 - EPA 5030C (GC)

Matrix Spike Dup (EK41203-MSD1)

Source: 4K10007-02

Prepared & Analyzed: 11/11/04

Benzene	93.3		ug/kg	100	ND	93.3	80-120	0.969	20	
Toluene	105		"	100	ND	105	80-120	0.00	20	
Ethylbenzene	110		"	100	ND	110	80-120	0.00	20	
Xylene (p/m)	239		"	200	ND	120	80-120	1.68	20	
Xylene (o)	117		"	100	ND	117	80-120	1.72	20	
Surrogate: <i>a,a,a</i> -Trifluorotoluene	97.5		"	100		97.5	80-120			
Surrogate: <i>4</i> -Bromofluorobenzene	117		"	100		117	80-120			



Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: F-29-1A
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
11/12/04 16:01

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EK41101 - General Preparation (Prep)

Blank (EK41101-BLK1) Prepared: 11/10/04 Analyzed: 11/11/04

% Moisture 0.0 %

Duplicate (EK41101-DUP1) Source: 4K10004-01 Prepared: 11/10/04 Analyzed: 11/11/04

% Moisture 7.0 % 7.0 0.00 20

Batch EK41209 - Water Extraction

Blank (EK41209-BLK1) Prepared: 11/10/04 Analyzed: 11/11/04

Chloride ND 20.0 mg/kg Wet

Matrix Spike (EK41209-MS1) Source: 4K10004-17 Prepared: 11/10/04 Analyzed: 11/11/04

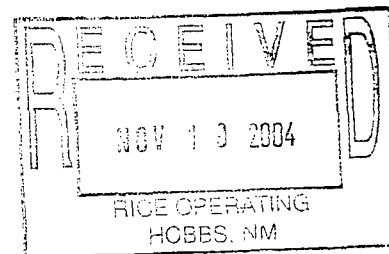
Chloride 808 20.0 mg/kg Wet 500 319 97.8 80-120

Matrix Spike Dup (EK41209-MSD1) Source: 4K10004-17 Prepared: 11/10/04 Analyzed: 11/11/04

Chloride 819 20.0 mg/kg Wet 500 319 100 80-120 1.35 20

Reference (EK41209-SRM1) Prepared & Analyzed: 11/11/04

Chloride 5000 mg/kg 5000 100 80-120



Rice Operating Co.
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Hobbs NM, 88240

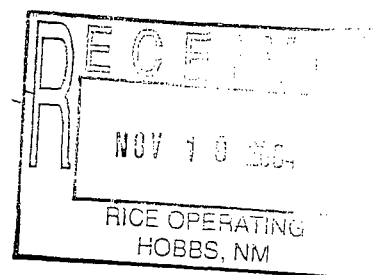
Project: F-29-1A
Project Number: None Given
Project Manager: Kristin Pope

Fax: (505) 397-1471

Reported:
11/12/04 16:01

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
LCS Laboratory Control Spike
MS Matrix Spike
Dup Duplicate



Report Approved By: Roland K. Tuttle Date: 11-16-04

Roland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

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If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

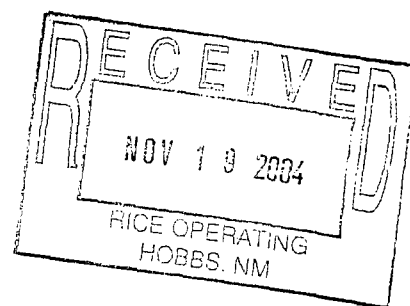
Variance / Corrective Action Report – Sample Log-In

Client: Rice Operating Co.

Date/Time: 11-10-04 @ 1000

Order #: 4K 10005

Initials: JMM



Sample Receipt Checklist

Temperature of container/cooler?	☒ Yes	No	2.5	C
Shipping container/cooler in good condition?	☒ Yes	No		
Custody Seals intact on shipping container/cooler?	☒ Yes	No	Not present	
Custody Seals intact on sample bottles?	☒ Yes	No	Not present	
Chain of custody present?	☒ Yes	No		
Sample Instructions complete on Chain of Custody?	☒ Yes	No		
Chain of Custody signed when relinquished and received?	☒ Yes	No		
Chain of custody agrees with sample label(s)	☒ Yes	No		
Container labels legible and intact?	☒ Yes	No		
Sample Matrix and properties same as on chain of custody?	☒ Yes	No		
Samples in proper container/bottle?	☒ Yes	No		
Samples properly preserved?	☒ Yes	No		
Sample bottles intact?	☒ Yes	No		
Preservations documented on Chain of Custody?	☒ Yes	No		
Containers documented on Chain of Custody?	☒ Yes	No		
Sufficient sample amount for indicated test?	☒ Yes	No		
All samples received within sufficient hold time?	☒ Yes	No		
VOC samples have zero headspace?	☒ Yes	No	Not Applicable	

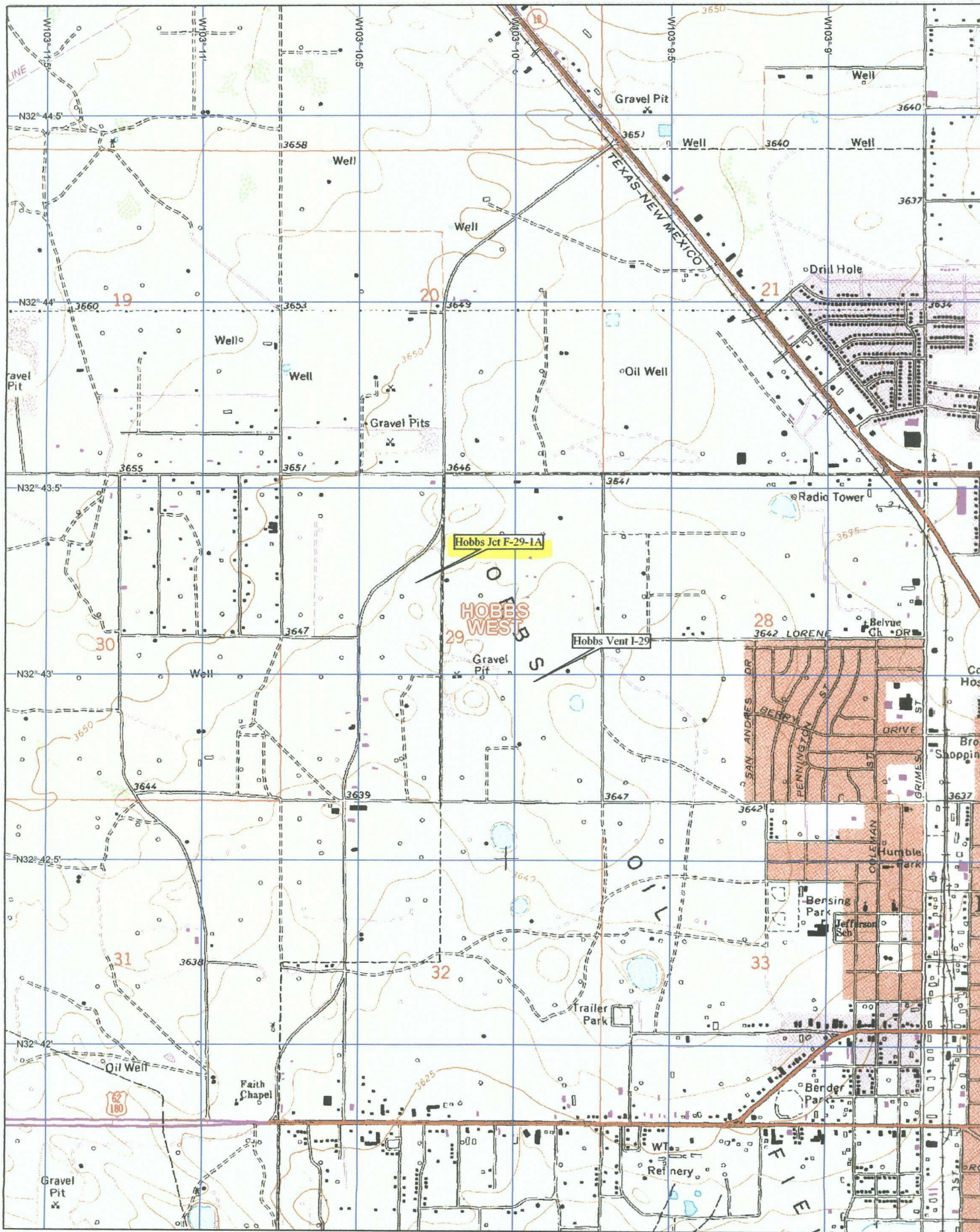
JMM
11-10-04

Other observations:

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____
Regarding: _____

Corrective Action Taken:



Logger:	David Hamilton	Client:	Well ID: SWD B-2-1 (99 feet) SWD B-2-2 (72 feet)
Driller:	Eades Drilling	Rice Operating Company	
Drilling Method:	Air Rotary	Project Name:	
Start Date:	11/3/2004	Hobbs F-29-1A vent	
End Date:	11/6/2004	Location:	
		T18S R38E	
		Section 29, Unit F	
		Hobbs SWD System	

Depth (feet)	Description	Lithology	Comments	Well Construction	Field data		
					Depth	Chloride mg/kg	PID
0.0	Surface, 0 - 1 feet			Cement 0-3 feet			
2.0	Caliche, clay, sand , moist, 1 - 13 feet, Hydrocarbon impact				6.0	231	3.7
4.0					11.0	154	32.4
6.0					16.0	349	560.0
8.0					21.0	374	178.0
10.0	Caliche, fine grained sand, silt, light tan, 13 - 18 feet		Some odor		26.0	185	150.0
12.0					31.0	382	18.5
14.0					36.0	232	6.4
16.0					43.0	172	32.6
18.0	Caliche, well indurated , 18 - 21 feet				46.0	167	23.7
20.0	Caliche with some well indurated layers, 21 - 24 feet		At 30 feet: Some hydrocarbon impact, strong odor		51.0	174	15.6
22.0					56.0	135	20.6
24.0					59.0	94	7.6
26.0							
28.0	Very fine grained sand, silt, light reddish tan, 24 - 36 feet						
30.0							
32.0							
34.0							
36.0	Some caliche, 36 - 36.5 feet						
38.0	Very fine grained sand, silt, tan - red, 36.5 - 48 feet						
40.0							
42.0							
44.0							
46.0	Caliche layer, 48 - 48.5 feet						
48.0							
50.0							
52.0							
54.0	Very fine grained sand, silt, tan - red, 48.5 - 59 feet						
56.0							
58.0							
60.0							
62.0	Very fine grained sand, silt, tan - red, 59 - 102 feet		At 59 feet: Bore collapsing, Probe is wet. Drilled with water below 59 feet				
64.0							
66.0							
68.0							
70.0							
72.0							
74.0							
76.0							
78.0							
80.0							
82.0							
84.0							
86.0							
88.0							
90.0							
92.0							
94.0							
96.0							
98.0							
100.0							
102.0							
			Slump filled hole from 99-102 feet				

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 505-266-5004	ROC SWD F-29-1A Site	Plate 1
	Monitoring Well Boring	January, 2005