

AP - 60

ANNUAL MONITORING REPORT

YEAR(S):
2003

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

1R0427-092

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

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

EME Jct. K-33-1
K, 33-1, 19S, 37E

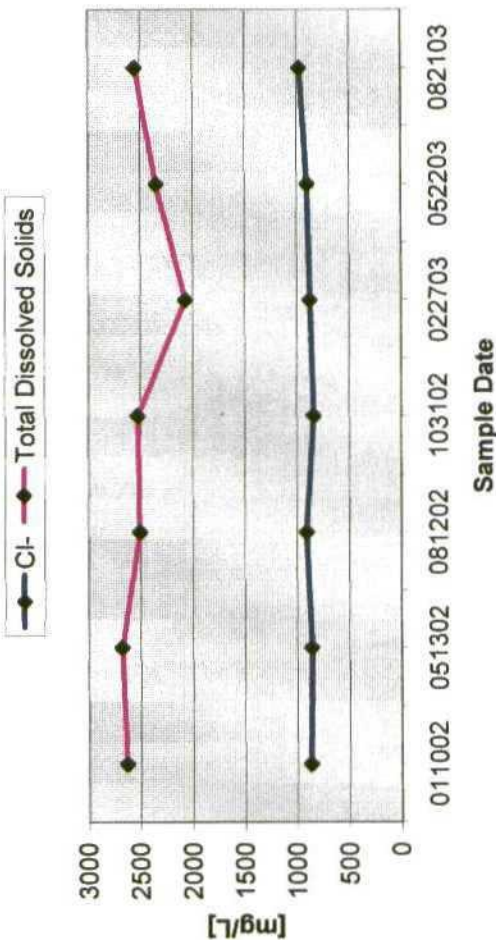
Rice Operating Co. Monitor Well Data Sheet

All parameter concentrations are in mg/L.

MW #	WATER LEVEL * (ft)	TOTAL DEPTH	WELL VOLUME	(gal)	VOLUME BAILED	SAMPLE DATE	TIME	CL-	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES
1	36.90	41.00	0.700		2.00	011002	1140	872	2635	<0.002	<0.002	<0.002	<0.006
1	36.88	40.78	0.624		2.90	051302	1010	860	2680	<0.001	<0.001	<0.001	<0.001
1	37.20	40.79	0.574		1.75	081202	1200	913	2510	<0.001	<0.001	<0.001	<0.001
1	37.11	40.77	0.586		1.75	103102	1315	842	2530	<0.001	<0.001	<0.001	<0.001
1	37.10	40.77	0.580		1.70	022703	1500	877	2070	<0.001	<0.001	<0.001	0.001
1	31.10	41.20	1.616		4.80	052203	1314	904	2350	<0.001	<0.001	<0.001	<0.001
1	37.29	40.04	0.440		1.32	082103	1206	975	2550	<0.001	<0.001	<0.001	<0.001
1	37.40	40.78	0.540		1.60	111903	1500	869	2470	<0.001	<0.001	<0.001	<0.001

* Depth to water is measured from the top of the casing
Casing is 3.021 ft

EME Jct. K-33-1 Monitor Well



ANALYTICAL REPORT

Prepared for:

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

Project: K-33-1

PO#:

Order#: G0305837

Report Date: 03/04/2003

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#: G0305837
Project:
Project Name: K-33-1
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>
0305837-01	MW 1	WATER	2/27/03	2/27/03 19:36	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp:	-2 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#: G0305837
Project:
Project Name: K-33-1
Location: EME

Lab ID: 0305837-01
Sample ID: MW 1

Anions

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Bicarbonate Alkalinity	284	mg/L	1	2.00	310.1	2/28/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	2/28/03	SB
Chloride	877	mg/L	1	5.00	9253	2/28/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	2/28/03	SB
SULFATE, 375.4	305	mg/L	5	2.5	375.4	2/28/03	SB

Cations

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Calcium	267	mg/L	100	1.0	6010B	2/28/03	SM
Magnesium	96.5	mg/L	10	0.010	6010B	2/28/03	SM
Potassium	14.7	mg/L	10	0.50	6010B	2/28/03	SM
Sodium	290	mg/L	100	1.0	6010B	2/28/03	SM

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Total Dissolved Solids (TDS)	2070	mg/L	1	5.0	160.1	2/28/03	TAL

Approval:

Raland K. Tuttle 3-04-03
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.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0305837
Project:
Project Name: K-33-1
Location: EME

Lab ID: 0305837-01
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>
0004817-02		3/3/03 16:48	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	90%	80	120

Approval: *Raland K. Tuttle* 3-04-03
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.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0305837

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0004817-02			<0.001	
Toluene-mg/L		0004817-02			<0.001	
Ethylbenzene-mg/L		0004817-02			<0.001	
p/m-Xylene-mg/L		0004817-02			<0.001	
o-Xylene-mg/L		0004817-02			<0.001	
CONTROL						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0004817-03		0.1	0.100	100.0%
Toluene-mg/L		0004817-03		0.1	0.101	101.0%
Ethylbenzene-mg/L		0004817-03		0.1	0.100	100.0%
p/m-Xylene-mg/L		0004817-03		0.2	0.206	103.0%
o-Xylene-mg/L		0004817-03		0.1	0.099	99.0%
CONTROL DUP						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0004817-04		0.1	0.095	95.0%
Toluene-mg/L		0004817-04		0.1	0.095	95.0%
Ethylbenzene-mg/L		0004817-04		0.1	0.094	94.0%
p/m-Xylene-mg/L		0004817-04		0.2	0.193	96.5%
o-Xylene-mg/L		0004817-04		0.1	0.094	94.0%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0004817-05		0.1	0.093	93.0%
Toluene-mg/L		0004817-05		0.1	0.095	95.0%
Ethylbenzene-mg/L		0004817-05		0.1	0.094	94.0%
p/m-Xylene-mg/L		0004817-05		0.2	0.194	97.0%
o-Xylene-mg/L		0004817-05		0.1	0.094	94.0%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0305837

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0004788-01			<2.00		
Carbonate Alkalinity-mg/L		0004789-01			<0.10		
Chloride-mg/L		0004796-01			<5.00		
Hydroxide Alkalinity-mg/L		0004792-01			<0.10		
SULFATE, 375.4-mg/L		0004795-01			<0.50		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0305831-27	186		185		0.5%
Carbonate Alkalinity-mg/L		0305831-27	0		<0.10		0.0%
Hydroxide Alkalinity-mg/L		0305831-27	0		<0.10		0.0%
SULFATE, 375.4-mg/L		0305820-01	98.2		96.0		2.3%
MS		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Chloride-mg/L		0305831-27	137	250	386	99.6%	
MSD		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Chloride-mg/L		0305831-27	137	250	381	97.6%	1.3%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0004788-04		0.05	0.0496	99.2%	
Carbonate Alkalinity-mg/L		0004789-04		0.05	0.0496	99.2%	
Chloride-mg/L		0004796-04		5000	4960	99.2%	
Hydroxide Alkalinity-mg/L		0004792-04		0.05	0.0496	99.2%	
SULFATE, 375.4-mg/L		0004795-04		50	50.8	101.6%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0305837

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0004785-02			<0.010		
Magnesium-mg/L		0004785-02			<0.001		
Potassium-mg/L		0004785-02			<0.050		
Sodium-mg/L		0004785-02			<0.010		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0305820-01	104		106		1.9%
Magnesium-mg/L		0305820-01	16.3		16.0		1.9%
Potassium-mg/L		0305820-01	6.67		6.58		1.4%
Sodium-mg/L		0305820-01	67.1		68.6		2.2%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0004785-05		2	2.08	104.%	
Magnesium-mg/L		0004785-05		2	2.20	110.%	
Potassium-mg/L		0004785-05		2	1.76	88.%	
Sodium-mg/L		0004785-05		2	1.73	86.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0305837

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0004809-01			<5.0		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0305837-01	2070		2120		2.4%

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

PO#:

[illegible]

ANALYTICAL REPORT

Prepared for:

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

Project: K-33-1
PO#: 510
Order#: G0306569
Report Date: 05/28/2003

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#: G0306569
Project:
Project Name: K-33-1
Location: E.M.E

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>
0306569-01	MW1	WATER	5/22/03 14:04	5/22/03 20:10	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#: G0306569
Project:
Project Name: K-33-1
Location: E.M.E

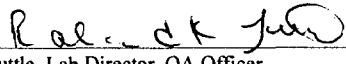
Lab ID: 0306569-01
Sample ID: MW1

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>		
0005645-02		5/27/03 13:03	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	95%	80	120
Bromofluorobenzene	87%	80	120

Approval:  5-29-03
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#: G0306569
Project:
Project Name: K-33-1
Location: E.M.E

Lab ID: 0306569-01
Sample ID: MW1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	277	mg/L	1	2.00	310.1	5/23/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	5/23/03	SB
Chloride	904	mg/L	1	5.00	9253	5/23/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	5/23/03	SB
SULFATE, 375.4	264	mg/L	5	2.5	375.4	5/23/03	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	209	mg/L	100	1.0	6010B	5/28/03	SM
Magnesium	91.1	mg/L	10	0.010	6010B	5/28/03	SM
Potassium	15.3	mg/L	10	0.50	6010B	5/28/03	SM
Sodium	271	mg/L	100	1.0	6010B	5/28/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2350	mg/L	1	5.0	160.1	5/27/03	CK

Approval: Raland K. Tuttle 5-29-03
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

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0306569

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0005645-02			<0.001	
Toluene-mg/L		0005645-02			<0.001	
Ethylbenzene-mg/L		0005645-02			<0.001	
p/m-Xylene-mg/L		0005645-02			<0.001	
o-Xylene-mg/L		0005645-02			<0.001	
CONTROL						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0005645-03		0.1	0.103	103.%
Toluene-mg/L		0005645-03		0.1	0.099	99.%
Ethylbenzene-mg/L		0005645-03		0.1	0.090	90.%
p/m-Xylene-mg/L		0005645-03		0.2	0.185	92.5%
o-Xylene-mg/L		0005645-03		0.1	0.086	86.%
CONTROL DUP						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0005645-04		0.1	0.097	97.%
Toluene-mg/L		0005645-04		0.1	0.094	94.%
Ethylbenzene-mg/L		0005645-04		0.1	0.086	86.%
p/m-Xylene-mg/L		0005645-04		0.2	0.178	89.%
o-Xylene-mg/L		0005645-04		0.1	0.084	84.%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0005645-05		0.1	0.104	104.%
Toluene-mg/L		0005645-05		0.1	0.101	101.%
Ethylbenzene-mg/L		0005645-05		0.1	0.091	91.%
p/m-Xylene-mg/L		0005645-05		0.2	0.187	93.5%
o-Xylene-mg/L		0005645-05		0.1	0.085	85.%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0306569

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Bicarbonate Alkalinity-mg/L		0005639-01			<2.00	
Carbonate Alkalinity-mg/L		0005638-01			<0.10	
Chloride-mg/L		0005640-01			<5.00	
Hydroxide Alkalinity-mg/L		0005637-01			<0.10	
SULFATE, 375.4-mg/L		0005636-01			<0.50	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Bicarbonate Alkalinity-mg/L		0306564-01	176		177	0.6%
Carbonate Alkalinity-mg/L		0306564-01	0		<0.10	0.0%
Hydroxide Alkalinity-mg/L		0306564-01	0		<0.10	0.0%
SULFATE, 375.4-mg/L		0306564-01	874		900	2.9%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Chloride-mg/L		0306564-01	496	500	984	97.6%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Chloride-mg/L		0306564-01	496	500	993	99.4%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Bicarbonate Alkalinity-mg/L		0005639-04		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0005638-04		0.05	0.0496	99.2%
Chloride-mg/L		0005640-04		5000	4960	99.2%
Hydroxide Alkalinity-mg/L		0005637-04		0.05	0.0496	99.2%
SULFATE, 375.4-mg/L		0005636-04		50	51.30	102.6%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0306569

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0005651-02			<0.010		
Magnesium-mg/L		0005651-02			<0.001		
Potassium-mg/L		0005651-02			<0.050		
Sodium-mg/L		0005651-02			<0.010		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0306564-01	311		313		0.6%
Magnesium-mg/L		0306564-01	87.2		88.7		1.7%
Potassium-mg/L		0306564-01	11.1		11.5		3.5%
Sodium-mg/L		0306564-01	321		325		1.2%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0005651-05		2	1.99	99.5%	
Magnesium-mg/L		0005651-05		2	2.14	107.9%	
Potassium-mg/L		0005651-05		2	1.75	87.5%	
Sodium-mg/L		0005651-05		2	2.14	107.9%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0306569

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0005649-01			<5.00		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0306569-01	2350		2360		0.4%

12600 West 1-20 East
Odessa, Texas 79763

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Keistin Farris

Project Name:

K-33-1

Company Name

RICE Operating

Project #:

Company Address:

Company Address: 122 W. Taylor

Project Loc:

Ex. 11.

City/State/Zip:

City/State/Zip: 60605, NM 88240

PO #:

015

Telephone No (505) 393-9174

Fax No: (505) 397-1471

Sampler Signature:

Israel Juarez

[illegible]

ANALYTICAL REPORT

Prepared for:

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

**Project: K-33-1
PO#: S10
Order#: G0307303
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#: G0307303
Project:
Project Name: K-33-1
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>
0307303-01	MWI	WATER	8/21/03 12:06	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#: G0307303
Project:
Project Name: K-33-1
Location: EME

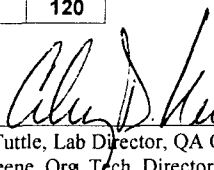
Lab ID: 0307303-01
Sample ID: MW1

8021B/5030 BTEX

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
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	119%	80	120
Bromofluorobenzene	107%	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#: G0307303
Project:
Project Name: K-33-1
Location: EME

Lab ID: 0307303-01
Sample ID: MW1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	240	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	975	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	274	mg/L	5	2.5	375.4	8/26/03	SB

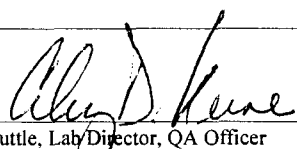
Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	251	mg/L	100	1.0	6010B	8/26/03	SM
Magnesium	89.8	mg/L	10	0.010	6010B	8/26/03	SM
Potassium	26.0	mg/L	10	0.50	6010B	8/26/03	SM
Sodium	422	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)	2550	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

RL = Reporting Limit N/A = Not Applicable

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0307303

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

Anions

Order#: G0307303

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Bicarbonate Alkalinity-mg/L		0006617-01			<2.00	
Carbonate Alkalinity-mg/L		0006618-01			<0.10	
Chloride-mg/L		0006640-01			<5.00	
Hydroxide Alkalinity-mg/L		0006619-01			<0.10	
SULFATE, 375.4-mg/L		0006634-01			<0.50	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Bicarbonate Alkalinity-mg/L		0307300-01	500		502	0.4%
Carbonate Alkalinity-mg/L		0307300-01	0		< 0.20	0.0%
Hydroxide Alkalinity-mg/L		0307300-01	0		< 0.20	0.0%
SULFATE, 375.4-mg/L		0307300-01	4.9		5.00	2.0%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Chloride-mg/L		0307300-01	2060	1000	3050	99.0%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Chloride-mg/L		0307300-01	2060	1000	3070	101.0%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Bicarbonate Alkalinity-mg/L		0006617-04		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0006618-04		0.05	0.0496	99.2%
Chloride-mg/L		0006640-04		5000	4960	99.2%
Hydroxide Alkalinity-mg/L		0006619-04		0.05	0.0496	99.2%
SULFATE, 375.4-mg/L		0006634-04		50	50.7	101.4%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0307303

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.%
Magnesium-mg/L		0307300-01	30.4		29.8		2.%
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.%	
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#: G0307303

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

12600 West 11-20 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: K-33-1

Company Name RICE Operating

Project #:

Company Address: 122 W. Taylor

Project Loc: EME

City/State/Zip: Fla 665, NM 88240

PO #: 510

Telephone No. (505) 393-9174

Fax No: (505) 397-1471

Sampler Signature:

[illegible]

ANALYTICAL REPORT

Prepared for:

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

Project: K-33-1
PO#: 510
Order#: G0307984
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#: G0307984
Project:
Project Name: K-33-1
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>
0307984-01	MW-1	WATER	11/19/03 15:00	11/19/03 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#: G0307984
Project:
Project Name: K-33-1
Location: EME

Lab ID: 0307984-01
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	96%	80	120
Bromofluorobenzene	91%	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

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0307984
Project:
Project Name: K-33-1
Location: EME

Lab ID: 0307984-01
Sample ID: MW-1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	250	mg/L	1	2.00	310.1	11/20/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	11/20/03	SB
Chloride	869	mg/L	1	5.00	325	11/20/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	11/20/03	SB
SULFATE, 375.4	282	mg/L	5	2.5	375.4	11/24/03	SB

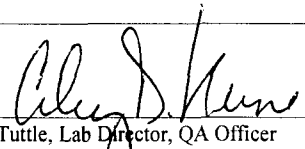
Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	239	mg/L	100	1.0	6010B	11/21/03	SM
Magnesium	86.9	mg/L	10	0.010	6010B	11/21/03	SM
Potassium	13.2	mg/L	10	0.50	6010B	11/21/03	SM
Sodium	269	mg/L	100	1.0	6010B	11/21/03	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	2470	mg/L	1	5.0	160.1	11/20/03	SB

Approval:


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

11/25/03
Date

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0307984

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0007510-01			<2.00		
Carbonate Alkalinity-mg/L		0007512-01			<0.10		
Chloride-mg/L		0007516-01			<5.00		
Hydroxide Alkalinity-mg/L		0007514-01			<0.10		
SULFATE, 375.4-mg/L		0007546-01			<0.50		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0307979-01	468		466		0.4%
Carbonate Alkalinity-mg/L		0307979-01	0		<0.10		0.0%
Hydroxide Alkalinity-mg/L		0307979-01	0		<0.10		0.0%
SULFATE, 375.4-mg/L		0307979-01	20.9		21.6		3.3%
MS		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Chloride-mg/L		0307979-01	1930	500	2430	100.0%	
MSD		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Chloride-mg/L		0307979-01	1930	500	2420	98.0%	0.4%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0007510-04		0.05	0.0496	99.2%	
Carbonate Alkalinity-mg/L		0007512-04		0.05	0.0496	99.2%	
Chloride-mg/L		0007516-04		5000	4960	99.2%	
Hydroxide Alkalinity-mg/L		0007514-04		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

8021B/5030 BTEX

Order#: G0307984

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

Cations

Order#: G0307984

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
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	RPD
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	RPD
Calcium-mg/L		0007495-05		2	1.76	88.1%	
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%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0307984

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0007518-01			<5.00		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0307979-01	3590		3600		0.3%

