

1R - 426-197

REPORTS

DATE:

1-9-09

BD Jct B-30-2
(2 boxes)

1R426-197

RECEIVED
MAR 25 2009
Environmental Bureau
Oil Conservation Division

CLOSURE

**RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT**

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
Blinebry-Drinkard (BD)	B-30-2 (2 boxes)	B	30	21S	37E	Lea	Length	Width	Depth
							eliminated		

LAND TYPE: BLM _____ STATE _____ FEE LANDOWNER _____ Chevron/Texaco _____ OTHER _____

Depth to Groundwater _____ >125 _____ feet NMOCD SITE ASSESSMENT RANKING SCORE: _____ 0 _____

Date Started _____ 2/26/2008 _____ Date Completed _____ 3/20/2008 _____ OCD Witness _____ no _____

Soil Excavated _____ 500 _____ cubic yards Excavation Length _____ 60 _____ Width _____ 45 _____ Depth _____ 5 _____ feet

Soil Disposed _____ 334 _____ cubic yards Offsite Facility _____ Sundance _____ Location _____ Eunice, NM _____

FINAL ANALYTICAL RESULTS: Sample Date _____ 12/09/2003, 3/14/2008 _____ Sample Depth _____ 5 ft, 25ft, 105 ft _____

TPH and Chloride laboratory test results completed by using an approved lab and testing procedures pursuant to NMOCD guidelines.

CHLORIDE FIELD TESTS

Sample Location	PID (field) ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
BLENDED BACKFILL	0.0	<10.0	26.1	448
SOIL BORING @ 5'				1830
SOIL BORING @ 25'				2850
SOIL BORING @ 105'				21.3

LOCATION	DEPTH	mg/kg
blended backfill	n/a	524
soil boring 10 ft north of south former junction box	5'	1360
	15'	2240
	25'	2720
	35'	n/a
	45'	1680
	55'	1600
	75'	640
	85'	720
	95'	480
	105'	240

General Description of Remedial Action: This site contained two boxes that were eliminated during the pipeline replacement/upgrade program. A soil boring completed in 2003 by another firm yielded chloride concentrations that decreased with depth. A concentration of 21.3 mg/kg was reached at a depth of 105 ft BGS. Based on that soil boring data, the site was excavated to 60x45x5-ft-deep in preparation for a clay barrier encompassing both former boxes. At 5-4 ft BGS, a clay barrier was installed with a clay density test performed on 3/17/2008. The excavated soil was blended on site with clean, imported soil and field tested for chloride and organic vapor concentrations. A blended backfill sample was sent to a commercial laboratory for analysis of chloride and TPH which confirmed low concentrations. The blended backfill was used to fill the excavation to ground surface and to contour to the surrounding area. An identification plate was placed on the surface at the former junction site to mark the presence of the clay below. On 3/24/2008, the site was seeded with a blend of native vegetation and is expected to return to productive capacity at a normal rate.

enclosures: photos, lab results, PID field screenings, cross-section, clay test, chloride curve

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

REPORT ASSEMBLED BY _____ Katie Jones _____ INITIAL KJ COMPANY _____ RICE OPERATING COMPANY _____

SITE SUPERVISOR _____ Larry Bruce Baker Jr. _____ SIGNATURE Larry Bruce Baker Jr. _____

DATE 1-9-09 _____ TITLE _____ PROJECT LEADER _____

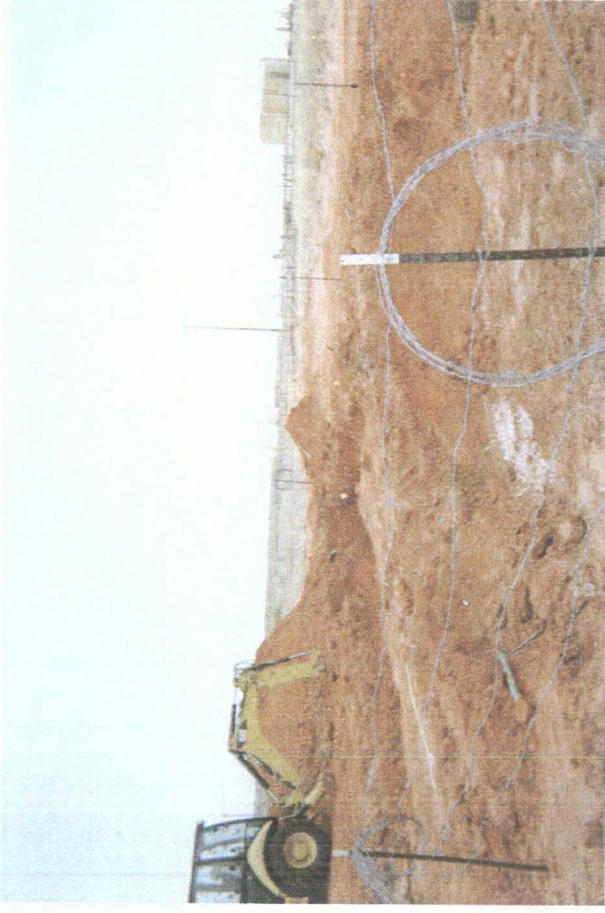
BD Jct. B-30-2

Unit B, Section 30, T21S, R37E



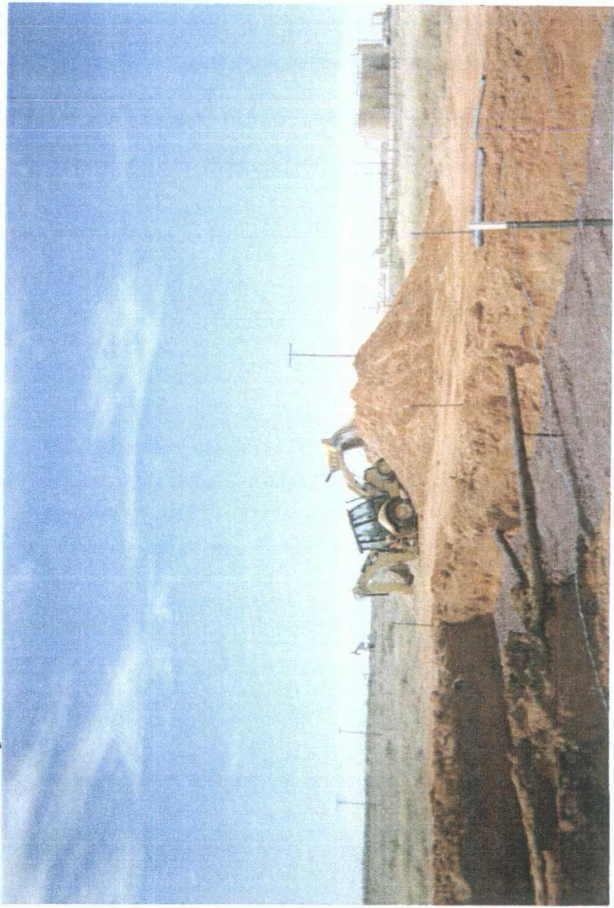
undisturbed junction box

2/26/2004



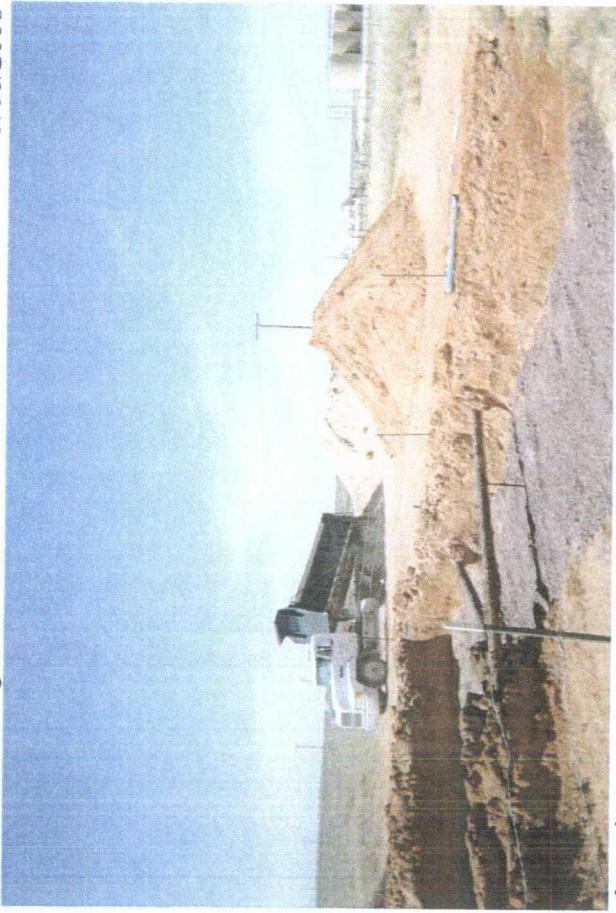
excavation, facing northwest

3/06/2008



clay barrier installed and blending
excavated soil, facing northwest

3/12/2008



clean, imported blow sand being
unloaded, facing northwest

3/13/2008



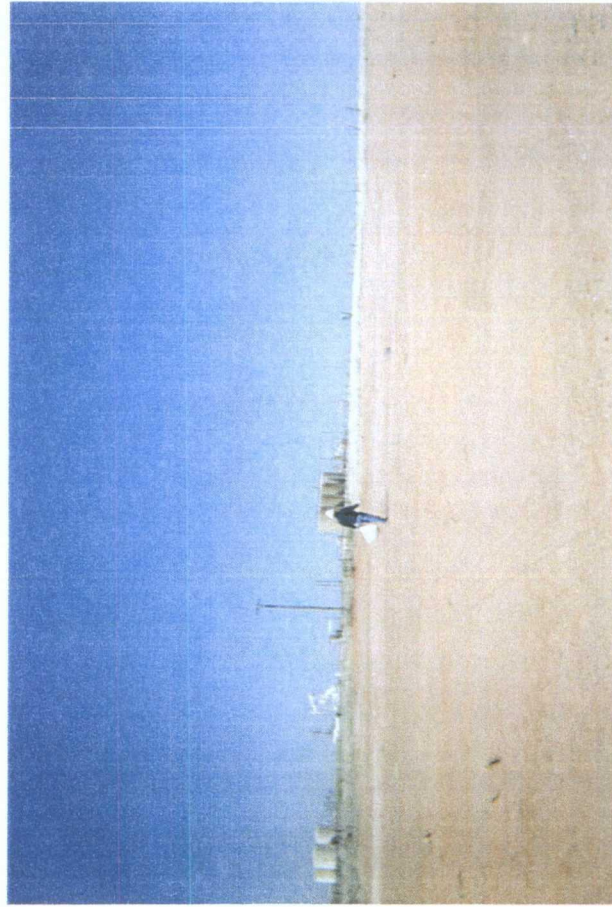
clay compaction test

3/17/2008



backfilling excavation, facing northwest

3/19/2008



seeding backfilled site, facing north

3/24/2008



clay marker

3/24/2008



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: BRUCE BAKER
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (575) 397-1471

COPY

Receiving Date: 03/14/08
Reporting Date: 03/18/08
Project Owner: NOT GIVEN
Project Name: BD JCT B-30-2
Project Location: BD JCT B-30-2

Sampling Date: 03/14/08
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: AB/CK/KS

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/kg)	DRO (>C ₁₀ -C ₂₈) (mg/kg)	CI* (mg/kg)
		03/15/08	03/15/08	03/17/08
H14452-1	BLENDED BACKFILL	<10.0	26.1	448
Quality Control		458	607	500
True Value QC		500	500	500
% Recovery		91.7	122	100
Relative Percent Difference		0.8	17.5	<0.1

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

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

RECEIVED

MAR 20 2008

RICE OPERATING
HOBBS, NM

Chemist

Date

H14452TPHCL2 RICE

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. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Y
D
O
C

ARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240
(505) 393-2326 Fax (505) 393-2475

Page ____ of ____

Company Name: <u>Rice Operating Co</u>				BILL TO ANALYSIS REQUEST																				
Project Manager: <u>Bruce Baker</u>																								
Address: <u>122 W Taylor</u>																								
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>																								
Phone #: <u>393-9174</u> Fax #: <u>397-1471</u>																								
Project #: _____ Project Owner: _____																								
Project Name: <u>BO Jet B-30-2</u>																								
Project Location: <u>BO Jet B-30-2</u>																								
Sampler Name: <u>Bruce Baker</u>																								
FOR LAB USE ONLY																								
Lab I.D. Sample I.D.				MATRIX			PRESERV.		SAMPLING		DATE		TIME											
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE	ICE / COOL	OTHER:												
# CONTAINERS				(G) RAB OR (C) OMP		1		✓		3-14-08		11:45am		TPH 8015 M										
Blended Backfill				C		✓		✓		✓		✓												

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

RICE OPERATING COMPANY

122 West Taylor Hobbs, NM 88240
 PHONE: (505) 393-9174 FAX: (505) 397-1471
 PID METER CALIBRATION & FIELD REPORT FORM

COPY

CK.
 MODEL
 NO.

☒
☐
☐
☐

MODEL: PGM 7600	SERIAL NO: 110-013676
MODEL: PGM 7600	SERIAL NO: 110-013744
MODEL: PGM 7600	SERIAL NO: 110-12383
MODEL: PGM 7600	SERIAL NO: 110-012920

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO: 07-3353	EXPIRATION DATE: 4/12/09
FILL DATE: 10/12/07	METER READING ACCURACY: 99.2ppm

ACCURACY: +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BD	Jet. B-30-2	B	30	215	37E

SAMPLE ID	PID	SAMPLE ID	PID
Blended Backfill	0		

I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

SIGNATURE:

Bruce Baker

DATE:

3-14-08

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

JEFF FREEMAN
LLANO PERMIAN ENVIRONMENTAL
13009-A DESSAU ROAD
AUSTIN, TX 78754

Order#: G0308170
Project: RCL004.RA1
Project Name: Turner Ranch
Location: Eunice, NM.

COPY

Lab ID: 0308170-07

Sample ID: SB-79 115'

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	74.4	mg/kg	1	20	9253	12/15/03	SB

Lab ID: 0308170-08

Sample ID: SB-80 15'

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	7910	mg/kg	1	20	9253	12/15/03	SB

Lab ID: 0308170-09

Sample ID: SB-80 55'

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	2040	mg/kg	1	20	9253	12/15/03	SB

Lab ID: 0308170-10

Sample ID: SB-80 105'

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	404	mg/kg	1	20	9253	12/15/03	SB

Lab ID: 0308170-11

Sample ID: SB-74 5'

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	1830	mg/kg	1	20	9253	12/15/03	SB

Lab ID: 0308170-12

Sample ID: SB-74 25'

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	2850	mg/kg	1	20	9253	12/15/03	SB

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

JEFF FREEMAN
LLANO PERMIAN ENVIRONMENTAL
13009-A DESSAU ROAD
AUSTIN, TX 78754

Order#: G0308170
Project: RCL004.RA1
Project Name: Turner Ranch
Location: Eunice, NM.

COPY

Lab ID: 0308170-13

Sample ID: SB-74 105'

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	21.3	mg/kg	1	20	9253	12/15/03	SB

Lab ID: 0308170-14

Sample ID: SB-75 15'

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	3720	mg/kg	1	20	9253	12/15/03	SB

Lab ID: 0308170-15

Sample ID: SB-75 25'

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	2600	mg/kg	1	20	9253	12/15/03	SB

Lab ID: 0308170-16

Sample ID: SB-75 65'

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	319	mg/kg	1	20	9253	12/15/03	SB

Lab ID: 0308170-17

Sample ID: SB-76 5'

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	287	mg/kg	1	20	9253	12/15/03	SB

Lab ID: 0308170-18

Sample ID: SB-76 25'

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	425	mg/kg	1	20	9253	12/15/03	SB

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

JEFF FREEMAN
LLANO PERMIAN ENVIRONMENTAL
13009-A DESSAU ROAD
AUSTIN, TX 78754

Order#: G0308170
Project: RCL004.RA1
Project Name: Turner Ranch
Location: Eunice, NM.

COPY

Lab ID: 0308170-11

Sample ID: SB-74 5'

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>
		12/15/03	1	1	JLH	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	92%	70	130
1-Chlorooctadecane	70%	70	130

Lab ID: 0308170-12

Sample ID: SB-74 25'

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>
		12/15/03	1	1	JLH	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	95%	70	130
1-Chlorooctadecane	78%	70	130

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

JEFF FREEMAN
LLANO PERMIAN ENVIRONMENTAL
13009-A DESSAU ROAD
AUSTIN, TX 78754

Order#: G0308170
Project: RCL904.RA1
Project Name: Turner Ranch
Location: Eunice, NM.

COPY

Lab ID: 0308170-13
Sample ID: SB-74 105'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		12/15/03	1	1	JLH	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	96%	70	130
1-Chlorooctadecane	82%	70	130

Lab ID: 0308170-14
Sample ID: SB-75 15'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		12/15/03	1	1	JLH	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	93%	70	130
1-Chlorooctadecane	71%	70	130

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

JEFF FREEMAN
LLANO PERMIAN ENVIRONMENTAL
13009-A DESSAU ROAD
AUSTIN, TX 78754

Order#: G0308170
Project: RCL004.RA1
Project Name: Turner Ranch
Location: Eunice, NM.

COPY

Lab ID: 0308170-15

Sample ID: SB-75 25'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		12/15/03	1	1	JLH	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	93%	70	130
1-Chlorooctadecane	77%	70	130

Lab ID: 0308170-16

Sample ID: SB-75 65'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		12/15/03	1	1	JLH	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	94%	70	130
1-Chlorooctadecane	77%	70	130

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

JEFF FREEMAN
LLANO PERMIAN ENVIRONMENTAL
13009-A DESSAU ROAD
AUSTIN, TX 78754

Order#: G0308170
Project: RCL004.RA1
Project Name: Turner Ranch
Location: Eunice, NM.

COPY

Lab ID: 0308170-17
Sample ID: SB-76 5'

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>
		12/15/03	1	1	JLH	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	89%	70	130
1-Chlorooctadecane	77%	70	130

Lab ID: 0308170-18
Sample ID: SB-76 25'

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>
		12/15/03	1	1	JLH	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	99%	70	130
1-Chlorooctadecane	75%	70	130

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

JEFF FREEMAN
LLANO PERMIAN ENVIRONMENTAL
13009-A DESSAU ROAD
AUSTIN, TX 78754

Order#: G0308170
Project: RCL004.RA1
Project Name: Turner Ranch
Location: Eunice, NM.

COPY

Lab ID: 0308170-19

Sample ID: SB-76 55'

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		12/15/03	1	1	JLH	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	99%	70	130
1-Chlorooctadecane	82%	70	130

Approval: Raland K. Tuttle 12-16-03
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

Test Parameters

COPY
Order#: G0308170

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0007727-01			<5.00		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0308170-06	319	500	830	102.2%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0308170-06	319	500	819	100.0%	1.3%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0007727-04		5000	5000	100.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

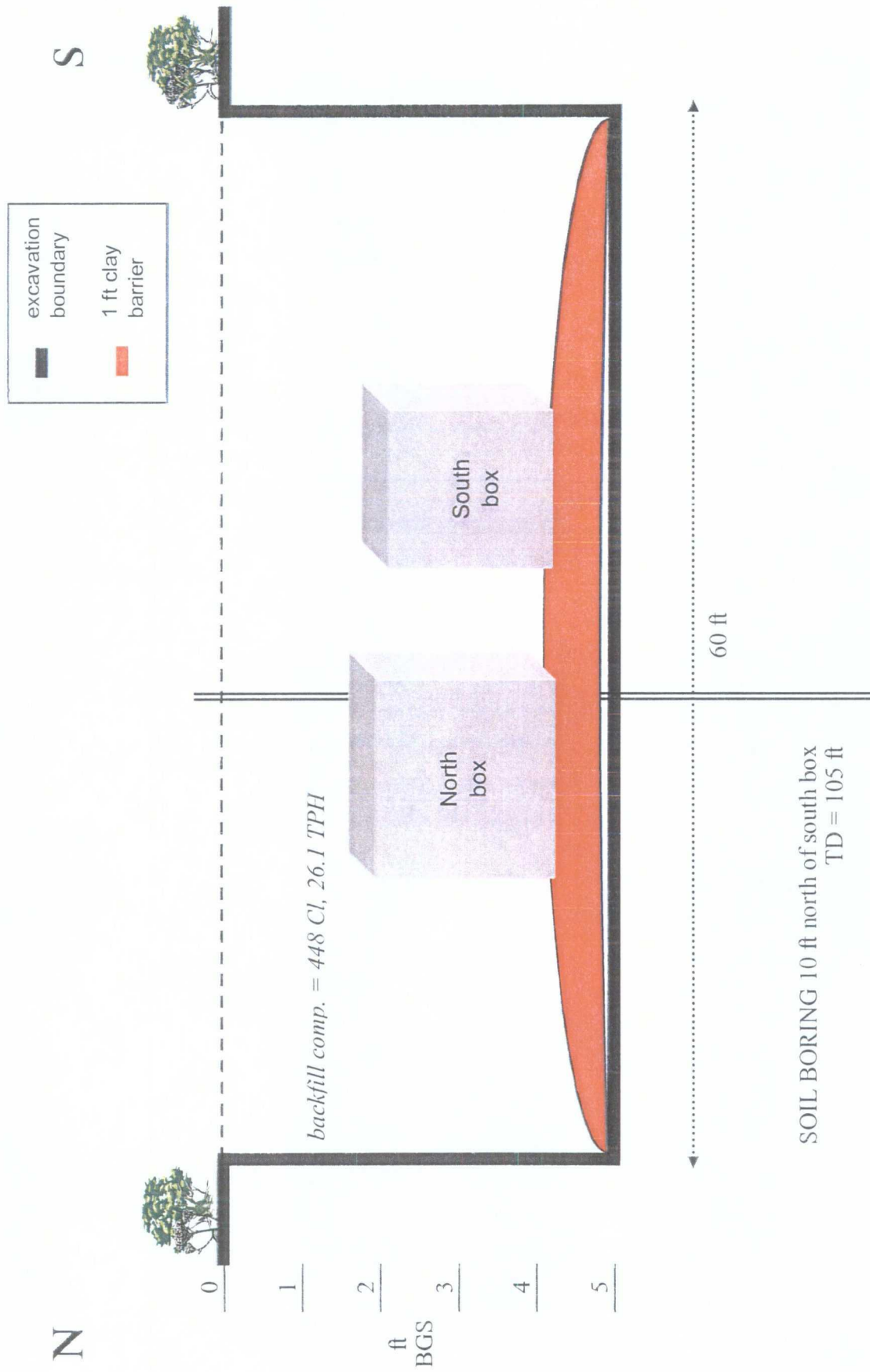
Order#: G0308170

COPY

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0007718-02			<10.0		
TOTAL, C6-C35-mg/kg		0007736-02			<10.0		
CONTROL	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0007718-03		952	990	104.4%	
TOTAL, C6-C35-mg/kg		0007736-03		952	795	83.5%	
CONTROL DUP	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0007718-04		952	1011	106.2%	2.1%
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0308170-06	0	952	1023	107.5%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0308170-06	0	952	1034	108.6%	1.1%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0007718-05		1000	1012	101.2%	
TOTAL, C6-C35-mg/kg		0007736-05		1000	1006	100.6%	

BD Jct. B-30-2 Unit 'B', Section 30, T21S, R37E

Excavation Cross-Section





LABORATORY TEST REPORT
PETTIGREW & 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 Company
Attn: Hack Conder
122 W. Taylor
Hobbs, NM 88240

Material: Wallach Red Clay

Test Method: ASTM: D 2922

Project: BDJC - B-30-2
Project No. 2008.1053

Date of Test: March 17, 2008

COPY

Depth: See Below

Depth of Probe: 6"

Test No.	Location	Dry Density		Depth
		% Max	% Moisture	
SG 1	15' E. & 15' S. of NW Corner of Pad	94.2	16.1	5' Below Surface
SG 2	20' N. & 15' W. of SE Corner of Pad	93.6	14.9	5' Below Surface

RECEIVED

APR 09 2008

RICE OPERATING
HOBBS, NM

Control Density: 102.8
ASTM: D 698

Optimum Moisture: 22.6%

Required Compaction: 90% - 95%

Densometer ID: 2505
PETTIGREW & ASSOCIATES

Lab No.: 08 3442-3444

Copies To: City of Hobbs

BY: Erica M. Hunt

BY: William M. Hicks, III P.E.

CHLORIDE CONCENTRATION CURVE

RICE Operating Company

BD Jct. B-30-2

Unit 'B', Sec. 30, T21S, R37E

Soil boring samples at 10 ft north of south former junction (source)

Depth bgs (ft)	[Cl ⁻] ppm
5	1360
15	2240
25	2720
45	1680
55	1600
75	640
85	720
95	480
105	240

Groundwater = >125 ft

