

**1R - 427 - 37**

# **REPORTS**

**DATE:**

**12-24-2003**

# FINAL REPORT

**RICE OPERATING COMPANY  
JUNCTION BOX FINAL REPORT**

**BOX LOCATION**

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
EME	M-10-1	M	10	21 S	36 E	Lea	7	5	10

LAND TYPE: BLM \_\_\_\_\_ STATE \_\_\_\_\_ FEE LANDOWNER \_\_\_\_\_ Millard Deck \_\_\_\_\_ OTHER \_\_\_\_\_

Depth to Groundwater \_\_\_\_\_ 200 \_\_\_\_\_ feet NMOCD SITE ASSESSMENT RANKING SCORE: \_\_\_\_\_ 0 \_\_\_\_\_

Date Started \_\_\_\_\_ 9/11/2003 \_\_\_\_\_ Date Completed \_\_\_\_\_ 10/30/2003 \_\_\_\_\_ OCD Witness \_\_\_\_\_ No \_\_\_\_\_

Soil Excavated \_\_\_\_\_ 266 \_\_\_\_\_ cubic yards Excavation Length \_\_\_\_\_ 25 \_\_\_\_\_ Width \_\_\_\_\_ 24 \_\_\_\_\_ Depth \_\_\_\_\_ 12 \_\_\_\_\_ feet

Soil Disposed \_\_\_\_\_ 0 \_\_\_\_\_ cubic yards Offsite Facility \_\_\_\_\_ n/a \_\_\_\_\_ Location \_\_\_\_\_ n/a \_\_\_\_\_

**FINAL ANALYTICAL RESULTS:** Sample Date \_\_\_\_\_ 9/30/2003 \_\_\_\_\_ Sample Depth \_\_\_\_\_ 12 ft bgs \_\_\_\_\_

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 NMOCD guidelines.

Sample Location	PID ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
SIDEWALLS	18.5	<10.0	<10.0	240
BOTTOM	17.1	<10.0	<10.0	688
REMEDIED	21.7	<10.0	<10.0	464
Bore 10 ft east @ 22 ft	XXX	XXX	XXX	142
Bore 15 ft south @ 22 ft	XXX	XXX	XXX	<20

**CHLORIDE FIELD TESTS**

General Description of Remedial Action: Delineation with a backhoe did not  
yield a sufficient decline in chloride concentrations with depth. PID readings were minimal  
and lab results confirmed that TPH concentrations are well below NMOCD guidelines.  
The location was bored to determine the vertical extent of chloride impact and tests of the  
returns conclusively indicate that chloride ceases well above groundwater depth (see graphs).  
A 1.5 ft compacted clay barrier was installed at the bottom of the 25 x 24 x 12-ft-deep excavation  
to inhibit further downward migration of chloride. The excavated soil was landfarmed at the  
location and then backfilled into the hole and leveled. The disturbed surface has been  
re-seeded with a blend of native vegetation and will be monitored for growth. A new watertight  
junction box has been built over this site.  
enclosed: lab results, chloride graphs, diagram, photos, clay compaction test

LOCATION	DEPTH (ft)	ppm
Vertical	8	880
	9	1280
	10	964
	11	807
	12	940
4-wall comp.	n/a	611
bottom comp.	12	534
remed. comp.	n/a	745
bore 15 ft south	22	201
bore 10 ft east	22	222

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

DATE \_\_\_\_\_ 12/24/2003 \_\_\_\_\_ PRINTED NAME \_\_\_\_\_ Kristin Farris \_\_\_\_\_  
SIGNATURE \_\_\_\_\_ *Kristin Farris* \_\_\_\_\_ TITLE \_\_\_\_\_ Project Scientist \_\_\_\_\_

## EME jct. M-10-1



Old wooden box prior to excavation



Backhoe excavation & delineation

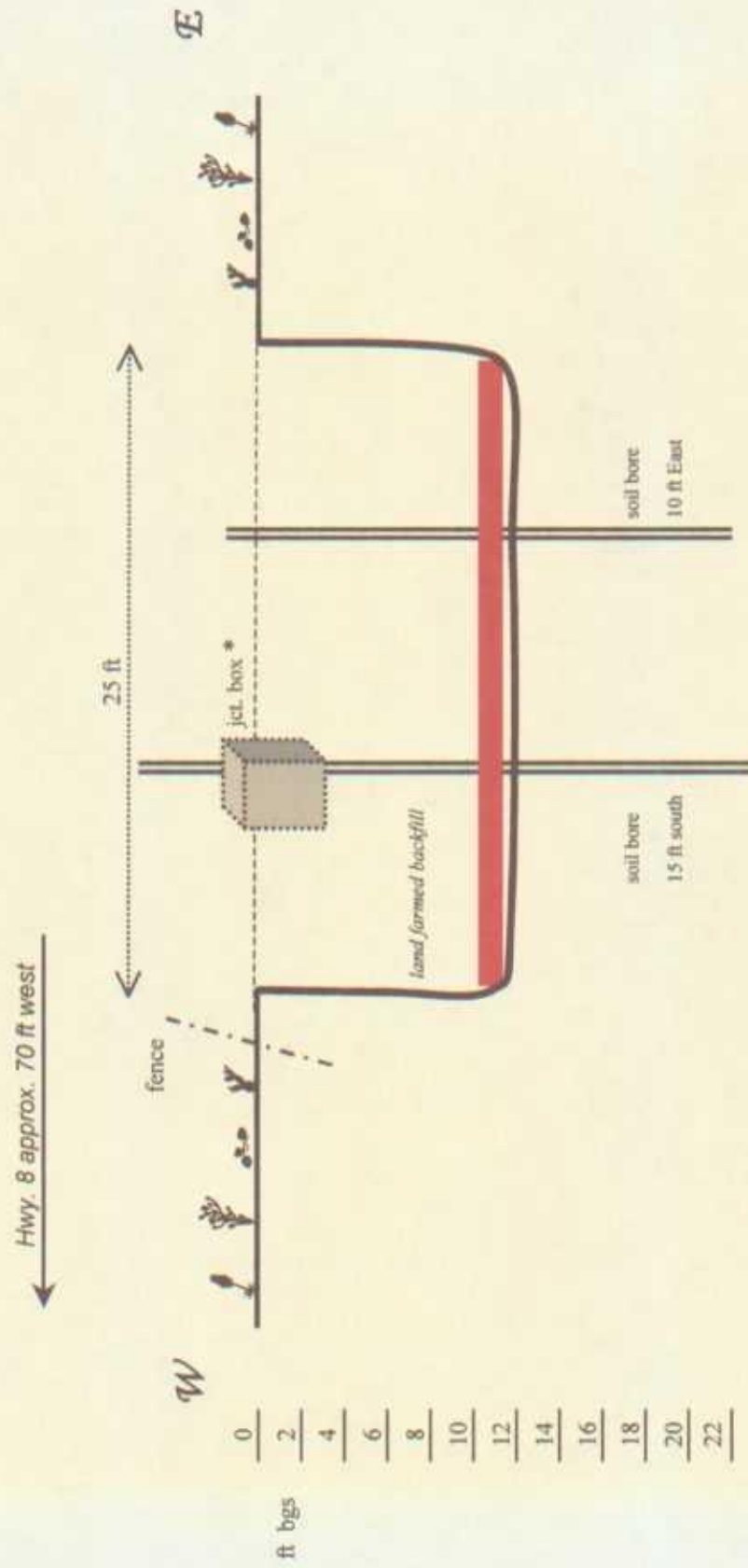
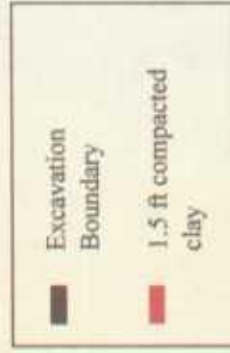


Density & compaction test of clay



Seeding disturbed area; new plastic junction box in background

# EME jct. M-10-1 Impact Excavation Cross-Section



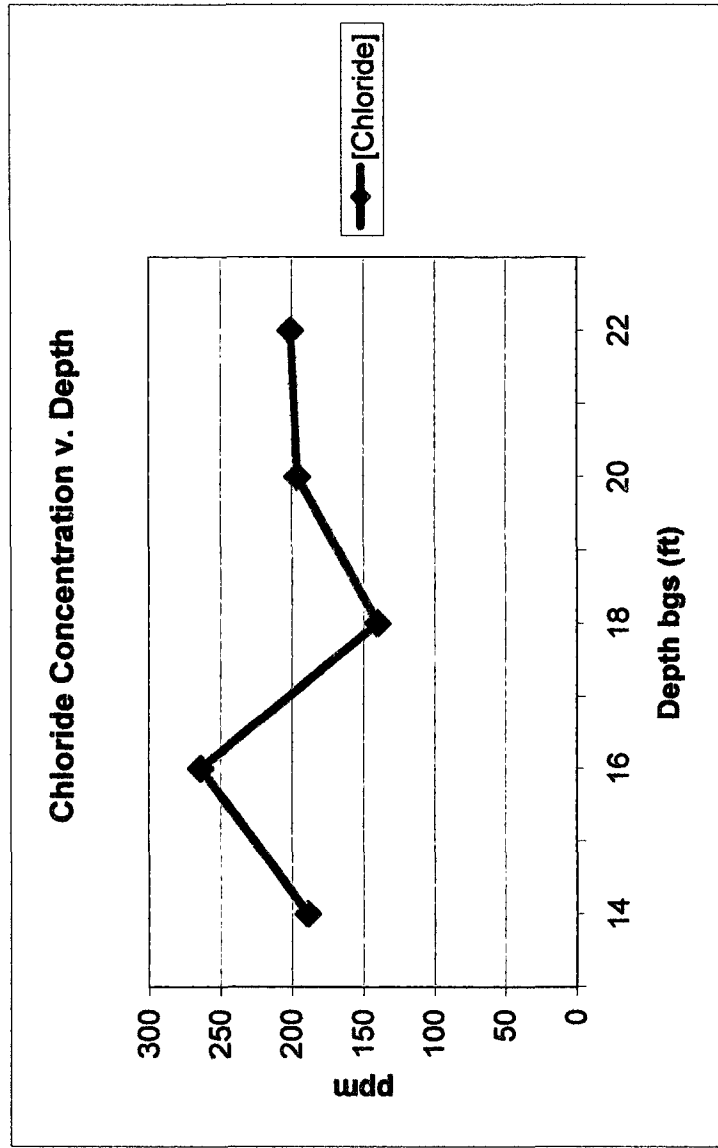
\* New water-tight junction box is re-built in the same location.

**EME jct. M-10-1**  
T21S, R36E

Soil Bore 15 ft South

Depth bgs (ft)	[Cl <sup>-</sup> ] ppm
14	189
16	264
18	140
20	196
22	201

Groundwater = 200 ft



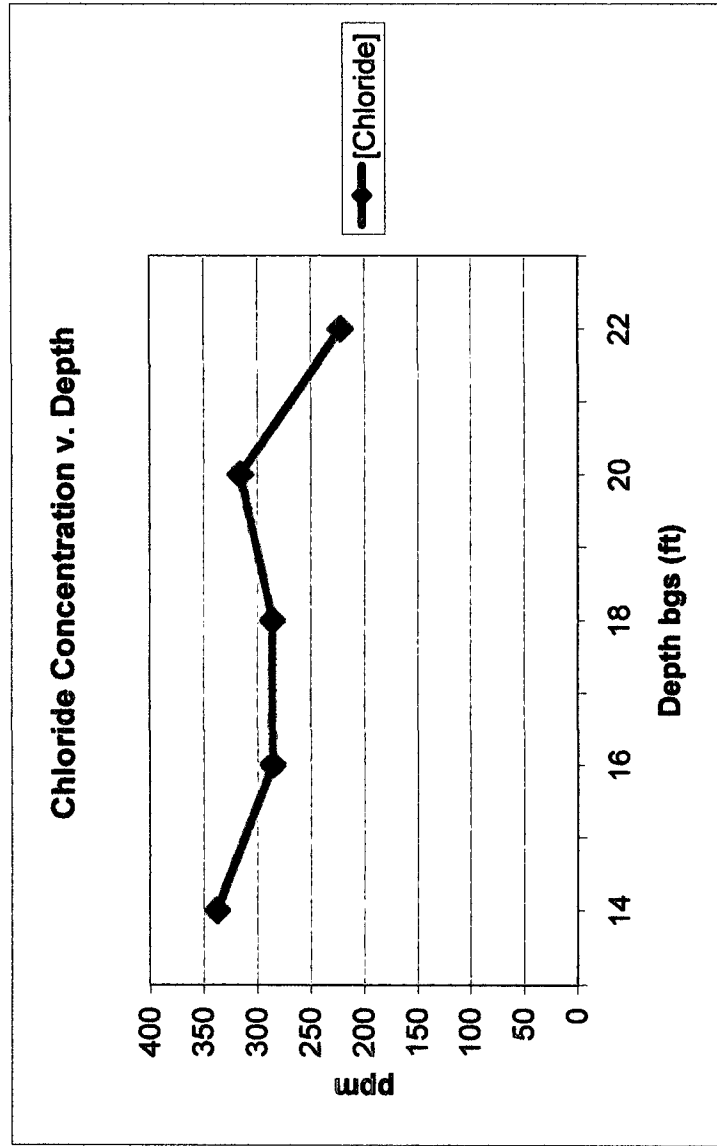
# EME jct. M-10-1

T21S, R36E

Soil Bore 10 ft East

Depth bgs (ft)	[Cl <sup>-</sup> ] ppm
14	338
16	286
18	286
20	316
22	222

Groundwater = 200 ft



ETGI Composite Jet Box Final report 24x25x12' dec  
SITE EXCAVATION INFORMATION

EME m-10-1

DATE DEPTH CL PID TPH SOIL COMPOSITION

9-30-03 Bottom 12' 534 17.1

Mix

4 Wall 611 18.5

Remediated 745 21.7

Backfill

N. Wall 12' 311 14.6

S. Wall 12' 256 11.1

W. Wall 10' 296 10.2

E. Wall 15' 613 10.9

Gary Huns



# **ANALYTICAL REPORT**

## **Prepared for:**

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

**Project:** EME M 10-1

**PO#:**

**Order#:** G0307652

**Report Date:** 10/08/2003

## **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#: G0307652  
Project: Bore Samples  
Project Name: EME M 10-1  
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>
0307652-01	10' E. Source @ 22'	SOIL	9/19/03	10/6/03	Plastic Bag	ice
			10:30	8:00		
			Rejected: No	Temp: 4.0 C		
			<u>Lab Testing:</u>			
			Chloride			
0307652-02	15' S. Source @ 22'	SOIL	9/19/03	10/6/03	Plastic Bag	ice
			14:30	8:00		
			Rejected: No	Temp: 4.0 C		
			<u>Lab Testing:</u>			
			Chloride			

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0307652  
Project: Bore Samples  
Project Name: EME M 10-1  
Location: None Given

Lab ID: 0307652-01  
Sample ID: 10' E. Source @ 22'

### 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	142	mg/kg	1	20	9253	10/7/03	SB

Lab ID: 0307652-02  
Sample ID: 15' S. Source @ 22'

### 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	<20	mg/kg	1	20	9253	10/7/03	SB

Approval:

*Celestine D. Keene* 10/9/03  
Raland K. Tuttle, Lab Director, QA Officer  
Celestine 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

### Test Parameters

Order#: G0307652

<b>BLANK</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0007064-01			<20		
<b>MS</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0307648-01	1030	500	1540	102.%	
<b>MSD</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0307648-01	1030	500	1560	106.%	1.3%
<b>SRM</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0007064-04		5000	4960	99.2%	

12600 West I-20 East  
Odessa, Texas 79763

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

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name: EME M10-1

Project #: BORE SAMPLES

Project Lac:

Fax No: 505-397-1471

Ray R. Carson

[illegible]



# ARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

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

ANALYTICAL RESULTS FOR  
RICE OPERATING CO.  
ATTN: ROY RASCON  
122 W. TAYLOR  
HOBBS, NM 88240  
FAX TO: (505) 393-1471

Receiving Date: 09/30/03  
Reporting Date: 10/01/03  
Project Number: NOT GIVEN  
Project Name: EME M-10-1  
Project Location: LEA CO., NM

Sampling Date: 09/30/03  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: BC  
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	GRO	DRO	CI*
		(C <sub>6</sub> -C <sub>10</sub> ) (mg/Kg)	(>C <sub>10</sub> -C <sub>28</sub> ) (mg/Kg)	(mg/Kg)
ANALYSIS DATE		09/30/03	09/30/03	10/01/03
H8051-1	BOTTOM 12'	<10.0	<10.0	688
H8051-2	4 WALLS	<10.0	<10.0	240
H8051-3	REMEDiated BACKFILL	<10.0	<10.0	464
Quality Control		806	792	1050
True Value QC		800	800	1000
% Recovery		101	90.0	105
Relative Percent Difference		1.4	11.3	6.7

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI: Std. Methods 4500-CI'B

\*Analyses performed on 1:4 w:v aqueous extracts.

Bryant A. Leach  
Chemist

10/1/03  
Date

## H8051.XLS

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.

**ARDINAL LABORATORIES, INC.**

2111 Beechwood, Abilene, TX 79803 101 East Marland, Hobbs, NM 88240  
(815) 673-7001 Fax (815) 673-7020 (505) 393-2328 Fax (505) 393-2476

10-2382

[illegible]

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.



LABORATORY TEST REPORT  
**PETTIGREW and ASSOCIATES, P.A.**  
1110 N. GRIMES  
HOBBS, NM 88240  
(505) 393-9827



DEBRA P. HICKS, P.E./L.S.I.  
WILLIAM M. HICKS, III, P.E./P.S.

To: Rice Operating Corporation  
Attn: Carolyn Haynes  
122 W. Taylor  
Hobbs, NM 88240

Material: Red Clay

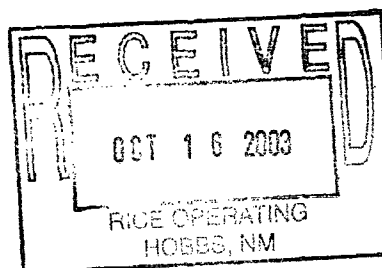
Test Method: ASTM: D 2922

Project: M 10-1

Date of Test: October 13, 2003

Depth: Finished Subgrade

Test No.	Location	Dry Density % Maximum	% Moisture	Depth
SG-1	SW Corner of Pit	101.7	19.4	



Control Density: 104.2  
ASTM: D 698

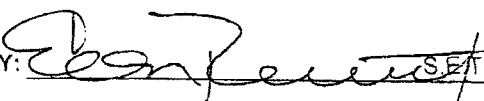
Optimum Moisture: 23.1%

Required Compaction: 95%

Lab No.: 03 6302-6303

Copies To: Rice Operating

PETTIGREW and ASSOCIATES

BY:  S.E.T.