

1R - 427 - 44

REPORTS

DATE:

12-12-2003

EME Citation 'C' EOL

1R0427-44

FINAL REPORT

**RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT**

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
EME	Citation 'C' EOL	H	24	21S	35E	Lea	Length	Width	Depth
							Moved 15 ft north		

LAND TYPE: BLM _____ STATE _____ FEE LANDOWNER Merchant Livestock Co. OTHER _____

Depth to Groundwater 201 feet NMOCD SITE ASSESSMENT RANKING SCORE: 0

Date Started 8/13/2003 Date Completed 10/8/2003 OCD Witness No

Soil Excavated 358 cubic yards Excavation Length 30 Width 23 Depth 14 feet

Soil Disposed 48 cubic yards Offsite Facility South Monument Location Monument, NM

FINAL ANALYTICAL RESULTS: Sample Date 9/25/2003 Sample Depth 18 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
VERTICAL @ 18 ft	0.6	<10.0	<10.0	3870
4-WALL COMP.	12.4	<10.0	<10.0	256
STOCKPILE	15.8	<10.0	<10.0	1060
BORE @ 26 ft	xxx	xxx	xxx	284
WATER WELL 150 ft SE	xxx	xxx	xxx	72

CHLORIDE FIELD TESTS

LOCATION	DEPTH (ft)	ppm
Vertical	6	3605
	8	1526
	10	2257
	12	1806
	14	1113
	16	3713
	18	2006
bore @ source	23	1775
	37	1176
	44	1192
bore 10 ft East	14	579
	22	505
	26	495
4-wall comp.	n/a	536
stockpile	n/a	775

General Description of Remedial Action: The old junction box site was delineated with a backhoe with chloride tests and PID readings performed regularly. The lateral and vertical extent of chloride impact was not found at the 30 x 23 x 14 ft excavation, however, TPH concentrations were well below NMOCD guidelines. The site was bored and delineated on 9/15/2003 and chloride impact subsided well before groundwater was encountered. At 6 ft, a clay barrier 1.5 ft thick was installed to inhibit the vertical migration of remaining impact. The excavated soil was then backfilled on top of the clay barrier with imported clean soil capping the top 2 ft. The disturbed surface was re-seeded with native vegetation and will be monitored for growth. A down-gradient water well is located 150 ft southeast east of this site. ROC sampled this well on 9/19/03 and the enclosed water analysis exhibited no indication of impact.

enclosures: lab results, chloride graphs, photos, disposal tickets, PID readings, clay compaction test

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

DATE 12/12/2003 PRINTED NAME Kristin Farris

SIGNATURE Kristin Farris TITLE Project Scientist

EME Citation 'C' EOL



Beginning Excavation at Former Junction Box Site (August 2003)



30 x 23 x 12-ft Excavation Before Installing Clay Barrier (August 2003)



Delineation Drilling (August 15, 2003)



Density Testing Clay (October 6, 2003)

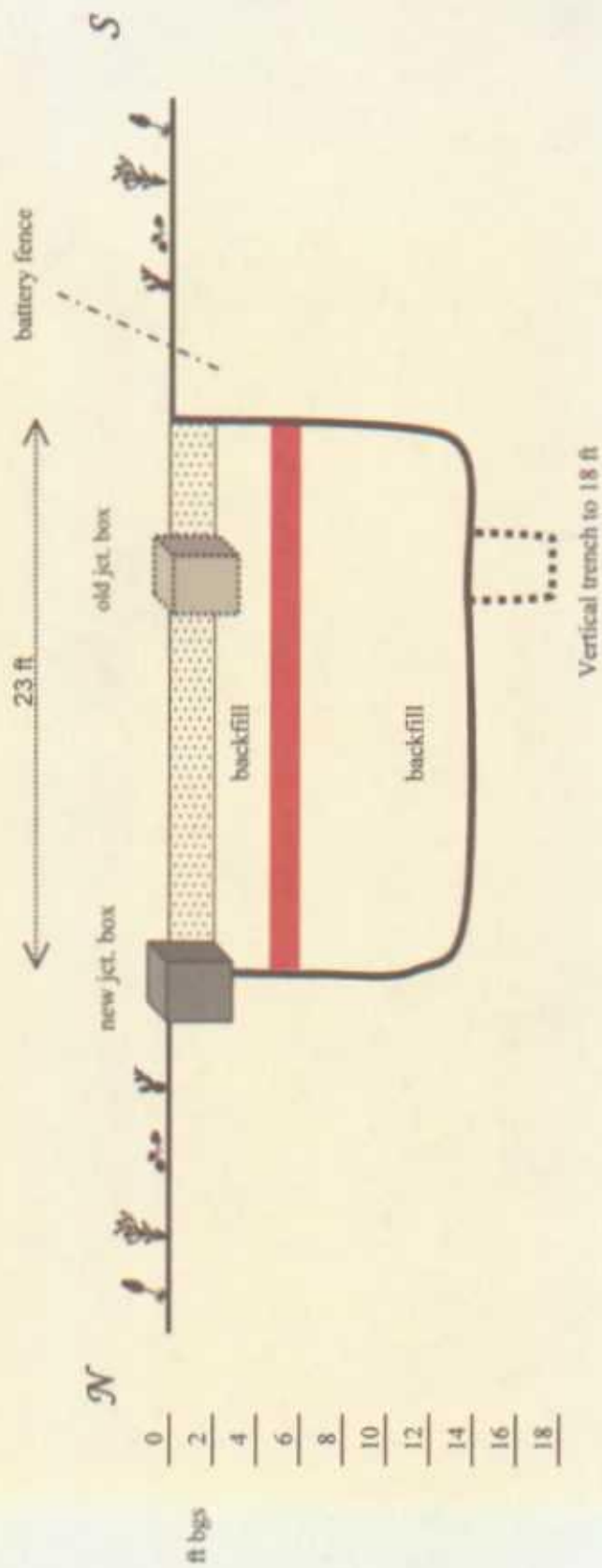


Seeding Backfilled Site (October 15, 2003)



Backfilled with Clay Identification Plate in Foreground; New Box 15 ft North of Old Junction Box

EME Citation 'C' EOL **Excavation Cross-Section**



	Excavation Boundary
	1.5 ft compacted clay liner
	Imported clean fill soil

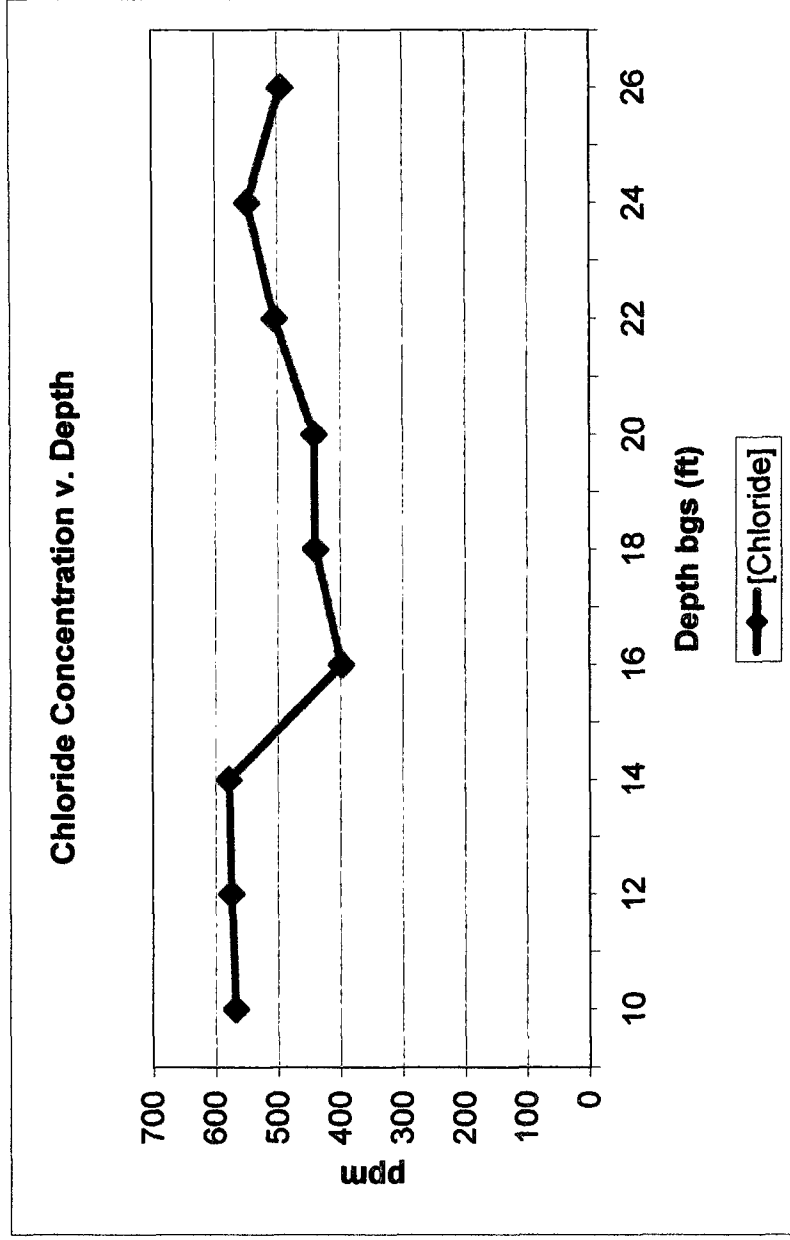
EME Citation 'C' EOL

Unit 'H', Sec. 24, T21S, R35E

Soil Bore 10 ft East of Source

Depth bgs (ft)	[Cl ⁻] ppm
10	568
12	575
14	579
16	398
18	440
20	442
22	505
24	548
26	495

Groundwater = 201 ft



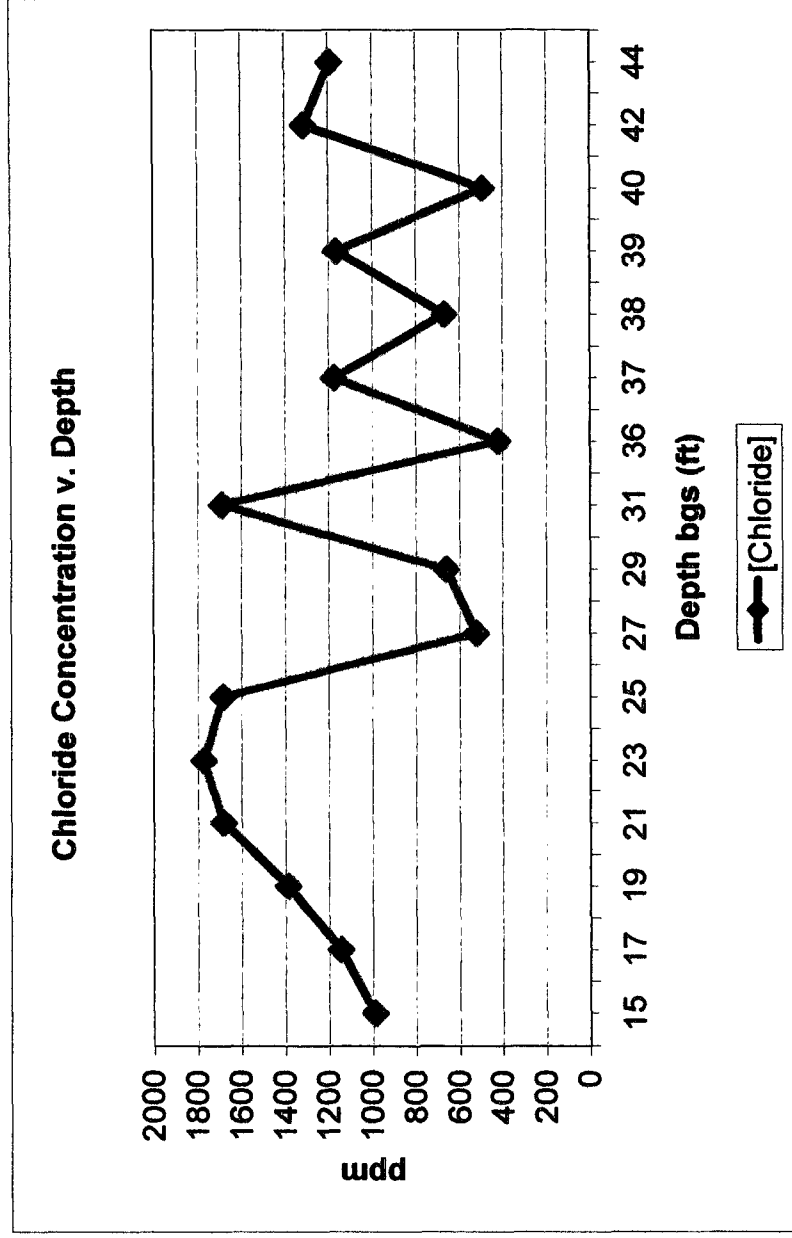
EME Citation 'C' EOL

Unit 'H', Sec. 24, T21S, R35E

Soil Bore at Source

Depth bgs (ft)	[Cl ⁻] ppm
15	990
17	1147
19	1387
21	1684
23	1775
25	1685
27	523
29	663
31	1690
36	420
37	1176
38	669
39	1165
40	494
42	1313
44	1192

Groundwater = 201 ft

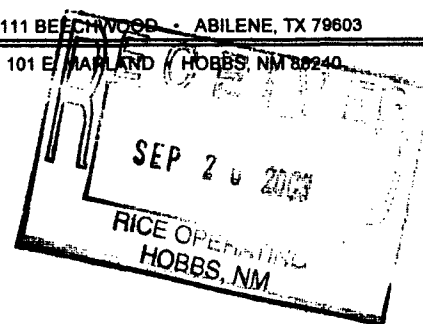




ARDINAL LABORATORIES

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

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



ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: KRISTIN FARRIS
122 W. TAYLOR
HOBBS, NM 88240
FAX TO:

Receiving Date: 09/19/03
Reporting Date: 09/24/03
Project Number: CITATION "C"
Project Name: CITATION "C" WATER WELL
Project Location: NOT GIVEN

Sampling Date: 09/19/03
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity (mgCaCO ₃ /L)
------------	-----------	--------------	--------------	--------------	-------------	-------------------------	--

ANALYSIS DATE:	09/17/03	09/22/03	09/22/03	09/23/03	09/17/03	09/22/03
H8024-1 CITATION "C" WW	59	51	70	5.47	706	147
Quality Control	NR	43	55	2.047	1322	NR
True Value QC	NR	50	50	2.000	1413	NR
% Recovery	NR	86.0	110	102	93.6	NR
Relative Percent Difference	NR	0	0	0.2	0.7	NR

METHODS:	SM3500-Ca-D	3500-Mg E	264.1	120.1	310.1
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Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
---------------------------	---------------------------	---------------------------	----------------------------	--------------	---------------

ANALYSIS DATE:	09/22/03	09/22/03	09/22/03	09/22/03	09/22/03	09/22/03
H8024-1 CITATION "C" WW	72	44	0	180	7.47	481
Quality Control	980	54.39	NR	1068	6.88	NR
True Value QC	1000	50.00	NR	1000	7.00	NR
% Recovery	98.0	109	NR	107	98.3	NR
Relative Percent Difference	2.0	0.7	NR	7.7	0.1	12.1

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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Amy Hill
Chemist

9/24/03
Date

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H8024

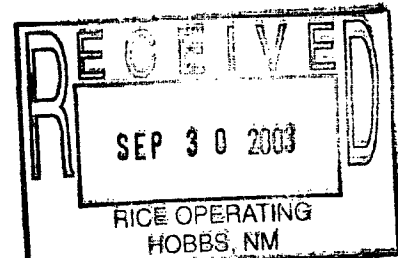


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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

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



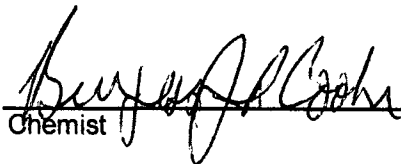
Receiving Date: 09/26/03
Reporting Date: 09/27/03
Project Number: NOT GIVEN
Project Name: CITATION "C" EOL
Project Location: LEA CO., NM

Sampling Date: 09/25/03
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	GRO	DRO	CI*
		(C ₆ -C ₁₀) (mg/Kg)	(>C ₁₀ -C ₂₈) (mg/Kg)	CI* (mg/Kg)
ANALYSIS DATE	<i>same as stockpile</i>	09/26/03	09/26/03	09/26/03
H8038-1	BOTTOM 6' COMPOSITE	<10.0	<10.0	1180
H8038-2	4 WALL COMPOSITE	<10.0	<10.0	256
H8038-3	STOCKPILE 5 POINT	<10.0	<10.0	1060
Quality Control		765	803	980
True Value QC		800	800	1000
% Recovery		95.7	100	98.0
Relative Percent Difference		7.4	2.3	2.0

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

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


Cheryl J. Cook
Chemist

9/27/03
Date

H8038.XLS

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page of

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

ANALYTICAL REPORT

Prepared for:

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

Project: EME Citation "C" Eol

PO#:

Order#: G0307648

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#: G0307648
Project: Bore Samples
Project Name: EME Citation "C" Eol
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>
0307648-01	Source @ 44'	SOIL	9/15/03 9:00	10/6/03 8:00	Plastic Bag	ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 4.0 C		
0307648-02	10' E. Source @26'	SOIL	9/15/03 13:00	10/6/03 8:00	Plastic Bag	ice
	<u>Lab Testing:</u> Chloride	Rejected: No		Temp: 4.0 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0307648
Project: Bore Samples
Project Name: EME Citation "C" Eol
Location: None Given

Lab ID: 0307648-01
Sample ID: Source @ 44'

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	1030	mg/kg	1	20	9253	10/7/03	SB

Lab ID: 0307648-02
Sample ID: 10' E. Source @26'

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	284	mg/kg	1	20	9253	10/7/03	SB

Approval:

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

Date

Celestine 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

Test Parameters

Order#: G0307648

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0007064-01			<20		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0307648-01	1030	500	1540	102.0%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0307648-01	1030	500	1560	106.0%	1.3%
SRM	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

Kristin Faris

RICE OPER. CO.

122 W. Taylor

Hobbs, N.M. 88240

505-393-9174

Fax No: 505-397-1471

Ray R. Rascon

[illegible]

Special Instructions:

Sample Containers Intact?
Temperature Upon Receipt
Laboratory Comments:

Received by:

Date _____

Date _____

Time

Date _____

Time

Received by ELOI

111

Time

CD Hayner

10/3/03

19:21

天

1/2

2082

400 Plastic Bags
402 glass



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ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: ROY R. RASCON
122 W. TAYLOR
HOBBS, NM 88240
FAX TO:

Receiving Date: 08/19/03
Reporting Date: 08/20/03
Project Number: "C" EOL
Project Name: CHEVRON CITATION "C" EOL
Project Location: LEA COOUNTY, NM

Sampling Date: 08/18/03
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC/AH

LAB NUMBER SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/Kg)	DRO (>C ₁₀ -C ₂₈) (mg/Kg)	Cl* (mg/Kg)
	08/19/03	08/19/03	08/20/03
H7927-1 BOTTOM SAMPLE 18'	<10.0	<10.0	3870
Quality Control	779	752	1050
True Value QC	800	800	1000
% Recovery	97.3	94.0	105
Relative Percent Difference	0.7	8.1	5.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl: Std. Methods 4500-ClB

*Analysis performed on a 1:4 w/v aqueous extract.

Bryant R. Cook
Chemist

8/20/03
Date

H7927.XLS

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(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page of _____

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

MANIFEST #

9410

SOUTH MONUMENT SURFACE WASTE FACILITY

LEASE OPERATOR:

RICE OPERATING
122 WEST TAYLOR
HOBBS, NM 88240
ATTN: CAROLYN DORAN HAYNES

ORIGINATING LOCATION:

EME Citation C1

TRANSPORTER NAME & ADDRESS:

WALTON CONSTRUCTION COMPANY INC.
P.O. BOX 478
HOBBS, NM 88241-0478

DESCRIPTION OF WASTE:

NON-HAZARDOUS HYDROCARBONS

QUANTITY:

12
~~10~~ YDS.

FACILITY CONTACT:



SIGNATURE OF CONTACT

10/03/03
DATE

CELL NUMBER MATERIAL PLACED IN:

B-1

SIGNATURE OF TRANSPORTER (DRIVER):

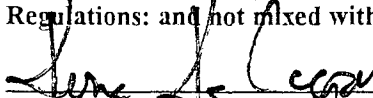
X 
SIGNATURE OF DRIVER

10-3-03
DATE

DISPOSAL SITE

SOUTH MONUMENT SURFACE WASTE FACILITY
P.O. BOX 418
HOBBS, NM 88241-0418
S25 T20S R36E N/2 NE/4

"As a condition of acceptance for disposal, I hereby certify that this waste is an exempt waste as defined by the Environmental Protection Agency (EPA). The waste are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recovery Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt waste."


FACILITY REPRESENTATIVE

10/03/03
DATE

1 Load Clean Hauld Back

MANIFEST #

9411

WYROS

12

SOUTH MONUMENT SURFACE WASTE FACILITY

LEASE OPERATOR:

RICE OPERATING
122 WEST TAYLOR
HOBBS, NM 88240
ATTN: CAROLYN DORAN HAYNES

ORIGINATING LOCATION:

EME Citation "C"

TRANSPORTER NAME & ADDRESS:

WALTON CONSTRUCTION COMPANY INC.
P.O. BOX 478
HOBBS, NM 88241-0478

DESCRIPTION OF WASTE:

NON-HAZARDOUS HYDROCARBONS

QUANTITY:

12
~~10~~ YDS.

FACILITY CONTACT:

Carolyn Doran Haynes
SIGNATURE OF CONTACT

10/03/03
DATE

CELL NUMBER MATERIAL PLACED IN:

B-1

SIGNATURE OF TRANSPORTER (DRIVER):

X Tony R. Gentry
SIGNATURE OF DRIVER

10-3-03
DATE

DISPOSAL SITE

SOUTH MONUMENT SURFACE WASTE FACILITY
P.O. BOX 418
HOBBS, NM 88241-0418
S25 T20S R36E N/2 NE/4

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Carolyn Doran Haynes
FACILITY REPRESENTATIVE

10/03/03
DATE

1 Load Clean Hauled BACK
12 yrd

MANIFEST #

9412

SOUTH MONUMENT SURFACE WASTE FACILITY

LEASE OPERATOR:

RICE OPERATING
122 WEST TAYLOR
HOBBS, NM 88240
ATTN: CAROLYN DORAN HAYNES

ORIGINATING LOCATION:

EME Citation "C"

TRANSPORTER NAME & ADDRESS:

WALTON CONSTRUCTION COMPANY INC.
P.O. BOX 478
HOBBS, NM 88241-0478

DESCRIPTION OF WASTE:

NON-HAZARDOUS HYDROCARBONS

QUANTITY:

12 YDS.

FACILITY CONTACT:


SIGNATURE OF CONTACT

10/03/03


DATE

CELL NUMBER MATERIAL PLACED IN:

B-1

SIGNATURE OF TRANSPORTER (DRIVER):

X



SIGNATURE OF DRIVER

10-3-03
DATE

DISPOSAL SITE

SOUTH MONUMENT SURFACE WASTE FACILITY
P.O. BOX 418
HOBBS, NM 88241-0418
S25 T20S R36E N/2 NE/4

"As a condition of acceptance for disposal, I hereby certify that this waste is an exempt waste as defined by the Environmental Protection Agency (EPA). The waste are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recovery Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt waste."


FACILITY REPRESENTATIVE

10/03/03
DATE

1 Cond Clean Hauled Back
12 YRD

MANIFEST #

7413

SOUTH MONUMENT SURFACE WASTE FACILITY

LEASE OPERATOR:

RICE OPERATING
122 WEST TAYLOR
HOBBS, NM 88240
ATTN: CAROLYN DORAN HAYNES

ORIGINATING LOCATION:

EME Citation C

TRANSPORTER NAME & ADDRESS:

WALTON CONSTRUCTION COMPANY INC.
P.O. BOX 478
HOBBS, NM 88241-0478

DESCRIPTION OF WASTE:

NON-HAZARDOUS HYDROCARBONS

QUANTITY:

12 YDS.

FACILITY CONTACT:

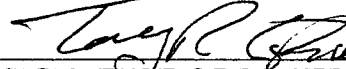

SIGNATURE OF CONTACT

10/03/03
DATE

CELL NUMBER MATERIAL PLACED IN:

B-1

SIGNATURE OF TRANSPORTER (DRIVER):

X 
SIGNATURE OF DRIVER

10-3-03
DATE

DISPOSAL SITE

SOUTH MONUMENT SURFACE WASTE FACILITY
P.O. BOX 418
HOBBS, NM 88241-0418
S25 T20S R36E N/2 NE/4

"As a condition of acceptance for disposal, I hereby certify that this waste is an exempt waste as defined by the Environmental Protection Agency (EPA). The waste are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recovery Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt waste."


FACILITY REPRESENTATIVE

10/03/03
DATE

ET61 9-25-03

Final Report Junction box 30x23x6' / For clay liner

SITE EXCAVATION INFORMATION

Citation 2' EOL

DATE DEPTH CL PID TPH SOIL COMPOSITION

Tons of RE LAB

6 C.	9-25-03 Bottom 6'	973	1180	10.1	44	<10	mix
6 C.	N. Well	536	256	12.4	167	<10	
6 C.	Stockpile	775	1060	15.8	88	<10	
	N. Well 15'	361		3.1	28		
	S. Well 8'	546		9.6	416		
	W. Well 15'	384		7.4	92		
	E. Well 15'	304		3.2	62		

Ray Haul

10' E cont. from 8-13-03

ETGI

8-18-03

East side Center point

~~East side~~ Station C' - EOL

Vertical Lateral dig 18'

Vert 15'

ppm 3989

color Light ^{Brown} Sand

TPH NO odor

PID 4.2

Vert 16'

ppm 3713

color Light ^{Brown} Sand

TPH NO odor

PID 1.0

Vert 17'

ppm 3484

color Light ^{Brown} Sand

TPH NO odor

PID 1.0

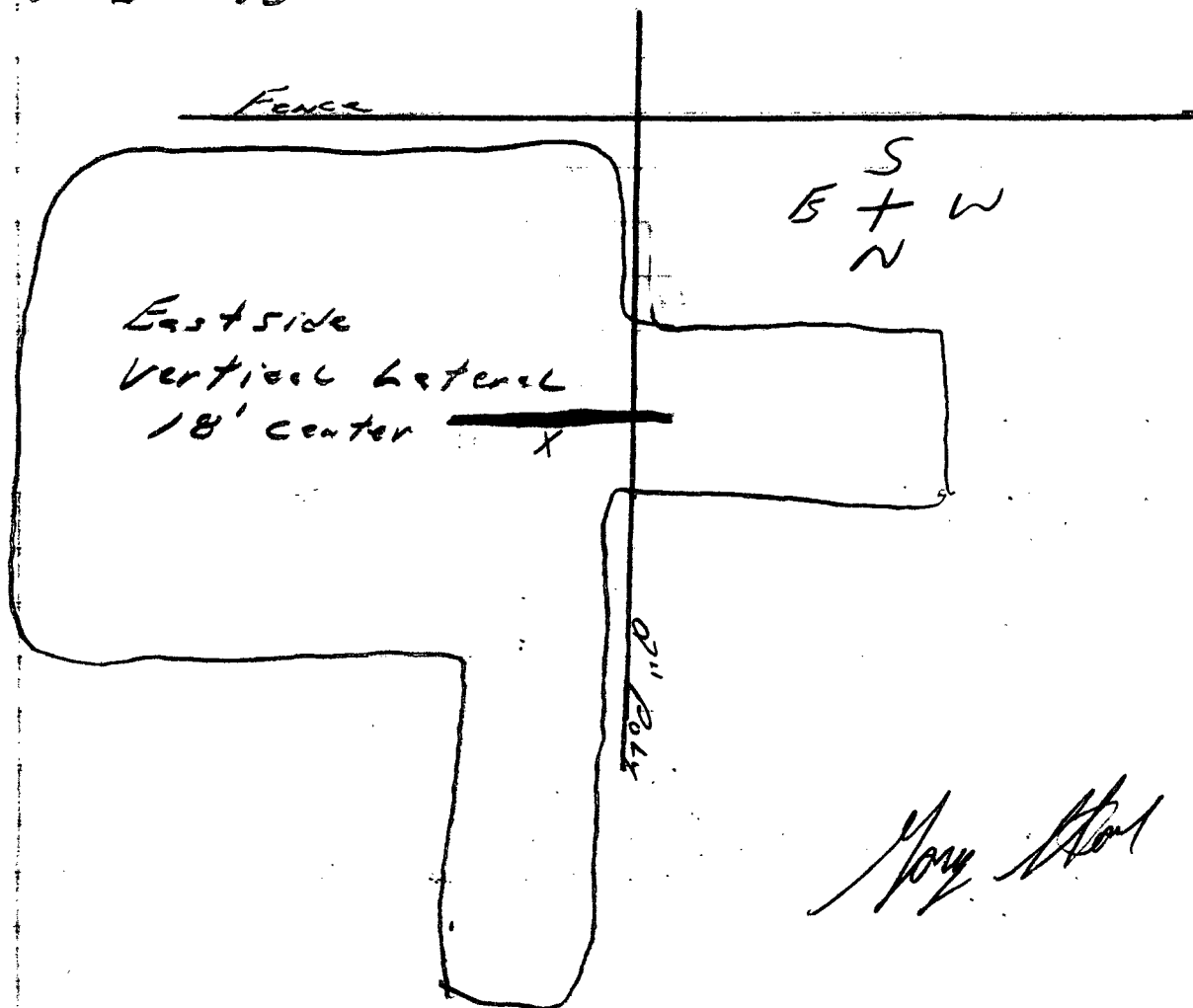
Vert 18'

ppm 2006

color Light ^{Brown} Sand

TPH NO odor

PID .6



S
E + W
N

East side
Vertical Lateral
18' center X

Handwritten signature



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: Citation C

Date of Test: October 7, 2003

Depth: Finished Subgrade

Test No.	Location	Dry Density % Maximum	% Moisture	Depth
RTSG-1	Pit - 10' S. & 10' N of the SW Corner	102.5	18.3	



Control Density: 104.2
ASTM: D 698

Optimum Moisture: 23.1%

Required Compaction: 95%

Lab No.: 03 6582-6583

Copies To: Rice Operating

PETTIGREW and ASSOCIATES

BY: Don Peters S.E.T.



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

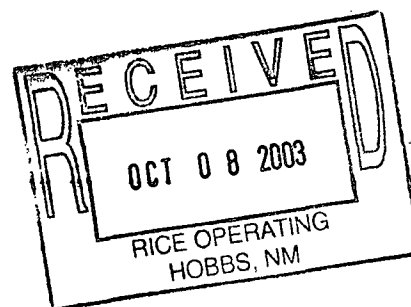
Test Method: ASTM: D 2922

Project: Citation C

Date of Test: October 6, 2003

Depth: Finished Subgrade

Test No.	Location	Dry Density % Maximum	% Moisture	Depth
SG-1	Pit - 10' E. & 10' N. of the SW Corner	92.3	20.5	
SG-2	Pit - 10' S. & 7' E. of the NW Corner	85.9	23.0	



Control Density: 104.2
ASTM: D 698

Optimum Moisture: 23.1%

Required Compaction: 95%

Lab No.: 03 6153-6155a

Copies To: Rice Operating

PETTIGREW and ASSOCIATES

BY:  S.E.T.