

1R - 427-79

**APPROVALS**

**YEAR(S):**

2013

**Hansen, Edward J., EMNRD**

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**From:** Hansen, Edward J., EMNRD  
**Sent:** Tuesday, June 04, 2013 2:42 PM  
**To:** Hack Conder (hconder@riceswd.com)  
**Cc:** Leking, Geoffrey R, EMNRD; Laura Pena (lpena@riceswd.com); Katie Jones <kjones@riceswd.com> (kjones@riceswd.com); Scott Curtis (scurtis@riceswd.com)  
**Subject:** Remediation Plan (1R427-79) Termination - ROC EME M-9-3 Site

**RE: Termination Request  
for the Rice Operating Company's  
EME M-9-3 Site  
Unit Letter M, Section 9, T20S, R37E, NMPM, Lea County, New Mexico  
Remediation Plan (1R427-79) Termination**

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has received Rice Operating Company's report and request to close the above-referenced site, dated May 22, 2013 (received May 30, 2013). The reports are acceptable to the OCD.

The above-referenced report, submitted in accordance with 19.15.29 NMAC (Rule 29; formally, Rule 116), indicates that Rice Operating Company has met the requirements of 19.15.29 NMAC; therefore, the OCD approves the report and hereby notifies you that the remediation plan (1R427-79) is terminated in accordance with 19.15.29 NMAC.

Please be advised that OCD approval of this report does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen  
Hydrologist  
Environmental Bureau

# **RICE** *Operating Company*

122 West Taylor • Hobbs, New Mexico 88240

Phone: (575) 393-9174 • Fax: (575) 397-1471

CERTIFIED MAIL

RETURN RECEIPT NO. 7007 2560 0000 4569 9248

May 22, 2013

RECEIVED

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

MAY 30 2013

Oil Conservation Division  
1220 S. St. Francis Drive  
Santa Fe, NM 87505

RE: Termination Request  
EME M-9-3 (1R427-79): UL/M, Sec. 9, T20S, R37E  
RICE Operating Company – Eunice Monument Eumont SWD System

Mr. Hansen:

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

## **Background**

In 2002, ROC initiated work on the former M-9-3 junction box. The site is located in UL/M, Sec. 9, T20S, R37E. NM OSE records indicate that groundwater would likely be encountered at a depth of approximately 18 +/- feet. On April 2, 2002, a monitoring well (MW-1) was installed a few feet south of the former junction boxes to further access if groundwater was impacted.

Excavation operations began with the removal of the junction boxes according to the Redwood Tank Replacement/Closure Plan for EME SWD Site M-9, including M-9-3, on June 19, 2002. After the former junction box was removed, the site was delineated using a backhoe to collect soil samples at regular intervals, creating a 110x100x20 ft deep excavation. Each sample was field titrated for chlorides, resulting in low concentrations. Representative composite samples of the excavation bottom and the excavation walls were sent to a commercial for analysis of chloride, TPH and BTEX, resulting in a sidewall chloride concentration of 245 mg/kg and concentrations of gasoline range organics (GRO), diesel range organics (DRO) and BTEX below detectable limits. The bottom composite resulted in a chloride concentration of 95 mg/kg and concentrations of GRO, DRO and BTEX below detectable limits. The site was backfilled to 4 ft below

ground surface (BGS) where a compacted red-bed clay layer was installed and density tested. The clay layer will provide a barrier that will inhibit the downward migration of chlorides to groundwater. The excavation was backfilled with remediated soil to ground surface and contoured to the surrounding area. The remediated soil was tested in 3 ft lifts, resulting in low concentrations of chloride. A new, water-tight junction box was built over the same location within an active facility; therefore, seeding is not necessary.

Due to the horizontal extent of the excavation, MW-1 was lost and a replacement monitor well (MW-1A) was installed adjacent to the southeast corner of the excavated area. From 2003 to 2007, six additional monitor wells were installed under the Stage 1 Abatement Plan for M-9 SWD (AP-65) and have since been plugged and abandoned.

On July 24, 2009, a termination request was submitted to NMOCD for the M-9 SWD facility site, which is inclusive of M-9-3, based on chloride concentrations in the vadose zone of all borings, monitoring wells, and excavations averaging less than 250 mg/kg, which is representative of background levels. The excavation, backfilling, and installation of a clay layer performed by ROC mitigated any potential threat of constituents of concern (BTEX, chlorides, or TDS) from the area into the vadose zone or groundwater. Groundwater quality conditions on site are at or near background levels and six years of groundwater monitoring have supported the conclusions herein. NMOCD approved the termination request on September 22, 2009.

The junction box site location map, area map, final report, laboratory analysis and current photodocumentation are attached.

### **Recommendations**

Site investigation demonstrates that residual chloride and hydrocarbons in the vadose zone will not with reasonable probability contaminate groundwater in excess of NMOCD standards. This site meets the requirements of the NMOCD-approved Revised Junction Box Upgrade Work Plan (July 16, 2003). As such, ROC request termination of the regulatory file, or similar closure status.

Please contact me at (575)393-9174 if you have any questions or wish to discuss this site. Thank you for your time and consideration.

Sincerely,  
RICE Operating Company



Hack Conder  
Environmental Manager

enclosures

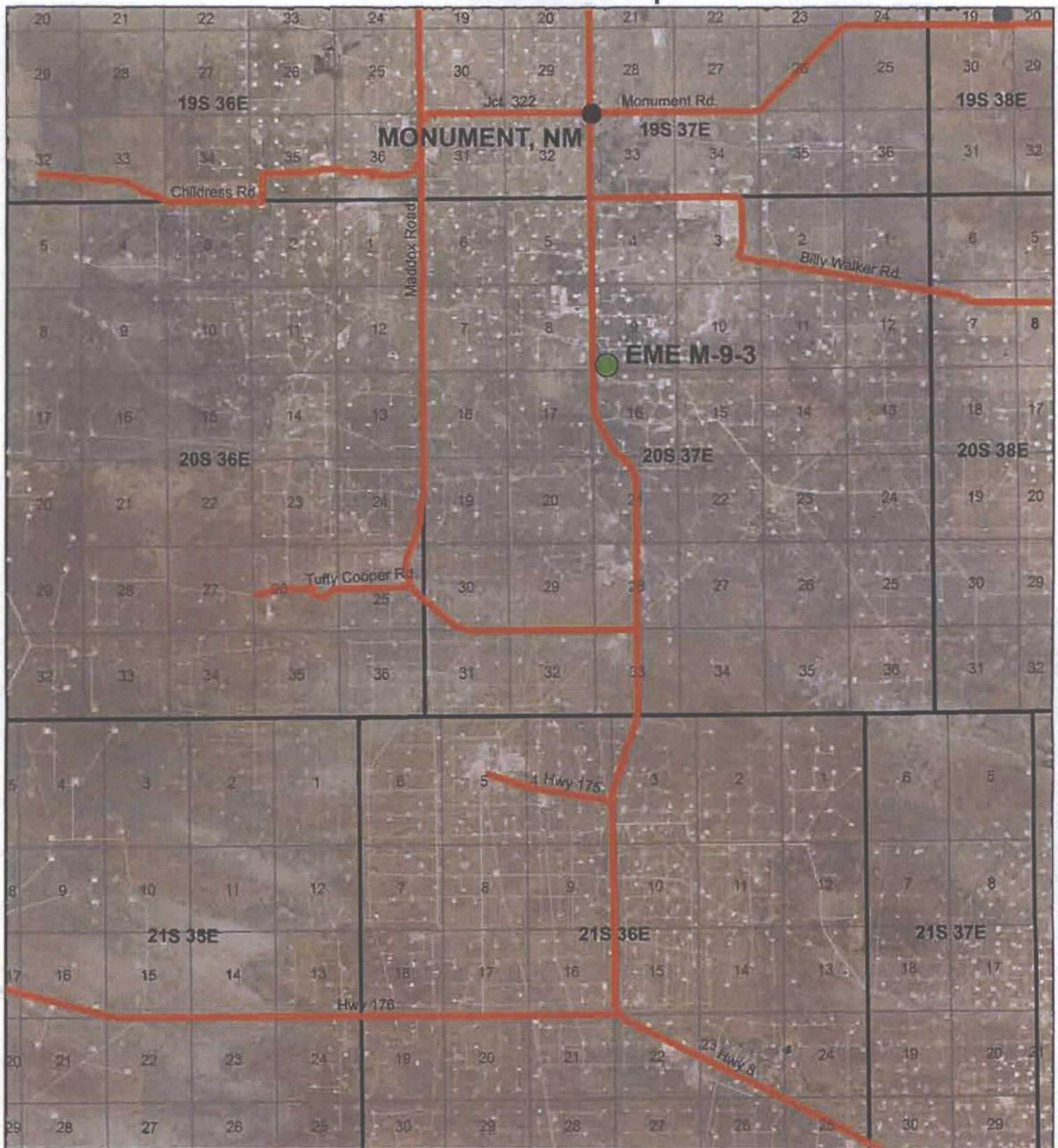
RECEIVED OCD  
2013 MAY 30 P 2:18



## Site Maps

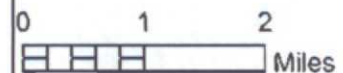
**RICE *Operating Company* (ROC)**  
112 West Taylor Hobbs, NM 88240  
Phone: (575) 393-9174 Fax: (575) 397-1471

# Site Location Map



**EME M-9-3  
(1R427-79)**

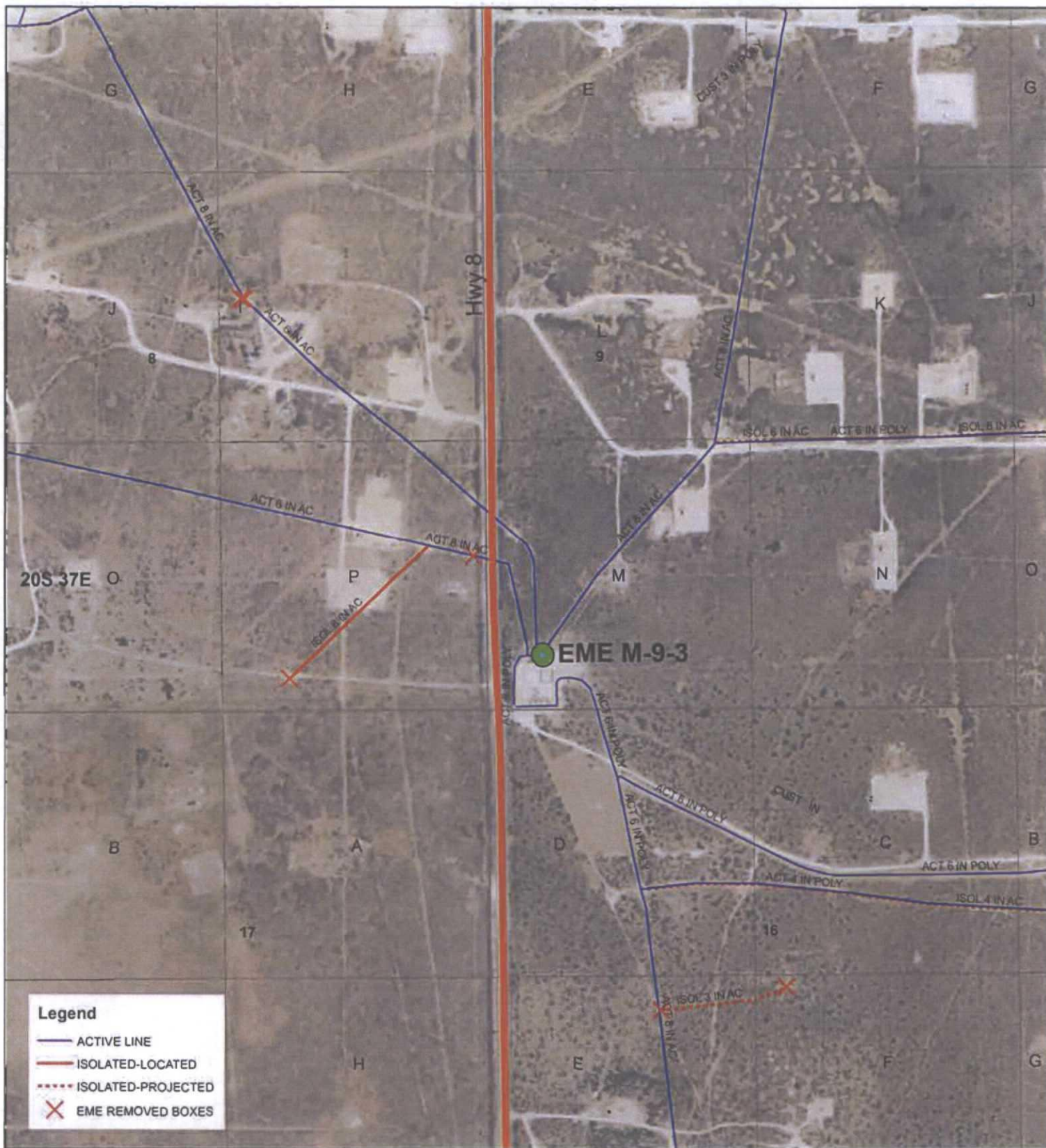
UL/M SECTION 9  
T20S, R37E  
LEA COUNTY, NM



Drawing date: 5/3/13 LS



## Area Map



**EME M-9-3  
(1R427-79)**

UL/M SECTION 9  
T20S, R37E  
LEA COUNTY, NM



A number line from 0 to 1,000 with a bar graph below it. The bar graph has 5 equal segments, each representing 200 feet. The first 4 segments are shaded gray, and the 5th segment is white. The total length is 1,000 feet.

Drawing date: 5/3/13 LS

# Junction Box Report

**RICE *Operating Company* (ROC)**  
112 West Taylor Hobbs, NM 88240  
Phone: (575) 393-9174 Fax: (575) 397-1471



**RICE OPERATING COMPANY  
JUNCTION BOX FINAL REPORT**

**BOX LOCATION**

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
EME	M-9-3	M	9	20S	37E	LEA	Length	Width	Depth

LAND TYPE: BLM \_\_\_\_\_ STATE \_\_\_\_\_ FEE LANDOWNER S & W CATTLE CO OTHER \_\_\_\_\_

Depth to Groundwater 18 feet NMOC SITE ASSESSMENT RANKING SCORE: 20

Date Started 06/19/2002 Date Completed 09/09/2002 OCD Witness YES

Soil Excavated 8000 cubic yards Excavation Length 110 Width 100 Depth 20 feet

Soil Disposed \_\_\_\_\_ cubic yards Offsite Facility \_\_\_\_\_ Location \_\_\_\_\_

**FINAL ANALYTICAL RESULTS:** Sample Date 09/09/2002 Sample Depth 20

Procure 5-point composite sample of bottom and 4-point composite sample of sidewalls. TPH, BTEX and Chloride laboratory test results completed by using an approved lab and testing procedures pursuant to NMOC guidelines.

Sample Location	Benzene mg/kg	Toluene mg/kg	Ethyl Benzene mg/kg	Total Xylenes mg/kg	GRO mg/kg	DRO mg/kg	Chlorides mg/kg
SIDEWALLS	<0.025	<0.025	<0.025	<0.025	<10	<10	245
BOTTOM	<0.025	<0.025	<0.025	<0.025	<10	<10	95

General Description of Remedial Action: This junction box was located within the

area excavated and remediated at the M-9 SWD Facility. All samples and test results were

taken from the M-9 SWD Facility remediation site. The site was excavated to 20' bgs and

then backfilled with 4' of clean overburden soil. A compacted red-bed clay liner was installed

and density tested. The excavation was backfilled with remediated soil. The remediated soil was

tested in 3' lifts. A monitor well was installed to sample groundwater constituents. Any remaining

hydrocarbon will naturally attenuate.

**CHLORIDE FIELD TESTS**

LOCATION	DEPTH	mg/kg
SIDEWALLS	13'	260
BOTTOM	20'	100
4' fill above gw	16'	220
1st lift above liner	12'	310
2nd lift	9'	350
3rd lift	6'	320
4th lift	3'	360
Surface	0'	471

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE October 2, 2002

PRINTED NAME D. E. Anderson

SIGNATURE 

TITLE Project Leader - Environmental

# ANALYTICAL REPORT

## Prepared for:

LOGAN ANDERSON  
RE ENVIRONMENTAL  
P.O. BOX 13418  
ODESSA, TX 79768

Project: Rice  
PO#: M-9  
Order#: G0204401  
Report Date: 09/04/2002

## Certificates

US EPA Laboratory Code TX00158

# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

RE ENVIRONMENTAL  
P.O. BOX 13418  
ODESSA, TX 79768  
366-0804

Order#: G0204401  
Project:  
Project Name: Rice  
Location: M-9 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>
0204401-01	Bottom Composite @20'	SOIL	8/28/02 15:00	8/29/02 16:30	4 oz Glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 0.5C		
	8015M					
	8021B/5030 BTEX					
	Chloride					

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

LOGAN ANDERSON  
RE ENVIRONMENTAL  
P.O. BOX 13418  
ODESSA, TX 79768

Order#: G0204401  
Project:  
Project Name: Rice  
Location: M-9 EME

Lab ID: 0204401-01  
Sample ID: Bottom Composite @20'

**8015M**

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		8/30/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

**8021B/5030 BTEX**

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0003022-02		9/1/02 9:30	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	106%	80	120
Bromofluorobenzene	119%	80	120

Approval:

*Coley D. Keene* 9/5/02  
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

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

Page 1 of 1

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

LOGAN ANDERSON  
RE ENVIRONMENTAL  
P.O. BOX 13418  
ODESSA, TX 79768

Order#: G0204401  
Project:  
Project Name: Rice  
Location: M-9 EME

Lab ID: 0204401-01  
Sample ID: Bottom Composite @20'

### 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>
Chloride	94.5	mg/kg	1	20	9253	9/4/02	SB

Approval:

*Coley D. Keene* 9/5/02  
Rand 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

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

8015M

Order#: G0204401

<b>BLANK</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003018-02			<10.0		
<b>MS</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0204400-04	198	952	1124	97.3%	
<b>MSD</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0204400-04	198	952	1144	99.4%	1.8%
<b>SRM</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003018-05		1000	1030	103.0%	

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204401

<b>BLANK</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0003022-02			<0.025		
Ethylbenzene-mg/kg		0003022-02			<0.025		
Toluene-mg/kg		0003022-02			<0.025		
p/m-Xylene-mg/kg		0003022-02			<0.025		
o-Xylene-mg/kg		0003022-02			<0.025		
<b>MS</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0204388-07	0	0.1	0.089	89.0%	
Ethylbenzene-mg/kg		0204388-07	0	0.1	0.090	90.0%	
Toluene-mg/kg		0204388-07	0	0.1	0.091	91.0%	
p/m-Xylene-mg/kg		0204388-07	0	0.2	0.188	94.0%	
o-Xylene-mg/kg		0204388-07	0	0.1	0.091	91.0%	
<b>MSD</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0204388-07	0	0.1	0.094	94.0%	5.5%
Ethylbenzene-mg/kg		0204388-07	0	0.1	0.095	95.0%	5.4%
Toluene-mg/kg		0204388-07	0	0.1	0.097	97.0%	6.4%
p/m-Xylene-mg/kg		0204388-07	0	0.2	0.198	99.0%	5.2%
Xylene-mg/kg		0204388-07	0	0.1	0.095	95.0%	4.3%
<b>SRM</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0003022-05		0.1	0.096	96.0%	
Ethylbenzene-mg/kg		0003022-05		0.1	0.097	97.0%	
Toluene-mg/kg		0003022-05		0.1	0.098	98.0%	
p/m-Xylene-mg/kg		0003022-05		0.2	0.201	100.5%	
o-Xylene-mg/kg		0003022-05		0.1	0.097	97.0%	

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

### Test Parameters

Order#: G0204401

<b>BLANK</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003049-01			<20.0		
<b>MS</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0204401-01	94.5	667	756	99.2%	
<b>MSD</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0204401-01	94.5	667	744	97.4%	1.6%
<b>SRM</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003049-04		5000	4960	99.2%	

# Environmental Lab of Texas I, Ltd.

12600 West I-20 East  
Odessa, Texas 79763

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

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Donnie Anderson  
Company Name: RT Environmental  
Company Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Telephone No: \_\_\_\_\_ Fax No: \_\_\_\_\_  
Sampler Signature: [Signature]

Project Name: Rice  
Project #: \_\_\_\_\_  
Project Loc: M-9 EME  
PO #: \_\_\_\_\_

LAB # (for use only)		FIELD CODE	Date Sampled	Time Sampled	N <sub>2</sub> of Containers	Preservative										Matrix										Analyze For:										RUSH TAT (Pre-Schedule)		Standard TAT	
						P	HNO <sub>3</sub>	HCl	HNO <sub>3</sub> /HCl	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	Other (Specify)	Water	Silica	S <sub>2</sub>	COMMENTS	TOTAL	As	Ag	Ba	Cd	Cr	Pb	Hg	Sr	Volatiles	Semivolatiles	BTX	PCB	OCM	Tox Cd								
Bottom Composite @ 20'			8-28-02	3:00 P	1	X										X	X	X								X													
Special Instructions		Fax Results to Donnie Anderson																																					
Relinquished by:		Date	Time	Received by:		Date	Time																																
[Signature]		8-29-02	4:30P																																				
Relinquished by:		Date	Time	Received by:		Date	Time																																

# ANALYTICAL REPORT

## Prepared for:

LOGAN ANDERSON  
RE ENVIRONMENTAL  
P.O. BOX 13418  
ODESSA, TX 79768

Project: Rice

PO#:

Order#: G0204422

Report Date: 09/06/2002

## Certificates

US EPA Laboratory Code TX00158



# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

RE ENVIRONMENTAL  
P.O. BOX 13418  
ODESSA, TX 79768  
366-0804

Order#: G0204422  
Project:  
Project Name: Rice  
Location: M-9

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>
0204422-01	5 pt. Wall Comp. @ 13'	SOIL	8/30/02 15:00	9/3/02 11:30	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 16.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0204422-02	4 pt. Bottom Comp. @ 16'	SOIL	8/30/02 15:00	9/3/02 11:30	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 16.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

LOGAN ANDERSON  
RE ENVIRONMENTAL  
P.O. BOX 13418  
ODESSA, TX 79768

Order#: G0204422  
Project:  
Project Name: Rice  
Location: M-9

Lab ID: 0204422-01  
Sample ID: 5 pt. Wall Comp. @ 13'

8015M

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>
		9/3/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

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>
0003053-02		9/5/02 13:19	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	114%	80	120
Bromofluorobenzene	115%	80	120

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

LOGAN ANDERSON  
RE ENVIRONMENTAL  
P.O. BOX 13418  
ODESSA, TX 79768

Order#: G0204422  
Project:  
Project Name: Rice  
Location: M-9

Lab ID: 0204422-02  
Sample ID: 4 pt. Bottom Comp. @ 16'

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
Blank	Prepared	Analyzed	Amount	Factor		
		9/3/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	50.3	10.0
TOTAL, C6-C35	50.3	10.0

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
Blank	Prepared	Analyzed	Amount	Factor		
0003053-02		9/5/02 14:25	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Ethylbenzene	<0.025	0.025
Toluene	<0.025	0.025
p/m-Xylene	<0.025	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	108%	80	120
Bromofluorobenzene	113%	80	120

Approval:

Raland K. Tuttle, Lab Director, QA Officer

Date

Celcy D. Keene, Org. Tech. Director

Jeanne McMurrey, Inorg. Tech. Director

Sandra Biezugbe, Lab Tech.

Sara Molina, Lab Tech.

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

Page 2 of 2

ENVIRONMENTAL LAB OF TEXAS I, LTD.

12600 West I-20 East, Odessa, TX 79765

Ph: 915-563-1800

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

LOGAN ANDERSON  
RE ENVIRONMENTAL  
P.O. BOX 13418  
ODESSA, TX 79768

Order#: G0204422  
Project:  
Project Name: Rice  
Location: M-9

Lab ID: 0204422-01  
Sample ID: 5 pt. Wall Comp. @ 13'

### 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>
Chloride	245	mg/kg	1	20	9253	9/4/02	SB

Lab ID: 0204422-02  
Sample ID: 4 pt. Bottom Comp. @ 16'

### 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>
Chloride	354	mg/kg	1	20	9253	9/4/02	SB

Approval: Raland K. Tuttle 9-06-02  
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

8015M

Order#: G0204422

<b>BLANK</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003048-02			<10.0		
<b>CONTROL</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003048-03		952	1003	105.4%	
<b>CONTROL DUP</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003048-04		952	992	104.2%	1.1%
<b>SRM</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003048-05		1000	1040	104.0%	



# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204422

<i>BLANK</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0003053-02			<0.025		
Ethylbenzene-mg/kg		0003053-02			<0.025		
Toluene-mg/kg		0003053-02			<0.025		
p/m-Xylene-mg/kg		0003053-02			<0.025		
o-Xylene-mg/kg		0003053-02			<0.025		
<i>MS</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0204422-01	0	0.1	0.093	93.%	
Ethylbenzene-mg/kg		0204422-01	0	0.1	0.095	95.%	
Toluene-mg/kg		0204422-01	0	0.1	0.095	95.%	
p/m-Xylene-mg/kg		0204422-01	0	0.2	0.196	98.%	
o-Xylene-mg/kg		0204422-01	0	0.1	0.095	95.%	
<i>MSD</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0204422-01	0	0.1	0.094	94.%	1.1%
Ethylbenzene-mg/kg		0204422-01	0	0.1	0.096	96.%	1.%
Toluene-mg/kg		0204422-01	0	0.1	0.096	96.%	1.%
p/m-Xylene-mg/kg		0204422-01	0	0.2	0.198	99.%	1.%
o-Xylene-mg/kg		0204422-01	0	0.1	0.096	96.%	1.%
<i>RM</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0003053-05		0.1	0.105	105.%	
Ethylbenzene-mg/kg		0003053-05		0.1	0.105	105.%	
Toluene-mg/kg		0003053-05		0.1	0.108	108.%	
p/m-Xylene-mg/kg		0003053-05		0.2	0.215	107.5%	
o-Xylene-mg/kg		0003053-05		0.1	0.104	104.%	

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

### Test Parameters

Order#: G0204422

<b>BLANK</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003050-01			<20.0		
<b>MS</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0204410-15	5320	5000	10300	99.6%	
<b>MSD</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0204410-15	5320	5000	10200	97.6%	1.0%
<b>SRM</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003050-04		5000	4960	99.2%	

12600 West I-20 East  
Odessa, Texas 79763

**Fax: 915-563-1713**

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**Project Manager:**

**Company Name**

**Company Address:**

City/State/Zip:

Telephone No:

Fax No:

**Sampler Signature.**

**Project Name:**

**Project #:**

Project Loc:

PO #:

LAB # (lab use only)		FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative						Matrix				Analyze For:															
						H <sub>2</sub> O	HNO <sub>3</sub>	HCl	NaOH	H <sub>2</sub> SO <sub>4</sub>	None	Other (Specify)	Vegetal	Sludge	Soil	Other (Specify)	Calcium (Ca, Mg, Na, K)	Aluminum (Al, Si, SO <sub>4</sub> , CO <sub>3</sub> , HCO <sub>3</sub> )	Barium (Ba, Sr, Pb, Hg, Se)	Chromium (Cr, As, Ag, Ba, Co, Cr, Pb, Hg, Se)	Copper (Cu)	Iron (Fe)	Manganese (Mn)	Nickel (Ni)	Silver (Ag)	Sodium (Na)	Total Gamma	RUSH TAT (Pre-Schedule)	Scientist TAT		
01	0204422	5pt. Wall Comp. @ 13"	8-30-02	3:00 P	1	X									X		X	X													
02		4pt. Bottom Comp. @ 16"	8-30-02	3:00 P	1	X									X		X	X													
Special Instructions			Fax Results to Dannie Anderson																												
Retinquired by:		Date	Time	Received by:		Date		Time																							
Retinquired by:		Date	Time	Received by:		Date		Time																							

# Current Photodocumentation

**RICE *Operating Company* (ROC)**  
112 West Taylor Hobbs, NM 88240  
Phone: (575) 393-9174 Fax: (575) 397-1471

**EME M-9-3 (1R427-79)**

UL/M, Section 9, T20S, R37E



Facing north

3/26/2013



Facing east

3/26/2013