

1R - 427 - 91

REPORTS

DATE:

3-4-2004

RICE Operating Company

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

CERTIFIED MAIL

RETURN RECEIPT NO. 7002 2410 0000 4940 1282

March 4, 2004

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: 2003 MONITOR WELL REPORT/SAMPLING SUMMARY
EME SWD SYSTEM
LEA COUNTY, NEW MEXICO

Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the 2003 Monitor Well Report for the Eunice Monument Eumont (EME) Salt Water Disposal System. Listed below are sites in this system that have monitor wells that are sampled quarterly pursuant to NMOCD guidelines. Groundwater impact became apparent at these sites during the remediation process of the Junction Box Upgrade Plan except for H-13, which was the result of a pipeline leak.

Site Name	Unit Letter	Section	Township/Range
E-5 jct.	E	5	T20S, R37E
N-5 jct.	N	5	T20S, R37E
K-6 jct.	K	6	T20S, R37E
M-16-1 jct.	M	16	T20S, R37E
K-33-1 jct.	K	33	T19S, R37E
H-13 leak	H	13	T20S, R36E
A-20 jct.	A	20	T20S, R37E

MAN - AUB →

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ROC samples these monitor wells each quarter. Analysis of the samples was provided by Cardinal Laboratories of Hobbs and Environmental Lab of Texas of Odessa. In 2004, ROC will continue to conduct the sampling of the monitor wells at these sites. As in 2003, either Environmental Lab of Texas of Odessa, Texas, or Cardinal Laboratories of Hobbs will continue to conduct analytical tests of the water samples of 2004.

ROC will continue to address the groundwater concerns at these sites in 2004 by contracting a consultant/groundwater specialist to generate work plans for remediation of the vadose zone at groundwater-impacted sites and to address the groundwater concerns. NMOCD can anticipate more work plan submissions for such sites as they are prioritized in 2004. After NMOCD approval, AFE's will be submitted to System Partners for approval. Sites with confirmed groundwater impact will also be evaluated for the extent of groundwater impact.

ROC is the service provider (operator) for the EME Salt Water Disposal System and has no ownership of any portion of pipeline, well, or facility. The EME SWD System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis.

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

Kristin Farris

Kristin Farris
Project Scientist

Enclosures: Summary table & graph for each site
 Analytical results

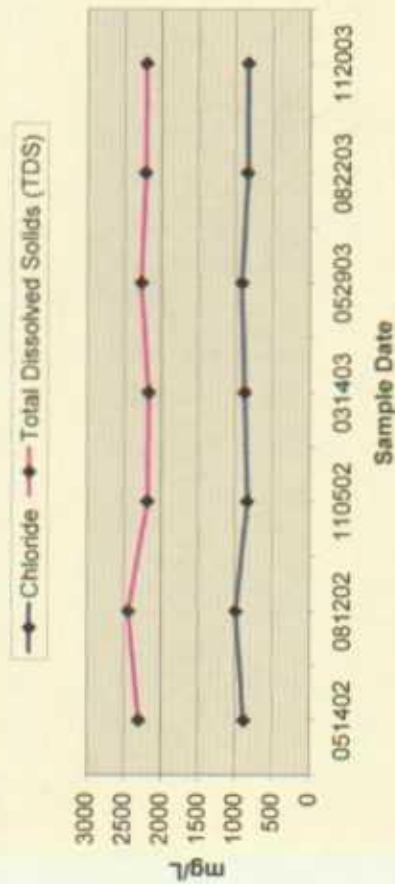
Cc: LBG, CDH, file, Wayne Price, Chris Williams
 NMOCD, District I Office
 1625 N. French Drive
 Hobbs, NM 88240

Rice Operating Co. Monitor Well Data Sheet

MW #	WATER LEVEL *	TOTAL DEPTH (ft)	(gal)		SAMPLE DATE	TIME	CL-	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	
			WELL VOLUME	VOLUME BAILED									
1	40.72	45.21	0.720	2.00	051402	1437	886	2300	<0.001	<0.001	<0.001	<0.001	Sandy w/low infiltration Clear, slow recharge
1	40.91	45.15	0.678	1.75	081202	1020	993	2440	<0.001	0.001	<0.001	<0.003	
1	41.15	45.10	0.632	1.90	110502	1415	833	2180	<0.001	<0.001	<0.001	<0.001	
1	41.03	45.08	0.640	1.90	031403	1100	977	2170	<0.001	<0.001	<0.001	<0.001	
1	41.14	45.09	0.632	1.80	052903	1315	913	2270	<0.001	<0.001	<0.001	<0.001	
1	41.14	45.10	0.600	1.90	082203	1530	833	2210	<0.001	<0.001	<0.001	<0.001	
1	41.73	45.15	0.500	1.60	112003	830	833	2200	<0.001	<0.001	<0.001	<0.001	

All parameter concentrations are in mg/L

EME Jct. E-5 Monitor Well



* Depth to water is measured from the top of the casing

Casing is 3.021 ft

ANALYTICAL REPORT

Prepared for:

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

Project: EME E-5
PO#: 510
Order#: G0305985
Report Date: 03/21/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0305985
Project:
Project Name: EME E-5
Location: None Given

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0305985-01	MW 1	WATER	3/14/03	3/14/03 19:30	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp:	2.0 C		
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0305985
Project:
Project Name: EME E-5
Location: None Given

Lab ID: 0305985-01
Sample ID: MW 1

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0005010-02		3/20/03 18:16	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	111%	80	120
Bromofluorobenzene	94%	80	120

Approval:

Raland K. Tuttle 3-25-03
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0305985
Project:
Project Name: EME E-5
Location: None Given

Lab ID: 0305985-01

Sample ID: MW 1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	396	mg/L	1	2.00	310.1	3/17/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	3/17/03	SB
Chloride	877	mg/L	1	5.00	9253	3/17/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	3/17/03	SB
SULFATE, 375.4	127	mg/L	2	1.0	375.4	3/17/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	168	mg/L	100	1.0	6010B	3/19/03	SM
Magnesium	61.5	mg/L	10	0.010	6010B	3/19/03	SM
Potassium	11.4	mg/L	10	0.50	6010B	3/19/03	SM
Sodium	390	mg/L	100	1.0	6010B	3/19/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2170	mg/L	1	5.0	160.1	3/17/03	TAL

Approval:

Raland K. Tuttle 3-25-03

Raland K. Tuttle, Lab Director, QA Officer

Date

Celey D. Keene, Org. Tech. Director

Jeanne McMurrey, Inorg. Tech. Director

Sandra Biezugbe, Lab Tech.

Sara Molina, Lab Tech.

RL = Reporting Limit

N/A = Not Applicable

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0305985

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0005010-02			<0.001	
Toluene-mg/L		0005010-02			<0.001	
Ethylbenzene-mg/L		0005010-02			<0.001	
p/m-Xylene-mg/L		0005010-02			<0.001	
o-Xylene-mg/L		0005010-02			<0.001	
CONTROL						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0005010-03		0.1	0.109	109.%
Toluene-mg/L		0005010-03		0.1	0.115	115.%
Ethylbenzene-mg/L		0005010-03		0.1	0.112	112.%
p/m-Xylene-mg/L		0005010-03		0.2	0.231	115.5%
o-Xylene-mg/L		0005010-03		0.1	0.111	111.%
CONTROL DUP						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0005010-04		0.1	0.113	113.%
Toluene-mg/L		0005010-04		0.1	0.115	115.%
Ethylbenzene-mg/L		0005010-04		0.1	0.115	115.%
p/m-Xylene-mg/L		0005010-04		0.2	0.227	113.5%
o-Xylene-mg/L		0005010-04		0.1	0.113	113.%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0005010-05		0.1	0.107	107.%
Toluene-mg/L		0005010-05		0.1	0.112	112.%
Ethylbenzene-mg/L		0005010-05		0.1	0.109	109.%
p/m-Xylene-mg/L		0005010-05		0.2	0.224	112.%
o-Xylene-mg/L		0005010-05		0.1	0.104	104.%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0305985

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0004955-01			,2.00	
Carbonate Alkalinity-mg/L		0004957-01			<0.10	
Chloride-mg/L		0004953-01			<5.00	
Hydroxide Alkalinity-mg/L		0004959-01			<0.10	
SULFATE, 375.4-mg/L		0004961-01			<0.50	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0305981-01	226		225	0.4%
Carbonate Alkalinity-mg/L		0305981-01	0		<0.10	0.0%
Hydroxide Alkalinity-mg/L		0305981-01	0		<0.10	0.0%
SULFATE, 375.4-mg/L		0305966-02	319		311	2.5%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Chloride-mg/L		0305981-01	53.2	100	152	98.8%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Chloride-mg/L		0305981-01	53.2	100	151	97.8%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0004955-04		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0004957-04		0.05	0.0496	99.2%
Chloride-mg/L		0004953-04		5000	4960	99.2%
Hydroxide Alkalinity-mg/L		0004959-04		0.05	0.0496	99.2%
SULFATE, 375.4-mg/L		0004961-04		50	52	104.0%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0305985

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0004974-02			<0.010		
Magnesium-mg/L		0004974-02			<0.001		
Potassium-mg/L		0004974-02			<0.050		
Sodium-mg/L		0004974-02			<0.010		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0305966-01	12.8		13.0		1.6%
Magnesium-mg/L		0305966-01	2.5		2.57		2.8%
Potassium-mg/L		0305966-01	5.38		5.44		1.1%
Sodium-mg/L		0305966-01	360		365		1.4%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0004974-05		2	2.19	109.5%	
Magnesium-mg/L		0004974-05		2	2.06	103.%	
Potassium-mg/L		0004974-05		2	1.87	93.5%	
Sodium-mg/L		0004974-05		2	1.96	98.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0305985

BLANK						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0004969-01			<5.0		
DUPLICATE						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0305984-01	2310		2330		0.9%

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

Project Manager: Kristin Farris

Company Name RICE Operating

Company Address: 122 W. Taylor

City/State/Zip: Fla 665, NM 88240

Telephone No. (505) 393-9174

Sampler Signature: Joe Zarth

Fax No: (505) 397-1471

Sampler Signature: Joe Jast

Project Name: EMF E-5

Project #:

Project Loc:

PO #: 510

[illegible]

ANALYTICAL REPORT

Prepared for:

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

Project: E-5
PO#: 510
Order#: G0306597
Report Date: 06/04/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0306597
Project:
Project Name: E-5
Location: EME

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0306597-01	MWI	WATER	5/29/03 14:00	5/29/03 19:40	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp: 4.0 C			
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306597
Project:
Project Name: E-5
Location: EME

Lab ID: 0306597-01
Sample ID: MW1

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0005706-02		5/30/03 12:41	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	96%	80	120
Bromofluorobenzene	98%	80	120

Approval:

Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306597
Project:
Project Name: E-5
Location: EME

Lab ID: 0306597-01
Sample ID: MW1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	404	mg/L	1	2.00	310.1	5/30/03	WL
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	5/30/03	WL
Chloride	913	mg/L	1	5.00	9253	5/30/03	WL
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	5/30/03	WL
SULFATE, 375.4	119	mg/L	2	1.0	375.4	6/2/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	230	mg/L	100	1.0	6010B	6/3/03	SM
Magnesium	62.0	mg/L	10	0.010	6010B	6/3/03	SM
Potassium	16.8	mg/L	10	0.50	6010B	6/3/03	SM
Sodium	644	mg/L	100	1.0	6010B	6/3/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2270	mg/L	1	5.0	160.1	6/2/03	TAL

Approval:

Coley D. Keene 06/04/03
Rand K. Tuttle, Lab Director, QA Officer

Date

Coley D. Keene, Org. Tech. Director

Jeanne McMurrey, Inorg. Tech. Director

Sandra Biezugbe, Lab Tech.

Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0306597

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0005706-02			<0.001		
Toluene-mg/L		0005706-02			<0.001		
Ethylbenzene-mg/L		0005706-02			<0.001		
p/m-Xylene-mg/L		0005706-02			<0.001		
o-Xylene-mg/L		0005706-02			<0.001		
MS							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0306601-01	0	0.1	0.097	97.%	
Toluene-mg/L		0306601-01	0	0.1	0.096	96.%	
Ethylbenzene-mg/L		0306601-01	0	0.1	0.094	94.%	
p/m-Xylene-mg/L		0306601-01	0	0.2	0.196	98.%	
o-Xylene-mg/L		0306601-01	0	0.1	0.094	94.%	
MSD							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0306601-01	0	0.1	0.096	96.%	1.%
Toluene-mg/L		0306601-01	0	0.1	0.093	93.%	3.2%
Ethylbenzene-mg/L		0306601-01	0	0.1	0.093	93.%	1.1%
p/m-Xylene-mg/L		0306601-01	0	0.2	0.193	96.5%	1.5%
o-Xylene-mg/L		0306601-01	0	0.1	0.095	95.%	1.1%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0005706-05		0.1	0.093	93.%	
Toluene-mg/L		0005706-05		0.1	0.089	89.%	
Ethylbenzene-mg/L		0005706-05		0.1	0.087	87.%	
p/m-Xylene-mg/L		0005706-05		0.2	0.181	90.5%	
o-Xylene-mg/L		0005706-05		0.1	0.088	88.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0306597

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0005720-01			<2.00	
Carbonate Alkalinity-mg/L		0005721-01			<0.10	
Chloride-mg/L		0005723-01			<5.00	
Hydroxide Alkalinity-mg/L		0005722-01			<0.10	
SULFATE, 375.4-mg/L		0005697-01			<0.5	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0306596-01	484		480	0.8%
Carbonate Alkalinity-mg/L		0306596-01	0		<0.10	0.0%
Hydroxide Alkalinity-mg/L		0306596-01	0		<0.10	0.0%
SULFATE, 375.4-mg/L		0306599-01	920		895	2.8%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Chloride-mg/L		0306596-01	12400	5000	17700	106.0%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Chloride-mg/L		0306596-01	12400	5000	17500	102.0%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0005720-04		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0005721-04		0.05	0.0496	99.2%
Chloride-mg/L		0005723-04		5000	5320	106.4%
Hydroxide Alkalinity-mg/L		0005722-04		0.05	0.0496	99.2%
SULFATE, 375.4-mg/L		0005697-04		50	51.1	102.2%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0306597

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0005716-02			<0.010		
Magnesium-mg/L		0005716-02			<0.001		
Potassium-mg/L		0005716-02			<0.050		
Sodium-mg/L		0005716-02			<0.010		
DUPLICATE							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0306596-01	1080		1100		1.8%
Magnesium-mg/L		0306596-01	355		358		0.8%
Potassium-mg/L		0306596-01	63.1		61.8		2.1%
Sodium-mg/L		0306596-01	6910		6790		1.8%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0005716-05		2	1.98	99.%	
Magnesium-mg/L		0005716-05		2	2.10	105.%	
Potassium-mg/L		0005716-05		2	1.82	91.%	
Sodium-mg/L		0005716-05		2	1.93	96.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0306597

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0005714-01			<5.0		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0306599-01	5600		5540		1.1%

12800 West I-20 East
Odessa, Texas 79763

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

LABORATORY OF LOGS, INC.

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Kristin Farris

Company Name

RICE Operating

Company Address:

133 W. Taylor

City/State/Zip:

Hobbs, NM 88240

Telephone No: (505) 393-9174

Fax No: (505) 397-1471

Sampler Signature:

Joe Datt

Project Name:

E-5

Project #:

Project Loc:

EMF

PO #:

SIO

LAB # (fill in) 0306597

FIELD CODE

MW1

MW1

Date Sampled

5-27-03

5-27-03

Time Sampled

1400

1400

No. of Containers

1

2

Preservative

Ice

X

HNO₃

X

HCl

X

NaOH

H₂SO₄

None

Other (Specify)

Water

X

Sediment

X

Soil

Other (Specify)

TDS / Conductivity

X

TPH 418.1

TPH TX 1005/1006

TPH 6013M GRO/DRO

Metals: As Ag Sb Cd Cr Pb Hg Se

Volatiles

Semivolatiles

BTX 80218/5030

Analyze For:

RUSH TAT (Pre-Schedule)
Standard TAT

Special Instructions:

Major Anions & Cations

Relinquished by:

Joe Gatts

Relinquished by:

CD Dayner

Received by:

Received by ELOF:

Date

Time

Date

Time

Date

Time

Date

Time

Date

Time

Sample Containers Intact?
Temperature Upon Receipt
Laboratory Comments:

See 4K

5/29/03 19:40

ANALYTICAL REPORT

Prepared for:

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

**Project: E-5
PO#: 510
Order#: G0308002
Report Date: 11/25/2003**

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0308002
Project:
Project Name: E-5
Location: EME

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0308002-01	MW-1	WATER	11/20/03 8:30	11/20/03 20:30	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp: 4.0 C			
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0308002
Project:
Project Name: E-5
Location: EME

Lab ID: 0308002-01
Sample ID: MW-1

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0007531-02		11/22/03	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	97%	80	120
Bromofluorobenzene	90%	80	120

Approval: Raland K Tuttle 11-26-03
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0308002
Project:
Project Name: E-5
Location: EME

Lab ID: 0308002-01

Sample ID: MW-1

Anions

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Bicarbonate Alkalinity	400	mg/L	1	2.00	310.1	11/21/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	11/21/03	SB
Chloride	833	mg/L	1	5.00	325	11/21/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	11/21/03	SB
SULFATE, 375.4	100	mg/L	2	1.0	375.4	11/24/03	SB

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Calcium	236	mg/L	100	1.0	6010B	11/21/03	SM
Magnesium	64.3	mg/L	10	0.010	6010B	11/21/03	SM
Potassium	12.5	mg/L	10	0.50	6010B	11/21/03	SM
Sodium	379	mg/L	100	1.0	6010B	11/21/03	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Total Dissolved Solids (TDS)	2200	mg/L	1	5.0	160.1	11/22/03	SB

Approval:

Raland K. Tuttle
Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

11-26-03

Date

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0308002

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0007531-02			<0.001		
Toluene-mg/L		0007531-02			<0.001		
Ethylbenzene-mg/L		0007531-02			<0.001		
p/m-Xylene-mg/L		0007531-02			<0.001		
o-Xylene-mg/L		0007531-02			<0.001		
CONTROL							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0007531-03		0.1	0.096	96.%	
Toluene-mg/L		0007531-03		0.1	0.092	92.%	
Ethylbenzene-mg/L		0007531-03		0.1	0.091	91.%	
p/m-Xylene-mg/L		0007531-03		0.2	0.182	91.%	
o-Xylene-mg/L		0007531-03		0.1	0.090	90.%	
CONTROL DUP							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0007531-04		0.1	0.101	101.%	5.1%
Toluene-mg/L		0007531-04		0.1	0.097	97.%	5.3%
Ethylbenzene-mg/L		0007531-04		0.1	0.092	92.%	1.1%
p/m-Xylene-mg/L		0007531-04		0.2	0.183	91.5%	0.5%
o-Xylene-mg/L		0007531-04		0.1	0.087	87.%	3.4%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0007531-05		0.1	0.099	99.%	
Toluene-mg/L		0007531-05		0.1	0.094	94.%	
Ethylbenzene-mg/L		0007531-05		0.1	0.091	91.%	
p/m-Xylene-mg/L		0007531-05		0.2	0.181	90.5%	
o-Xylene-mg/L		0007531-05		0.1	0.087	87.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0308002

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0007511-01			<2.00	
Carbonate Alkalinity-mg/L		0007513-01			<0.10	
Chloride-mg/L		0007517-01			<5.00	
Hydroxide Alkalinity-mg/L		0007515-01			<0.10	
SULFATE, 375.4-mg/L		0007546-01			<0.50	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0308005-01	362		364	0.6%
Carbonate Alkalinity-mg/L		0308005-01	0		<0.10	0.0%
Hydroxide Alkalinity-mg/L		0308005-01	0		<0.10	0.0%
SULFATE, 375.4-mg/L		0307979-01	20.9		21.6	3.3%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Chloride-mg/L		0308000-01	1990	1000	2980	99.0%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Chloride-mg/L		0308000-01	1990	1000	3000	101.0%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0007511-04		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0007513-04		0.05	0.0496	99.2%
Chloride-mg/L		0007517-04		5000	4960	99.2%
Hydroxide Alkalinity-mg/L		0007515-04		0.05	0.0496	99.2%
SULFATE, 375.4-mg/L		0007546-04		50	49.0	98.0%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0308002

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Calcium-mg/L		0007495-02			<0.010	
Magnesium-mg/L		0007495-02			<0.001	
Potassium-mg/L		0007495-02			<0.050	
Sodium-mg/L		0007495-02			<0.010	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Calcium-mg/L		0307979-01	81		81.6	0.7%
Magnesium-mg/L		0307979-01	20.1		19.9	1.1%
Potassium-mg/L		0307979-01	7.1		7.25	2.1%
Sodium-mg/L		0307979-01	1290		1280	0.8%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Calcium-mg/L		0007495-05		2	1.76	88.5%
Magnesium-mg/L		0007495-05		2	2.17	108.5%
Potassium-mg/L		0007495-05		2	1.93	96.5%
Sodium-mg/L		0007495-05		2	2.21	110.5%

12500 West 1-20 East
Odessa, Texas 79763

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Kristin Ferris

Project Name:

Fi 5

Company Name

RICE Operating

Project #:

Company Address:

s: 122 W. Taylor

Project Loc:

345

City/State/Zip:

Fla 665, NM 88240

PO #: 512

Telephone No (505) 393-9174

Fax No: (505) 397-1471

Telephone No. (

Sampler Signature:

Israel Juarez

[illegible]

Special Instructions:

Major Anions, Cations, TDS

Relinquished by:

Israel Gruen

Date: 11/05/2011

11.20.03 3:14

Received by: 3/10

11-20-03 3:14

Requisiti:

CD Harper

Received by ELOI

4/20/2030

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

Male	Female
------	--------

Time

Time

Sample Containers Indict?
Temperature Upon Receipt
Laboratory Comments

the 4th

ANALYTICAL REPORT

Prepared for:

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

Project: E-5

PO#:

Order#: G0307304

Report Date: 08/27/2003

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0307304
Project:
Project Name: E-5
Location: EME

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0307304-01	MW1	WATER	8/22/03 15:30	8/25/03 9:03	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp: 4.5 C			
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0307304
Project:
Project Name: E-5
Location: EME

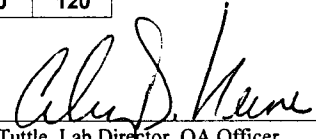
Lab ID: 0307304-01
Sample ID: MW1

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0006638-02		8/25/03	1	1	JMM	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Toluene	<0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	120%	80	120
Bromofluorobenzene	103%	80	120

Approval:  08/27/03
Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0307304
Project:
Project Name: E-5
Location: EME

Lab ID: 0307304-01

Sample ID: MW1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	380	mg/L	2	4.0	310.1	8/25/03	SB
Carbonate Alkalinity	< 0.20	mg/L	2	0.20	310.1	8/25/03	SB
Chloride	833	mg/L	1	5.00	9253	8/27/03	SB
Hydroxide Alkalinity	< 0.20	mg/L	2	0.20	310.1	8/25/03	SB
SULFATE, 375.4	116	mg/L	2.5	1.25	375.4	8/26/03	SB

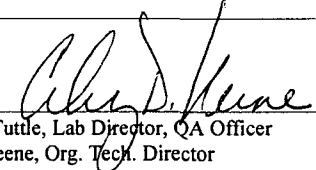
Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	163	mg/L	100	1.0	6010B	8/26/03	SM
Magnesium	50.9	mg/L	10	0.010	6010B	8/26/03	SM
Potassium	22.7	mg/L	10	0.50	6010B	8/26/03	SM
Sodium	350	mg/L	100	1.0	6010B	8/26/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2210	mg/L	1	5.0	160.1	8/25/03	TAL

Approval:


Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

08/27/03

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0307304

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0006638-02			<0.001		
Toluene-mg/L		0006638-02			<0.001		
Ethylbenzene-mg/L		0006638-02			<0.001		
p/m-Xylene-mg/L		0006638-02			<0.001		
o-Xylene-mg/L		0006638-02			<0.001		
CONTROL							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0006638-03		0.1	0.111	111.0%	
Toluene-mg/L		0006638-03		0.1	0.114	114.0%	
Ethylbenzene-mg/L		0006638-03		0.1	0.105	105.0%	
p/m-Xylene-mg/L		0006638-03		0.2	0.222	111.0%	
o-Xylene-mg/L		0006638-03		0.1	0.100	100.0%	
DUPLICATE							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0307295-06	0		<0.001		0.0%
Toluene-mg/L		0307295-06	0		<0.001		0.0%
Ethylbenzene-mg/L		0307295-06	0		<0.001		0.0%
p/m-Xylene-mg/L		0307295-06	0		<0.001		0.0%
o-Xylene-mg/L		0307295-06	0		<0.001		0.0%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0006638-05		0.1	0.109	109.0%	
Toluene-mg/L		0006638-05		0.1	0.114	114.0%	
Ethylbenzene-mg/L		0006638-05		0.1	0.104	104.0%	
p/m-Xylene-mg/L		0006638-05		0.2	0.227	113.5%	
o-Xylene-mg/L		0006638-05		0.1	0.104	104.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0307304

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0006632-01			<0.010		
Magnesium-mg/L		0006632-01			<0.001		
Potassium-mg/L		0006632-01			<0.050		
Sodium-mg/L		0006632-01			<0.010		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0307300-01	78.1		77.3		1.0%
Magnesium-mg/L		0307300-01	30.4		29.8		2.0%
Potassium-mg/L		0307300-01	5.82		4.95		16.2%
Sodium-mg/L		0307300-01	1150		1160		0.9%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0006632-04		2	2.05	102.5%	
Magnesium-mg/L		0006632-04		2	2.04	102.0%	
Potassium-mg/L		0006632-04		2	1.73	86.5%	
Sodium-mg/L		0006632-04		2	1.73	86.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0307304

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0006633-01			<5.0		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0307303-01	2550		2830		10.4%

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name: E-5

Project #:

Project Loc: EMC

PO #:

Fax No: (505) 397-1471

Sampler Signature: J. Galt

[illegible]

Special Instructions:

Amino Acids

Relinquished by:

5. 7. 2

Relative to the

Director

Received by: *[Signature]*
Received by: ELOP

Received by El Dorado

RECEIVED BY ELDT.
Eym. Anderson

Date	Time
8/25/03	5:00

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

Sample Containers Intact?
Temperature Upon Receipt?
Laboratory Comments:

4.500
40ml VOA
1 LHDPE

RICE Operating Company

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

CERTIFIED MAIL

RETURN RECEIPT NO. 7002 2410 0000 4940 0988

April 10, 2003

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

RECEIVED

APR 11 2003

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

RE: 2002 MONITOR WELL REPORT/SAMPLING SUMMARY
EME SWD SYSTEM
LEA COUNTY, NEW MEXICO

Mr. Olson:

Rice Operating Company (ROC) takes this opportunity to submit the 2002 Monitor Well Report for the Eunice Monument Eumont (EME) Salt Water Disposal System. There are 7 sites in this system that have monitor wells that are sampled quarterly pursuant to NMOCD guidelines. Groundwater impact became apparent at these sites during the remediation process of the Junction Box Upgrade Plan except for P-6, which was the result of a pipeline leak.

Site Name	Unit Letter	Section	Township/Range
E-5 jct.	E	5	T20S, R37E
N-5 jct.	N	5	T20S, R37E
K-6 jct.	K	6	T20S, R37E
M-16-1 jct.	M	16	T20S, R37E
K-33-1 jct.	K	33	T19S, R37E
P-6 leak	P	6	T20S, R37E
A-20 jct.	A	20	T20S, R37E

The first quarter sampling events of 2002 were performed by Environmental Plus, Inc. of Eunice. ROC sampled the monitor wells each subsequent quarter. Analysis of the samples was provided by Cardinal Laboratories of Hobbs and Environmental Lab of Texas of Odessa. In 2003, ROC will continue to conduct the sampling of the monitor wells at these sites. As in 2002, either

Environmental Lab of Texas of Odessa, Texas, or Cardinal Laboratories of Hobbs will conduct analytical tests of the water samples of 2003.

Trident Environmental of Midland, Texas has been contracted by ROC to prioritize the junction box disclosure sites and to generate work plans for remediation of the vadose zone at groundwater-impacted sites. NMOCD can anticipate the submittal of work plans for several such sites in 2003. After NMOCD approval, AFE's will be submitted to System Partners for approval. Sites with confirmed groundwater impact will also be evaluated for the extent of groundwater impact.

ROC is the service provider (operator) for the EME Salt Water Disposal System and has no ownership of any portion of pipeline, well, or facility. The EME SWD System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis.

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

Kristin Farris

Kristin Farris
Project Scientist

Enclosures: Summary table & graph for each site
 Analytical results

Cc: LBG, CDH, file, Wayne Price, Chris Williams
 NMOCD, District I Office
 1625 N. French Drive
 Hobbs, NM 88240

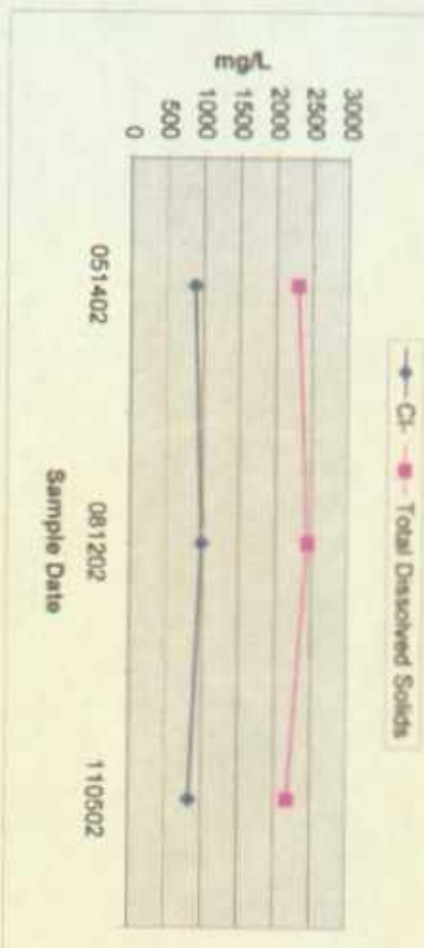
EME Jct. E-5
Merritt-Ryan Barter EOU

Rice Operating Co. Monitor Well Data Sheet

All parameter concentrations are in mg/L

MMW #	WATER LEVEL (ft)	TOTAL DEPTH	WELL VOLUME (gal)	VOLUME BAILED	SAMPLE DATE	TIME	CL-	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	
1	40.72	45.21	0.720	2.00	051402	1437	886	2300	<0.001	<0.001	<0.001	<0.001	
1	40.91	45.15	0.678	1.75	081202	1020	983	2440	<0.001	0.001	<0.001	<0.003	Sandy white infiltration
1	41.15	45.1	0.632	1.9	110602	1415	833	2180	<0.001	<0.001	<0.001	<0.001	Characteristic red/pink

EME Jct. E-5 Monitor Well



ANALYTICAL REPORT

Prepared for:

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

Project: jct. E-5
PO#: 510
Order#: G0204935
Report Date: 11/13/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0204935
Project: None Given
Project Name: jct. E-5
Location: EME

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0204935-01	MW 1	WATER	11/5/02 14:15	11/6/02 19:30	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp: 4 C			
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0204935
Project: None Given
Project Name: jct. E-5
Location: EME

Lab ID: 0204935-01
Sample ID: MW 1

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution		
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0003670-02		11/7/02	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Ethylbenzene	<0.001	0.001
Toluene	<0.001	0.001
p/m-Xylene	<0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	93%	80	120
Bromofluorobenzene	90%	80	120

Approval:

Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

Raland K. Tuttle 11-13-02

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0204935
Project: None Given
Project Name: jct. E-5
Location: EME

Lab ID: 0204935-01
Sample ID: MW 1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	422	mg/L	1	2.00	310.1	11/7/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	11/7/02	SB
Chloride	833	mg/L	1	5.00	9253	11/12/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	11/7/02	SB
SULFATE, 375.4	116	mg/L	2.5	1.25	375.4	11/12/02	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	213	mg/L	100	1.0	6010B	11/11/02	SM
Magnesium	6.29	mg/L	10	0.010	6010B	11/11/02	SM
Potassium	13.4	mg/L	10	0.50	6010B	11/11/02	SM
Sodium	337	mg/L	100	1.0	6010B	11/11/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2180	mg/L	1	5.0	160.1	11/7/02	TAL

Approval:

Raland K. Tuttle 11-13-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204935

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0003670-02			<0.001	
Ethylbenzene-mg/L		0003670-02			<0.001	
Toluene-mg/L		0003670-02			<0.001	
p/m-Xylene-mg/L		0003670-02			<0.001	
o-Xylene-mg/L		0003670-02			<0.001	
CONTROL						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0003670-03		0.1	0.096	96.0%
Ethylbenzene-mg/L		0003670-03		0.1	0.099	99.0%
Toluene-mg/L		0003670-03		0.1	0.098	98.0%
p/m-Xylene-mg/L		0003670-03		0.2	0.209	104.5%
o-Xylene-mg/L		0003670-03		0.1	0.101	101.0%
CONTROL DUP						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0003670-04		0.1	0.098	98.0%
Ethylbenzene-mg/L		0003670-04		0.1	0.101	101.0%
Toluene-mg/L		0003670-04		0.1	0.100	100.0%
p/m-Xylene-mg/L		0003670-04		0.2	0.213	106.5%
o-Xylene-mg/L		0003670-04		0.1	0.102	102.0%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0003670-05		0.1	0.100	100.0%
Ethylbenzene-mg/L		0003670-05		0.1	0.102	102.0%
Toluene-mg/L		0003670-05		0.1	0.102	102.0%
p/m-Xylene-mg/L		0003670-05		0.2	0.216	108.0%
o-Xylene-mg/L		0003670-05		0.1	0.103	103.0%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0204935

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L		0003690-01			<2.00		
Carbonate Alkalinity-mg/L		0003691-01			<0.10		
Chloride-mg/L		0003720-01			<5.00		
Hydroxide Alkalinity-mg/L		0003692-01			<0.10		
SULFATE, 375.4-mg/L		0003722-01			<0.50		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L		0204935-01	422		423		0.2%
Carbonate Alkalinity-mg/L		0204935-01	0		<0.10		0.0%
Hydroxide Alkalinity-mg/L		0204935-01	0		<0.10		0.0%
SULFATE, 375.4-mg/L		0204935-01	116		120		3.4%
MS	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/L		0204935-01	833	500	1330	99.4%	
MSD	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/L		0204935-01	833	500	1320	97.4%	0.8%
SRM	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L		0003690-04		0.05	0.0496	99.2%	
Carbonate Alkalinity-mg/L		0003691-04		0.05	0.0496	99.2%	
Chloride-mg/L		0003720-04		5000	4960	99.2%	
Hydroxide Alkalinity-mg/L		0003692-04		0.05	0.0496	99.2%	
SULFATE, 375.4-mg/L		0003722-04		50	49.0	98.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0204935

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Calcium-mg/L		0003711-02			<0.010	
Magnesium-mg/L		0003711-02			<0.001	
Potassium-mg/L		0003711-02			<0.050	
Sodium-mg/L		0003711-02			<0.010	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Calcium-mg/L		0204950-02	314		312	0.6%
Magnesium-mg/L		0204950-02	12.8		12.5	2.4%
Potassium-mg/L		0204950-02	17.2		16.8	2.4%
Sodium-mg/L		0204950-02	468		472	0.9%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Calcium-mg/L		0003711-05		2	2.01	100.5%
Magnesium-mg/L		0003711-05		2	1.90	95.5%
Potassium-mg/L		0003711-05		2	1.79	89.5%
Sodium-mg/L		0003711-05		2	1.79	89.5%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0204935

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0003668-01			<5.0		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0204936-01	17400		17200		1.2%

12500 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Kristin Farris

Project Name:

ject. E-5

RICE Operating

Project #:

133 W. Taylor

Project Loc:

EME

Hobbs, NM 88240

PO #: 510

Fax No: (505) 397-1471

Fax No:

Karvin Lariv

[illegible]

ANALYTICAL REPORT

Prepared for:

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

Project: E-5
PO#: 510
Order#: G0204195
Report Date: 08/21/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0204195
Project:
Project Name: E-5
Location: EME SWD

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0204195-01	MW 1	WATER	8/12/02 10:20	8/12/02 20:05	See COC headspace in one 40 ml glass vial	See COC
<u>Lab Testing:</u>		Rejected: No	Temp: 4.0 C			
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0204195
Project:
Project Name: E-5
Location: EME SWD

Lab ID: 0204195-01
Sample ID: MW 1

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0002915-02		8/20/02 20:56	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	<0.001	0.001
Ethylbenzene	<0.001	0.001
Toluene	0.001	0.001
p/m-Xylene	0.002	0.001
o-Xylene	<0.001	0.001

Approval: Raland K. Tuttle 8-22-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0204195
Project:
Project Name: E-5
Location: EME SWD

Lab ID: 0204195-01
Sample ID: MW 1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	406	mg/L	1	2.00	310.1	8/13/02	CK
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	8/13/02	CK
Chloride	993	mg/L	1	5.00	9253	8/13/02	CK
Hydroxide Alkalinity	< 0.10	mg/L	1	0.10	310.1	8/13/02	CK
SULFATE, 375.4	141	mg/L	2.5	1.25	375.4	8/14/02	MB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	291	mg/L	100	1.0	6010B	8/14/02	SM
Magnesium	65.6	mg/L	10	0.010	6010B	8/14/02	SM
Potassium	13.0	mg/L	10	0.50	6010B	8/14/02	SM
Sodium	376	mg/L	100	1.0	6010B	8/14/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2440	mg/L	1	5.0	160.1	8/13/02	CK

Approval:

Raland K. Tuttle 8-12-02
Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204195

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0002915-02			<0.001		
Ethylbenzene-mg/L		0002915-02			<0.001		
Toluene-mg/L		0002915-02			<0.001		
p/m-Xylene-mg/L		0002915-02			<0.001		
o-Xylene-mg/L		0002915-02			<0.001		
MS							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0204268-01	0	0.1	0.095	95.%	
Ethylbenzene-mg/L		0204268-01	0	0.1	0.097	97.%	
Toluene-mg/L		0204268-01	0	0.1	0.099	99.%	
p/m-Xylene-mg/L		0204268-01	0	0.2	0.201	100.5%	
o-Xylene-mg/L		0204268-01	0	0.1	0.094	94.%	
MSD							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0204268-01	0	0.1	0.099	99.%	4.1%
Ethylbenzene-mg/L		0204268-01	0	0.1	0.101	101.%	4.%
Toluene-mg/L		0204268-01	0	0.1	0.103	103.%	4.%
p/m-Xylene-mg/L		0204268-01	0	0.2	0.210	105.%	4.4%
o-Xylene-mg/L		0204268-01	0	0.1	0.100	100.%	6.2%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0002915-05		0.1	0.104	104.%	
Ethylbenzene-mg/L		0002915-05		0.1	0.107	107.%	
Toluene-mg/L		0002915-05		0.1	0.106	106.%	
p/m-Xylene-mg/L		0002915-05		0.2	0.222	111.%	
o-Xylene-mg/L		0002915-05		0.1	0.106	106.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0204195

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
	Bicarbonate Alkalinity-mg/L	0002801-01			<2.00	
	Carbonate Alkalinity-mg/L	0002801-01			<0.10	
	Chloride-mg/L	0002793-01			<5.00	
	Hydroxide Alkalinity-mg/L	0002801-01			< 0.10	
	SULFATE, 375.4-mg/L	0002811-01			<0.5	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
	Bicarbonate Alkalinity-mg/L	0204196-01	360		358	0.6%
	Carbonate Alkalinity-mg/L	0204196-01	0		<0.10	0.0%
	Hydroxide Alkalinity-mg/L	0204196-01	0		< 0.10	0.0%
	SULFATE, 375.4-mg/L	0204195-01	141		143	1.4%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
	Chloride-mg/L	0204137-01	56.7	100	152	95.3%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
	Chloride-mg/L	0204137-01	56.7	100	156	99.3%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
	Bicarbonate Alkalinity-mg/L	0002801-04		0.05	0.0575	115.0%
	Carbonate Alkalinity-mg/L	0002801-04		0.05	0.0575	115.0%
	Chloride-mg/L	0002793-04		5000	4870	97.4%
	Hydroxide Alkalinity-mg/L	0002801-04		0.05	0.0575	115.0%
	SULFATE, 375.4-mg/L	0002811-04		50	48.8	97.6%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0204195

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0002810-02			< 0.010		
Magnesium-mg/L		0002810-02			<0.001		
Potassium-mg/L		0002810-02			<0.05		
Sodium-mg/L		0002810-02			<0.01		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0204137-02	35.6		34.7		2.6%
Magnesium-mg/L		0204137-02	10.5		10.2		2.9%
Potassium-mg/L		0204137-02	3.02		3.1		2.6%
Sodium-mg/L		0204137-02	47.9		48.3		0.8%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0002810-05		2	2.06	103.%	
Magnesium-mg/L		0002810-05		2	2.18	109.%	
Potassium-mg/L		0002810-05		2	1.77	88.5%	
Sodium-mg/L		0002810-05		2	1.79	89.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0204195

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0002822-01			<5.00		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0204197-01	2510		2640		5%

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:

6
11

Company Name

Rice Operating

Project #:

Project #: _____
Project Loc: EME SWD

Company Address:

132 W Taylor
Hobbs NM 87400

City/State/Zip:

Hobbs VM 28210

PO#:

5

Telephone No. _____

505) 393-9174

Fax No: (505) 397-1471

Sampler Signature:

Theriot, John

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative					Matrix				TDS (CL/SP/EE)	TPH 418.1	TPH TX 1005/1006	TPH 8015M GRO/DRO	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	Anions	Cations	RUSH TAT (Pre-Schedule)	Standard TAT
					HNO ₃	HCl	NaOH	H ₂ SO ₄	None	Other (Specify)	Water	Sludge	Soil												
020711145	01 MW 1	08/12/02	1020	1																					
	01 MW 1	08/12/02	1020	2																					

Special Instructions:

Relinquished by: K. Farris

Relinquished by: CP Hargner

Received by: Major Jones

Received by ELOF: R. de P.

Date: 08/12/02

Date: 8/12/02

Time: 1700

Time: 20:05

Date: 8/12/02

Date: 8/12/02

Time: 1700

Time: 20:05

Sample Containers Used? N

Temperature Upon Receipt: 40.0°C

Laboratory Comments: *headspace of 40ml gcs

ANALYTICAL REPORT

Prepared for:

DONNIE ANDERSON
RICE OPERATING COMPANY
122 W. TAYLOR
HOBBS, NM 88242

Project: E-5
Order#: G0203358
Report Date: 05/17/2002

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

RICE OPERATING COMPANY
122 W. TAYLOR
HOBBS, NM 88242
505-397-1471

Order#: G0203358
Project:
Project Name: E-5
Location: EME SWD

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0203358-01	MW 1	WATER	5/14/02 14:40	5/15/02 10:00	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp: See COC			
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

DONNIE ANDERSON
RICE OPERATING COMPANY
122 W. TAYLOR
HOBBS, NM 88242

Order#: G0203358
Project:
Project Name: E-5
Location: EME SWD

Lab ID: 0203358-01
Sample ID: MW 1

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution		
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0001724-02		5/15/02 18:42	1	1	CK	8021B

Parameter	Result µg/L	RL
Benzene	<1.00	1.00
Ethylbenzene	<1.00	1.00
Toluene	<1.00	1.00
p/m-Xylene	<1.00	1.00
o-Xylene	<1.00	1.00

Approval:

Coley D. Keene 5/18/02
Raland K. Tuttle, Lab Director, QA Officer
Coley D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

DONNIE ANDERSON
RICE OPERATING COMPANY
122 W. TAYLOR
HOBBS, NM 88242

Order#: G0203358
Project:
Project Name: E-5
Location: EME SWD

Lab ID: 0203358-01

Sample ID: MW 1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	460	mg/L	1	2.0	310.1	5/15/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.1	310.1	5/15/02	SB
Chloride	886	mg/L	1	5.00	9253	5/16/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.1	310.1	5/15/02	SB
SULFATE, 375.4	157	mg/L	2.5	1.25	375.4	5/17/02	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	240	mg/L	50	0.500	6010B	5/16/02	SM
Magnesium	64.5	mg/L	10	0.010	6010B	5/16/02	SM
Potassium	14.3	mg/L	10	0.500	6010B	5/16/02	SM
Sodium	421	mg/L	250	2.50	6010B	5/16/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2300	mg/L	1	5.0	160.1	5/15/02	SB

Approval:

Raland K. Tuttle
Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

5-19-02

Date

RL = Reporting Limit N/A = Not Applicable

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS I, LTD.

12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0203358

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-µg/L		0001724-02			<1.00		
Ethylbenzene-µg/L		0001724-02			<1.00		
Toluene-µg/L		0001724-02			<1.00		
p/m-Xylene-µg/L		0001724-02			<1.00		
o-Xylene-µg/L		0001724-02			<1.00		
CONTROL		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-µg/L		0001724-03		100	115	115.0%	
Ethylbenzene-µg/L		0001724-03		100	114	114.0%	
Toluene-µg/L		0001724-03		100	112	112.0%	
p/m-Xylene-µg/L		0001724-03		200	225	112.5%	
o-Xylene-µg/L		0001724-03		100	113	113.0%	
CONTROL DUP		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-µg/L		0001724-04		100	114	114.0%	0.9%
Ethylbenzene-µg/L		0001724-04		100	110	110.0%	3.6%
Toluene-µg/L		0001724-04		100	109	109.0%	2.7%
p/m-Xylene-µg/L		0001724-04		200	225	112.5%	0.0%
o-Xylene-µg/L		0001724-04		100	112	112.0%	0.9%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-µg/L		0001724-05		100	115	115.0%	
Ethylbenzene-µg/L		0001724-05		100	112	112.0%	
Toluene-µg/L		0001724-05		100	109	109.0%	
p/m-Xylene-µg/L		0001724-05		200	226	113.0%	
o-Xylene-µg/L		0001724-05		100	111	111.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0203358

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0001737-01			<2.00		
Carbonate Alkalinity-mg/L		0001738-01			<0.10		
Chloride-mg/L		0001733-01			<5.00		
Hydroxide Alkalinity-mg/L		0001739-01			<0.10		
SULFATE, 375.4-mg/L		0001741-01			<0.50		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0203354-01	292		293		0.3%
Carbonate Alkalinity-mg/L		0203354-01	0		<0.10		0.0%
Hydroxide Alkalinity-mg/L		0203354-01	0		<0.10		0.0%
SULFATE, 375.4-mg/L		0203355-01	610		610		0.0%
MS		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Chloride-mg/L		0203354-01	860	500	1360	100.0%	
MSD		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Chloride-mg/L		0203354-01	860	500	1360	100.0%	0.0%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0001737-04		0.05	0.0496	99.2%	
Carbonate Alkalinity-mg/L		0001738-04		0.05	0.0496	99.2%	
Chloride-mg/L		0001733-04		5000	5050	101.0%	
Hydroxide Alkalinity-mg/L		0001739-04		0.05	0.0496	99.2%	
SULFATE, 375.4-mg/L		0001741-04		50	49.9	99.8%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0203358

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0001725-02			<0.010		
Magnesium-mg/L		0001725-02			<0.001		
Potassium-mg/L		0001725-02			<0.050		
Sodium-mg/L		0001725-02			<0.010		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0203354-01	266		264		0.8%
Magnesium-mg/L		0203354-01	106		106		0.0%
Potassium-mg/L		0203354-01	15.4		14.8		4.0%
Sodium-mg/L		0203354-01	303		308		1.6%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0001725-05		2	1.99	99.5%	
Magnesium-mg/L		0001725-05		2	2.06	103.0%	
Potassium-mg/L		0001725-05		2	1.77	88.5%	
Sodium-mg/L		0001725-05		2	1.91	95.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0203358

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0001731-01			<5.00		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0203354-01	2680		2760		2.9%

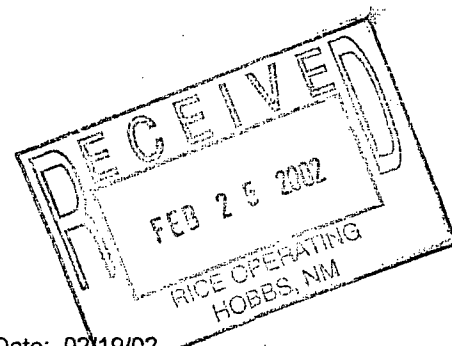


ARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: CHRIS RODRIGUEZ
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471



Receiving Date: 02/19/02
Reporting Date: 02/22/02
Project Number: NOT GIVEN
Project Name: MONITOR WELL SAMPLE
Project Location: MARATHON BARBER EOL EME

Sampling Date: 02/19/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity (mgCaCO ₃ /L)
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ANALYSIS DATE:		02/22/02	02/21/02	02/21/02	02/21/02	02/21/02	02/21/02
H6524-1	MW	471	248	66	12.2	3737	377
Quality Control		NR	55	49	5.27	1489	NR
True Value QC		NR	50	50	5.00	1413	NR
% Accuracy		NR	110	97.2	105	105	NR
Relative Percent Difference		NR	0	6.0	0	0.3	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
----------	-------------	-----------	------	-------	-------

Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
---------------------------	---------------------------	---------------------------	----------------------------	--------------	---------------

ANALYSIS DATE:		02/21/02	02/21/02	02/21/02	02/21/02	02/21/02	02/22/02
H6524-1	MW	940	221	0	460	7.00	2170
Quality Control		1020	52.66	NR	948	7.11	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Accuracy		102	105	NR	94.8	102	NR
Relative Percent Difference		5.0	0.6	NR	0.4	1.6	5.1

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
----------	-------------	-------	-------	-------	-------	-------

Amy Hill
Chemist

2-22-02
Date

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

H6524



ARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page ____ of ____

Company Name: Rice Operating Co.

Project Manager: Cheis Rodriguez

Address: 122 W. Taylor

City: Hobbs

Phone #: (505) 393-9174

Project #:

Project Name: Monitor Well Sample

Project Location: MAAATHON BARBER COL EME

Sampler Name:

P.O. #:

Company: Rice

Project Manager: Cheis Rodriguez

Address: 122 W. Taylor

City: Hobbs

State: N.M. zip: 88240

Phone #: (505) 393-9174

Fax #: (505) 393-1471

ANALYSIS REQUEST

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

CRUDE OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE TIME

Cation & Anions

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

Phone Result: ☐ Yes ☐ No Add'l Phone #:

Fax Result: ☐ Yes ☐ No Add'l Fax #:

REMARKS:

Relinquished By:

Chris Rodriguez

Date: 2/19/02
Time: 3:45 p.m.

Received By: (Lab Staff)

Paul Hill

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Sample Condition
Cool ☐ Intact ☐
Yes ☐ No ☐

CHECKED BY:
(Initials)

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