

1R - 426-253

**REPORTS**

**DATE:**

3-12-10

BD Jct O-36  
2009

1R426-253

RECEIVED

Environmental  
Oil Conservation Division

# DISCLOSURE

RECEIVED

RICE OPERATING COMPANY  
JUNCTION BOX DISCLOSURE\* REPORT

APP - 6 2010

Environmental Bureau  
Oil Conservation Division

BOX LOCATION										
SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS			PERMIT NO.
Blinebry-Drinkard (BD)	Jct. O-36	O	36	21S	36E	Lea	Length 6'	Width 6'	Depth 4'	
							same location			

LAND TYPE: BLM \_\_\_\_\_ STATE \_\_\_\_\_ FEE LANDOWNER: \_\_\_\_\_ City of Eunice \_\_\_\_\_ OTHER \_\_\_\_\_

Depth to Groundwater 134 feet NMOCD SITE ASSESSMENT RANKING SCORE: 20

Date Started 9/3/2008 Date Completed 9/25/2009 OCD Witness no

Soil Excavated 400.0 cubic yards Excavation Length 30 Width 30 Depth 12 feet

Soil Disposed 384 cubic yards Offsite Facility Sundance Location Eunice, NM

FINAL ANALYTICAL RESULTS: Sample Date 9/25/2008, 9/25/2009 Sample Depth 12 ft, 15 ft, 100 ft

Procure 5-point composite sample of bottom and 4-point composite sample of sidewalls. 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	Chlorides mg/kg
4-WALL COMP.	1.3	<25.0	<25.0	3,440
BOTTOM COMP.	1.1	<25.0	<25.0	4,680
BACKFILL COMP.	6.9	<25.0	191	2,640
SB #1 @ 15 ft	0.4	<10.0	<10.0	5,600
SB #1 @ 100 ft	0.2	<10.0	<10.0	224

LOCATION	DEPTH	mg/kg
4-wall comp.	n/a	3,081
bottom comp.	12'	3,515
backfill comp.	n/a	2,909
background	6"	148
SOIL BORING at 7 ft west of the junction (9/25/2009)	15'	4,131
	20'	3,343
	25'	3,843
	30'	3,273
	35'	3,468
	40'	2,668
	45'	2,339
	50'	1,987
	55'	1,910
	60'	1,652
	65'	1,507
	70'	1,048
	75'	772
	80'	655
85'	556	
90'	520	
95'	424	
100'	378	

**General Description of Remedial Action:** This junction box was addressed during the pipeline replacement/upgrade program. After the former junction box was removed, an investigation was conducted using a backhoe to collect soil samples at regular intervals producing a 30x30x12-ft deep excavation. Chloride field tests were performed on each sample and yielded elevated concentrations that did not relent with depth. Organic vapors were measured using a PID which yielded low concentrations. Representative composite samples were collected from the excavated soil, the bottom of the excavation, and the excavation walls. Laboratory analysis of the representative samples confirmed elevated concentrations of chloride and low concentrations of TPH. The blended excavated soil was returned to the excavation up to 6 ft below ground surface (BGS). At 6-5 ft BGS, a 1-ft thick clay barrier was installed with a compaction test performed on 9/29/2008. Clean, imported soil was used to backfill the excavation to ground surface and to contour to the surrounding area. A new, water-tight junction box was built in the same location. To further investigate depth of chloride presence, a soil bore was initiated on 9/25/2009 at 7 ft west of the junction box. The boring was advanced to depth of 100 ft BGS with soil samples collected every 5 ft and field tested for chloride and organic vapors. Lab analysis of the 15 and 100 ft samples yielded elevated concentrations of chloride that decreased with depth and low concentrations of TPH. The entire bore hole was plugged with bentonite to the ground surface. NMOCD was notified of potential groundwater impact on 2/26/2010.

**ADDITIONAL EVALUATION IS HIGH PRIORITY**

enclosures: photos, boring log, lab results, PID (field) screenings, cross-section, compaction test, chloride curve

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

SITE SUPERVISOR Jordan Woodfin SIGNATURE [Signature] COMPANY RICE OPERATING COMPANY

REPORT ASSEMBLED BY Katie Jones INITIAL KJ

PROJECT LEADER Larry Bruce Baker Jr. SIGNATURE [Signature] DATE 3-12-10

\*This site is a "DISCLOSURE." It will be placed on a prioritized list of similar sites for further consideration.

# BD Jct. O-36

Unit O, Section 36, T21S, R36E



site prior to excavation



collecting a soil sample, facing north



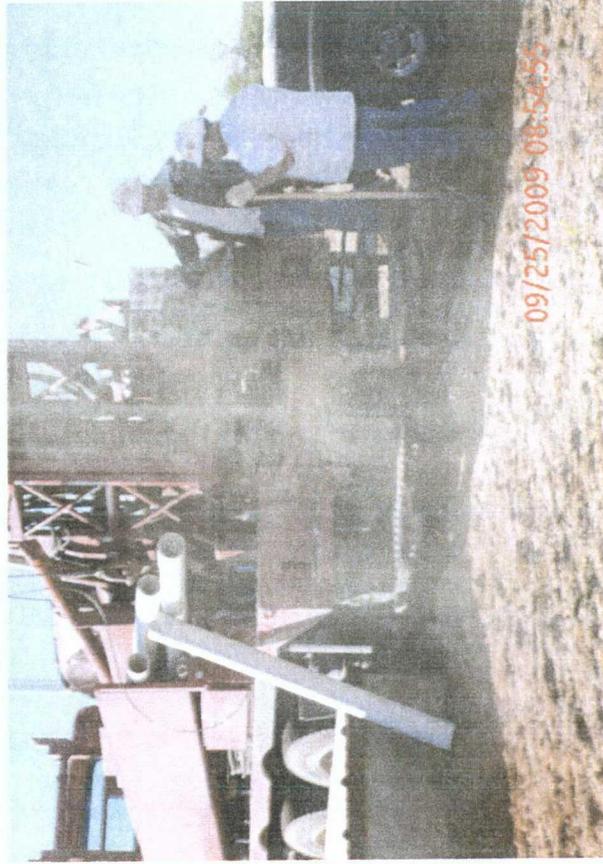
clay compaction test, facing west

9/29/2008



site complete, with a new, watertight junction box

10/28/2008



drilling SB #1

09/25/2009 08:54:55

9/25/2009



plugging SB #1 with bentonite

09/25/2009 10:34:37

9/25/2009

**Logger:** Lara Weinheimer  
**Driller:** Harrison & Cooper, Inc. Drilling  
**Consultant:** None - junction box upgrade plan  
**Drilling Method:** Air rotary  
**Start Date:** 9/25/2009  
**End Date:** 9/25/2009



**Comments:** All samples from cuttings. Hard sandstone rock discovered at 94 - 98 feet. Located 7 feet west of the current junction box site. TD = 100 ft Estimated depth to GW = 134

**Project Name:** BD jct. O-36 **Well ID:** SB #1  
**Location:** UL/O sec. 36 T21S R36E  
**Lat:** N32°25'42.225" **County:** Lea  
**Long:** W103°13'1.586" **State:** NM

Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
15	4131	Cl- 5600	0.4	10 - 30 ft VERY FINE TO FINE SAND WITH CONSOL. ROCK light brown, dry, no odor		
20	3343	GRO <10.0 DRO <10.0	0.3			
25	3843		0.5			
30	3273		0.3	30 - 35 ft VERY FINE TO FINE SAND WITH SANDSTONE ROCK light brown, dry, no odor		
35	3468		0.1			
40	2668		0.2	35 - 60 ft VERY FINE TO FINE SAND WITH CONSOL. ROCK light brown, dry, no odor		
45	2339		0.2			
50	1987		0.3			
55	1910		0.2			
60	1652		0.2			

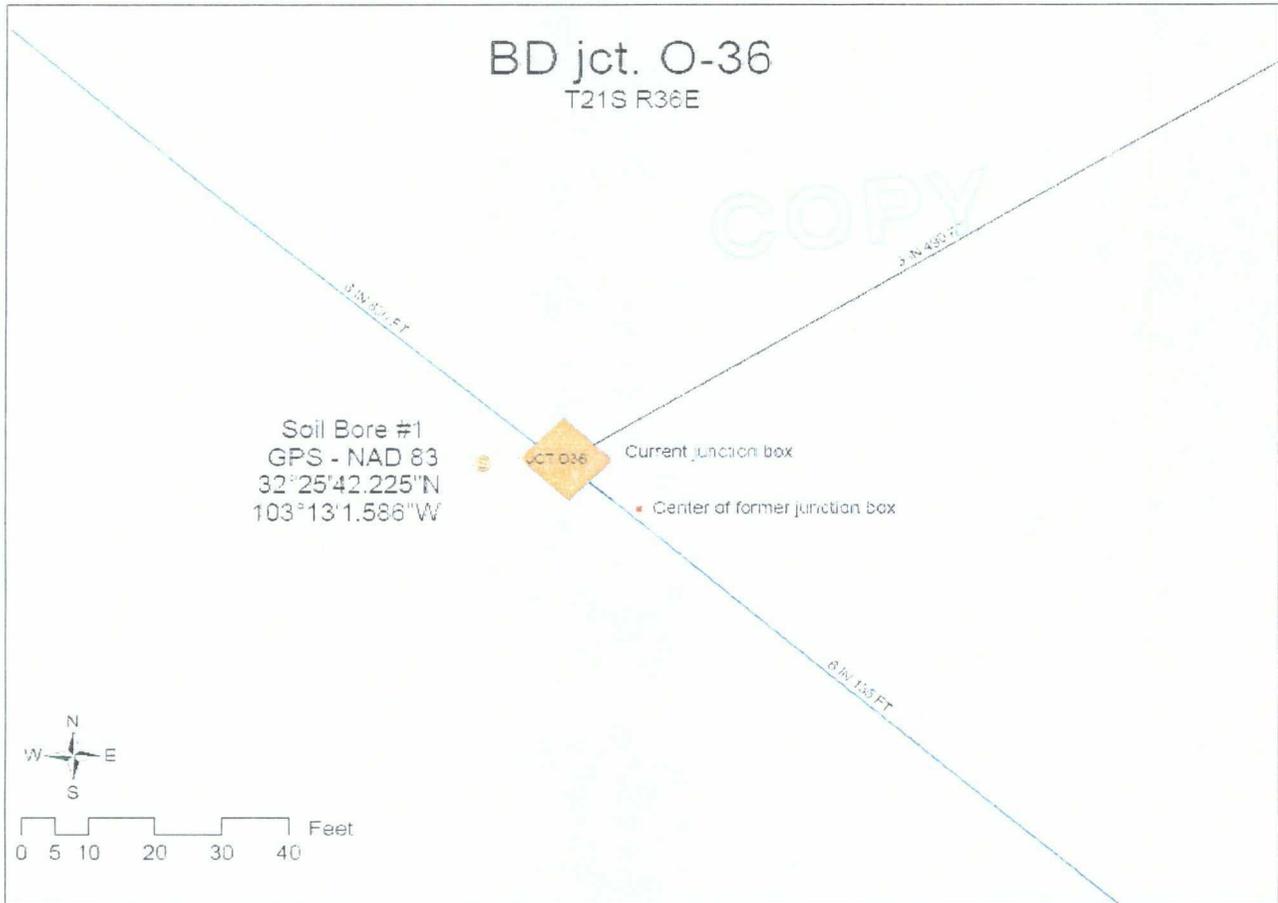
				60 - 65 ft			
				VERY FINE TO FINE SAND			
65	1507		0.1	reddish-brown, dry, no odor			
70	1048		0.2	65 - 80 ft			
				VERY FINE TO FINE SAND			
				light orangey-brown, dry, no odor			
75	772		0.1				
80	655		0.1	80 - 90 ft			
				VERY FINE TO FINE SAND			
				reddish-orange, dry, no odor			
85	556		0.5				
90	520		0.5	90 - 93 ft			
				VERY FINE TO FINE SAND			
				light orangey-brown, dry, no odor			
93	424		0.4				
		Cl- 22+					
100	378	DRO & GRO < 10.0	0.2				

**Chloride concentration versus depth**



BD jct. O-36  
T21S R36E

COPY







# RICE OPERATING COMPANY

122 West Taylor ~ Hobbs, NM 88240

PHONE: (575) 393-9174 FAX: (575) 397-1471

## PID METER CALIBRATION & FIELD REPORT FORM

CK	<input type="checkbox"/>
MODEL	<input checked="" type="checkbox"/>
NO.	<input type="checkbox"/>
	<input type="checkbox"/>

MODEL: PGM 7300	SERIAL NO: 590-000183
MODEL: PGM 7300	SERIAL NO: 590-000504
MODEL: PGM 7600	SERIAL NO: 110-12383
MODEL: PGM 7600	SERIAL NO: 110-02920

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO: 924908	EXPIRATION DATE: 7-29-2012
FILL DATE: <del>02-22-04</del> 7-30-04	METER READING ACCURACY: 100.1
ACCURACY: +/- 2%	

SYSTEM	SITE	UNIT	SECTION	TOWNSHIP	RANGE
B0	Jct 0-36	0	36	T21S	R 36E

SAMPLE ID: soil bore #1

DEPTH	PID
15'	0.4
20'	0.3
25'	0.5
30'	0.3
35'	0.1

DEPTH	PID
65'	0.1
70'	0.2
75'	0.1
80'	0.1
85'	0.5

DEPTH	PID

DEPTH	PID

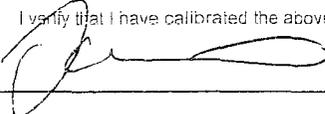
DEPTH	PID
40'	0.2
45'	0.2
50'	0.3
55'	0.2
60'	0.2

DEPTH	PID
90'	0.5
93'	0.4
100'	0.2

DEPTH	PID

DEPTH	PID

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

Signature 

Date 9-25-09

SITE MAP





# ARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR:  
RICE OPERATING COMPANY  
ATTN: JORDAN WOODFIN  
122 W. TAYLOR  
HOBBS, NM 88240

Receiving Date: 09/25/08  
Reporting Date: 09/26/08  
Project Number: NOT GIVEN  
Project Name: BD JCT O-36  
Project Location: BD JCT O-36

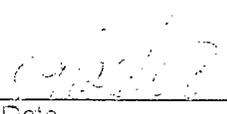
Sampling Date: 09/25/08  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received Qty: ML  
Analyzed By: AE/HM

COPY

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		09/25/08	09/25/08	09/25/08
H15972-1	5 PT BTM COMP @ 12 FT	<25.0	<25.0	4,680
H15972-2	4 WALL COMP @ 30X30	<25.0	<25.0	3,440
H15972-3	BACKFILL COMP	<25.0	191	2,640
Quality Control		584	586	490
True Value QC		500	500	500
% Recovery		117	117	98.0
Relative Percent Difference		9.6	18.5	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI: Std. Methods 4500-CIB  
\*Analyses performed on 1:4 w:v aqueous extracts.

  
\_\_\_\_\_  
Chemist

  
\_\_\_\_\_  
Date

H15972 TOL 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.



# CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603  
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: RICE OPERATIONS Project Manager: Bill To

Address: 122 W. JAYCOCK State: NM Zip: 88240

City: HOBBS Phone #1: 505-393-4174 Fax #1: 505-393-7147

Project #:

Project Name: RD TRF 0-30 Project Owner:

Project Location: BURNING WOODS

Sampler Name: DEBORA WOODS

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	# CONTAINERS	MATRIX			PRESERV			SAMPLING			
			GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME
H572-1	Spot Burn Camp @ 1244	1			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			9-25-03	10:09
2	2nd Well Camp @ 30X30	1			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			9-25-03	11:01
3	Pier Fill Camp	1			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			9-25-03	10:05

RELINQUISHED BY: Debora Woods Date: 9-25-03 Time: 10:05

RECEIVED BY: Aditya Date: 9-25-03 Time: 10:05

DELIVERED BY: (Circle One) UPS

SAMPLER: UPS - Bus - Other: None

REMARKS: EMAIL RESULTS TO BAKER@RICESWD.COM JPURKUS@RICESWD.COM RUSH!

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

# RICE OPERATING COMPANY

122 West Taylor Hobbs, NM 88240  
 PHONE: (575) 393-9174 FAX: (575) 397-1471  
 PID METER CALIBRATION & FIELD REPORT FORM

Check Model Number: ✓


Model: PGM 7300    Serial No: 590-000183  
 Model: PGM 7300    Serial No: 590-000508  
 Model: PGM 7300    Serial No: 590-000504


Model: PGM 7600    Serial No: 110-023920  
 Model: PGM 7600    Serial No: 110-013744  
 Model: PGM 7600    Serial No: 110-013676

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO: 08-3425	EXPIRATION DATE: 8-29-09
FILL DATE: 2-29-08	METER READING ACCURACY: 98.1

ACCURACY: +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BD	0-36	0	36	215	36E

SAMPLE ID	PID	SAMPLE ID	PID
Blended Backfill	6.9		
5pt Btm Comp.	1.1		
4 Wall Comp	1.3		

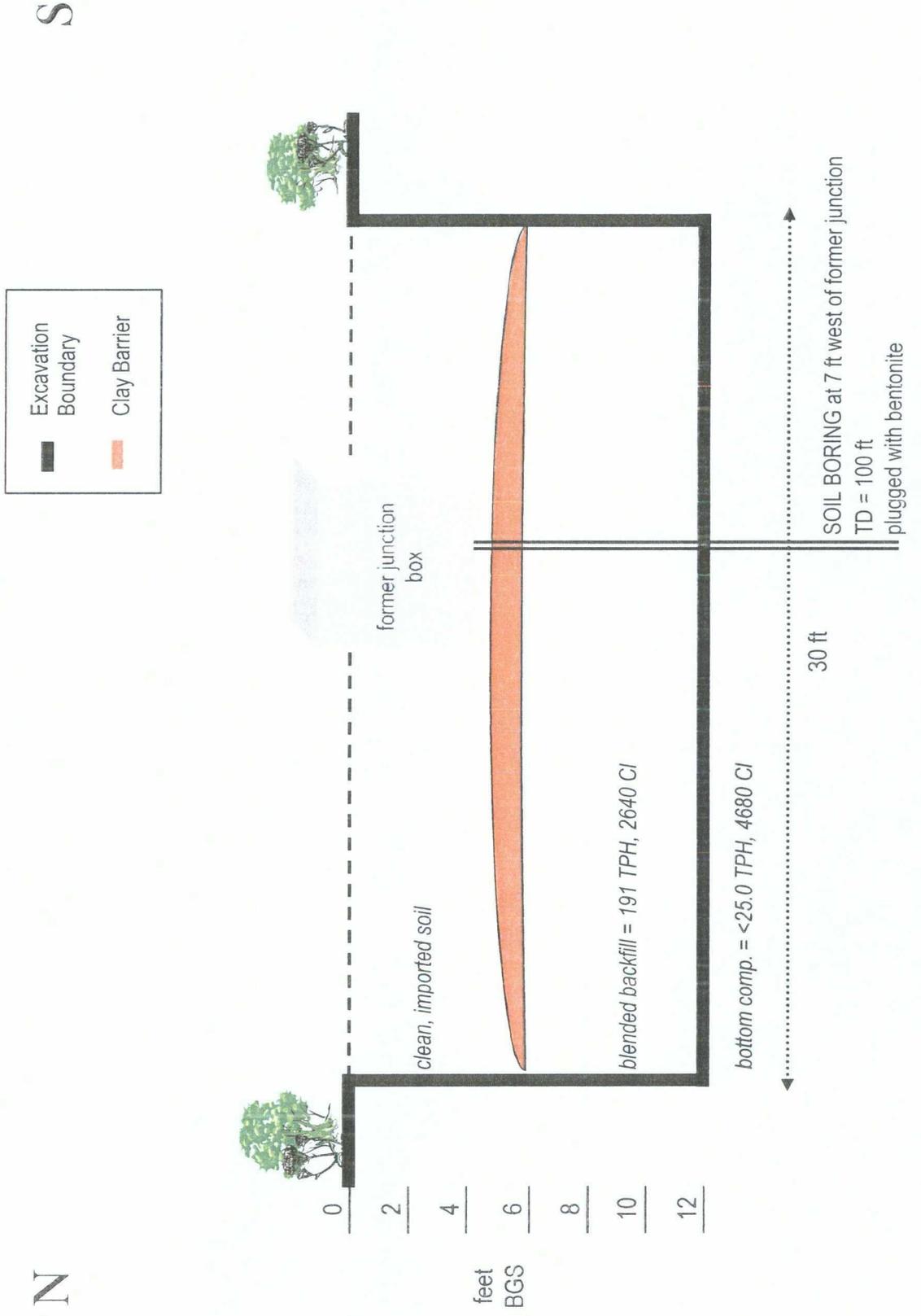
I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

SIGNATURE:

DATE: 9-25-08

BD Jct. O-36  
Unit 'O', Sec. 36, T21S, R36E

### 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

Project: General Information  
 BD JCT 0-36  
 Project No. 2008.1069

Test Method: ASTM: D 2922

Date of Test: September 29, 2008

**GOBY**

Depth: See Below

Depth of Probe: 6"

Test No.	Location	Dry Density		Depth
		% Max	% Moisture	
SG 8	15' E. & 25' S. of NW Corner	90.8	17.1	6" Below FG

Control Density: 102.8  
 ASTM: D 698

Optimum Moisture: 22.6%

Required Compaction: 90 - 95%

Densometer ID: 2505

Lab No.: 08 7408-7409

**PETTIGREW & ASSOCIATES**

Copies To: Rice Operating

BY: Erica M. Hart

BY: Debra P. Hicks P.E.

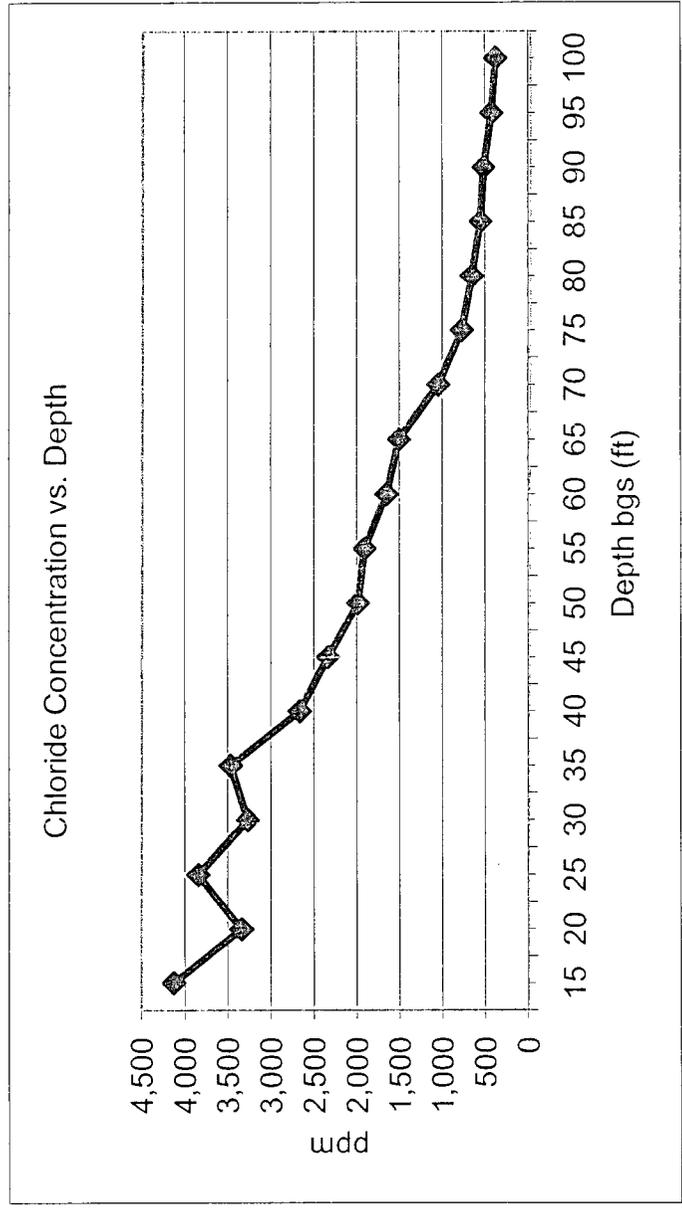
CHLORIDE CONCENTRATION CURVE

**BD Jct. O-36**

Unit 'O', Sec. 36, T21S, R36E

Soil Boring samples at 7 ft west of the junction (source)

Depth bgs (ft)	Cl <sup>-</sup> ppm
15	4,131
20	3,343
25	3,843
30	3,273
35	3,468
40	2,668
45	2,339
50	1,987
55	1,910
60	1,652
65	1,507
70	1,048
75	772
80	655
85	556
90	520
95	424
100	378



Groundwater = 134 ft